UKCP18

What is UKCP18?

The UKCP (UK Climate projections) were launched in 2018. First update since 2009.

The UK's most comprehensive picture of how the climate could change by the end of this century, using the most recent scientific evidence.

Met Office

Who’s involved?

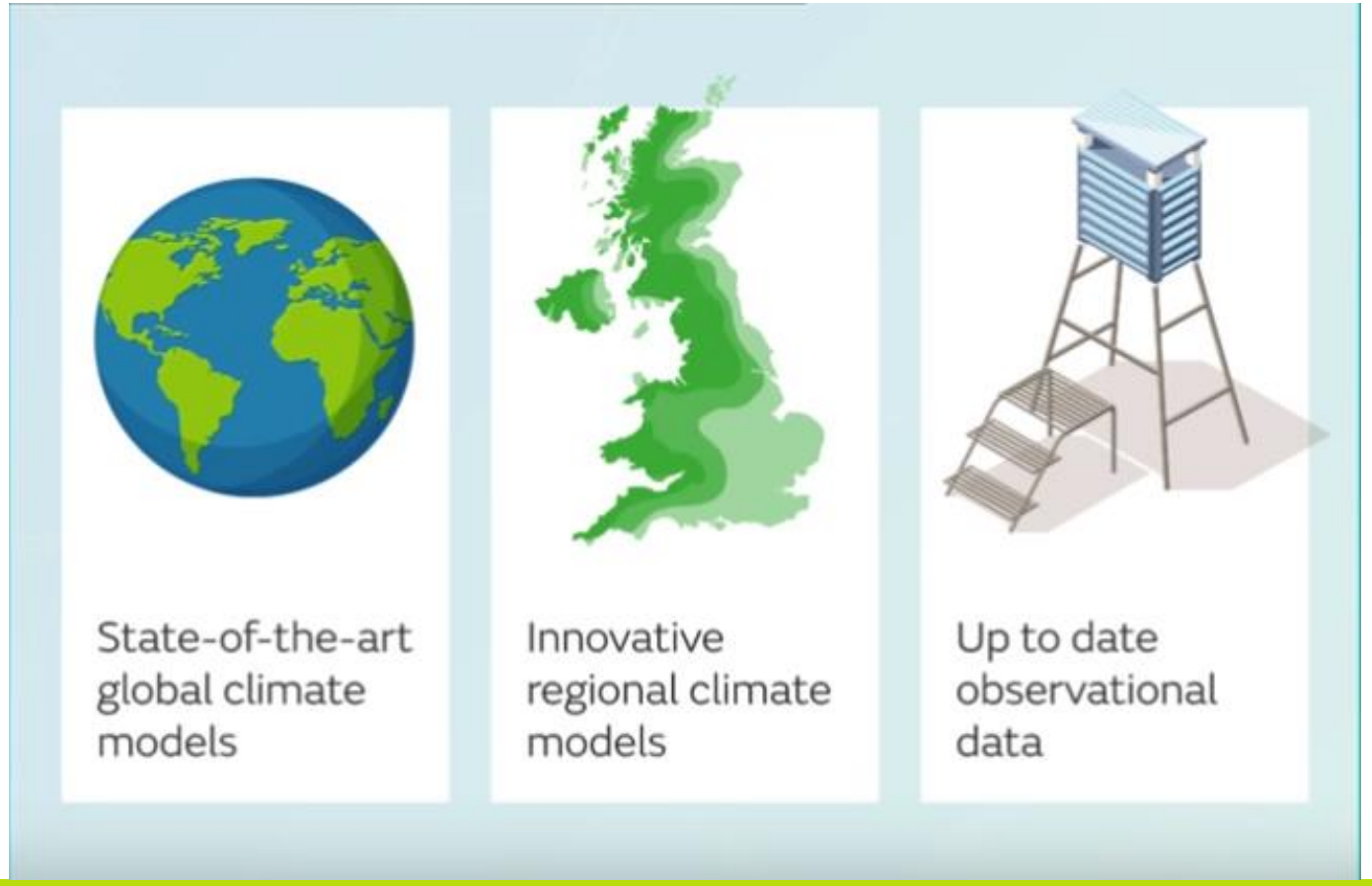
Led by DEFRA with the Environment Agency and the Met Office as delivery partners.

Why were they produced?

