IMPACT2C
Quantifying projected impacts under 2°C warming

Coordinator

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Partners

- 29 partners from 17 countries

Funding

- European Union Seventh Framework Programme (FP7/2007-2013) under the grant agreement 282746

Project Duration

- Start: October 2011
- End: September 2015

Objectives

- Estimating the key impacts of a 2°C climate change signal for different regions and sectors at a pan-European level and in the world's most vulnerable regions

Homepage

- www.impact2c.eu

CONTEXT

A so called "2°C reduction target" is a trigger for the research addressing climate sensitivity, e.g., the actual relationship between a magnitude and timing of a "maximum allowable" atmospheric greenhouse gases concentration, and the resulting (global) average warming of a maximum of 2°C. However, only very little work has been done on consequences of such warming so far. Estimating the key impacts of a 2°C climate change signal for different regions and sectors, both in Europe and outside, is therefore the primary objective of the new EU FP7 IMPACT2C project.

METHODOLOGY

IMPACT2C enhances knowledge, quantifies climate change impacts, and adopts a clear and logical structure, with climate and impacts modelling, vulnerabilities, risks and economic costs, as well as potential responses, within a pan-European sector based analysis. The project utilises a range of models within a multi-disciplinary international expert team and assesses effects on water, energy, infrastructure, coasts, tourism, forestry, agriculture, ecosystems services, and health as well as air quality-climate interactions.

IMPACT2C introduces key innovations. First, harmonised socio-economic assumptions/scenarios will be used, to ensure that both individual and cross-sector assessments are aligned to the 2°C scenario for both impacts and adaptation, e.g., in relation to land-use pressures between agriculture and forestry. Second, it has a core theme of uncertainty, and will develop a methodological framework integrating the uncertainties within and across the different sectors, in a consistent way. In doing so, analysis of adaptation responses under uncertainty will be enhanced.

Finally, a cross-sectoral perspective is adopted to complement the sector analysis. A number of case studies will be developed for particularly vulnerable areas, subject to multiple impacts (e.g., the Mediterranean), with the focus being on cross-sectoral interactions (e.g., land use competition) and cross-cutting themes (e.g., cities).

The project also assesses climate change impacts in some of the world's most vulnerable regions: Bangladesh, Africa (Nile and Niger basins), and the Maldives.

PROJECT TEAM

The team is made up of 17 nationalities and integrates the expertise of top climate scientists, sectoral impact specialists with both physical and economical backgrounds, and local specialists from the regions addressed.

DISSEMINATION

The project results will support current and future EU economic, environmental and climate policies, and EU position in international negotiations.