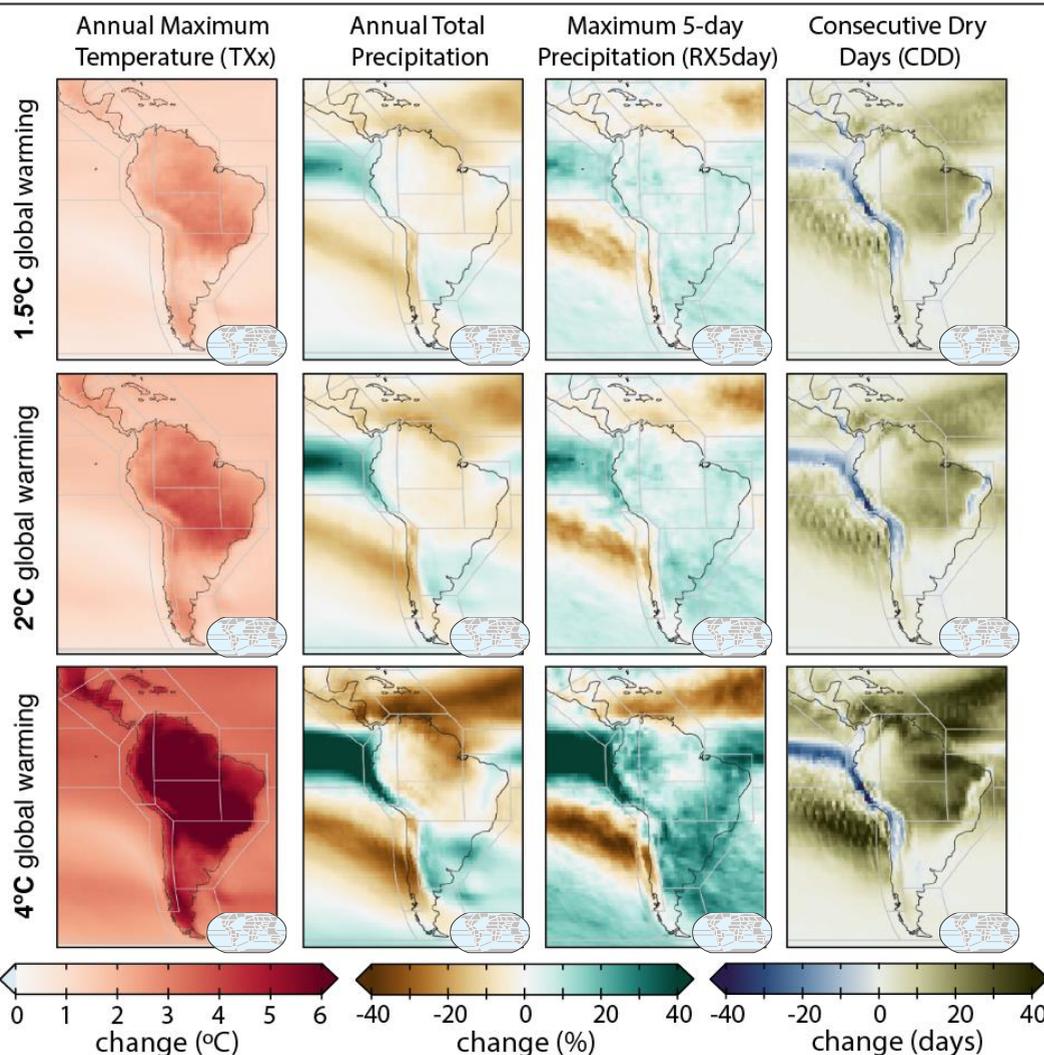


Regional fact sheet – Central and South America

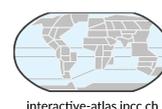
Common regional changes

- Mean temperatures *have very likely increased* in all sub-regions and *will continue* to increase at rates greater than the global average (*high confidence*).
- Mean precipitation *is projected* to change, with increases in North-West South America (NWS) and South-East South America (SES) (*high confidence*) and decreases in North-East South America (NES) and South-West South America (SWS) (*medium confidence*). This is consistent among model projections by mid- and end of the 21st century for RCP4.5 and RCP8.5 scenarios.
- Compared to global mean sea level, over the last three decades, relative sea level *has increased* at a higher rate than global mean level in the South Atlantic and the subtropical North Atlantic, and at a lower rate in the East Pacific.
- Relative sea level rise *is extremely likely to continue* in the oceans around Central and South America, contributing to increased coastal flooding in low-lying areas (*high confidence*) and shoreline retreat along most sandy coasts (*high confidence*).
- Marine heatwaves *are also projected* to increase around the region over the 21st century (*high confidence*).



