

**IPCC Sixth Assessment Cycle:
Special Report on the Ocean and
Cryosphere in a Changing Climate
(SROCC)
An Introduction to the Report**

COP24 – December 2018, Katowice, Poland
Dr. Hans-Otto Pörtner, IPCC WGII Co-Chair

IPCC Special Reports

- Concerns **issues that merit explicit consideration** outside the main Assessment Reports
- Are designed to address policy–relevant issues that may require **input from a wide range of disciplines** (more than one WG)
- The outline builds on scientific questions that emerged from the **government proposals for special reports**

Background SROCC

- IPCC invited proposals for Special Reports to be prepared and concluded during AR6 cycle in July 2015
 - 31 proposals were submitted
 - 7 of these focused on aspects of ocean and cryosphere
- IPCC Panel agreed (April 2016) to consider a special report on Climate Change and Oceans and Cryosphere to guide adaptation activities and decision-making
- developed under joint scientific leadership of WGI and WGII

Ocean & Cryosphere in a Global Context

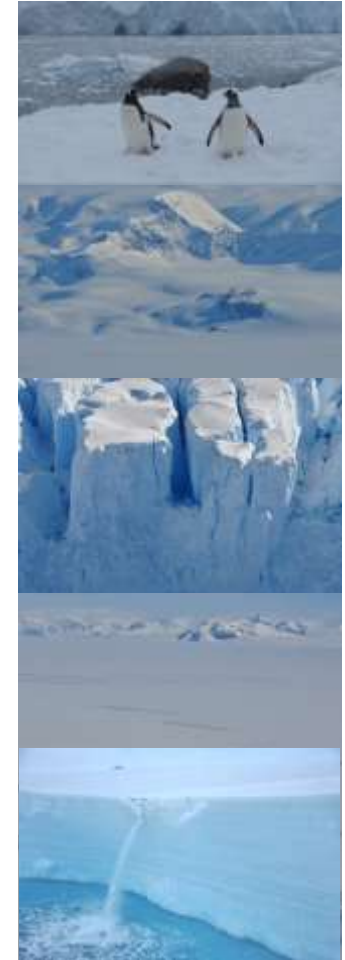
- The Ocean

- covers **>70%** of earth's surface
- plays a key role in **climate regulation**, weather system and global carbon cycle
- carries **~50%** of global primary and **oxygen production**
- supports immense **biodiversity**
- provides important **social and economic goods and services** (tourism, fisheries, transport (90%), etc)



Ocean & Cryosphere in a Global Context

- The Cryosphere (“Frozen World“)
 - is ~2% of the world’s water storage, with ~11% of the world’s land surface and 7% of ocean surface are covered with multiyear snow and ice
 - includes Antarctic and Greenland ice sheets, sea ice, snow covers, mountain glaciers and ground ice
 - plays a key role in river runoff, sea level rise, ocean–atmosphere exchange, permafrost methane storage, etc.



Purpose of SROCC

- Provide a focussed cross-cutting assessment of:
 - The **role of oceans and cryosphere in the climate system** – observed and projected **changes in oceans and cryosphere, ocean cryosphere interactions**
 - **Risks, vulnerability, impacts and implications** of climate-related ocean and cryosphere change for natural and human systems, e.g. **sea level rise**
 - **Resilience pathways and adaptation options**
- Present new and updated information for decision-makers to inform the design and implementation of appropriate policies and actions.

