# Coastal wetlands: nature-based solutions to sea level rise

SOLUTIONS

The climate crisis is increasing the rate of sea level rise in the Mediterranean, and higher water levels and stronger storm surges could affect a third of the region's population by 2100. Healthy coastal wetlands have a vital role to play in future, providing natural protection for cities and farmland threatened by flooding, erosion and salt water incursion.



Coastal wetlands can reduce costs from storms and hurricanes by 10-20%

**3mm** per year since 1993 4.8mm per year today

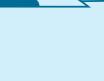




## **Dune systems**

Dune systems are natural ramparts. They prevent floods and wave damage in inhabited areas, and salt water incursion in farmland





Flooded lands

Large deltas - e.g. France's Camargue, where 70%

is <1m in altitude - may be partially underwater

within decades if sea levels keep rising

# Coastal erosion

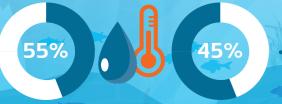
Wetlands limit coastal erosion. stabilising sediments moved by wind and water. Protecting and restoring these areas is critically important as sea levels rise



### What causes sea level rise?

Thermal expansion of warming water: 55%

Melting ice from glaciers in Greenland and Antarctica: 45%



# The rising Mediterranean



#### 160 million

## **Population**

Approx. 1/3 Mediterranean population is concentrated in coastal regions



#### Sea level rise

1-2 metres: possible rise projected by 2100

Data source: Mediterranean Wetlands Outlook 2, Mediterranean Wetlands Observatory, Plan Bleu, EEA, University of Perpignan, European Space Agency





