

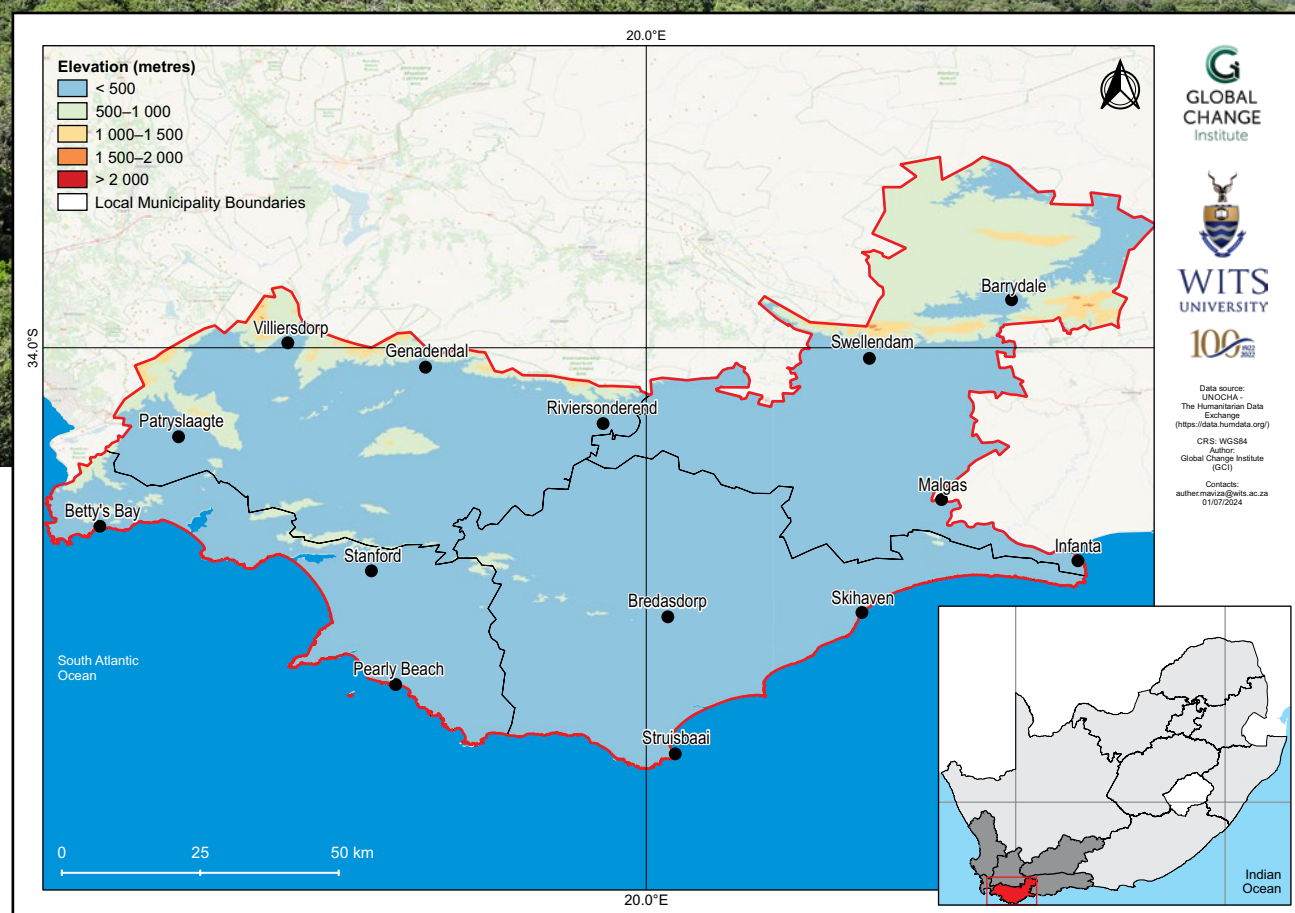
Overberg District Municipality climate change fact sheet

