Negative emissions and land-use based mitigation assessment

Actions should address only one of the following sub-topics:

a) Feasibility of negative emissions for climate stabilisation: Actions should assess the potential, effectiveness, efficiency, risks and costs of existing and emerging negative emission technologies and practices for climate stabilisation and their impact on: land, subsurface, water, oceans and other resources, bio-diversity, human safety, food security, ecosystems and their ability to deliver services to society, including implications for resilience, sustainability, feedbacks on climate and the global carbon cycle, and other relevant issues. Actions should also cover the issue of public acceptance and explore the international governance requirements associated with large-scale deployment of negative emission technologies and practices.

b) Land-based mitigation: Actions should provide a comprehensive analysis of various land-use based mitigation options at the global and regional level, assessing their potential and effectiveness in providing large-scale reductions of greenhouse gases, in the context of trade-offs and/or co-benefits in relation to other pressures and goals (e.g. food, energy and water security, biodiversity, air quality) and should analyse feedbacks between land-use based mitigation and climate change impacts. Actions should also improve current methodologies to estimate emissions and removals associated with land use measures, also by leveraging observations from GEOSS and in particular the Copernicus programme.

For both of the sub-topics, in line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.

Actions should envisage clustering activities with other relevant selected projects for cross-projects co-operation, consultations and joint activities on cross-cutting issues and share of results as well as participating in joint meetings and communication events. To this end, proposals should foresee a dedicated work package and/or task, and earmark the appropriate resources accordingly.

The Commission considers that proposals requesting a contribution from the EU of between EUR 5 million and EUR 7 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Most low-carbon pathways leading to well below 2°C (or 1.5°C) stabilisation of the global temperature – in line with the Paris Agreement goals – include negative emissions to compensate for residual emissions and/or temperature overshoot and highlight the critical role of land-use based mitigation. There is therefore a need to quantitatively assess the potential, effectiveness and impacts of negative emission technologies/practices and of land-use mitigation options, in achieving the long-term goals of the Paris Agreement, as well as linking these to what it would mean for concrete policy challenges.

The project results are expected to contribute to:

- major international scientific assessments such as the IPCC reports and the IPBES, as well as to national and EU impact assessments of possible mitigation options;
- developing a comprehensive medium-to-long term vision and analytical framework on pathways to achieve climate neutrality[[i.e. the balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases, as mentioned in the Paris Agreement.]] in the perspective of reaching the PA goals;
- improved ex-post, spatially explicit monitoring of the mitigation performance of the land sector;
- enhanced international cooperation.

Ostatnia aktualizacja: 12 Kwietnia 2024

Permalink: https://cordis.europa.eu/programme/id/H2020_LC-CLA-02-2019/pl

European Union, 2025