

Climate change and Sea level rise in the Mediterranean Sea

The Italian contribution to research and policy developments

Climate change induced sea level rise and its related impacts represent emerging issues to which scientists from multiple research fields, coastal managers and policy makers need to jointly respond, in order to develop an appropriate overall analysis and evaluation methodology, to design adequate adaptation strategies and to promote a substantial enhancement of public awareness.

There is a need to shift the paradigm from thinking of coastal hazards in terms of the episodic effects of storm-surges and coastal flooding, to apprehending them as the result of a variety of concurrent non-linear processes interacting across multiple scales, and including the long-term sustained effects of sea level rise. On the other hand, sea level science must broaden its perspective and complement the large-scale assessment of climate-induced variations and of geological uplifting or subsidence with the finer scale contribution of an altered ocean circulation and tectonics, quantifying the effective magnitude and relative weight of the concurring factors. Typical climatological and geological time scales alone are, in fact, inadequate to describe the magnitude and distribution of local sea level change, as they disregard the occasional transitory fluctuations, exceptional extreme events or irreversible alterations (either natural or anthropogenic) which, even when irrelevant for long term and large scale averages, are anyway crucial to management planning.

In the framework of ECRA Collaborative Project “Sea Level Change and Coastal Impacts”, this workshop aims to promote a trans-disciplinary approach to sea level rise in the Mediterranean Sea by connecting the fields of oceanography, geology, geophysics, and coastal research and management. The Workshop obtained the endorsement of the WCRP.

By leveraging on the on-going improvements in modelling ability and on the constantly increasing amount of available data, it intends to open up a new path for the rigorous estimation of coastal sea level variations under climate change, fostering the harmonization of current procedures. Finally, it seeks to create common views on how to transfer scientific information to the level of its practical application, and to envisage a framework for the exploitation of results in the context of climate services.

Workshop

Date:

5th July, 9:30-17:00
6th July, 9:30-16:30

Location:

Central Hall ENEA Rome Headquarters
Lungotevere Thaon di Revel, 76

Scientific Committee:

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