Western Cape, South Africa

MUNICIPAL

Introduction

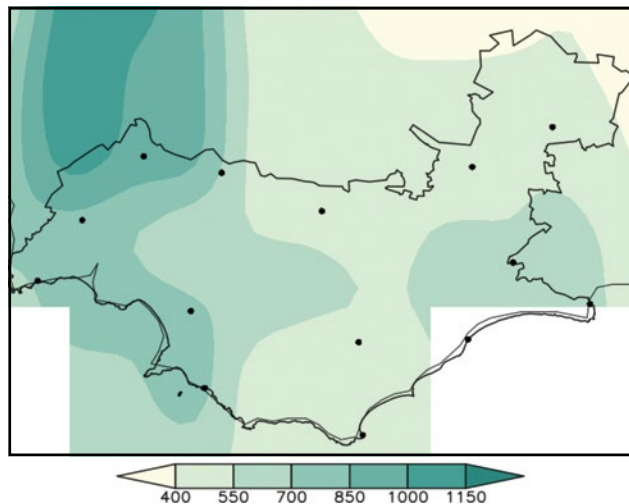
- This fact sheet is part of a series of district municipality fact sheets developed by the Wits GCI and SANBI. The fact sheets present a summary of observed and projected changes in climate over district municipalities in South Africa. They should be used together with the guidelines presented in the cover page.
- Overberg District Municipality covers an area of approximately 12 241 km², with elevation ranging from sea level in the coastal plains to 1 800 m above sea level inland in the Hottentots-Holland Mountains and Kogelberg in the north.
- The district experiences a Mediterranean climate, characterised by cool, wet winters and warm, dry summers. Mountainous regions are cooler with occasional winter snowfall.



Observed climate: rainfall (1981–2000)

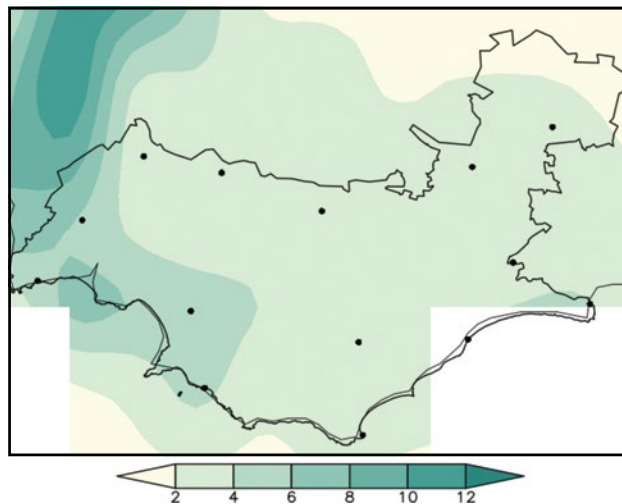
Mean annual rainfall

Mean annual rainfall ranges from 400 mm over the central and northeastern parts to 1 000 mm over the northwestern parts.



Extreme rainfall days

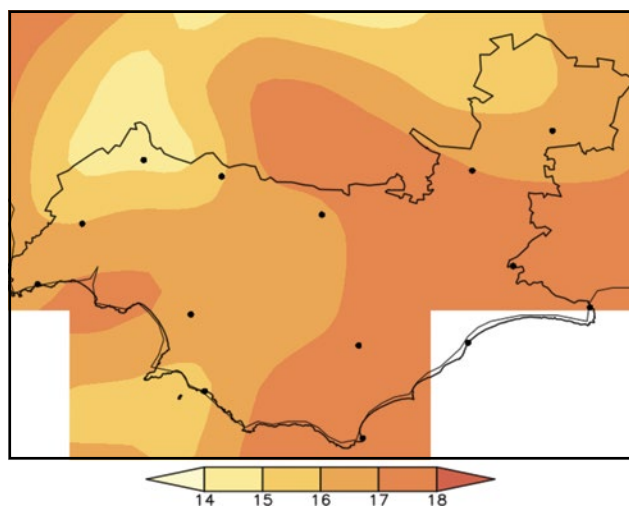
Observed mean annual number of extreme rainfall days range from less than 2 days over far northern parts to 6 days over the western parts.



