

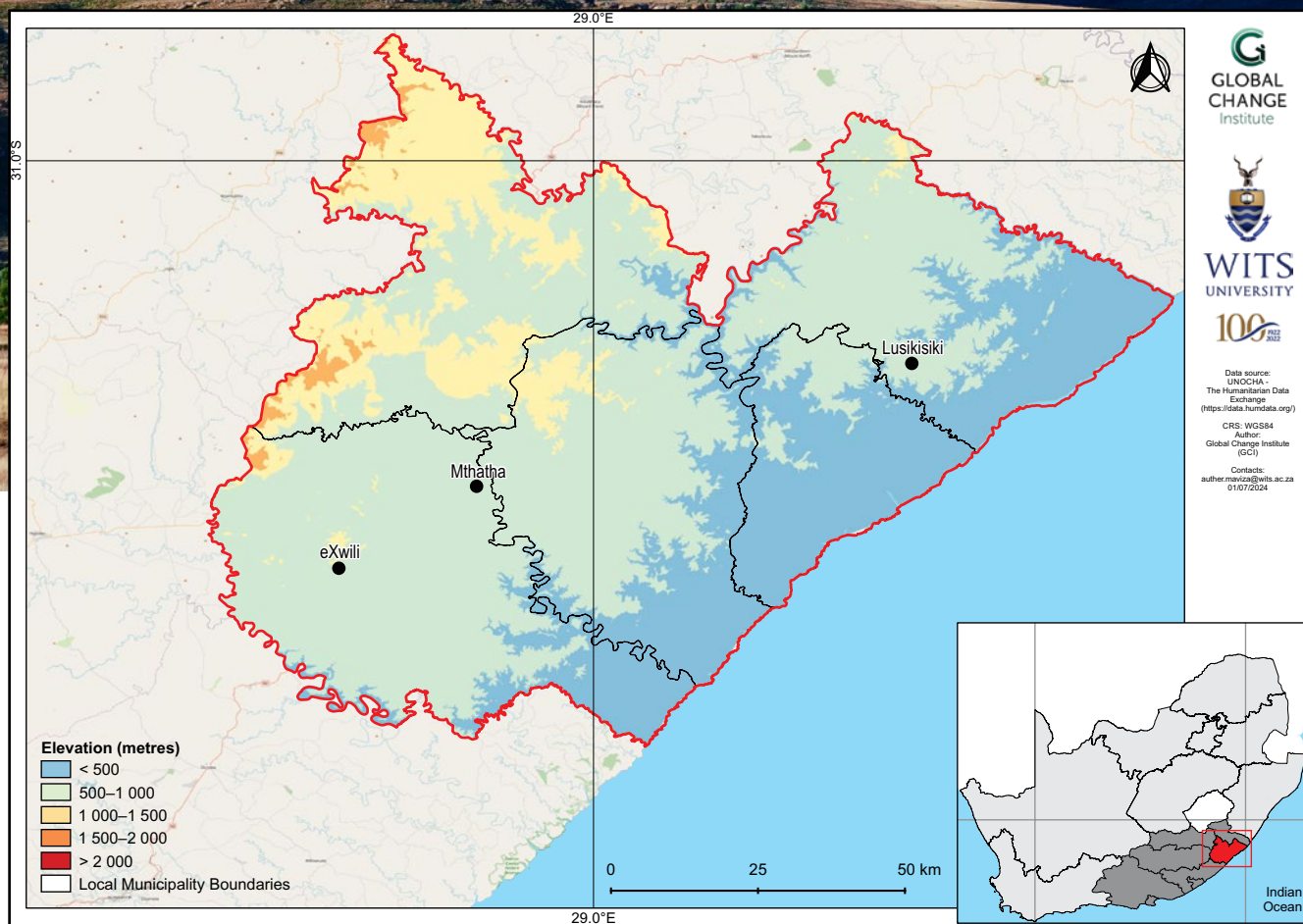
OR Tambo District Municipality climate change fact sheet

Eastern Cape, South Africa

MUNICIPAL

Introduction

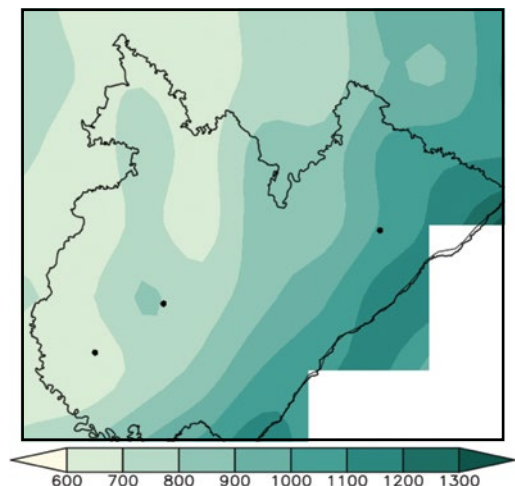
- This fact sheet is part of a series of district municipality fact sheets developed by the Wits GCI and SANBI. The fact sheets present a summary of observed and projected changes in climate over district municipalities in South Africa. They should be used together with the guidelines presented in the cover page.
- OR Tambo District Municipality covers an area of approximately 12 141 km², with elevation ranging from sea level at the Indian Ocean coastline to about 1 400 m above sea level at the foothills of the Drakensberg in the northwest.
- The district has a varying climate that is subtropical and wet along the coast. The district falls in the summer-rainfall region of South Africa.