“These climate change projections for the UK help to inform decision-making so adaptations can be made and resilience built.” (UKCP18)

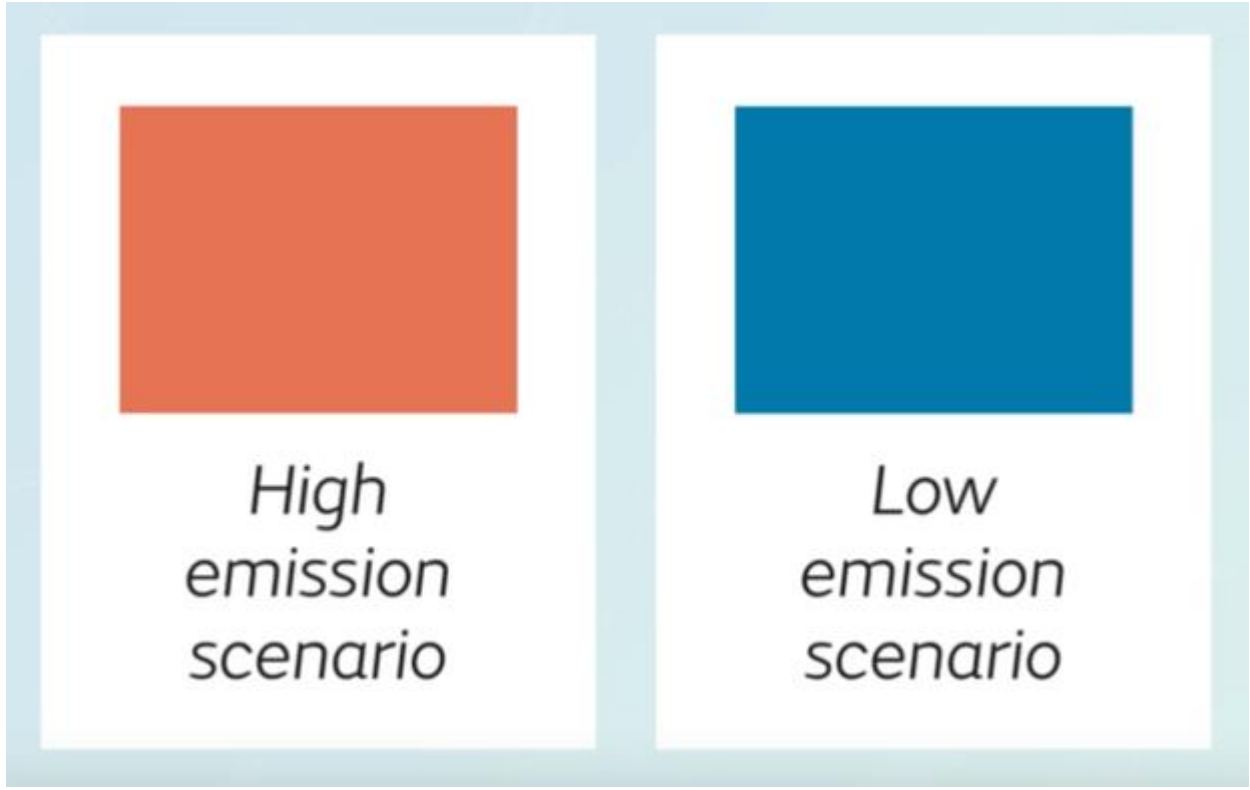
What are they based on?

Latest Developments in climate science



What are they based on?

Different emission scenarios to analyse the climate risk.



