

## Sea Level Change in the 6th IPCC Assessment: A WGI Perspective

**Masson-Delmotte, V. (1); Matthews, R. (2)**

1: IPCC Working Group I Co-Chair; 2: IPCC Working Group I Technical Support Unit

E-Mail: [valerie.masson@lsce.ipsl.fr](mailto:valerie.masson@lsce.ipsl.fr)  
[robin.matthews@universite-paris-saclay.fr](mailto:robin.matthews@universite-paris-saclay.fr)

Sea level change (SLC) has been a core topic of the Intergovernmental Panel on Climate Change (IPCC) assessments from their outset and is a key cross-cutting issue between IPCC Working Groups. Physical science aspects of SLC, including observed and projected changes, fall under the remit of Working Group I (WGI, 'The Physical Science Basis'). Risks and vulnerabilities from SLC to human and natural systems, and corresponding adaptation options, are the domain of Working Group II ('Impacts, Adaptation and Vulnerability').

Here we review, from a WGI perspective, recent developments in the preparation of the IPCC 6th Assessment pertaining to SLC. A novel challenge in this assessment cycle is how to maximize the opportunity presented by there being three Special Reports (SRs) accompanying the main Assessment Report (AR6). Further, each SR is intended to be integrative across IPCC Working Groups and released ahead of AR6. Sea level change is particularly relevant to two of these special reports, namely the SR on global warming of 1.5°C (SR1.5) and the SR on the ocean and cryosphere in a changing climate (SROCC).

Drawing upon their approved outlines, here we discuss plans for how WGI-aspects of sea level change will be assessed across these SRs, including synergies and contrasts. We also review the proposals emerging from the AR6 Scoping Meeting for the handling of SLC in the WGI contribution to the 6th Assessment Report, considering the scope of the SRs and ongoing/planned scientific research. Finally, we discuss proposed and approved approaches to the incorporation of WGI-aspects of regional SLC across these consecutive reports, together with the corresponding rationale.

**Keywords:** IPCC, AR6, Assessment Report, Climate change, Global warming