
Preface

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The ocean is a reserve of biodiversity; it regulates the climate and provides a wealth of resources. It is one of our most precious common assets, and is essential to the balance of the planet and the well-being of humankind. As the ocean comes under increasing pressure, its preservation has become a crucial priority, calling for an international response in which science must play a leading role.

IRD has long placed the ocean at the heart of its scientific strategy. More than 350 researchers at the Institute are currently involved in around thirty programmes in the Atlantic and Pacific tropical regions, the Indian Ocean and the Mediterranean. Our primary objective is to produce cutting-edge knowledge that is a source of innovation and can help all those involved to develop sustainable solutions for preserving the oceans. We have made this commitment with more than a hundred institutions around the world through an ethical and equitable scientific partnership, embodied in a number of international joint laboratories and international research networks. As part of this approach, we are also determined to strengthen research capacity in countries of the Global South in the field of ocean science. Every year, our researchers supervise dozens of student theses and we support young research teams, helping to consolidate skills at a local level.

This book has been published on the occasion of the Third United Nations Ocean Conference, jointly organised by France and Costa Rica, in Nice. It highlights the major advances in research by IRD and its partners in our knowledge of ocean ecosystems and our understanding of the complex issues at stake, especially societal ones. This research draws on a wide range of disciplines, from life and earth sciences to human and social sciences, to provide a better understanding of the complex interactions between societies and their marine environment. We take an interdisciplinary approach, which is essential if we are to design adaptation strategies that take account of specific local contexts and the needs of countries in the Global South, in order to preserve and sustainably manage the ocean, given the many threats it faces: global warming, acidification, deoxygenation and rising sea levels, marine biodiversity loss, depletion of fish stocks, multiple forms of pollution including plastic, and coastal erosion... to name but a few.

I sincerely hope that 2025, the year of the Third United Nations Ocean Conference, will be a decisive turning point in the world's commitment to preserving the oceans. The future of the oceans, and therefore of our planet, depends on our collective ability to understand, anticipate and take action together. Our Institute works at the forefront of international action, and is strategically placed to contribute to the definition of ambitious and sustainable public policies, based on the knowledge generated by our research. Our commitment is not limited to a compartmentalised scientific approach, but is part of an ongoing dialogue with all those involved in the preservation and management of the ocean: local institutions, communities, NGOs, the private sector, etc. Only by taking into account needs and uses, mobilising local knowledge and involving the populations concerned can we develop sustainable and equitable solutions. Together with these stakeholders, we are working on strategies to ensure the sustainability and resilience of the fragile but vital ocean ecosystem. By sharing research data, raising awareness and training academic and non-academic stakeholders, we are also committed to ensuring that scientific advances can be translated into tangible action to preserve marine ecosystems.

This book is an invitation to explore the ocean's many facets through the prism of science, and to think together about the challenges and solutions for protecting it in a rapidly changing world. We are proud to be a key player in this process. Driven by a commitment based on scientific cooperation with the countries of the Global South, our ambition is to use science as a lever for action and to play an active part in implementing solutions to ensure that the ocean is protected and managed sustainably for future generations.

OUR SHARED OCEAN

Science in the Global South
for a Sustainable World

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