

RF: Regional Sea Level Change and Coastal Impacts

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RF overview

(Date when RF started; planned ending date; summary of whether the RF is on track with the original time line)

Overview of where the RF is on the time line proposed

1-2 paragraphs background with a summary of RF current main mission and 2016-2017 activities and obstacles, if any)

The RF “Regional Sea Level Change and Coastal Impacts” (SL for short hereafter) is one of the WCRP Grand Challenges which are managed by CLIVAR. This RF was decided to be developed in the 19th session of CLIVAR SSG in 2012, in line with one of the WCRP grand challenge topics “Regional Sea Level Change” agreed by WCRP JSC.

During a 10-year period (Jan 2015 - Dec 2024), the program will address the following imperatives, which will be approached in five parallel, but interconnected, working groups:

- An integrated approach to historic sea level estimates (paleo time scale)
- Quantifying the contribution of land ice to near-future sea level rise
- Contemporary regional sea level variability and change
- Predictability of regional sea level
- Sea level science for coastal zone management

Activities in 2016-2017:

The RF SL took lead in organizing the International WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts held in Columbia University, New York, USA on 10-14 July, 2017. This conference groups over 300 participants including top scientists, city planners, coastal zone developers and managers and other stakeholders who has brainstormed on how to strengthen climate change adaptation and disaster resilience.

In February, 2017, the latest Science and Implementation Plan of the RF SL was publicized, depicting the organization of the RF SL and the terms of references for its execution phase in the next 10 years (2015-2025).

In February, 2016, 2nd Science Steering Team Meeting of the RF SL was held in New York University, New York, USA. The meeting revised the text of each working package with the new structure, reviewed the draft of the Science Plan, and planned for an international conference on sea level change in New York.

Achievements for 2016-17

- *Workshops*
- *Scientific results from activities*
- *Scientific capacity building and career support*
- *Knowledge exchange*

The Science and Implementation Plan of the RF SL was finalized and publicized in February, 2017.

A successful international Conference on Regional Sea Level Changes and Coastal Impacts was organized in July, 2017.

A workshop on high-end sea level rise was held in Hamburg, Sept. 18. And 19.

Plans for 2018 and beyond

Several experiments are in progress and several meetings are in preparation. Among them

- 1) CMIP6-FAFMIP
- 2) CMIP6-ISMAS6
- 3) A meeting on coastal sea level change at the ISSI in bern
- 4) A summer school on “Regional Sea Level and Coastal Impacts” is being planned to take place in June, 2018 in Qingdao, China in cooperation with FIO. Several lecturers have been called for and identified by the RF SL.

Several publications will result as outcome of the sealevel conference and the workshop on high-end sea level rise.

Articles published in 2016/17 as part of RF activities (if any)

Budget and other needs for 2018

Please keep in mind that the overall budget of CLIVAR is limited and this needs to be distributed between all activities and the SSG meeting.

Aim for a total length of ~2 pages, more is fine, but not necessary

Annex A

Proforma for CLIVAR Research Focus requests for SSG approval for meetings

- 1. Panel or Working Group:**
- 2. Title of meeting or workshop:**
- 3. Proposed venue:**
- 4. Proposed dates:**
- 5. Proposed attendees, including likely number:**
- 6. Rationale, motivation and justification, including: relevance to CLIVAR science & WCRP Grand Challenges, and any cross-panel/research foci links and interactions involved:**
- 7. Specific objectives and key agenda items:**
- 8. Anticipated outcomes (deliverables):**
- 9. Format:**
- 10. Science Organizing Committee (if relevant)**
- 11. Local Organizing Committee (if relevant)**
- 12. Proposed funding sources and anticipated funding requested from WCRP:**