Scoping

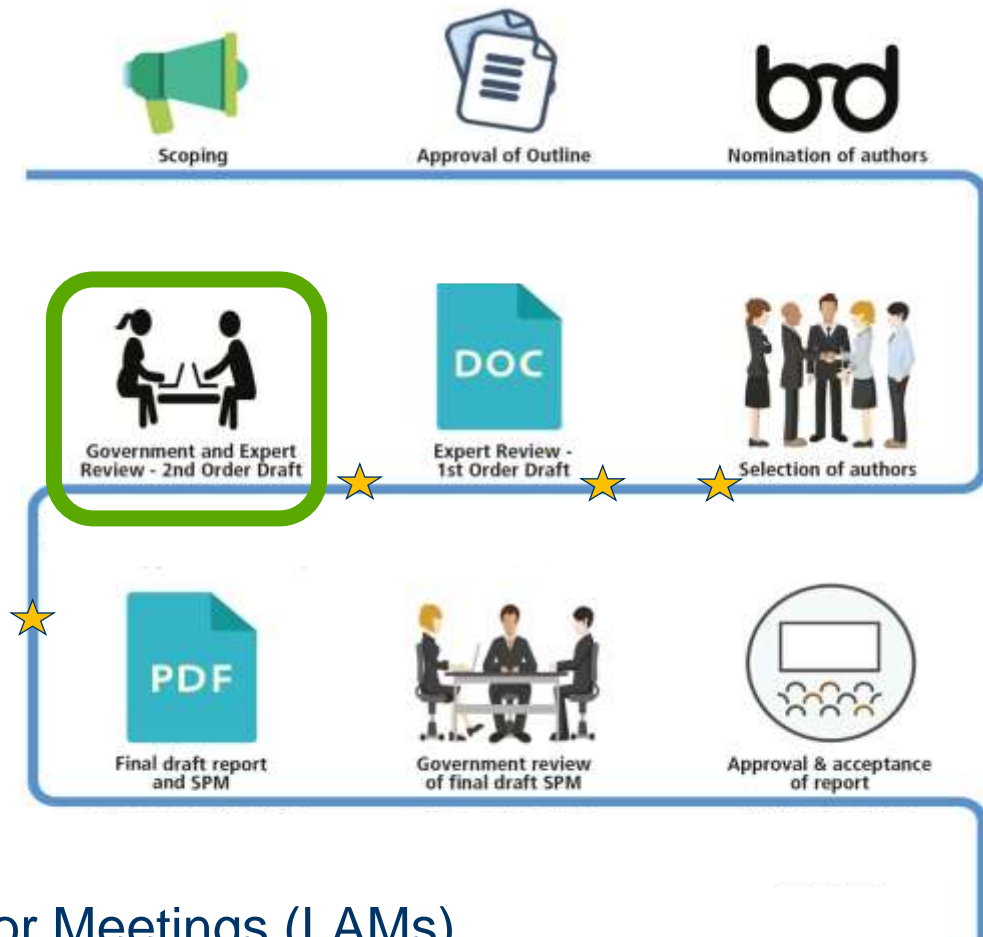
- **Outline developed** at Scoping Meeting in Monaco (December 2016)
- **62 experts** were invited to discuss all aspects of the scope, outline, and contents of the report
- **Outline agreed and adopted** by IPCC Panel in April 2017



SROCC Outline

1. Framing and Context of the Report
 2. High Mountain Areas
 3. Polar Regions
 4. Sea level rise and implications for low lying islands, coasts and communities
 5. Changing ocean, marine ecosystems, and dependent communities
 6. Extremes, abrupt changes and managing risks
- + Cross–chapter box: Low–lying islands and coasts

IPCC Writing and Review Process



★ = Lead Author Meetings (LAMs)

□ = We are here



Publication of report

SROCC Timeline

Timeline



 = We are here

Lead Author Meetings

4th LAM
Kazan (Russian Federation)
Mar 2019

3rd LAM
Lanzhou (China)
July 2018

2nd LAM
Quito (Ecuador)
Feb 2018

1st LAM
Nadi (Fiji)
Oct 2017





**Registrations are open to participate
in the Expert and Government Review**



**IPCC Special Report
The Ocean and Cryosphere in a Changing Climate
Expert and Government review:
16 November 2018 - 11 January 2019**

**Registration:
<http://bit.ly/SROCC-SOD-review>**

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Thank You For Your Attention

More Information:

