

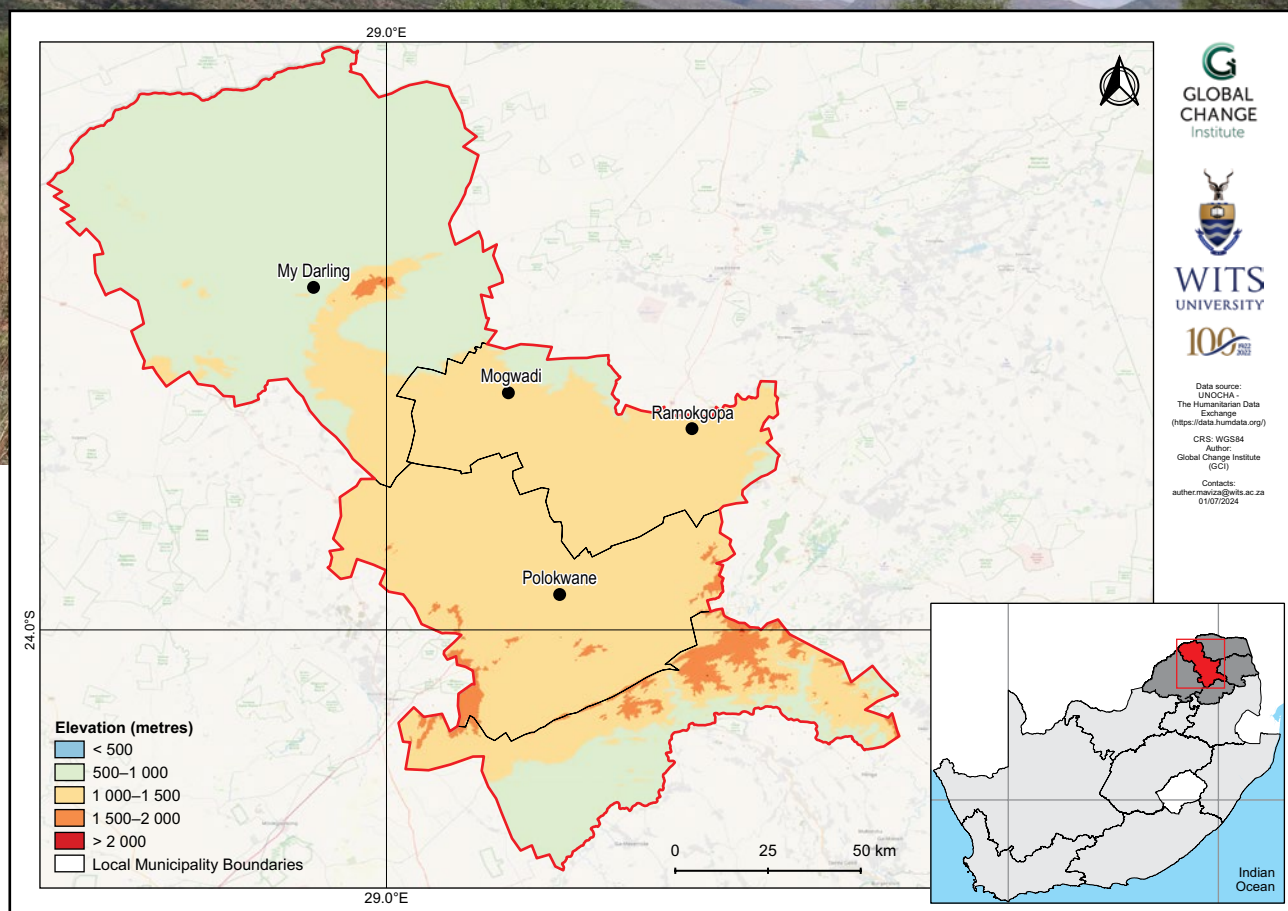
Capricorn District Municipality climate change fact sheet