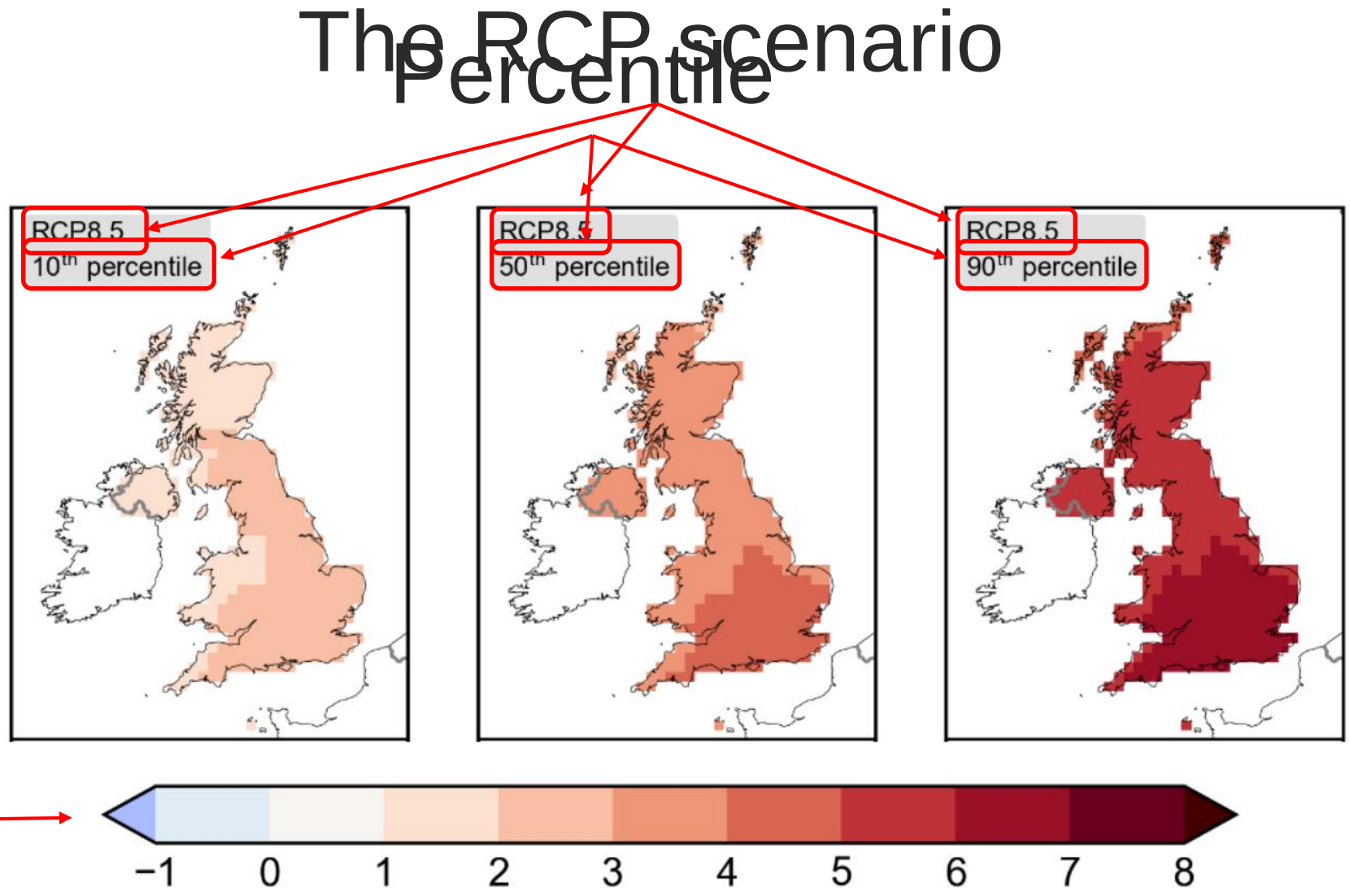
Representative Concentration Pathway

A Representative Concentration Pathways (RCP) is a greenhouse gas concentration and UKCP18 uses four RCP levels as scenarios:

RCP2.6 – Compatible with aims to limit global warming since pre-industrial levels to below 2˚C
RCP4.5
RCP6.0
RCP8.5 – Reasonable worst case scenario

