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The hazard of Sea Level Rise (SLR) in Greece: from scientific knowledge towards risk awareness of main actors

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A natural hazard that is expected to affect coastal areas in the near future is Sea-Level Rise (SLR) due to climate change. According to recent reports the eustatic sea-level rise caused by global warming will reach approximately 18-59 cm by the year 2100. Potential impacts of future sea-level rise include coastal erosion, frequent and intensified cyclonic activity and associated storm surge flooding that may affect the coastal zones, saltwater intrusion into groundwater aquifers, the inundation of ecologically significant wetlands, and threats to cultural and historical resources, as well as to infrastructure. The identification of sensitive sections of coasts and the assessment of potential impacts of SLR on these is therefore a fundamental, yet initial, step towards their protection.

Greece has the most extensive coastline among all Mediterranean countries with most of the socio-economic activities concentrated along the coastal zone. Almost all big urban centres are coastal ones and the same stands for a great part of infrastructure (ports, airports, roads, electricity and telecommunications network etc). As a result, the impacts of a potential rise of the sea level are expected to seriously affect the entire country.

The paper examines the vulnerability to SLR of coastal zones in Greece; however its main focus is how knowledge can lead to policy making and the protection of coastal areas. The main actors in respect to protection from SLR in Greece are identified and there is an attempt to pin point how the knowledge is communicated and shared between them. Barriers, bridges and gaps are detected as regards how information and knowledge lead to risk awareness and finally to the implementation of protection policies.

A main finding of the paper is that SLR risk is far from becoming a policy priority in Greece, although steps are taken for addressing impacts attributed to SLR such as coastal erosion. In order to address this risk, there are many potential adaptation options starting from communication and enhanced awareness. But in today's situation of financial crisis, adaptation to SLR becomes even less of a priority, as everyday problems seem more urgent than future, long-term, uncertain risks.