

Department for Business, Energy & Industrial Strategy

for nergy Strategy Strategy Met Office Hadley Centre



UK CLIMATE PROJECTIONS

HEADLINE FINDINGS

UKCP Probabilistic (25km) projections provide the broadest ranges of uncertainty in future changes for UK key climate variables and global average temperature. The Global (60km), Regional (12km) and Local (2.2km) projections provide plausible future outcomes for UK weather and climate that can be used for detailed climate impact studies, set in the context of the Probabilistic Projections. All results shown are for a high emission scenario for the 2061-2080 period relative to 1981-2000 unless otherwise stated.

FUTURE TEMPERATURE CHANGE

PROBABILISTIC PROJECTIONS

RISING SEASONAL TEMPERATURES*

UKCP Probabilistic (25km) projections show that by 2070, the range of average seasonal temperature changes are projected to increase*.

UKCP LOCAL (2.2KM)

HOT SUMMER DAYS

Temperature of hot summer days**, by 2070, is projected to increase in the Local (2.2km) projections.

THE FREQUENCY OF HOT SPELLS*** IS PROJECTED TO INCREASE

The average frequency of hot spells, locally over the southern UK for the period 1981-2000, is once every 4 years.







By 2070, the average frequency of hot spells is projected to rise to about four times per year.

* Result are for the 10th-90th percentile range for the 2060-2079 period relative to 1981-2000 from UKCP Probabilistic (25km) projections.
** Hot summer days are defined as the 99th percentile of daily mean temperature in June, July and August.
*** Hot spells, defined as maximum daytime temperatures exceeding 30 °C for two or more consecutive days.

FUTURE PRECIPITATION CHANGE

PROBABILISTIC PROJECTIONS

WETTER WINTERS, DRIER SUMMERS*

UKCP Probabilistic (25km) projections show that by 2070, under a high emission scenario, average winter precipitation is projected to increase, whilst average summer rainfall is projected to decrease.

FUTURE INCREASES IN EXTREME HOURLY RAINFALL INTENSITY

By 2070, extreme hourly rainfall intensity associated with an event that typically occurs once every two years increases by 25%.

UKCP LOCAL (2.2KM)

CHANGES IN THE TYPE OF RAINFALL

By 2070, Local (2.2km) projects more of the rain in winter will come from frontal rain events of higher intensity and in summer from short lived high intensity showers.