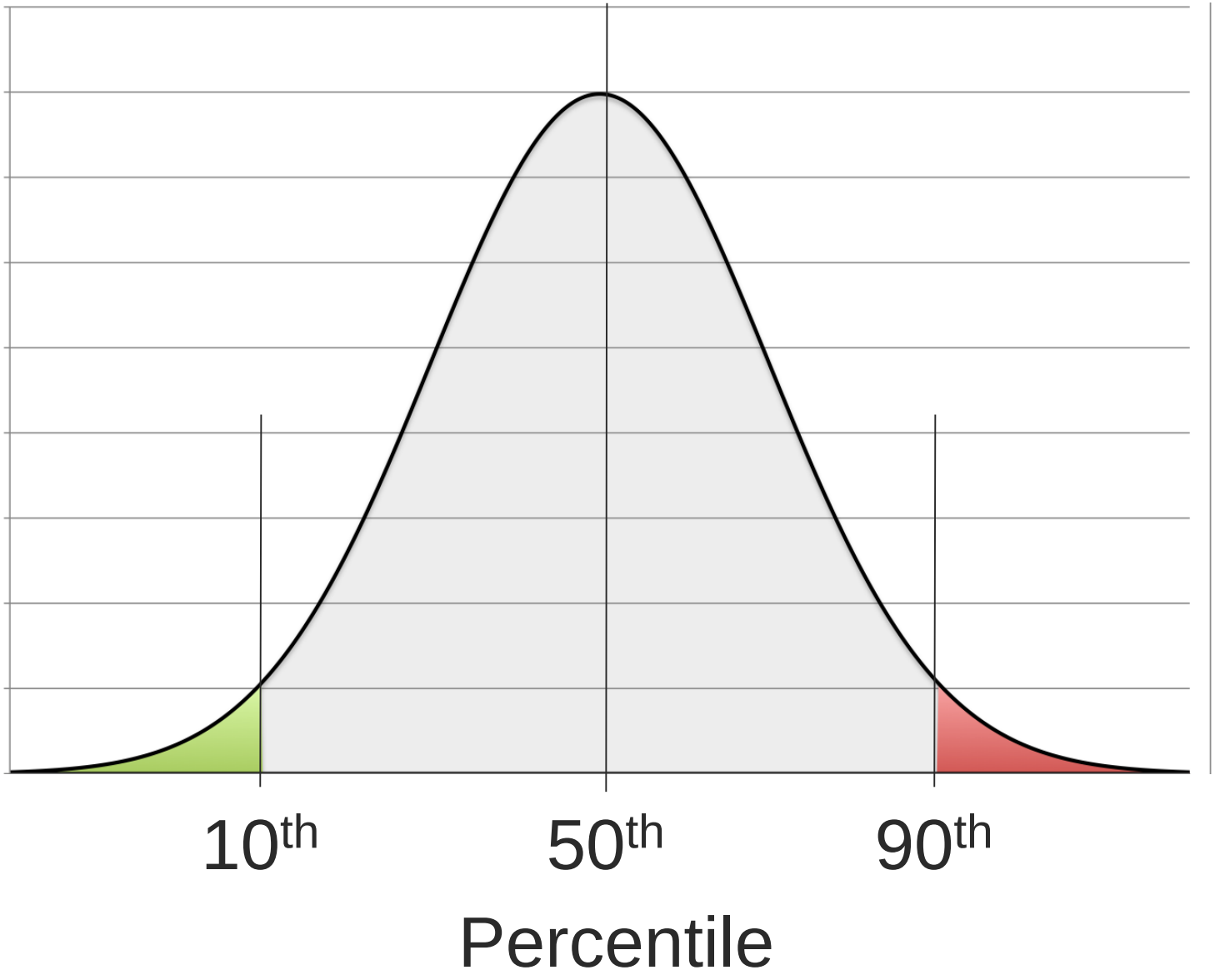
Output and results

Maps explained

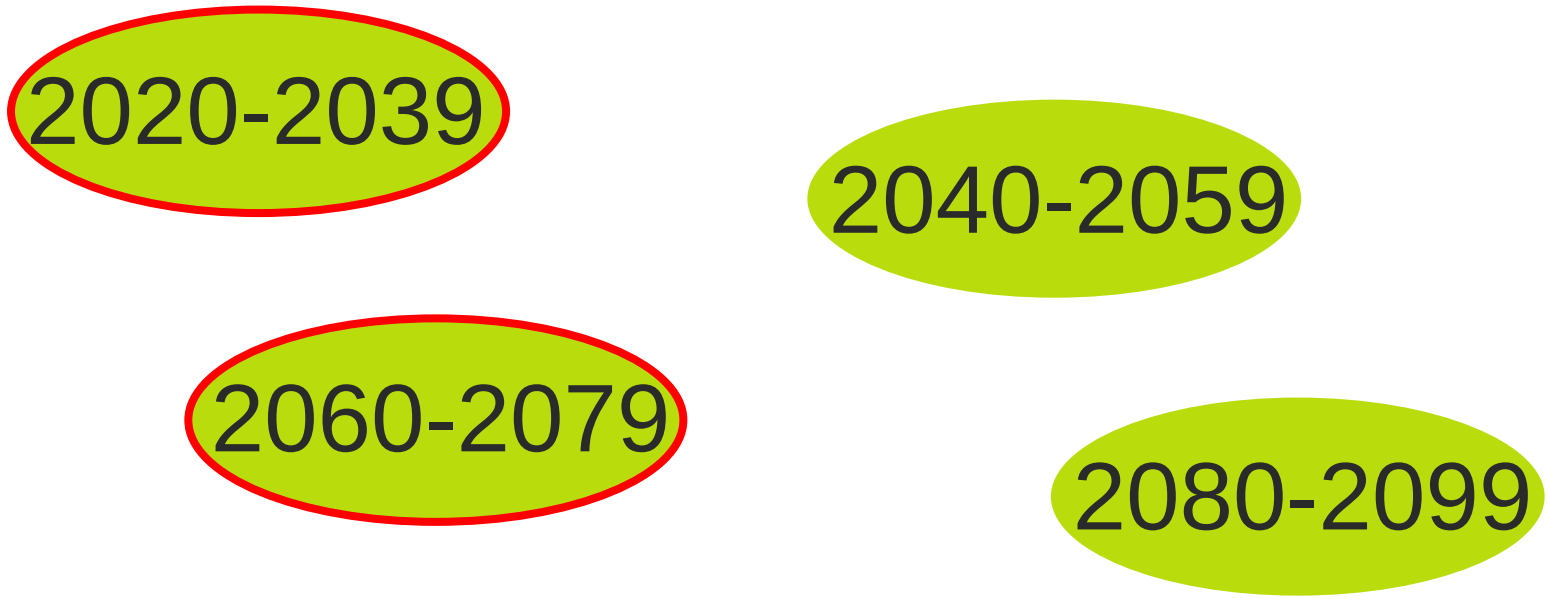


Output shown for each RCP scenario and 10th, 50th & 90th percentile.