Limpopo, South Africa

MUNICIPAL

Introduction

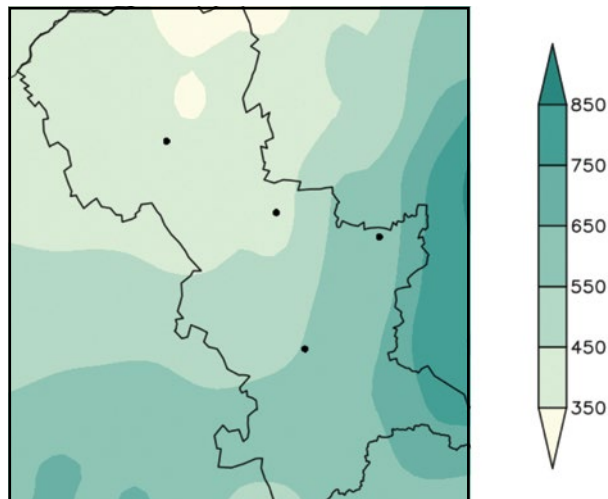
- This fact sheet is part of a series of district municipality fact sheets developed by the Wits GCI and SANBI. The fact sheets present a summary of observed and projected changes in climate over district municipalities in South Africa. They should be used together with the guidelines presented in the cover page.
- Capricorn District Municipality covers an area of approximately 21 705 km², with elevation ranging from 500 m above sea level in the northern and very southern regions, to 1 500 m in the central regions, featuring rolling hills and parts of the Magoebaskloof mountains.
- The district experiences a semi-arid climate in the north, with rainfall totals increasing over the central to southern plateau. Winters are cool and dry and summers are hot and wet.



Observed climate: rainfall (1981–2000)

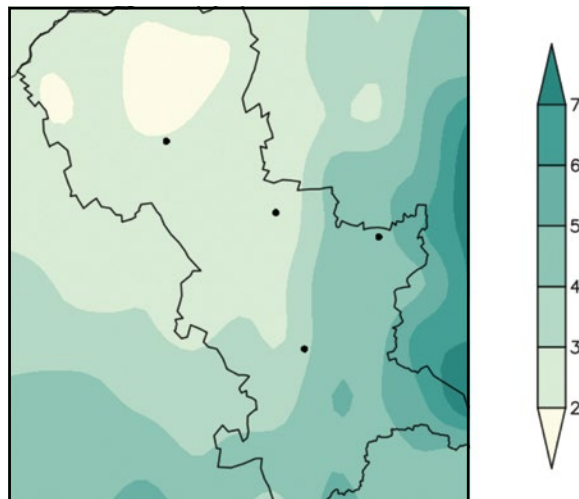
Mean annual rainfall

Mean annual rainfall ranges from 350 mm over northern parts to 850 mm over the mountainous southeastern parts.



Extreme rainfall days

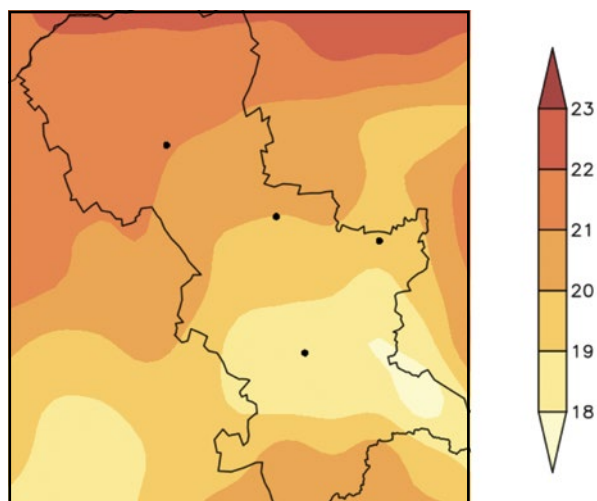
Observed mean annual number of extreme rainfall days range from less than 2 days over the northern parts to 6 days over the mountainous southeastern areas.



