Ocean and Coastal Information in the Sixth Assessment (AR6) of the Intergovernmental Panel on Climate Change

Valérie Masson-Delmotte
Co-Chair of IPCC Working Group I
The Sixth Assessment cycle (AR6) of the IPCC

- Mandate and work principles
- Context and motivations for innovation
- IPCC AR6 context and timeline
Mandate of the IPCC

- The IPCC assesses the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation.

- The IPCC is organized in Working Groups and one Task Force:
  - WGI: the physical science basis
  - WGII: impacts, adaptation and vulnerability
  - WGI: mitigation of climate change
  - Task Force on national greenhouse gas inventories

- IPCC reports must be policy-relevant but not policy-prescriptive

COMPREHENSIVE, OBJECTIVE, OPEN AND TRANSPARENT BASIS
Work principles (1/2)

- An assessment is not a review, an encyclopedia or a text book
- Key findings are traceable to the assessed literature and confidence is reported using a calibrated language
- Identification of key uncertainties and knowledge gaps
Work principles (2/2)

- Concision, clarity and readability of text and figures

- **Primary stakeholders:** policymakers at international, national, local levels

- **Secondary audiences:** business, NGOs, education, general public, media
AR6 context

- UN Agenda 2030 context: Paris Agreement; Sendai Framework for Disaster Risk Reduction; Sustainable Development Goals; New Urban Agenda
- Focus on solution and knowledge to inform action
- Three IPCC Special Reports underway for 2018 and 2019
- New outline for Working Group I
- Stronger integration across Working Group reports towards the Synthesis
Report preparation steps

- Scoping
- Approval of Outline
- Nomination of authors

- Government and Expert Review - 2nd Order Draft
- Expert Review - 1st Order Draft
- Selection of authors

- Final draft report and SPM
- Government review of final draft SPM
- Approval & acceptance of report

- Publication of report
Global warming of 1.5°C (SR1.5)

Fourth Lead Author Meeting, Gabanore, Botswana
Global warming of 1.5°C (SR1.5)

Chapter 1: Framing and context

Chapter 2: Mitigation pathways compatible with 1.5°C in the context of sustainable development

Chapter 3: Impacts of 1.5°C global warming on natural and human systems

Chapter 4: Strengthening and implementing the global response to the threat of climate change

Chapter 5: Sustainable development, poverty eradication and reducing inequalities
Chapter 1: Framing and context

Chapter 2: Mitigation pathways compatible with 1.5°C in the context of sustainable development

Chapter 3: Impacts of 1.5°C global warming on natural and human systems

Cut-off date: papers accepted before May 15th, 2018

First Order Draft:
Expert Review:
12,895 comments
489 experts
61 countries

Second Order Draft:
Governement and Expert Review
25,590 comments
570 experts
71 countries
IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)

Second Lead Author Meeting, Quito, Ecuador
Chapter 1: Framing and context
Chapter 2: High mountain areas
Chapter 3: Polar regions
Chapter 4: Sea level rise and implications for low lying islands, coasts and communities
Chapter 5: Changing ocean, marine ecosystems, and dependent communities
Chapter 6: Extremes, abrupt changes and managing risks
Box: Low lying islands and coasts
Chapter 1: Framing and context
Chapter 2: High mountain areas
Chapter 3: Polar regions
Chapter 4: Sea level rise and implications for low lying islands, coasts and communities
Chapter 5: Changing ocean, marine ecosystems, and dependent communities
Chapter 6: Extremes, abrupt changes and managing risks
Box: Low lying islands and coasts

Cut-off dates
Manuscripts submitted before 15 Oct 2018
Papers accepted for publication before 15 May 2019

Expert and Government Review of the Second Order Draft
6 Nov 2018 – 11 Jan 2019
Summary for Policy Makers

Technical Summary

Chapter 1: Framing, context, methods
Chapter 2: Changing state of the climate system
Chapter 3: Human influence on the climate system
Chapter 4: Future global climate: scenario-based projections and near-term information
Chapter 5: Global carbon and other biogeochemical cycles and feedbacks
Chapter 6: Short-lived climate forcers
Chapter 7: The Earth’s energy budget, climate feedbacks, and climate sensitivity
Chapter 8: Water cycle changes
Chapter 9: Ocean, cryosphere, and sea level change
Chapter 10: Linking global to regional climate change
Chapter 11: Weather and climate extreme events in a changing climate
Chapter 12: Climate change information for regional impact and for risk assessment
Atlas of Regional Climate Information

Annexes
Glossary
Summary for Policy Makers
Technical Summary

Chapter 1: Framing, context, methods
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Chapter 4: Future global climate: scenario-based projections and near-term information

Climate processes

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Regional climate information

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Atlas of Regional Climate Information

Annexes
Glossary

**Cut-off dates**
Manuscripts submitted before 30 Dec 2019
Papers accepted for publication before 30 Sept 2020
Working Group II

Chapter 1: Point of departure and key concepts

SECTION 1: Risks, adaptation and sustainability for systems impacted by climate change
Chapter 2: Terrestrial and freshwater ecosystems and their services
Chapter 3: Ocean and coastal ecosystems and their services
Chapter 4: Water
Chapter 5: Food, fibre, and other ecosystem products
Chapter 6: Cities, settlements and key infrastructure
Chapter 7: Health, wellbeing and the changing structure of communities
Chapter 8: Poverty, livelihoods and sustainable development

SECTION 2: Regions
Chapter 9: Africa
Chapter 10: Asia
Chapter 11: Australasia
Chapter 12: Central and South America
Chapter 13: Europe
Chapter 14: North America
Chapter 15: Small Islands

CROSS-CHAPTER PAPERS
• Biodiversity hotspots (land, coasts and oceans)
• Cities and settlements by the sea
• Deserts, semi-arid areas, and desertification
• Mediterranean region
• Mountains
• Polar regions
• Tropical forests

SECTION 3: Sustainable development pathways: integrating adaptation and mitigation
Chapter 16: Key risks across sectors and regions
Chapter 17: Decision-making options for managing risk
Chapter 18: Climate resilient development pathways* *connection to WG III
### Working Group III on mitigation

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<td>1. Introduction and framing</td>
<td>High-level assessment of emission trends, drivers and pathways (3 chapters)</td>
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<td>15. Investment and finance</td>
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<td><strong>Synthesis (1 chapter)</strong></td>
<td>Set up sustainable development as key framing concept</td>
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<td>17. Accelerating the transition in the context of sustainable development</td>
<td>Balancing sources and sinks/warming levels</td>
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<td>NDCs, emissions peaking, mid-century long-term low greenhouse gas emission development strategies</td>
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<td>Orients sectors to human needs</td>
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<td>The sectoral core: maps on to inventories</td>
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<td>Institutions, policies and cooperation</td>
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<td>Financial flows + technological innovation</td>
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<td>Synthesis sustainable development in different geographical scales</td>
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An unprecedented effort
Thank you for your attention

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IPCC Press Office: ipcc-media@wmo.int

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