- 10th percentile means 10% of solutions fall below the lowest provided figure.
- 50th percentile means that half the solutions are lower and half are higher than the figure given.
- 90th percentile means 10% of solutions fall above the highest provided figure.



In 20 year periods



Results for these 2 periods will be shown later

UK-wide

UK Headlines

- Greater frequency of hotter, drier summers across the UK.
- Greater frequency of milder, wetter winters across the UK.
- Further rises in sea level around the UK coastline.

Sea-level rise

Increase will generally be greater in the south than in the north

(by 2100 relative to 1981-2000)

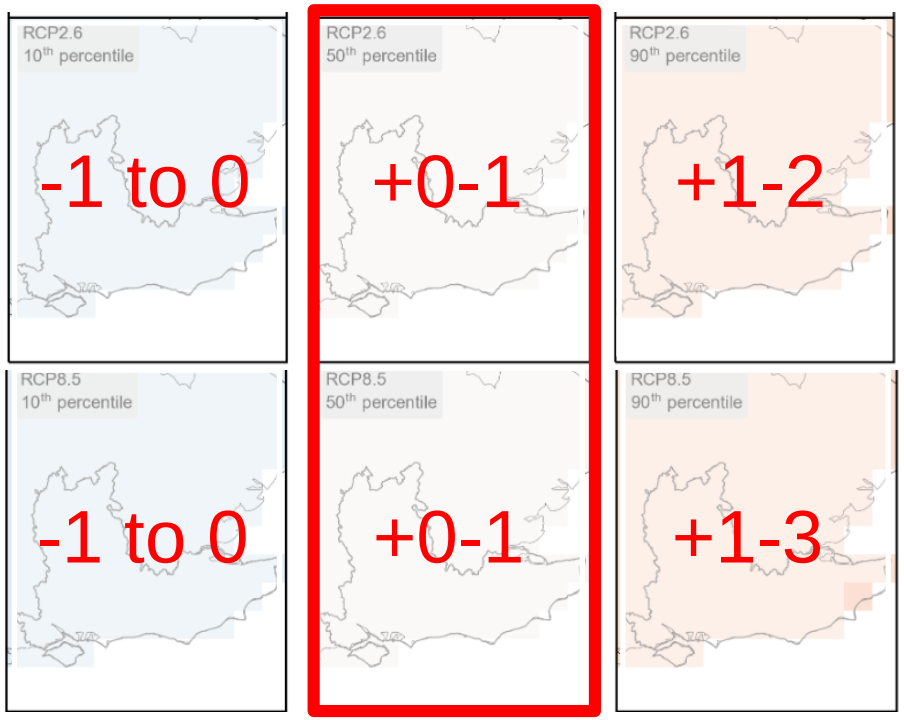
SE England Results

(compared to 1981-2000 Long Term Averages)

