



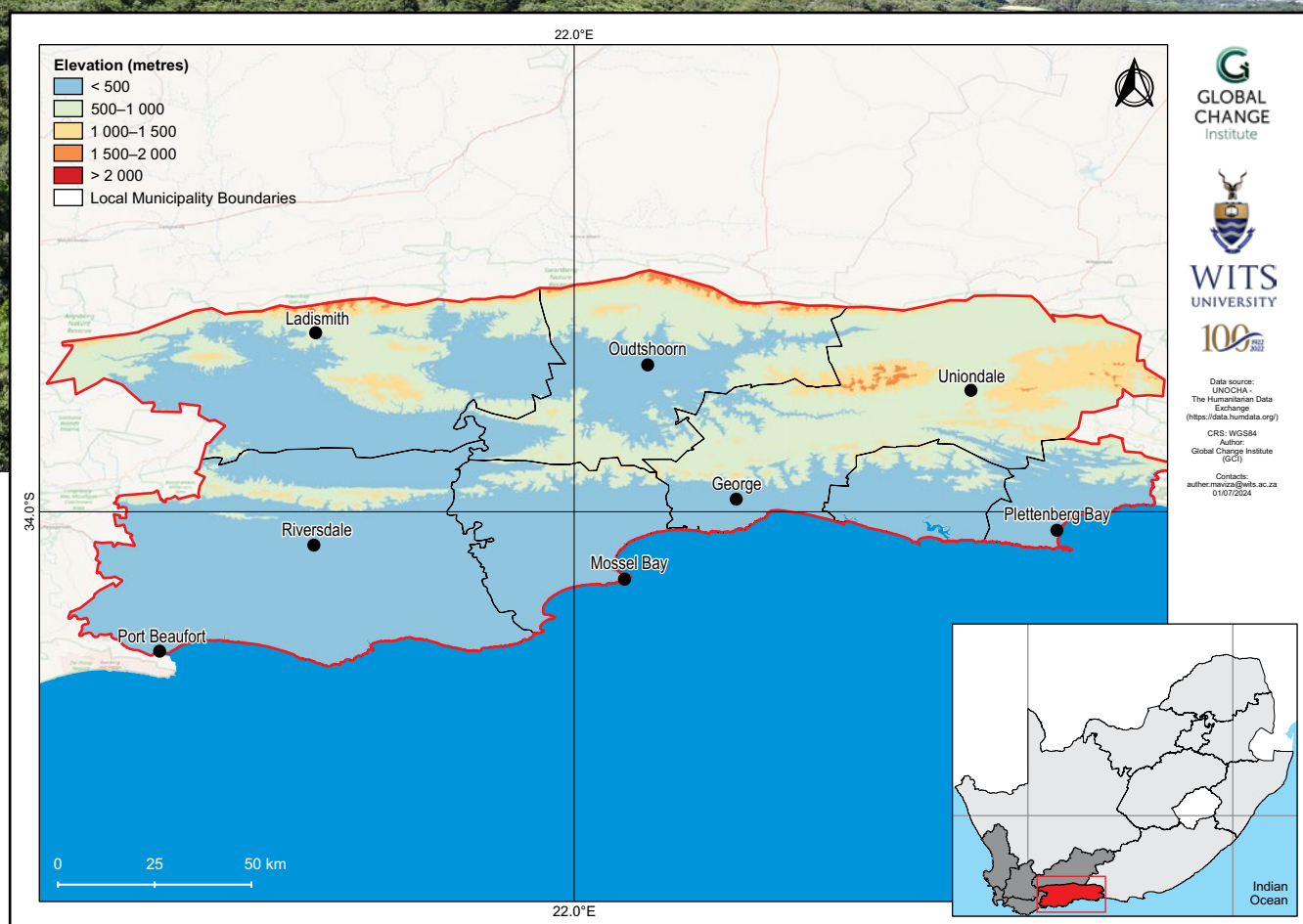
Eden District Municipality climate change fact sheet

Western Cape, South Africa

MUNICIPAL

Introduction

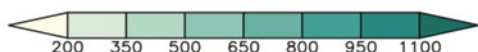
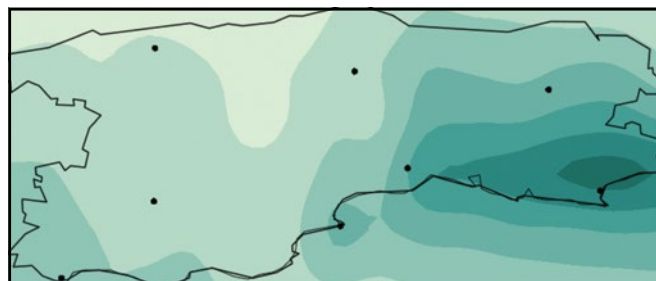
- This fact sheet is part of a series of district municipality fact sheets developed by the Wits GCI and SANBI. The fact sheets present a summary of observed and projected changes in climate over district municipalities in South Africa. They should be used together with the guidelines presented in the cover page.
- Eden District Municipality covers an area of approximately 23 331 km², with elevation ranging from sea level along the Indian Ocean coastal areas to 1 800 m above sea level inland, in the Outeniqua and Swartberg mountain ranges.
- The district experiences a Mediterranean climate, with warm, dry summers and cool, wet winters. Snow is possible during winter in the higher elevation regions.



