

Overview of activities relating to assessing costs and benefits of adaptation options European Commission

The European Commission runs a number of research projects under the Framework Programme for Research and Technological Development, related to the costs of adaptation such as CLIMATECOST, CLIMSAVE, MEDIATION, RESPONSES.

CLIMATECOST objectives are to advance knowledge across all three areas, i.e. the full economic costs of climate change, through the following tasks:

- To identify and develop consistent climate change and socio-economic scenarios, including mitigation scenarios;
- To quantify in physical terms, and economic costs, the costs of inaction for these scenarios, with bottom-up disaggregated (spatial) modelling for market and non-market sectors (coasts, health, ecosystems, energy, water, infrastructure) in the EU and other major negotiator countries (US, China, India). To extend analysis to quantify and value the costs and benefits of adaptation, and the residual costs of climate change after adaptation.
- To assess the physical effects and economic damages of a number of the most important major catastrophic events and major socially contingent effects.

CLIMSAVE will develop and apply an integrated methodology for stakeholder-led, climate change impact and vulnerability assessment that explicitly evaluates regional and continental scale adaptation options, and cross-sectoral interactions between the key sectors driving landscape change in Europe (agriculture, forests, biodiversity, coasts/floodplains, water resources, urban development and transport). A range of sectoral meta-models will be linked within a common assessment platform that is user-friendly, interactive and web-based to allow the rapid reproduction of climate change impacts by stakeholders themselves.

MEDIATION. Assessment of climate change impacts, vulnerability and adaptation requires a combination of generic and context-specific knowledge. Currently, the availability of such knowledge in Europe is fragmented and incomplete. MEDIATION addresses these challenges, e.g. by (i) a systematic analysis of the decision-making context; (ii) inventory, review and improvement of methods and metrics for impacts and vulnerability analysis; (iii) likewise for costing of impacts and adaptation options; (iv) development of an overarching integrated methodology; (v) development of a flexible, interactive common platform for knowledge sharing.

RESPONSES project addresses EU policy challenges by: developing new global low emissions scenarios, placing EU efforts in a global context; building an approach for assessing EU policies against mitigation and adaptation objectives and for developing alternative policy options; applying this framework in five EU policy sectors (water and agriculture, biodiversity, regional development/infrastructure, health and energy), linked by a set of cross-sectoral integrative activities; and synthesizing the results to new policy strategies. The main outputs of the project will be: a set of global low emission scenarios, differentiated by key countries; options and strategies for integrating mitigation and resilience to climate impacts into EU policies; a validated strategic climate assessment approach.

DG Climate Action is conducting a study on adaptation costing methodology. The study is expected to produce 3 outputs:

- Typology of adaptation measures
- Methodology to estimate actual spending on adaptation
- Methodology to project adaptation costs