World Climate Research Programme
JOINT SCIENTIFIC COMMITTEE
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JSC-38/Doc. 5(3)
Submitted by: GC Sea Level co-chairs
06.III.2017
DRAFT 1

Regional Sea Level Change and Coastal Impacts Report

Note for documentation:

- Please keep the length of the report to 2 pages.
- Please use web links as much as possible.
- Please focus on issues and subjects that require JSC attention.

Note for GC session at JSC-38 (Afternoon session, Wednesday 5 April)

- 210 minutes are assigned for the presentations and discussions for all seven GCs. Please aim for a presentation of 15 minutes maximum, to allow time to discuss key issues.
- Please focus on the major issues that require JSC attention.

1. Highlights for JSC

- Finalising and expanding a Science and Implementation Plan, e.g. by including a new WP on global sea level budgets (A. Cazenave).
- International WRCP/IOC Sea Level Conference 2017, Columbia University, New York, USA, 10th to 14th July 2017 (explained below under 2.).

2. Early success and/or planned activities in 2017/2018

A major focus has been the planning and preparation of the International WRCP/IOC Sea Level Conference 2017 as a rallying point for the Grand Challenge (GC) Sea Level Community. The conference will be held at Columbia University, New York City on 10th to 14th July 2017. This conference follows 11 years after the first WCRP sea level conference (held at UNESCO, Paris, 2006), and three years after the publication of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). The conference is designed to develop a comprehensive summary of the state of worldwide climate-related large-scale sea level research. Importantly, the conference program reflects the GC vision of links and application. There will be close interaction with relevant and representative coastal stakeholders to make sure that the GC results effectively support impact and adaptation efforts and wider coastal zone development and management. As a final distilled output, an agenda setting high impact paper will be produced after the Conference.

The conference is structured along the following sessions (see sealevel2017.org for details):
1. Paleo sea-level data and GIA modelling
2. Millennial-scale ice sheet and sea-level interactions
3. Contemporary contributions from ice sheets and glaciers
4. Contemporary sea-level change
5. Coastal zone (including impact and adaptation efforts and wider needs)
6. Projections

Currently we are reviewing approximately 350 abstracts and while it is difficult to forecast the final attendance, we are prepared for up to 500 delegates to attend the meeting.

3. Partners for GC implementation (within and outside WCRP community)

The current GC Sealevel team are shown in Table 1.

Table 1. Sea Level Grand Challenge Team

Expertise	Name	Affiliation, Country (and Partner Organizations)
Geodesy/ Geophysics	Natalya Gomez	Harvard, USA
	Mark Tamisiea	NOC, Liverpool, UK
Glaciology/ Ice sheets	Roderik van de Wal	U. Utrecht, The Netherlands (GC Co-Chair)
	Tony Payne	U. Bristol, UK (CliC)
	Bette Otto-Bliesner	NCAR, USA
Regional processes, Reconstructions Climate modes Climate modelling	David Holland	Courant, USA (CliC)
	Rui Ponte	AER, USA
	Detlef Stammer	CEN, Germany (CLIVAR and GC Co-Chair)
	Catia Domingues	U. Tasmania, Australia (CLIVAR)
	Benoit Meyssignac	LEGOS, France
	Jianjun Yin	U. Arizona, USA
	Jonathan Gregory	U. Reading, UK
Global Sea Level	A. Cazenave	LEGOS, France, ISSI, Berne, Switzerland
Subsidence, Extremes, storm surges, waves and coastal impacts and adaptation.	A.S. Unnikrishnan	NIO, India
	Gonéri Le Cozannet	BRGM, France
	Kathy McInnes	CSIRO, Australia
	Kevin Horsburgh	NOC, Liverpool, UK (IOC/WMO JCOMM)
	Robert Nicholls	U. Southampton, UK (GC Co-Chair)
	Pietro Teatini	U. Padova, Italy
	Jochen Hinkel	Global Climate Forum, Berlin, Germany
	Kate White	Army Corps of Engineers, USA

The GC is engaged with a range of partners within the WCRP community representing the expertise of the traditional SL community in IPCC Working Group I (e.g., the core-project CLiC). Given its mission to consider the theme of the application of SL information to coastal zone decision making, including impact and adaptation efforts partners more usually associated with IPCC Working Group II are also active within the GC. For example, Robert Nicholls, Kathy McInnes and Jochen Hinkel have all been IPCC Working Group II authors. We have also engaged with experts on human-induced subsidence, which has traditionally not been

considered (e.g. Pietro Teatini) and major operational organizations like the US Army Corps of Engineers (Kate White).

4.Overall GC timeline (include any milestones)

Our key target is a successful delivery of the 2017 conference and the production of the agreed products. In parallel each work package is actively addressing its science questions through self-organized workshop, bi- and multi-lateral collaborations, as well as dedicated CMPI6 experiments.

5. Issues and challenges:
No comments._____