<http://www.ipcc.ch/report/srocc>

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Special Reports in IPCC AR6



IPCC, 2018

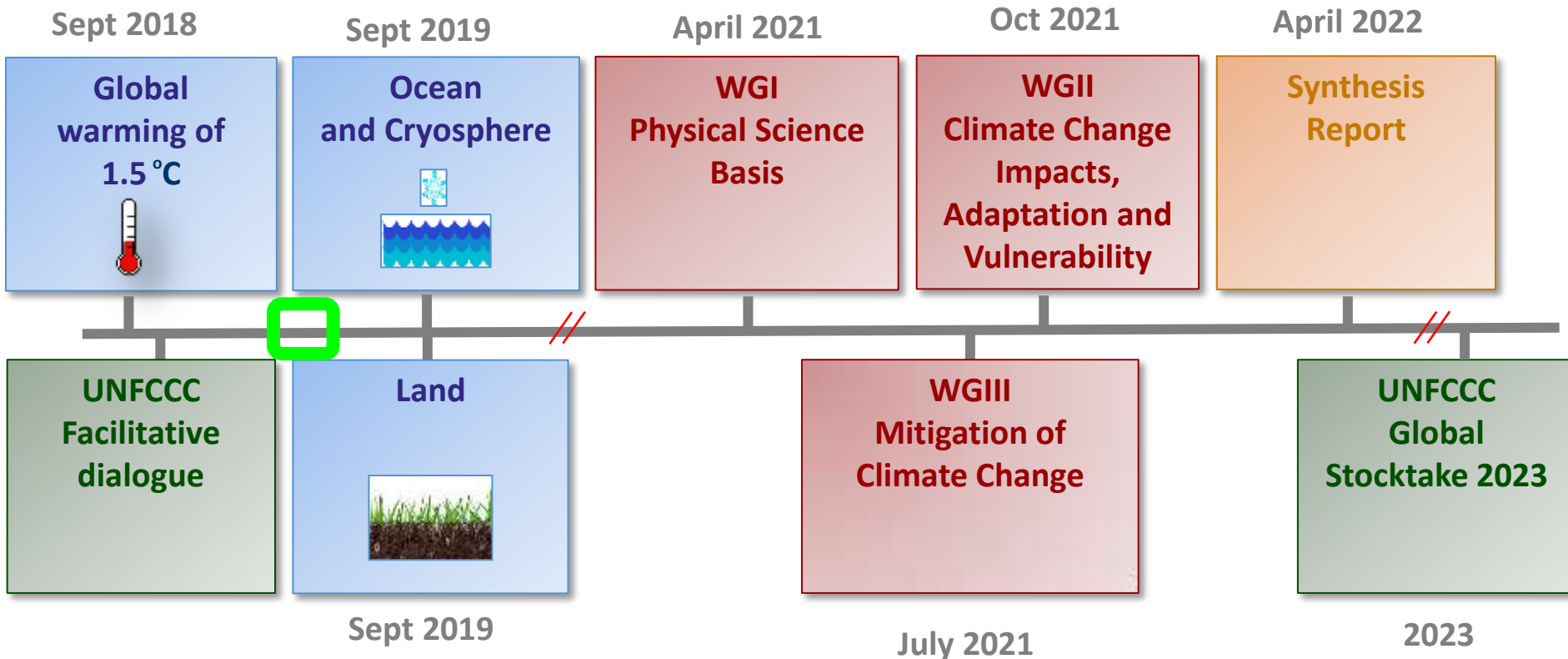


IPCC, 2019



IPCC, 2019

Timeline for upcoming reports



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Links to AR6 WGII

AR6 WGII Outline:

- SECTION 1: Risks, adaptation and sustainability for systems impacted by climate change (**INCLUDES OCEAN CHAPTER**)
- SECTION 2: Regions
- SECTION 3: Sustainable development pathways: integrating adaptation and mitigation
- CROSS-CHAPTER PAPERS

IPCC Sixth Assessment Report (AR6)

WGII Contribution:

Impacts, Adaptation, and Vulnerability

IPCC, 2021



SECTION 2: Regions (Chapters 9–15) each considering regional oceans

9. Africa [~50 pages]

10. Asia [~50 pages]

11. Australasia [~30 pages]

12. Central and South America [~50 pages]

13. Europe [~40 pages]

14. North America [~40 pages]

15. Small Islands [~30 pages]

Cross-Chapter Papers



- built by chapter authors with material for Technical Summary / Summary for Policymakers as appropriate
- integrating sectors, regions and updating from Special Reports
- 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