Winter

Temperatures

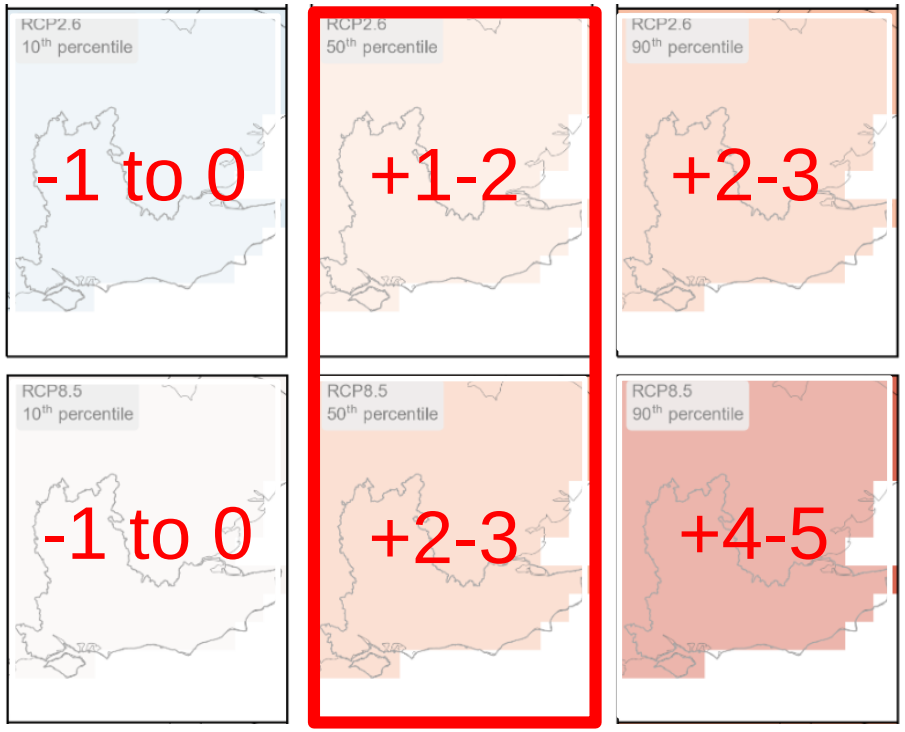
2020-2039

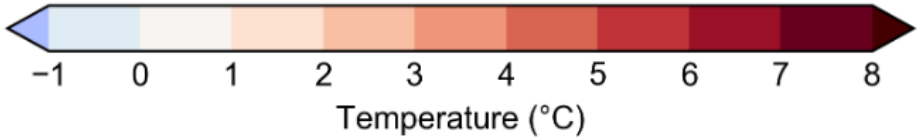


RCP2.6
Best Case

RCP8.5
Worst Case

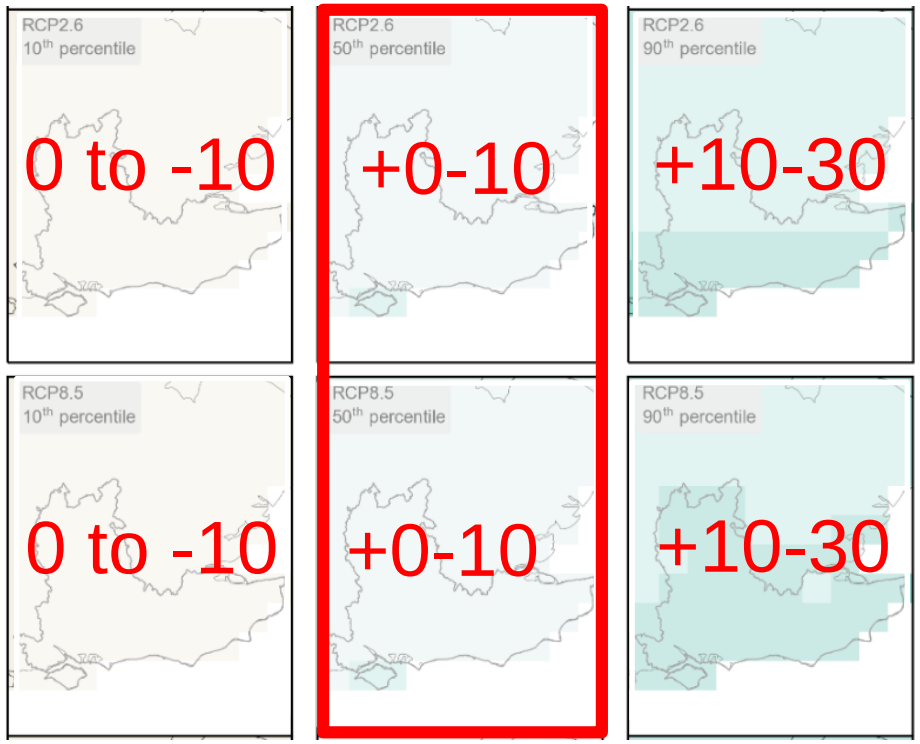
2060-2079



