

# Disaster Risk Reduction through Ecosystem Re-engineering for Coastal Protection

## Cost-Benefit Analysis of NbS & Risk Reduction Modelling

### Borja Reguero

Associate Professor @ Center for Coastal Climate Resilience - Institute of Marine  
Sciences – Dep. of Ocean Sciences, University of California at Santa Cruz, USA

PhD in coastal and marine engineering. His current areas of interest include disaster risk reduction and coastal risk management, the re-engineering of ecosystems to enhance natural coastal protection, and the economic dimensions of climate adaptation, particularly in relation to the valuation of ecosystem services and the nature-based economy. He has consulted for several international organizations, including the Inter-American Development Bank and the World Bank, where his work has informed policy through science and applied knowledge.



### David Gutierrez Barcelo

Senior Researcher @ Center for Coastal Climate Resilience  
University of California at Santa Cruz, USA

David has worked across academia and the private sector, leading a coastal engineering consultancy for 13 years. Since 2005, he has been active as a coastal modeller, with a strong interest in scientific and engineering software development. His current focus is on improving probabilistic assessments of coastal risks—such as flooding and erosion—and evaluating the effectiveness of nature-based engineering solutions. His expertise includes coastal modelling, method development, and the integration of nature-based solutions (NBS) into engineering practice.



Caparica Campus, 25 June 2025, 10:00 AM – 5:00 PM  
Room 105 of the Departmental Building



Funded by:



Organized by:



Laboratório  
da Água





# Disaster Risk Reduction through Ecosystem Re-engineering for Coastal Protection

Cost-Benefit Analysis of NbS & Risk Reduction Modelling

## Programme

### WORKSHOP PART 1

**10:00** | Presentations

Borja Reguero and David Gutierrez Barcelo

**12:00** | Q&A Session

Part 1 of the workshop can be followed remotely via the link:  
<https://videoconf-colibri.zoom.us/j/82534542906>

**12:00 – 14:00** | Lunch Break

### WORKSHOP PART 2

**14:00** | Participatory Workshop

Practical Group Exercises in the Costa da Caparica Area

**16:00** | Closing Session

**Note: Part 2 of the workshop is in-person only.**

Register here: <https://forms.gle/sekjRnQ267YpTDcd7>