Projected changes in annual maximum temperature (TXx), annual total precipitation, annual maximum 5-day precipitation (RX5day) and annual consecutive dry days (CDD) at 1.5°C, 2°C, and 4°C (in rows) global warming relative to 1850–1900.

Results are based on simulations from the CMIP6 multi-model ensemble (32 global climate models) using the SSP5-8.5 scenario to compute the warming levels.



Results expanded in the Interactive Atlas (active links)

interactive-atlas.ipcc.ch

Links for further information:

TS sections: TS.4.3.1, TS.4.3.2, Box TS.6, Box TS.13, Figure TS.21a, Figure TS.24. **Chapters:** 8.3, 8.4, 8.6, 10.4, 11.3, 11.4, 11.9, Tables 11.5, 11.13, and 11.14, 12.4, Atlas.7.1, Atlas.7.2

Southern Central America (SCA)

- Aridity and agricultural and ecological drought **are increasing** (*medium confidence*). Fire weather **is projected to increase** (*medium confidence*).

North-Western South America (NWS)

- **Decreases** in snow and ice and increases in pluvial/river flooding **are projected** with *high confidence*.
- Glacier volume loss and permafrost thawing **will likely continue** in the Andes Cordillera under all greenhouse emissions scenarios in this report, causing important reductions in river flow and potentially high-magnitude glacial lake outburst floods.

South-Western South America (SWS)

- The total land area subject to increasing drought frequency and severity **will expand** (*high confidence*). Projections of fire weather indices **indicate** an increased risk in the region (*high confidence*).
- Increases in one or more aspects between drought, aridity, and fire weather (*high confidence*) **will potentially impact** a wide range of sectors (including agriculture, forestry, health, and ecosystems), which are assessed in the IPCC Working Group II report.
- Glacier volume loss and permafrost thawing **will likely continue** in the Andes Cordillera under all greenhouse gas emissions scenarios in this report, causing important reductions in river flow and potentially high-magnitude glacial lake outburst floods.

South-Eastern South America (SES)

- Increases in mean and extreme precipitation **are observed** since the 1960s (*high confidence*). Drivers of this change include internal variability as well as external forcing, like increases in greenhouse gases and aerosols and ozone depletion.
- The intensity and frequency of extreme precipitation and pluvial floods **are projected** to increase (*medium confidence*) for 2°C of global warming level and above.

Southern South America (SSA)

- The intensity and frequency of extreme precipitation and pluvial floods **is projected** to increase (*medium confidence*) for 2°C of global warming level and above.
- The region **has projections** of increased agricultural and ecological drought for the mid-21st century, for 2°C of global warming level and above (*high confidence*).

South American Monsoon (SAM)

- There is *low confidence* in **projected** precipitation changes, but *high confidence* that the South American monsoon **will be** delayed during the 21st century.
- **There are projections** of increased agricultural and ecological drought for the mid-21st century, for 2°C of global warming level and above (*high confidence*).
- Increases in one or more aspects between drought, aridity, and fire weather (*high confidence*) **will affect** a wide range of sectors, including agriculture, forestry, health, and ecosystems.
- The intensity and frequency of extreme precipitation and pluvial floods **are projected** to increase (*medium confidence*) for a 2°C of global warming level and above.
- Over the Amazon, the number of days per year with maximum temperatures exceeding 35°C **would increase** by more than 150 days by the end of the 21st century in the SSP5-8.5 scenario, while **it is expected** to increase by less than 60 days under the SSP1-2.6 scenario (*high confidence*).

Northern South America (NSA)

- The intensity and frequency of extreme precipitation and pluvial floods **are projected** to increase (*medium confidence*) for 2°C of global warming level and above.
- **There is high confidence** in a dominant increase in the number of dry days and drought frequency.

North-Eastern South America (NES)

- The intensity and frequency of extreme precipitation and pluvial floods **are projected** to increase (*medium confidence*) for 2°C of global warming level and above.
- **There is high confidence** in a dominant increase in drought duration.

