

New study on storm surges projections in Europe

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Coastal flooding is often caused by extreme events, such as storm surges, which in some areas may be amplified by climate change. A number of studies have evaluated the dynamics of future extreme storm surges, but mainly at local or regional scale. A [new study gives a wider perspective](#) by developing projections for Europe for 2010-2040 and 2070-2100. According to the findings, the North and Baltic Sea coasts show the largest increases in storm surges, especially towards the east. In contrast, southern European coasts can expect minimal change.

The study was carried out by the JRC, the University of Aegean in Greece and Deltares in the Netherlands. Further findings show that overall, storm surge levels in Europe are projected to increase on average by around 15% by 2100 under a high-emissions scenario and that [climate change](#) will result in higher seas not only driven by sea level rise, but also by increased storminess. The contribution of the latter to the overall increase is likely to exceed 30% of the expected relative sea level rise for 14% of the European coastline.

Coastal areas are densely populated and any changes in water levels caused by a rise in sea levels and increased storminess can be a threat to human lives and infrastructure. This underlines the urgency to enhance current understanding and forecasting capacity of coastal hazards and their impacts such that European policy-makers and relevant authorities can plan appropriate and timely adaptation and protection measures.

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