Observed climate: temperature (1981–2000)

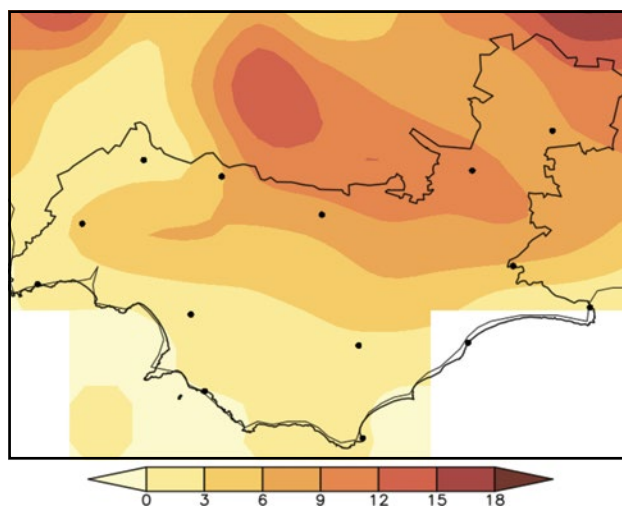
Mean annual temperature

Mean annual temperature ranges from 14 °C in the north-western highlands to 18 °C over the eastern interior.



Very hot days

Mean annual number of very hot days increase from 0 days along the coastline to 12 days over northeastern parts.

