

Break-out group 1, 15 June: Climate change impacts and vulnerability

10th EIONET workshop on Climate Change Impacts, Vulnerability and Adaptation, 14-15 June 2016, EEA, Copenhagen

Background information

The EEA worked on a new report on climate change, impacts and vulnerability (CC IV) in Europe from autumn 2014 onwards, with contributions from key partners, such as JRC, WHO and ECDC, international databases and many EU-wide research projects. In autumn 2015 a first draft of the report was sent for consultation to an external Advisory Group and other selected experts. An extended Eionet review of the second draft took place in February-March 2016. Comments were incorporated while the summary of the report is expected to be sent for Eionet review in June 2016. After editing and lay outing the report is expected to be published by end 2016.

Furthermore EEA and ETC/CCA finalised a [technical paper](#) by end 2016 describing the current scientific knowledge of extreme weather and climate events in Europe for the following variables: temperature, precipitation, hail, and drought (meteorological, hydrological and soil moisture). Based on a review of key literature, indices and datasets, the paper presents recorded observations and modelled projections for extreme events. Results from the paper feed into the 2016 CC IV report and in the 2017 report on linkages between climate change adaptation and disaster risk reduction.

The 2016 CC IV report presents an assessment of past and projected climate change, impacts, and associated vulnerability and risks posed to of ecosystems, human health and society in Europe, based on a range of observations and projections from models. It identifies regions most at risk from climate change impacts. The report shows also how Europe is vulnerable to climate change impacts outside Europe. The report summarise key adaptation efforts policy developments at European, transnational and national level and highlights the need for further adaptation actions. Furthermore the report discusses the principle sources of uncertainty for the indicators and modelling results and notes how monitoring, information sharing and research can improve the knowledge base for adaptation.

It is part of a series of EEA reports, prepared in collaboration with other organisations, and published the past years with a four-year interval (see e.g. the [EEA 2012 CC IV report](#)). This serves the policy need for a regular comprehensive European-wide assessment and allows including new scientific knowledge accumulated over that period. The reports have changed over time in scope due to the substantially increasing body of knowledge and the changing policy needs.

This report compiles information from a wide variety of data and information sources and aims to achieve consistency with the [IPCC Fifth Assessment Reports \(AR5\)](#) while also information that became available after publication of the AR5 has also been considered. Major new information that has become available since the 2012 EEA CC IV report is highlighted in this summary. The EEA report is meant to support the 2017 Commission report to the European Parliament and the Council on the state of implementation of the 2013 EU Strategy on adaptation to climate change. In 2018 the Commission may publish a review of the strategy. The EEA CCIV report is also expected to be directly relevant for EEA member countries and transnational regions that prepare their own impact, vulnerability and risk assessments and that could use similar indicators and vulnerability approaches.

EEA activities on climate change, impacts and vulnerability for the coming years will be guided by the policy needs and by scientific and methodological developments. The [IPCC is planning its 6th Assessment Report](#) to be released in three working group contributions in 2020/2021 and a Synthesis

Report in 2022. Possibly ‘regional reports’ will be prepared by IPCC as part of AR6, but the scope and timing of these have not yet been decided. IPCC also agreed on various special reports, e.g. in 2018 on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways; and two other reports the coming years (exact dates to be decided) on climate change and oceans and the cryosphere; and on climate change and sustainable land management and related topics).

In 2015 the [Copernicus climate change service \(C3S\)](#) started, managed by ECMWF, which will provide consistent essential climate variables, global and regional reanalyses, gridded observed climate data, multi-model seasonal forecasts, climate projections at global and regional scales and various indicators on impacts for a range of sectors. A consideration is to prepare in future regular European climate change assessments, of which scope and timing will be further clarified the coming years.

There may be opportunities for EEA to collaborate with C3S (and possibly other organisations) regarding regular European climate change assessments, thus enhancing synergies and consistency. These options will need further discussion the coming years, with the relevant organisations and with EEA member countries.

The 2016 CC IV report does not describe the state of play of national CC IV assessments. There may be an interest in EEA member countries for an EEA activity the coming years on preparing an analysis of progress of countries in this area and an assessment of good practices.

Questions for the discussion

- 1. What are your views on the relevance, scope and timing of the EEA work on climate change, impacts and vulnerability (CC IV) so far?*
- 2. How did the EEA work support member countries and their own CC IV assessment activities? Is there an interest in EEA work on analysing member countries CC IV assessments the coming years?*
- 3. How could EEA best develop European wide CC IV assessments in future (e.g. broad assessments and/or assessments focusing on sectors)? Is there an interest in exploring collaboration with activities of C3S (and other organisations)?*