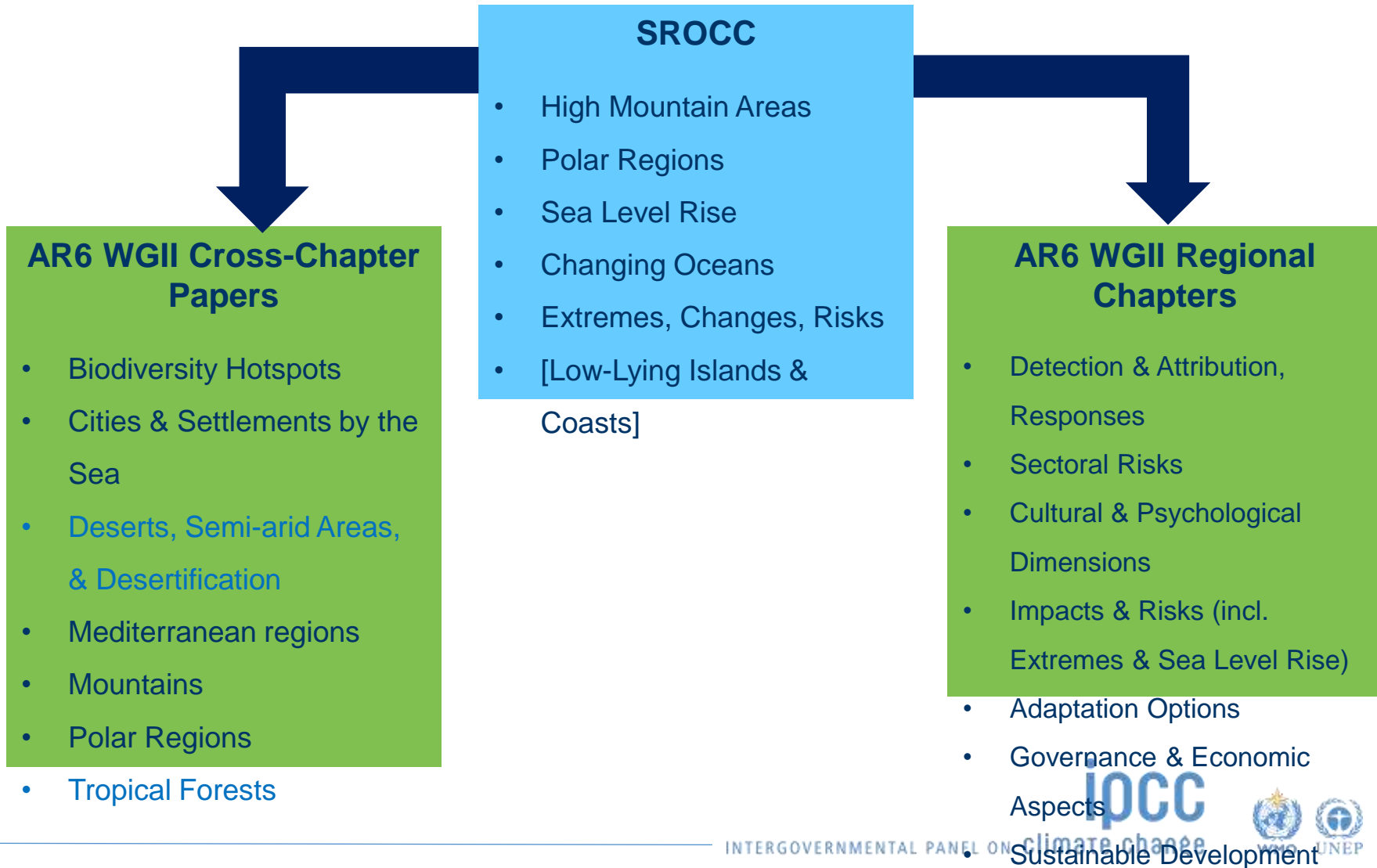
SECTION 3: Sustainable development pathways: integrating adaptation and mitigation (chapters 16–18)



- 16. Key risks across sectors and regions
- 17. Decision-making options for managing risk
- 18. Climate resilient development pathways



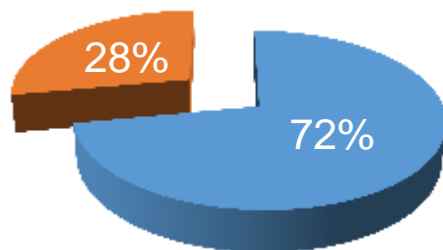
SROCC LINKS TO AR6 WGII



Author Teams

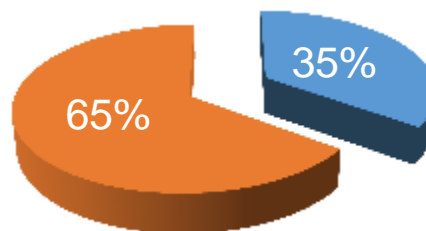
- Experts nominated: 519
- Experts selected: 106

