

Strategic Report on the Future of the Planet Ocean

Summary

As part of its work on global issues, the Royal Institute for Strategic Studies (IRES) has devoted its 2022/2023 strategic report to the future of the planet ocean, in the wake of the United Nations' Declaration on the "Decade of Ocean Science for Sustainable Development" 2021-2030.

This report, the seventh in its kind within the series entitled "Panorama of Morocco in the World", aims to improve our understanding of the oceanosphere as a unique global system, to identify the dynamics that impact its functioning, to detect the major changes to be anticipated by 2050 and to highlight the opportunities offered by the ocean for Morocco, as well as the assets from which the Kingdom can benefit.

Covering around 71% of the Earth's surface, oceans are in constant interaction with the other components of the planet and play a fundamental role in its habitability, notably through its role in the water cycle, climate regulation as well as in the supply of oxygen and numerous ecosystem services. The ocean system is therefore vital to the existence of life on Earth.

However, despite its vital role, the ocean remains largely unknown, in terms of its geography, its geophysical characteristics and the biodiversity it harbors. Less than a fifth of the world ocean has been mapped, and 90% of its depths remain unexplored. While 230,000 marine species have been identified, a further 5 to 10 million remain to be discovered. As a result, the "deep biosphere" is the largest ecosystem on the planet, and the most poorly understood.

This serious lack of understanding of the ocean can be explained by a number of factors, including the complexity of the oceanosphere and the many interactions and interdependencies between its components and those of the Earth and atmosphere, as well as the scale of the funding required and the relatively recent development of ocean science.

As a source of life and supply for the living world as a whole, the ocean is a key factor in human wealth and development. It is an economic space, rich in natural resources, and a mobility interface for economic, social and cultural exchanges.

These factors have led to a strong *maritimisation* and a concentration of human activities along the coastline, which has grown steadily over the course of history, so much so that today almost half of humanity lives close to the coasts.

The ocean space is a source of power and prosperity for governments, making it a geostrategic interface. It gives rise to multi-faceted competition between countries to gain access to the ocean, extend their maritime territory by claiming exclusive economic zones, or project themselves out to sea and exert control over the main communication routes.

The ocean has not escaped the Anthropocene, and is also suffering from its harmful effects. The dynamic process of *maritimisation* has led to the industrialization of the sea, in tandem with globalization. This « *maritime globalization* » has greatly altered the oceanosphere, so much so that the pace of ocean degradation has increased exponentially over the last fifty years, largely as a result of anthropogenic disturbances.

The structural and lasting changes that the ocean is undergoing are leading to the weakening, or even disappearance, of many ecosystems and a rapid reduction in the oceanosphere's capacity to provide ecosystem services. The accumulation of critical factors is leading to irreversible situations on a human scale and a multiplier effect of threats to the health of the global ocean and, by the same token, to that of humans.

Over the coming decades, sea levels are expected to continue to rise, destroying the biodiversity of marine and coastal ecosystems, gradually deoxygenating the planet and accelerating climate change, all of which will call into question living conditions on Earth.

The irreversibility of the changes we are witnessing already heralds the emergence of new environmental conditions, causing the destruction of habitats and infrastructures due to rising sea levels, the malnutrition and impoverishment of populations dependent on the ocean for food or economic support, and the proliferation of poisoning due to the degradation of the oceanosphere.

By 2050, three factors are expected to accelerate these changes: population growth, with a growing concentration of people in coastal areas; changing consumption patterns, combined with the challenge of meeting the food and economic needs of future populations; and climate change.

The combination of these three factors is likely to lead to increased pressure on natural ecosystems and a resurgence of tensions over access to ocean resources, both between States, engaged in military and technological competition; and between private players, with unequal access to resources leading to increased insecurity at sea, as a result of the proliferation of criminal activities such as illegal, unreported and unregulated fishing or acts of piracy.

The new environmental conditions are likely to have a direct impact on both nature and humans. In the decades to come, the decline in phytoplankton, which would result in a drop in fish stocks, the inevitable rise in water levels and the multiplication of extreme events would make many coastal areas uninhabitable. This would compel a significant proportion of the world's population to leave their homes, inflict considerable damage on economic activities and contribute to an intensification of migratory movements, with estimates of the number of climate refugees rising to 216 million by 2050.

The depletion of animal populations, the weakening of biodiversity and the contamination of marine species would jeopardize food security for humanity. The

depletion of water resources and the salinization of soils would also have a major impact on economic systems and therefore on living conditions.

