

The (avoided) cost of adaptation in the EU



The financial, social, and human costs of failing to adapt are rising sharply. As the EU continent's climate warms at twice the global average, **adaptation is not just a policy option: it's an economic and social necessity.**

By 2050, **low-income households in southern EU** countries will face the highest expenses for **health, food, and energy**, along with **declining incomes** due to climate change.



1

€ Adaptation is a highly cost-effective response

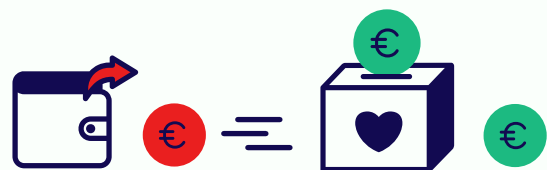
EU coastal damage costs by 2050:



Benefit-to-cost ratios of adaptation are very large, and increase throughout the century.

2

Mitigation and adaptation show important synergies: **for each Euro spent in mitigation, benefits are €1.9.**



3

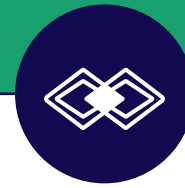
Achieving equitable climate adaptation requires science-based decisions grounded in robust data and analysis. CMCC supports policy-making by evaluating the costs and benefits of adaptation options across sectors and social groups, under multiple warming scenarios and impact pathways.

CMCC - From science to policy and decisions



Integrated Modelling to assess the costs of inaction

- **We design** qualitative and quantitative methodologies to assess costs and benefits of different adaptation strategies with a policy-first and co-creation approach.
- **We estimate** the cost of climate change for households in the EU, combining statistical analysis and projections.
- **We assess** macro-economic effects of a changing climate on the operations of strategic sectors, such as international trade and agriculture.
- **We evaluate** economic losses caused by climate extremes in Europe's most vulnerable regions, and assess inequalities in the distribution of impacts between and within countries.
- **We highlight** the role of heat stress on labor-related GDP losses, driven by poor health and reduced productivity.



Supporting informed and equitable climate adaptation decisions

- **We offer** ready-to-use tools to visualize future socio-economic scenarios and climate impacts across all EU countries.
- **We provide** scientific advice for the design of effective and socially equitable climate policies.
- **We address** the diverse socio-economic interests of communities in the context of climate impacts and disaster response at local scales.
- **We analyze** the cost-effectiveness of adaptation and risk mitigation options leveraging nature-based solutions.
- **We support** policy-makers from a local to an international scale in enacting informed decisions and interventions for disaster management and climate adaptation more rapidly and effectively.

Further readings on CMCC works on climate change adaptation



More information on the CMCC Foundation



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Data references:

1- The cost of climate change on households and families in the EU, European Economic and Social Committee, 2024, DOI: 10.2864/229292

2 - The Economic Cost of Climate Change in Europe: Synthesis Report on Interim Results. Policy brief by the COACCH project. Editors: Paul Watkiss, Jenny Troeltzsch, Katriona McGlade, Michelle Watkiss (2021), www.coacch.eu/wp-content/uploads/2018/03/COACCH-policy-brief-2-Sector-results.pdf

3- COACCH, CO-designing the Assessment of Climate CHange costs, www.coacch.eu/media/