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Assessment of regional sea level information for effective adaptation to rising seas

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Rising sea levels, driven by climate change, are impacting coastal communities through increased flooding, shoreline erosion, and saltwater intrusion, posing critical threats to infrastructure, ecosystems, and human livelihoods. The first Assessment Report of the European Knowledge Hub on Sea Level Rise has synthesises current scientific knowledge on sea level rise and its impacts at local, national, and European basin scales, supporting evidence-based policy and decision-making for coastal adaptation. Jointly developed by JPI Climate and JPI Oceans with contributions from over 60 experts across nine countries, the report used an integrated, interdisciplinary approach to consolidate existing knowledge and identify critical gaps. This foundation informed recommendations for enhancing coastal resilience, emphasizing a mix of nature-based solutions, protective infrastructure, and, where necessary, managed retreat. The report also highlights the importance of inclusive adaptation planning that engages local communities in decision-making and resource allocation. By framing adaptation strategies within the context of physical and social resilience, the report provides decision-makers with essential tools to mitigate the impacts of rising sea levels through tailored, effective measures across a diverse range of coastal regions.