

IPCC Climate fact sheets for the sectors - Introduction

Purpose

- The IPCC Sixth Assessment Report (AR6) Working Group I (WGI) Report assessed current and future regional changes to 33 climatic impact-drivers CIDs (for example, mean temperature and extreme heat, floods, droughts, sea level rise) that are connected to impact sectors.
- In each fact sheet, we provide the key messages about climatic variables that are relevant for the following sectors: Cities, Buildings, and Transport; Energy; Health; Tourism; Agricultural and Pasture Systems; Marine Ecosystems and Fisheries; Forestry; Terrestrial Ecosystems; Water Resources Management; and Disaster Management and Insurance.
- The fact sheets constitute an entry point for information in the Chapters, the Technical Summary and the Interactive Atlas. The content is not exhaustive but represents most of the high-level key messages assessed in the WGI Report that are relevant for the sectors.
- This set of climate fact sheets for sectors is an outreach product that is fully traceable to the IPCC Working Group I Sixth Assessment Report.
- These fact sheets focus on information regarding physical climate changes, with assessment of sectoral impact, vulnerability and adaptation provided by the IPCC Working Group II, and assessment of mitigation provided by Working Group III.

Definitions from the IPCC WGI Glossary

- Meteorological drought: A period with an abnormal precipitation deficit.
- Agricultural and ecological drought: Depending on the affected biome: a period with abnormal soil moisture deficit, which results from combined shortage of precipitation and excess evapotranspiration, and during the growing season impinges on crop production or ecosystem function in general.
- Fire weather: Weather conditions conducive to triggering and sustaining wildfires, usually based on a set of indicators and combinations of indicators including temperature, soil moisture, humidity, and wind. Fire weather does not include the presence or absence of fuel load.

Link to the Glossary



Climatic impact-drivers (CIDs): Climatic impactdrivers are physical climate system conditions (e.g., means, events, extremes) that affect an element of society or ecosystems. Depending system on tolerance, CIDs and their changes can be detrimental, beneficial. neutral or а mixture of each across interacting system elements and regions. See also Risk, Hazard and Impacts (Glossary).

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Working Group I – The Physical Science Basis

The IPCC WGI Chapter 12 provides the links between Climatic Impact-Drivers and Sectors (Table 12.2). Here you can find an example for Terrestrial and Freshwater Ecosystems.

In this set of fact sheets, we focused on climatic impactdrivers with high impacts and risk relevance (dark brown).





- Scenarios: Five illustrative scenarios that cover the range of possible future development of anthropogenic drivers of climate change found in the literature are used consistently across this report. They start in 2015 and include scenarios with high and very high greenhouse gas (GHG) emissions (SSP3-7.0 and SSP5-8.5), intermediate GHG emissions (SSP2-4.5), and low and very low GHG emissions (SSP1-2.6, SSP1-1.9). (TS.1.3.1).
- **Global warming levels**: Quantifying geographical response patterns at global warming levels, such as 1.5°C or 2°C above the 1850–1900 period, is a useful approach to quantify changes in mean climate, extremes and climatic impact-drivers. Global warming levels are used in this Report, and across the Working Groups, as a dimension of integration independent of the timing when the warming is reached and of the emissions scenario that led to the warming (TS.1.3.2).



Most of the maps in the fact sheets are provided by the Interactive Atlas (IA), a novel AR6 WGI tool that allows flexible spatial and temporal analysis of both the data-driven climate change information (*regional information*) and the assessment findings (*regional synthesis*). The latter are displayed in the form of hexagonal maps with synthesis information for observed trends and future projection for several CIDs. Link: <u>https://interactive-atlas.ipcc.ch/</u>

The icon included in some maps is a hyperlink to (specific content of the IA.