In recent years, there has been a growing awareness of this serious situation, as well as increased action to address it. A legal framework has been put in place, the most important instruments of which are the UN Convention on the Law of the Sea (UNCLOS) and other UN complementary conventions.

What's more, the international community has set out its ambitions in the wake of the Sustainable Development Goals, as well as those set by States, individually or collectively, at the major meetings devoted to the issue of the oceans, held within the framework of the "UN Decade of Ocean Science for Sustainable Development".

Numerous initiatives have also been launched by international institutions, public bodies and non-governmental organizations. However, they continue to come up against numerous obstacles, including the absence of an international institution dedicated to the global ocean, the lack of knowledge and poor access to information, the slowness of international mechanisms, which is far from meeting the urgency of the situation, in addition to the fragmentation of actions and the absence of synergies, resulting in wasted energy and dispersed efforts.

Add to this the tendency of governments to prioritize their immediate political and economic interests at the expense of sustainability and, finally, the declarative nature of the many commitments made by the international community, with no mechanism for implementation or sanctions.

To address this situation, or at least mitigate its negative effects, **a global framework is needed**, which would clearly define the responsibilities of individual countries and get them to meet their commitments. If global institutions are to enhance coordination, they should set up comprehensive governance structures to take legitimate decisions and represent all the world's citizens, present and future.

To this end, it would be advisable to **create a universal organization**, akin to a world ocean government. The international community should consider the ocean as a **common good** encompassing the entire oceansphere, in view of its continuity, its importance for life, and the rapidity and global dimension of the effects of its degradation.

Appointed by international bodies in consultation with stakeholders, this universal organization would have binding powers and would operate according to the principle of subsidiarity in order to pool resources and promote synergies. This body would be entrusted with the following missions:

- Administer and coordinate the entities involved in ocean management, ensure the implementation of international conventions and action programs and centralize open information.

- Combat harmful fishing practices and coastal and maritime pollution, compel governments and private operators to dismantle and recycle offshore platforms at the end of their life cycle, and protect the most vulnerable areas.
- Establish and supervise a world ocean police force, tasked with identifying offenders and enforcing an array of dissuasive penalties.
- Implement a program to support the development of waste treatment operations in less affluent societies.

Until this new world order is established in favor of the oceans, systemic and global solutions should be rapidly developed and implemented. They should move away from free of preconceived ideas and ready-made thinking, such as the concept of the blue economy, even if it seems iconoclastic. They should also be implemented simultaneously at all possible levels, from local to regional to supranational.

These solutions should be based on a **systemic approach to the ocean**, as an oceanosphere, by both decision-makers and researchers. To ensure their scientific reliability, it is crucial to start **collecting and processing massive amounts of data** as a matter of urgency, using new technologies (drones, sensors, etc.), to improve predictive models.

While the declining health of the oceans is a global issue, affecting mankind as a whole, it is even more critical for countries and populations living in contact with the sea, as is the case for the Kingdom of Morocco.

In view of its unique geostrategic position, its openness to the Mediterranean Sea and the Atlantic Ocean, and its vast maritime territory, covering 1.2 million square kilometers, Morocco has a resolutely maritime vocation. This openness to the sea has enabled the Kingdom, a naval power since the Middle Ages, to take its place in history, to assert its power and to trade with neighboring countries as well as with remote civilizations.

Today, this openness to the sea is an asset that His Majesty King Mohammed VI, who is determined to develop Morocco's maritime dimension, has always sought to enhance. As soon as He came to the throne of His Glorious Ancestors, the Sovereign launched a number of large-scale projects with a threefold objective: to modernize and develop port infrastructure, to give a new impetus to the fishing industry and to enable Morocco to fully play its role as a "hub" with a high level of maritime connectivity. As a result, the Kingdom now owns the number one container port in Africa and the Mediterranean, a vital logistical link for the entire West African region, and is home to the largest fisheries on the African continent.

Maintaining and consolidating these achievements requires the **formulation and implementation of a long-term maritime policy**, the main objectives of which would be to slow down the degradation of marine ecosystems, protect Morocco's maritime space and establish integrated and cooperative governance involving all stakeholders for the sustainable management of the Kingdom's maritime potential.

The 2022-2023 strategic report has also formulated proposals aimed at strengthening our knowledge of oceanography and disseminating it widely, preserving the maritime heritage, promoting a blue economy that guarantees sustainable economic development, affirming Morocco as a true entrepreneur in the world of the sea, and giving a new impetus to regional maritime cooperation, making the Kingdom a **champion and a driving force for the ocean cause.**