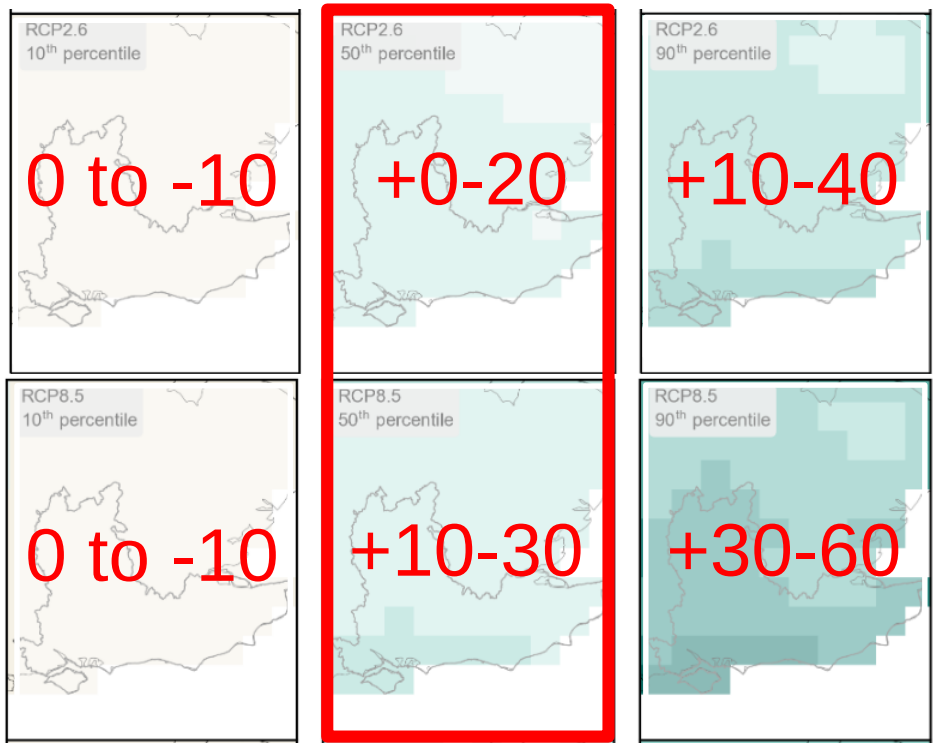


Precipitation

2020-2039



2060-2079



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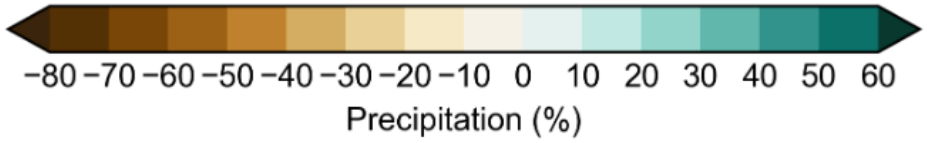
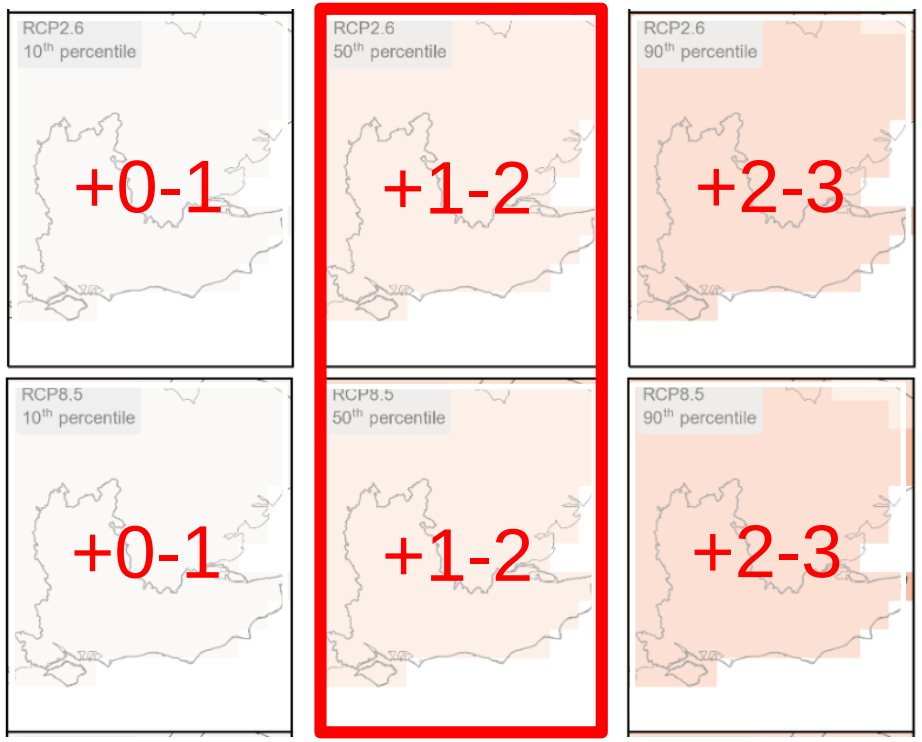