Observed climate: rainfall (1981–2000)

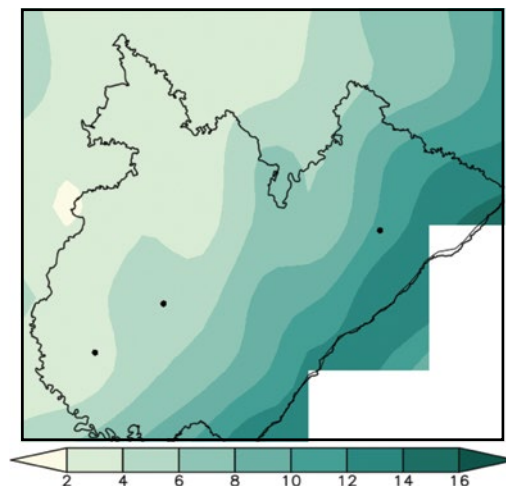
Mean annual rainfall

Mean annual rainfall ranges from 600 mm over western parts to more than 1 100 mm along the coastal strip. There is a pronounced rainfall gradient from the northwestern interior towards the southeastern coastal region.



Extreme rainfall days

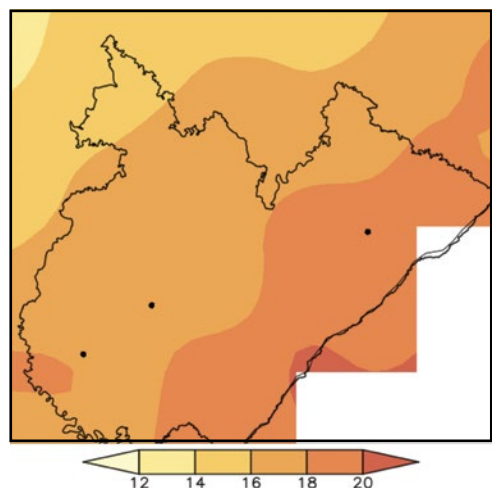
Mean annual number of extreme rainfall days range from 2 days over the northwestern interior to more than 10 days along the coast.



Observed climate: temperature (1981–2000)

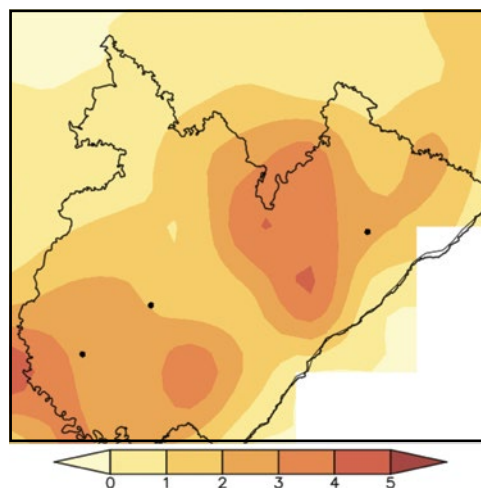
Mean annual temperature

Mean annual temperature range from 14 °C over the northwestern tip to 20 °C along the coastal areas.



Very hot days

Mean annual number of very hot days range from less than 1 day over the northwestern region to 4 days over the eastern interior and southwestern parts.