Gender



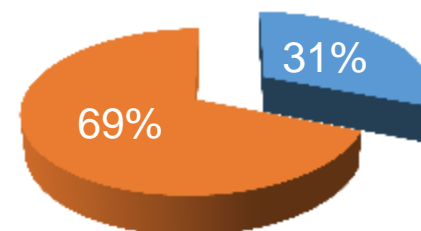
■ Males
■ Females

Countries



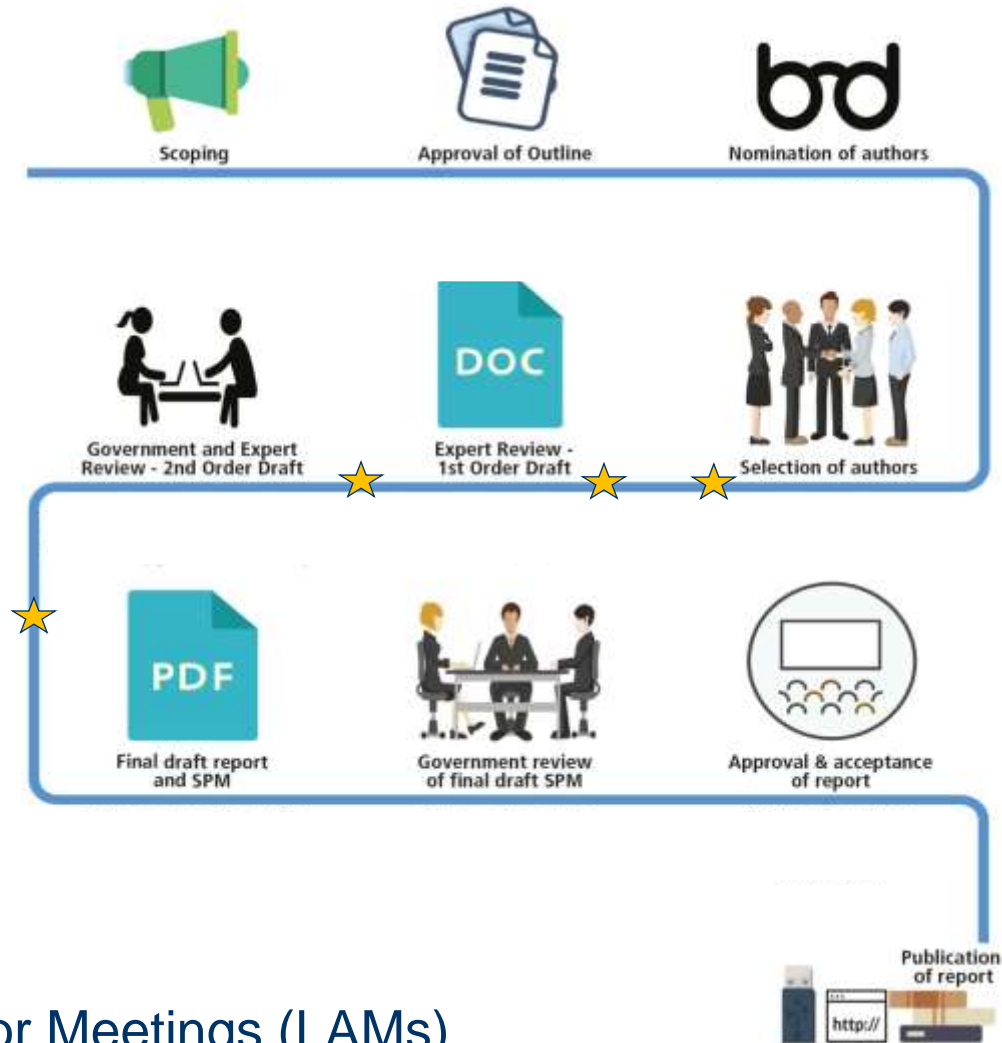
■ Developing & EiT
■ Developed

IPCC Experience



■ Experience
■ No Experience

IPCC Writing and Review Process



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