Summer

Temperatures

2020-2039



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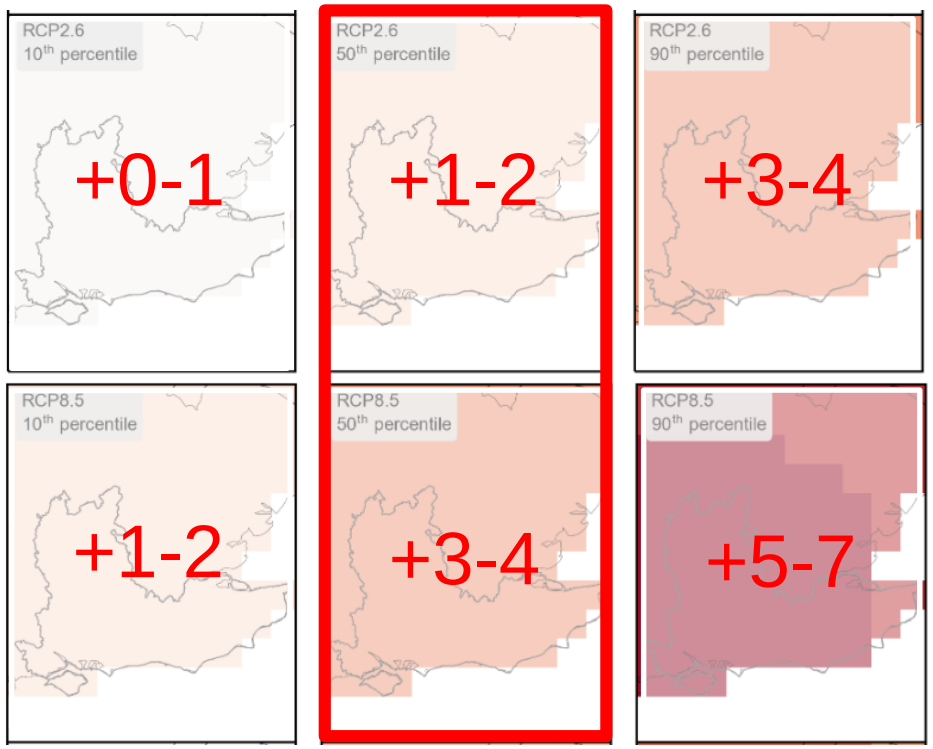

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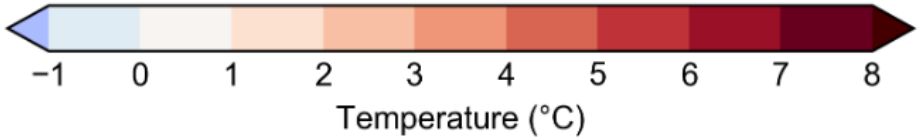

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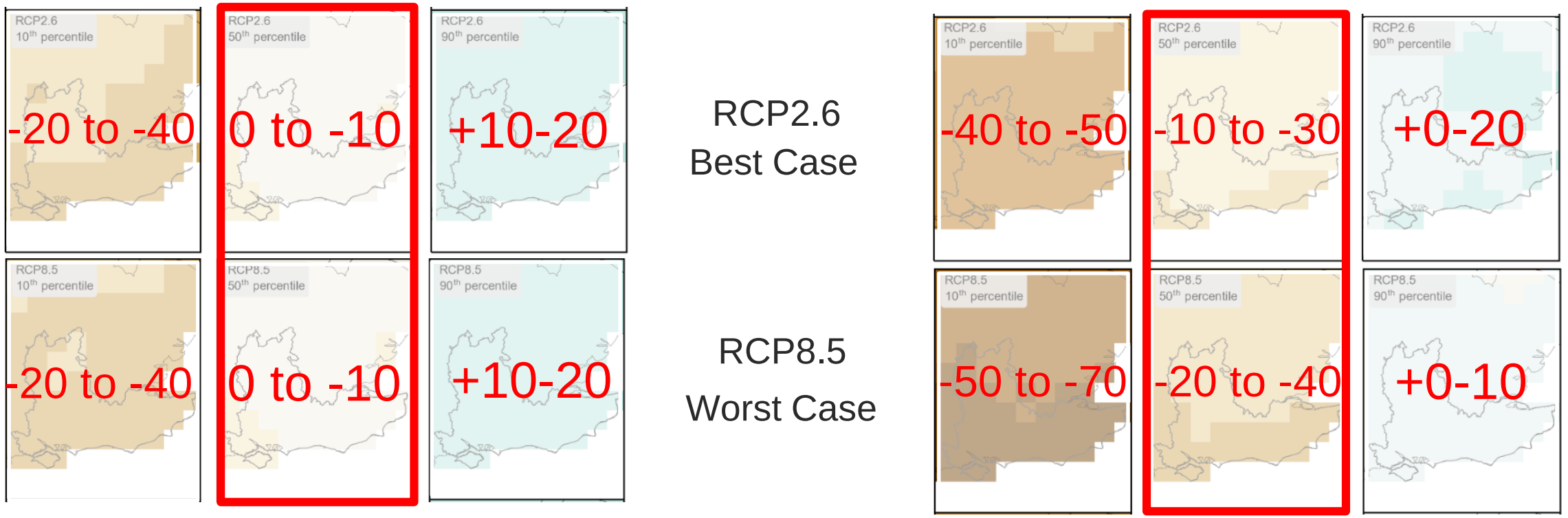

Questions