

Session DD 1.1: Sea level rise, surge and coastal processes (part 1)

Chair	Prof. dr. Wilco Hazeleger, Royal Netherlands Meteorological Institute, KNMI
Keynote speaker	Dr. Jonathan Gregory, Hadley Centre and University of Reading, United Kingdom
Speakers	Dr. Aimée Slangen, IAMU, the Netherlands
	Dr. Douglas Meffert, Tulane University, USA
	Prof. dr. Roger Falconer, Cardiff University, United Kingdom
	Dr. Kathleen McInnes, CSIRO, Australia
	Dr. Caroline Katsman, KNMI, the Netherlands
	Prof. dr. Hans von Storch, GHSS Research Center, Germany
	Dr. Gladys Bernal, National University of Colombia

This theme promises to be an exiting journey, predicts chairman Wilco Hazeleger (Royal Netherlands Meteorological Institute, KNMI) , with 'visits' of Delta's all over the world to investigate and discuss regional sea level rise, storm surges and coastal flooding. Jonathan Gregory, of the Hadley Centre (University of Reading, United Kingdom) kicks off with a keynote on the projection of global and regional sea level change for the 21st century. The various graphs and figures displayed by Gregory indicate that, no matter what models are being used, sea levels are expected to rise and glaciers to melt. While budgets for research are being cut, phenomena like the so-called 'ice sheet processes' appear to be very promising in explaining sea level rise. Gregory advises that, given the expectation that researchers will not be able to make precise projections by the time of writing the AR5 report, options are to be kept open.

Aimée Slangen argues that sea level change is not a uniform process and there are several causes for variability. As a consequence, cities located in delta's for instance should be well aware of their specific circumstances, the specific projections and specific measures. This argument of spatial variability sets the stage for the other presentations and discussions in today's session and that of the day after.

Caroline Katsman highlights another intriguing phenomenon, by asking herself why upper ocean heat content rise pauses. She argues that the heat goes into the deep and into space. She predicts, however, that these pauses will become more rare as time goes by. In a lively discussion that follows, possibilities and effects of aerosols, evaporation and precipitation, as well as other time scales for the model are being discussed with the audience.

Today's session features a wide variety of delta's and regions, ranging from the Mississippi Delta (Douglas Meffert), the Severn Estuary (Roger Falconer), Tasmania (Kathleen McInnes), Hamburg (Hans von Storch) to the Caribbean Coast of Colombia (Gladys Bernal).

The session is concluded with pitch presentations of the posters that are available in the main hall of the conference venue, 23 floors below. In the mean time, many of this session's presentations have made it to the twitter fountain, before the presentations were even finished. The session on regional sea level rise, storm surges and coastal flooding will continue tomorrow.