Observed climate: rainfall (1981–2000)

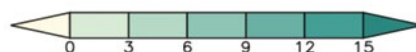
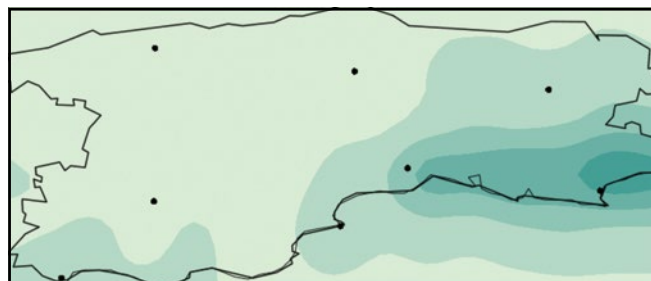
Mean annual rainfall

Mean annual rainfall ranges from 200 mm over the central northern region to 1 100 mm over the southeastern coastal region.



Extreme rainfall days

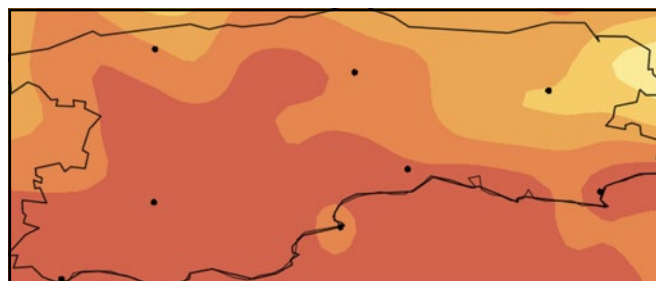
Observed mean annual number of extreme rainfall days range from less than 3 days over the western and central parts to as many as 15 days over the southeastern coastal region.



Observed climate: temperature (1981–2000)

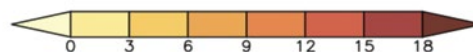
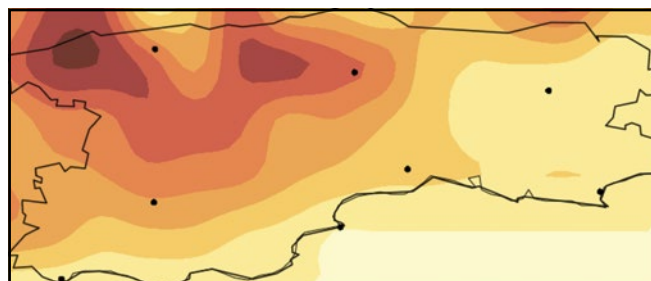
Mean annual temperature

Mean annual temperature ranges from 13 °C over the northeastern parts to 18 °C over the southern and western interior.



Very hot days

Mean annual number of very hot days range from less than 3 days along the coastline to 18 days in the northwestern parts.