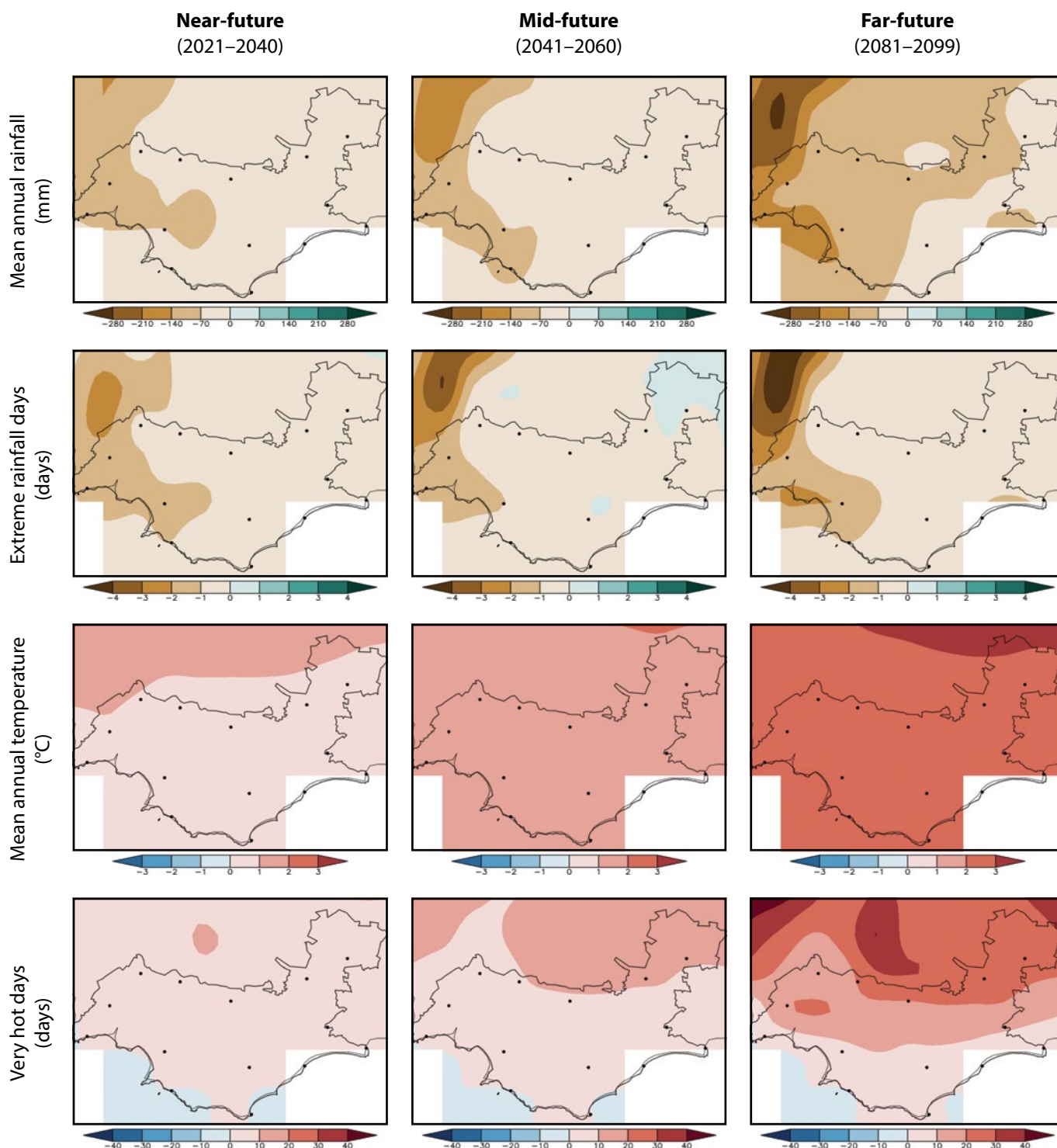


Observed climate trends (overview)

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

Projected future climate change (overview)

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



Projected future climate change (detailed)

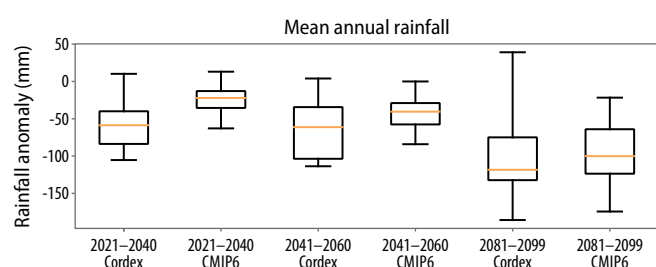
Near- and mid-future

- Projected decrease in rainfall over the entire district (*likely*).
- Projected decrease in extreme rainfall events (*likely*), particularly over the mountainous region in the west.
- Projected increase in temperature and warm extremes (*virtually certain*), with an associated decrease in cold extremes (*likely*).
- Projected increase in agricultural and meteorological drought (*likely*).

Far-future

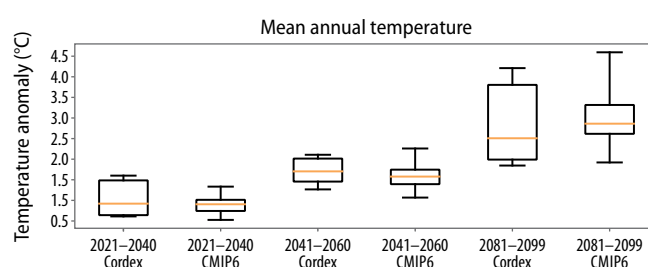
- Projected decrease in rainfall (*very likely*) and corresponding increase in agricultural and meteorological drought (*very likely*).
- Projected decrease in extreme rainfall events (*likely*), particularly over the mountainous region in the west.
- Projected increase in temperature and warm extremes (*virtually certain*), with an associated decrease in cold extremes (*likely*).

Climate model projections: model agreement and uncertainties



Mean annual rainfall

- Averaged across the district, rainfall is projected to decrease for the near- and mid-future (*likely*).
- Further rainfall decreases are *very likely* in the far-future under low mitigation scenarios.
- Partially in response to *virtually certain* temperature increases, agricultural drought is 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 in the near-future are *virtually certain* and may be as high as 1.5 °C.
- Under low mitigation, further temperature increases are *virtually certain* and may be as high as 2.0 °C in the mid-future and 3.5 °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*) and a decrease in cold extremes (*high confidence*).

Citation:

Engelbrecht, F.A., Maviza, A., Steinkopf, J., Vogel, C., Von Maltitz, G., Yose, P. & Barnett, M. 2025. *Sub-national climate change fact sheets for South Africa*. © South African National Biodiversity Institute (SANBI) and University of the Witwatersrand – Global Change Institute (WITS-GCI). DOI: <https://doi.org/10.5281/zenodo.16962181>.

This work is licensed under CC BY-NC-ND 4.0 (Attribution-NonCommercial-NoDerivatives 4.0 International).

<https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>.

Contact

- Global Change Institute (GCI), University of the Witwatersrand, Johannesburg, South Africa. Website: www.wits.ac.za/gci
- South African National Biodiversity Institute (SANBI). Website: www.sanbi.org