

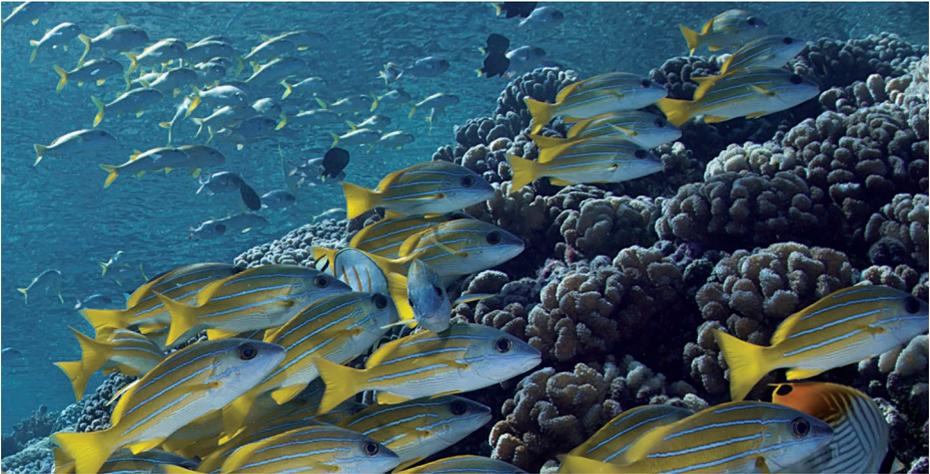
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# The Ocean revealed

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*The ocean conducts the symphony of life on Earth. It covers over 70% of the surface of our planet, regulates the global climate and houses much of the unexplored biosphere. The health of the ocean has become a crucial issue for the world's climate. One of the aims of this work, written by French scientists, is to help make readers fully aware of its importance. When it comes to global change, greenhouse gas emissions from human activities have numerous impacts. These go further than just ocean warming, also including acidification of sea waters and biodiversity loss... For this reason, contributing specifically to the 14<sup>th</sup> of the 17 Sustainable Development Goals (SDGs), to “conserve and sustainably use the oceans, seas and marine resources”, will help us progress towards all the others. The aim of this work is therefore to improve understanding and knowledge of the ocean, its functions and services, its riches and its fragility. We hope to create widespread awareness of the current threats to the ocean and its instrumental role in the survival of living organisms and human societies.*

## The ocean: key issues

The ocean is crucial for the functioning of life on Earth. The consequences of global change for the ocean are numerous and concern us all. This chapter explains the challenges regarding food, biodiversity, and the ocean's genetic, mineral and energy resources.

## What is the ocean?

This chapter tells the story of the ocean and its formation from the very beginning. It explores its multiple functions and its unique features from the surface to the deep waters, examining its composition, dynamics, interfaces and circulations.

## Exploring the ocean

In this chapter, we discover how scientific research explores, observes, measures and analyses the ocean, in all its complexity and depth.

## Stories and depictions of the ocean

*“Free man, you will always cherish the sea!”* wrote Baudelaire. Human societies have always travelled the seas and oceans, discovering unknown worlds and forging new maritime routes.

## Uses of the ocean

The ways in which we use the ocean have multiplied, thanks to technological advances and the development of fishing, transport and leisure activities.

## The risks

The risks of marine submersions, coastal erosion and acidification of the oceans are growing with climate change. Pressure in connection with urbanization and human activities creates various types of pollution, with severe impacts on both the quality of the environment and human health.

## The governance of the ocean

The major legal and governance issues surrounding the ocean require integrated management across all temporal and spatial scales, involving decision-makers worldwide.

## The ocean: what lies ahead?

Despite remaining rather mysterious, the ocean is clearly essential for the operation of the Earth system. If the risks are left unchecked, the future of both hangs in the balance.



# The Ocean revealed

For a better understanding of the ocean and its issues in the 21<sup>st</sup> century

This collection of 130 articles by over 160 researchers and specialists is a reference work. It explains the issues surrounding the oceans today, in tune with the UN Sustainable Development Goals.

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The English version of the book will be available for download in September 2017

<https://www.allenvi.fr/actualites/2017/ocean>

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