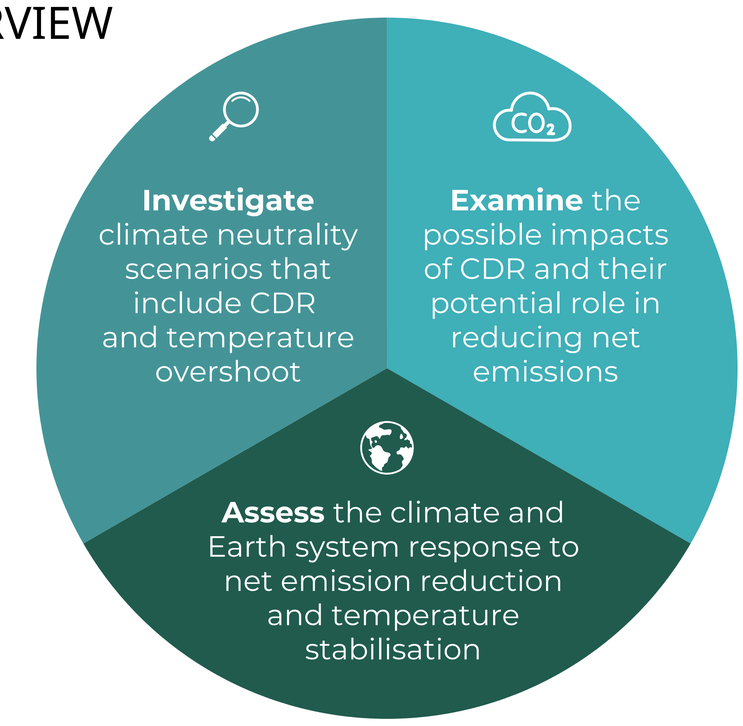
RESCUE

Advancing climate knowledge for evidence-based policymaking

RESCUE investigates the **Earth system response** to **climate neutrality scenarios**, providing science-based policy-relevant recommendations on the role that **carbon dioxide removal (CDR)** can play in the coming decades.

OVERVIEW



Sept 2022 to Aug 2026

17 partners, 11 countries

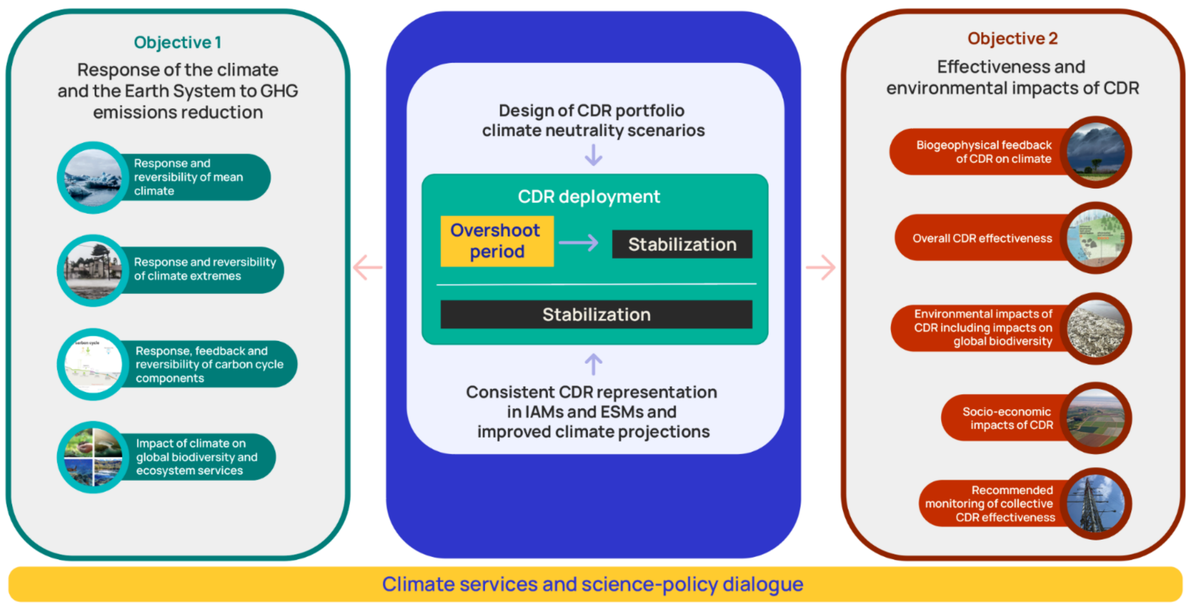
Achieving **climate neutrality** is essential to limit global warming and meet the goals of the Paris Agreement. It is becoming evident that complementing stringent emission reductions with **carbon dioxide removal (CDR)** will be necessary to achieve net zero or negative emissions. This is particularly important for addressing emissions that are difficult to reduce or eliminate from their source ('hard-to-abate' emissions).

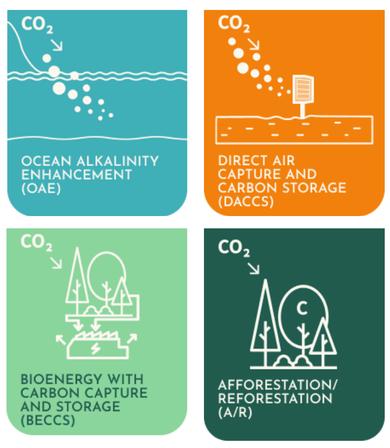
However, before implementing CDR options on a larger scale, it is crucial to assess their **effectiveness** and potential environmental **impacts**.

The RESCUE project addresses these knowledge gaps by designing and assessing climate neutrality scenarios that include CDR portfolios, to inform future climate policies and determine the most suitable CDR technologies to put into practice.

RESULTS & OUTCOMES

- RESCUE will deliver **climate scenarios and projections** to find suitable pathways to climate neutrality, with and without **temperature overshoot**, taking into account multiple aspects of the Earth system response, such as extremes, sea level rise, and biodiversity.
- RESCUE will evaluate the **impacts, effectiveness and co-benefits** of CDR portfolios, and further our understanding on the potential role of land- and ocean-based CDR techniques in future mitigation scenarios.
- RESCUE will deliver **policy-relevant results** and implement its outputs into existing climate services.





CDR refers to any human-led techniques or strategies for removing CO_2 from the atmosphere and storing it for long periods of time. In RESCUE, research is mainly conducted on **four core CDR methods**, covering both **land- and ocean-based** techniques:

- ocean alkalinity enhancement (OAE)
- direct air carbon capture and storage (DACCS)
- bioenergy with carbon capture and storage (BECCS)
- afforestation / reforestation (A/R)

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