

Foreword

This *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (SROCC), is the third Special Report to be produced in the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) cycle. SROCC is unique because – for the first time – the IPCC has produced an in-depth report examining the farthest corners of the Earth – from the highest mountains and remote polar regions to the deepest oceans. The report finds that even and especially in these places, human-caused climate change is evident. These changes show that the world's ocean and cryosphere have been 'taking the heat' for climate change for decades. The consequences for nature and humanity are sweeping and severe. This report highlights the urgency of timely, ambitious, coordinated, and enduring action.

SROCC was jointly prepared by Working Groups I and II, and provides the latest state of knowledge on the ocean and cryosphere in a changing climate. It focuses on changes to mountain cryosphere, polar regions and ecosystems, sea level rise and coastal extremes, ocean and marine life, as well as providing key information to enable action at all scales and to manage risks and build resilience through adaptation for the benefit of ecosystems and human societies. The report highlights the observed and projected changes in the ocean and cryosphere, the associated impacts and risks for human societies and ecosystems, as well as assessing a range of response options and adaptation measures. SROCC clearly presents the level of risks and the limits of adaptation for high emission scenarios and thereby the benefits of ambitious and effective adaptation for sustainable development. It highlights the importance of irreversible and committed changes on timescales of decades to centuries. It stresses the urgency of near-term action to reduce risks also by reducing emissions of greenhouse gases, strengthening findings from the SR15 and SRCL reports.

The IPCC provides policymakers with regular scientific assessments on climate change, its impacts and risks, as well as adaptation and mitigation options. Since it was established jointly in 1988 by the World Meteorological Organisation and the United Nations Environment Programme, the IPCC has produced a series of Assessment Reports,



Petteri Taalas
Secretary-General
World Meteorological Organisation

Special Reports, Technical Papers and Methodological Reports and other products that have become the gold standard scientific resource on climate change issues for policymakers.

SROCC was made possible thanks to the commitment and dedication of hundreds of experts worldwide, representing a wide range of disciplines. We express our deep gratitude to all Coordinating Lead Authors, Lead Authors, Contributing Authors, Review Editors, Chapter Scientists and Expert and Government Reviewers who devoted their time and effort to make the Special Report on the Ocean and Cryosphere in a Changing Climate possible. We would like to thank the staff of the Working Group Technical Support Units and the IPCC Secretariat for their dedication and professionalism.

We are also grateful to the governments that supported their scientists' participation in developing this report and that contributed to the IPCC Trust Fund to provide for the essential participation of experts from developing countries and countries with economies in transition. We would like to express our appreciation to the Principality of Monaco for hosting the SROCC Scoping Meeting, to the Governments of Fiji, Ecuador, China, and the Russian Federation for hosting Lead Author Meetings, and to the Principality of Monaco for hosting the Second Joint Session of Working Group I and Working Group II. Our thanks also to the Government of France for funding the Technical Support Unit of Working Group I, and to the Government of Germany and the Governments of Norway and New Zealand, for funding the Technical Support Unit of Working Group II. We also acknowledge the Government of Norway's generous contribution in support of the development of the graphics for SROCC Summary for Policymakers, and the support of the Prince Albert II of Monaco Foundation and the Fondation de France for an additional post in the Working Group II Technical Support Unit.

We especially wish to thank the IPCC Chair, Hoesung Lee, the IPCC Vice-Chairs Ko Barrett, Thelma Krug, and Youba Sokona for their guidance, and the Co-Chairs of Working Groups II and I Hans-Otto Pörtner, Debra Roberts, Valérie Masson-Delmotte and Panmao Zhai for their inspired leadership throughout the process.



Inger Andersen
Executive Director
United Nations Environment Programme

