

Climate Change in Australia (CCiA): 'NRM' Data Download File Naming Convention

Gridded Change Data files

<variable>_<A/Omon/day>_<model>_<rcp>_<run>_<time period>_<change type>-<season aggregation method>_<grid>.nc

where,

<variable> is the climate variable code:

1. hurs = relative humidity at 2 m above the surface
2. pr = precipitation at the surface
3. rsds = solar radiation at the surface
4. sfcWind = average wind speed at 10 m above the surface
5. tas = average daily temperature at 2 m above the surface
6. tasmax = maximum daily temperature at 2 m above the surface
7. tasmin = minimum daily temperature at 2 m above the surface

<A/Omon/day> is a descriptor indicating if the original source model data are for the atmosphere or ocean and at what time scale (monthly or daily)

1. Amon = all 'NRM' change data downloadable from CCiA are derived from atmosphere models' (A) monthly (mon) time scale outputs

<model> is the name of the global climate model. For example, CNRM-CM5

Data from up to 47 models are available, depending on the emissions scenario of interest. For a full list, see <https://www.climatechangeinaustralia.gov.au/en/overview/methodology/list-models/>

<rcp> is the Representative Concentration Pathway (RCP) to which the data relate

1. RCP2.6 = the most ambitious mitigation scenario
2. RCP4.5 = emissions peak earlier than RCP6.0 but drop rapidly
3. RCP6.0 = lower emissions, achieved by application of some mitigation strategies and technologies
4. RCP8.5 = a future with little curbing of emissions

For more detail, see <https://www.climatechangeinaustralia.gov.au/en/changing-climate/future-climate-scenarios/greenhouse-gas-scenarios/>

<run> is a descriptor that indicates the *run*, *initialisation* and *parameterisation* versions of the simulation.

1. r1i1p1 = run 1, initialisation 1, parameterisation 1

<time period> describes the range of years to which the future data relate.

1. the period over which the future change have been averaged

<change type> refers to the type of change calculated for the *time period*

1. abs-change-wrt-1986-2005- clim = *climatology* given as *absolute change* (e.g. in mm, Wm-2, °C) *with respect to the 1986-2005 average*
2. perc-change-wrt-1986-2005- clim = *climatology* given as *percentage change with respect to the 1986-2005 average*

<season aggregation method> refers to the way the data have been aggregated

1. seasavg = averaged across the 'season' (which in this context can be month, 3-month season, 6-month season or annual)
2. seassum = summed across the 'season'

<grid> describes the type of grid on which the data are provided

1. native = All 'NRM' gridded change data are provided on the individual model's native grid. These vary in size as described here:
<https://www.climatechangeinaustralia.gov.au/en/overview/methodology/list-models/>

.nc is the file extension for NetCDF files.

Gridded Application-ready Data files

<variable>_<domain>_<model>_<rcp>_<run>_<method>_<version>_<frequency>_<time period>.nc

where,

<variable> is the climate variable code:

1. hurs = relative humidity at 2 m above the surface
2. pr = precipitation at the surface
3. rsds = solar radiation at the surface
4. sfcWind = average wind speed at 10 m above the surface
5. tas = average daily temperature at 2 m above the surface
6. tasmax = maximum daily temperature at 2 m above the surface
7. tasmin = minimum daily temperature at 2 m above the surface

<domain> The name of the 'domain' or geographic area covered by the dataset.

1. Aus = all 'NRM' application-ready data available from CCiA are for the 'aus' domain which is Australia-wide (not including offshore islands)

<model> is the name of the global climate model. For example, CNRM-CM5. Application-ready data are available from the CCiA eight model subset (for more information, see <https://www.climatechangeinaustralia.gov.au/en/obtain-data/application-ready-data/eight-climate-models-data/>)

1. ACCESS1-0
2. CanESM2
3. CESM1-CAM5
4. CNRM-CM5
5. GFDL-ESM2M
6. HadGEM2-CC
7. MIROC5
8. NorESM1-M

<rcp> is the Representative Concentration Pathway (RCP) to which the data relate

1. RCP2.6 = the most ambitious mitigation scenario
2. RCP4.5 = emissions peak earlier than RCP6.0 but drop rapidly
3. RCP6.0 = lower emissions, achieved by application of some mitigation strategies and technologies
4. RCP8.5 = a future with little curbing of emissions

For more detail, see <https://www.climatechangeinaustralia.gov.au/en/changing-climate/future-climate-scenarios/greenhouse-gas-scenarios/>

<run> is a descriptor that indicates the *run*, *initialisation* and *parameterisation* versions of the simulation.

1. r1i1p1 = run 1, initialisation 1, parameterisation 1

<method> describes the scaling method used to produce this specific dataset

1. CSIRO-MnChg-wrt-1986-2005-Scl = monthly mean changes relative to 1986-2005 from the GCM used to scale observed data
2. CSIRO-DecChg-wrt-1986-2005-Scl = monthly decile and percentile changes relative to 1986-2005 from the GCM used to scale observed data

More detail of the scaling method is available at:

<https://www.climatechangeinaustralia.gov.au/en/obtain-data/application-ready-data/scaling-methods/>

<version> details the version of the scaling method used

1. V1 = all 'NRM' data available via CCiA were produced using version 1 of the scaling methods

<frequency> describes the frequency (time-step) of the resultant data

1. day = daily
2. mon = monthly

<time period> details the range of years to which the future data relate

1. for application-ready data this describes the future 30-years covered by the synthetic data

.nc is the file extension for NetCDF files.