Observed climate: temperature (1981–2000)

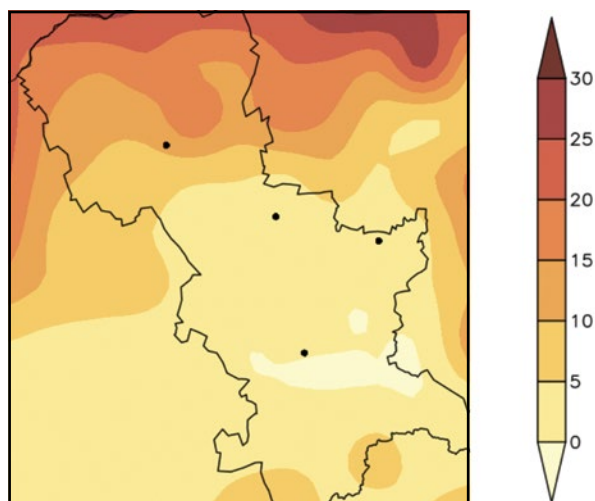
Mean annual temperature

Mean annual temperature ranges from 18 °C over the southeastern region to 23 °C over the northern region.



Very hot days

Mean annual number of very hot days range from less than 5 days over the southern and central regions to as many as 25 days over the northern areas.

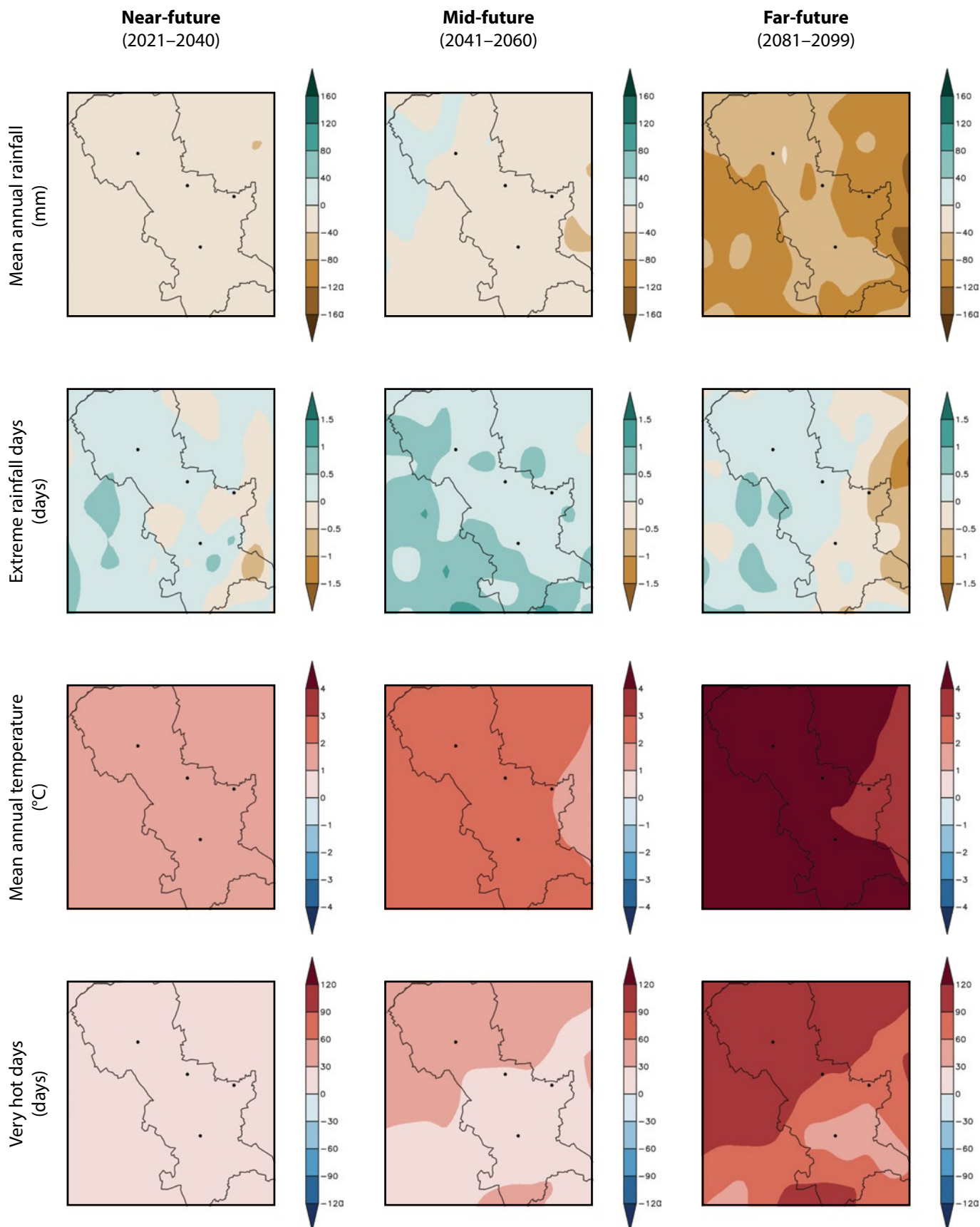


Observed climate trends (overview)

- Observed decrease in mean annual rainfall (*low confidence*).
- Observed increase in the frequency of extreme rainfall events (*high confidence*).
- Observed increase in mean annual temperature and warm extremes (*virtually certain*).
- Observed increases in meteorological and agricultural drought (*low confidence*).

Projected future climate change (overview)

- Projected decrease in mean annual rainfall into the future (*high confidence*).
- Projected general increase in the frequency of extreme rainfall events (*high confidence*).
- Projected increase in mean annual temperature and warm extremes (*virtually certain*).
- Projected increase in agricultural and meteorological drought (*high confidence*).



Projected future climate change (*detailed*)

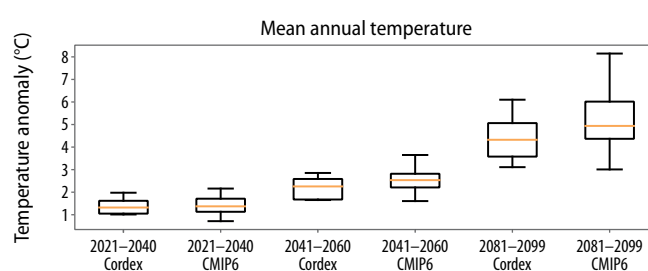
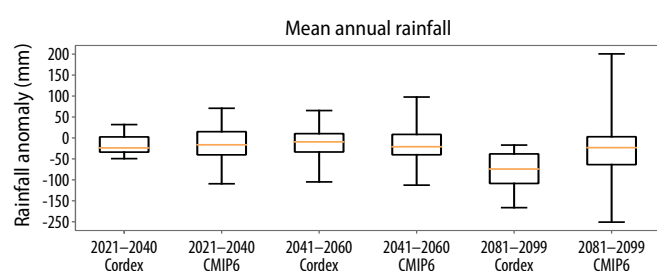
Near- and mid-future

- Projected decrease in mean annual rainfall (*likely*).
- Projected increase in extreme rainfall events (*likely*).
- Projected increase in temperature and warm extremes (*virtually certain*), larger increases over the northern region.
- Projected increase in meteorological and agricultural drought (*likely*).

Far-future

- Projected decrease in mean annual rainfall (*very likely*).
- Projected increase in extreme rainfall events (*likely*).
- Projected increase in temperature and warm extremes (*virtually certain*), with drastic increases over the northern region.
- Projected increase in meteorological and agricultural drought (*very likely*).

Climate model projections: model agreement and uncertainties



Mean annual rainfall

- Averaged across the district, rainfall is projected to decrease in the near- and mid-future (*likely*).
- Further rainfall decreases are projected for the far-future under low mitigation scenarios (*very likely*).
- Partially in response to *virtually certain* temperature increases, agricultural droughts are to occur more frequently in the near- and mid-future (*likely*) and far-future (*very likely*).

Mean annual temperature

- Temperature increases averaged across the district are *virtually certain* in the near-future and may be as high as 1.5 °C.
- Under low mitigation, further temperature increases are *virtually certain* and may approach 3.0 °C in the mid-future and 6.0 °C in the far-future.
- Increases in average temperature will be accompanied by increases in warm temperature extremes such as heatwaves and high fire danger days (*virtually certain*).

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