**Introduction**

This README file provides an overview of the datasets contained in this repository, as well as information on how to access and use them.

The datasets in the master files (extracted\_climate\_vars\_2021-2050 and extracted\_climate\_vars\_2071-2100) provided in this repository were extracted from re-gridded climate data archived in the server (/Volumes/Data-1/CMIP6-Data/1\_ESMs) as 2021-2050 folder representing near-future climate data, 2071-2100 folder representing far-future climate data processed for the four Shared Socioeconomic Pathways (SSPs – 126, 245, 370 & 585) as shown in Figure 1.

Figure 1:

Table 1: Summary of the variables downloaded

|  |  |  |
| --- | --- | --- |
| Name | Units | Description |
| cdd (Consecutive dry days) | day | Maximum number of days in a row with precipitation below 1 mm in a year. If a dry spell does not end in a particular year and spans a period longer than 1 year (as may happen in very dry regions), then CDD is not reported for that year and the accumulated dry days are carried forward to the year when the spell ends. |
| evspsbl (Evaporation including sublimation and transpiration) | Kg m-2 s-1 | The transfer of latent heat (resulting from water phase changes, such as evaporation, condensation, sublimation and transpiration) between the Earth's surface and the atmosphere through the effects of turbulent air motion. |
| npp (net\_primary\_production) | Kg m-2 s-1 | Measure of the amount of carbon that is taken up by plants during photosynthesis and stored as organic matter in vegetation. It is an important indicator of the productivity of the Earth's ecosystems and a key component of the carbon cycle. |
| pr (precipitation) | Kg m-2 s-1 | The sum of liquid and frozen water, comprising rain and snow, that falls to the Earth's surface. It is the sum of large-scale precipitation and convective precipitation. This parameter does not include fog, dew or the precipitation that evaporates in the atmosphere before it lands at the surface of the Earth. This variable represents amount of water per unit area and time. |
| sst | K | Temperature of sea water near the surface. |
| Ts | K | Temperature at the interface (not the bulk temperature of the medium above or below) between air and sea for open-sea regions. |
| Tx90 (Warm days) | % | Percentage of days with maximum temperature above the corresponding calendar day 90th percentile of maximum temperature for a 5-day moving window in the base period. |