

AUSTRALIA

CLIMATE OF OUR CONTINENT

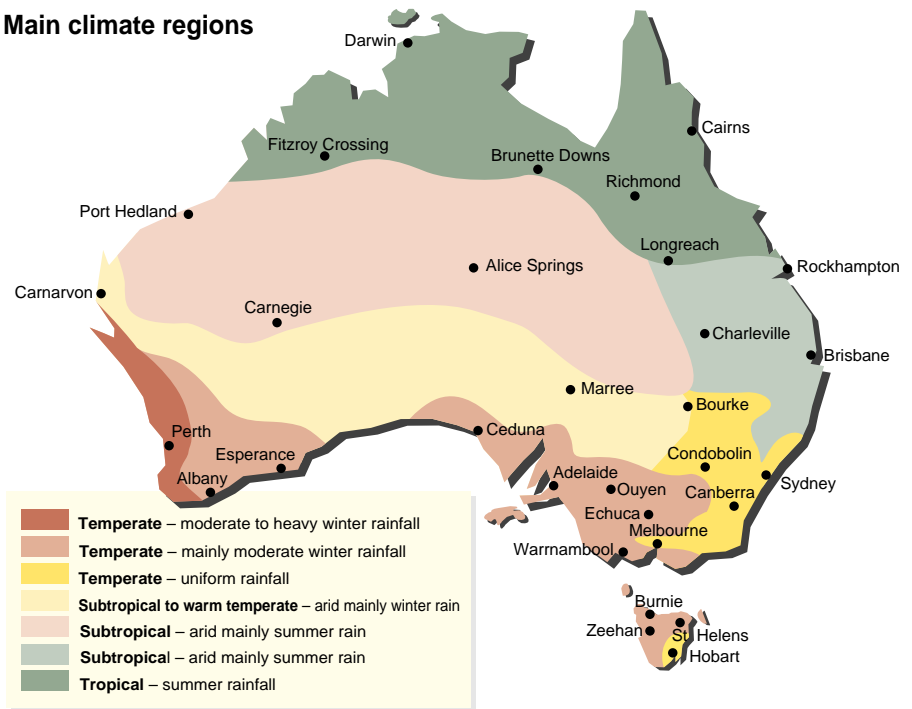
Australia's major climate zones—and an annual rainfall variability greater than any other continent—combine to create a diverse range of environments.

Climate in outline

Australia's climate is dominated by the dry, sinking air of the subtropical high pressure belt which moves north and south with the seasons. This causes the rainfall pattern over Australia to be strongly seasonal and helps to define the main climate regions shown opposite. When the high pressure systems move north during winter, southern Australia comes under the influence of westerly winds and rain-bearing cold fronts. Most of Australia's primary production occurs in the temperate regions of the south and east, and relies on this winter rainfall. Cold snaps may lead to frosts inland, though temperatures about the coast are generally mild all year round. Summers over southern Australia are mostly dry and hot with coastal sea-breezes. Following a long dry spell, hot, dry winds from the interior can cause bushfires in southern and eastern Australia. The flammability of the Australian bush (which has adapted to the climate) adds to the risk.

In comparison, tropical regions of northern Australia experience a wet

Main climate regions



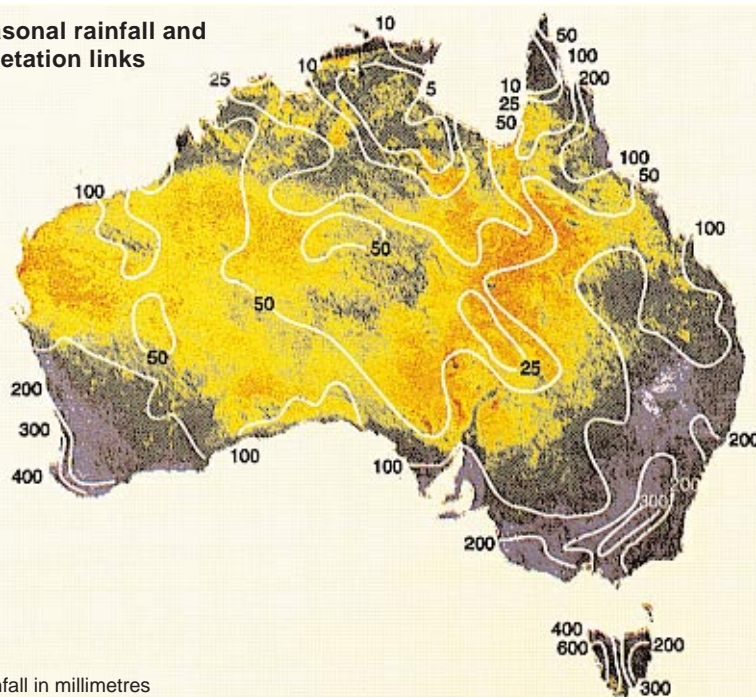
summer as the monsoon moves in. During 'the wet', typically October to April, moist northwesterly winds bring humid conditions with showers and thunderstorms. Rainfall amounts may vary markedly from year-to-year, and

occasional tropical cyclones can bring abundant rainfall to tropical coastal regions and possibly further inland. Once the monsoon has retreated, winter brings blue skies and mild, dry conditions. Dryland agriculture and pastoralism have adapted to the harsh climate of the vast inland tropical area.

As a result of the influence of the high pressure belt, much of Australian rainfall is low and variable. Eighty per cent of the continent has an average annual rainfall less than 600 mm. The vegetation of the arid interior adapts to dry conditions and responds quickly when rainfall is received.

The effect of these markedly seasonal rainfall regimes is apparent in the adjacent satellite image for winter 1993 which shows variation in landcover greenness. Yellow and red colours indicate minimal growing vegetation; green and blue indicate actively growing vegetation. This example also superimposes the rainfall of winter 1993 (lines). Southern parts of Australia have responded to winter rainfall while northern Australia is drying and awaits its summer monsoon.

Seasonal rainfall and vegetation links



Rainfall in millimetres

Source: Bureau of Meteorology Research Centre—Satellite Meteorology

