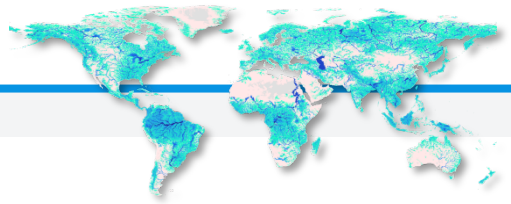

What is a Climate Impact Indicator?

A Climate Impact Indicator (CII) is an aggregate quantitative measure used to show the impact of climate change on complex environmental phenomena in terms of trends and variability.

Climate Impact Indicators are:

- Information on past and projected climate change, observed and projected impacts of climate change on nature and society;
- Condensed climate information for climate impact assessment so users do not have to run the whole production chain;
- Based on quantitative data derived from Essential Climate Variables (ECVs); gridded climate model data, reanalysis and/or observations;
- Often using defined criteria by Expert Teams: ETCCDI, ET-SCI, and ECA&D.

The CIIs can describe global climate change, trace climate hazards, assess sensitivity of ecosystems and society, and can be used in raising awareness and informing climate change adaptation policies and actions.

Different societal sectors have different adaptation challenges, and the CIIs provided often reflect the needs of the users in different sectors.

What data was used?

For the global CIIs, four ECVs were used to calculate the CIIs: daily mean, minimum, and maximum near-surface air temperature, and daily precipitation (2 different datasets). The CIIs were calculated for 3 datasets:

- Raw Global Climate Model output (GCMs) of 19 CMIP5 models at 2 degree spatial resolution,
- Bias adjusted GCMs using HydroGFD2.0 as reference data at 0.5 degree spatial resolution,
- Raw Regional Climate Model output (RCMs) of European CORDEX (EUR-44, 0.5 degree spatial resolution).

Ensembles of model results are provided to indicate confidence in the estimates.

The CIIs are provided for different time ranges:

- absolute values for reference period 1971-2000
- expected future changes for 30-year periods for two Representative Concentration Pathways (RCP 4.5 and 8.5):
  - early century (2011-2040)
  - mid-century (2041-2070)
  - end century (2071 – 2100).