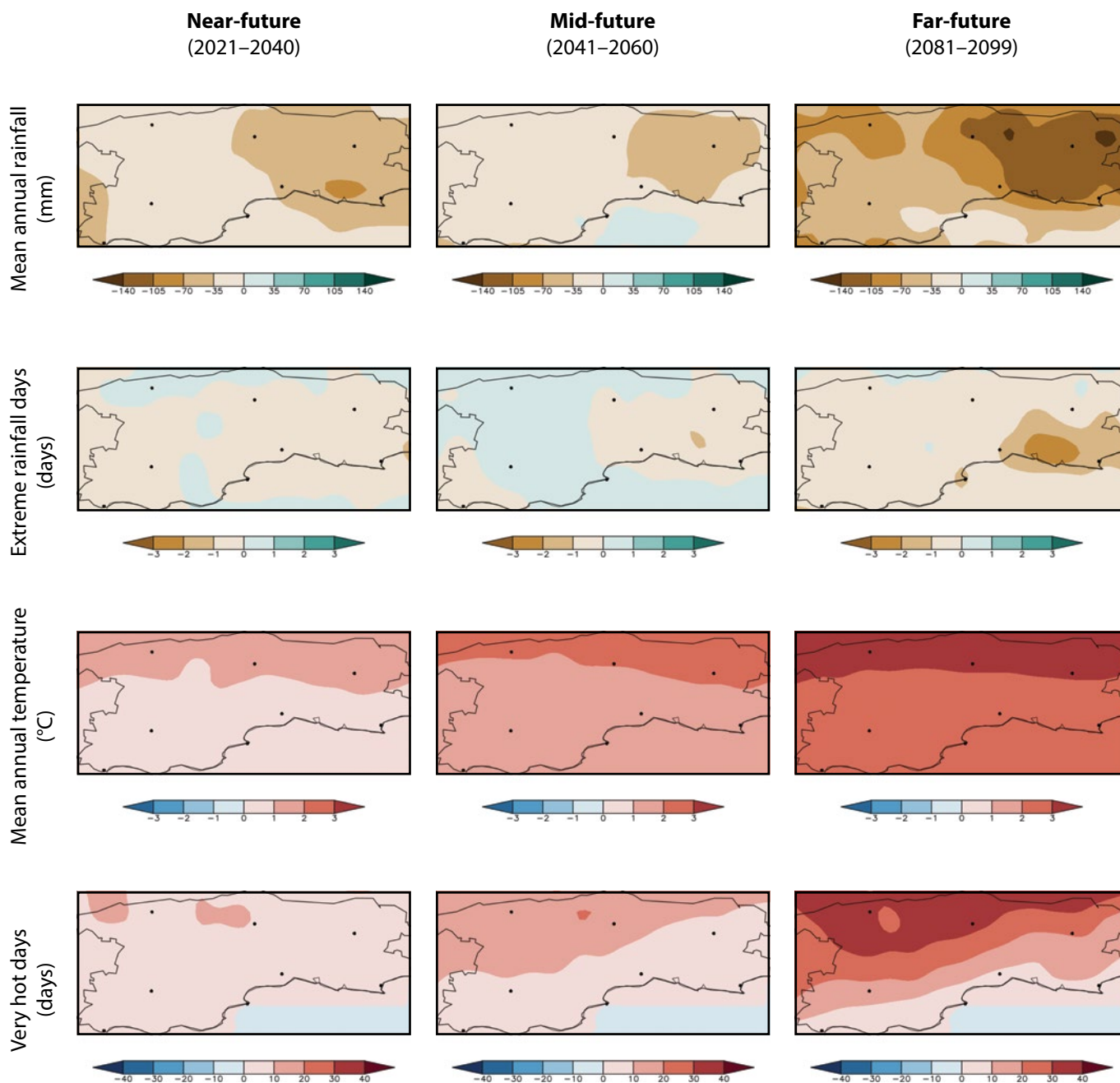


Observed climate trends (overview)

- Observed decrease in mean annual rainfall (*low confidence*).
- Observed increase in the frequency of extreme rainfall events (*medium 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 general decrease in the frequency of extreme rainfall events (*low 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 climate (detailed)

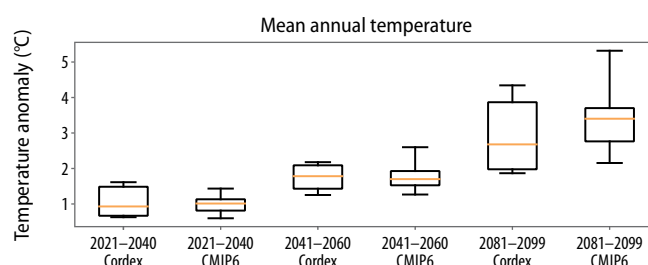
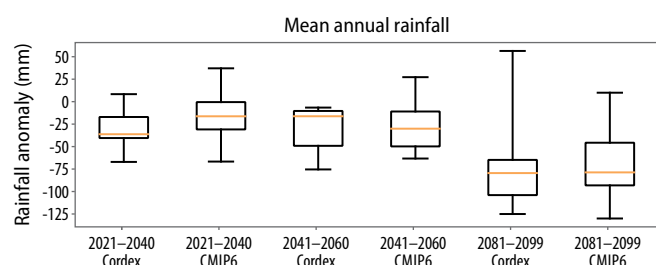
Near- and mid-future

- Projected decrease in rainfall over the entire district (*likely*).
- Projected decrease in extreme rainfall events (*low confidence*).
- 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*), especially over the eastern parts.
- Projected decrease in extreme rainfall events (*low confidence*).
- Projected increase in temperature and warm extremes (*virtually certain*), with drastic increases in the northern interior; decrease in cold extremes (*very likely*).
- Projected increase in agricultural and meteorological 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 in the district in the far-future under low mitigation scenarios (*very likely*).
- Partially in response to *virtually certain* temperature increases, agricultural drought is to occur more frequently in the near- to 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 approach 2.0 °C in the mid-future and 4.0 °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*) and a decrease in cold extremes (*high confidence*).

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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