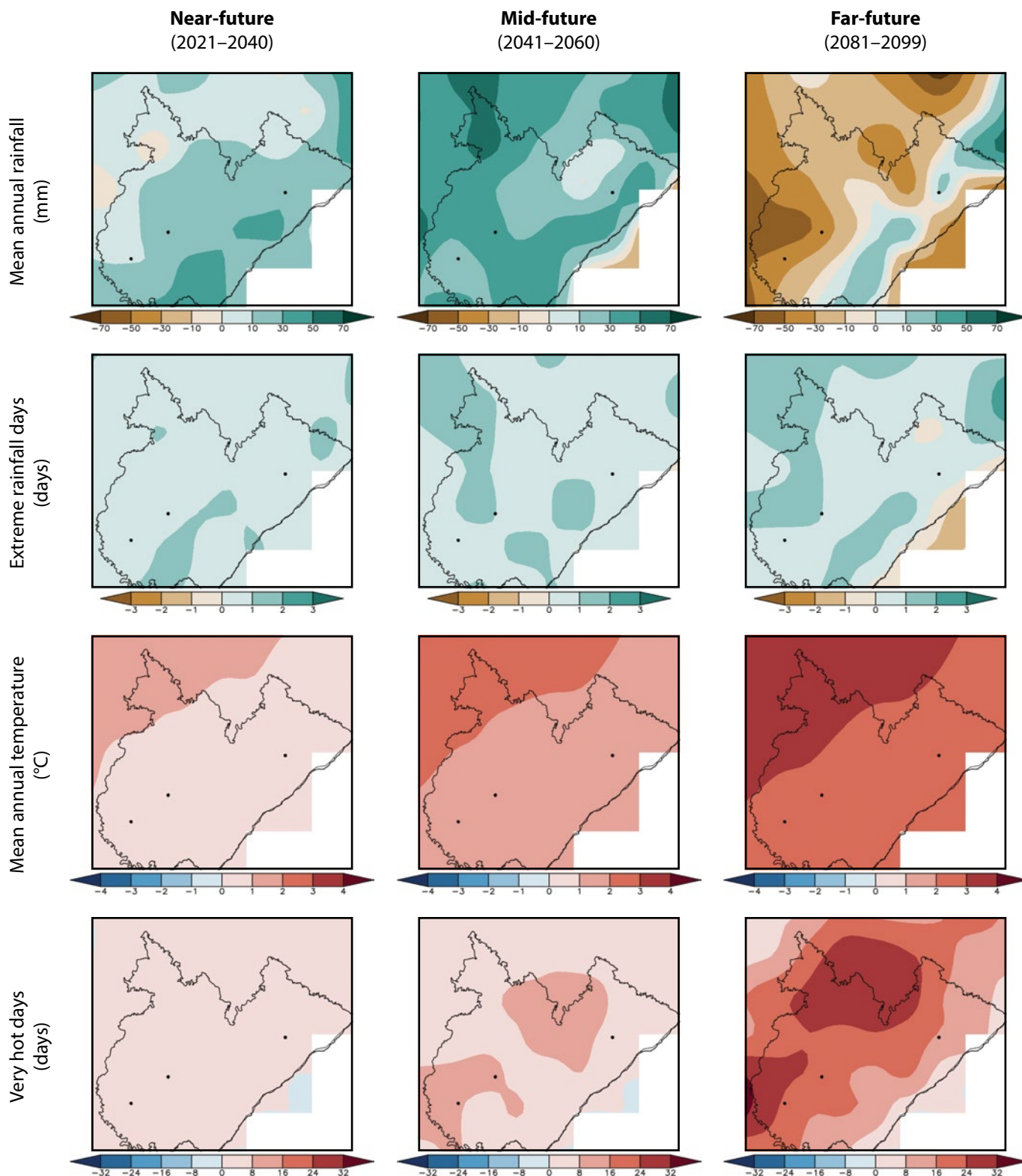


Observed climate trends (overview)

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

Projected future climate change (overview)

- Projected changes in mean annual rainfall are *uncertain*.
- Projected increase in the frequency of extreme rainfall events (*high 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 (*low confidence*).



Projected future climate change (detailed)

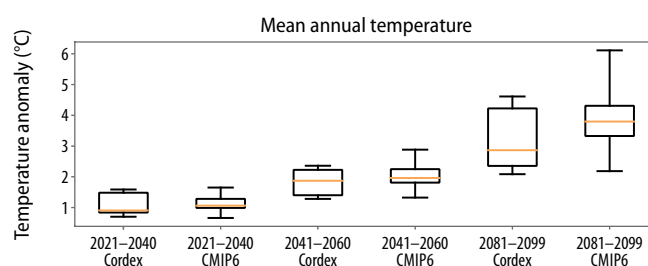
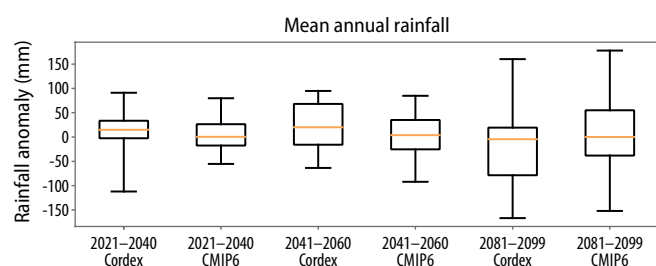
Near- and mid-future

- Projected increase in rainfall (*low confidence*).
- Projected increase in extreme rainfall events (*likely*).
- Projected increase in temperature and warm extremes (*virtually certain*); decrease in cold extremes (*likely*).
- Projected increase in agricultural and meteorological drought (*low confidence*).

Far-future

- Projected general decrease in rainfall (*low confidence*).
- Projected increase in extreme rainfall events (*likely*).
- Projected increase in temperature and warm extremes (*virtually certain*); decrease in cold extremes (*very likely*).
- Projected increase in agricultural and meteorological drought (*low confidence*).

Climate model projections: model agreement and uncertainties



Mean annual rainfall

- Averaged across the district, projected changes in rainfall for the near- and mid-future are *uncertain*.
- General rainfall decreases are projected in the far-future under low mitigation scenarios (*low confidence*).
- Partially in response to *virtually certain* temperature increases, agricultural drought is to occur more frequently in the future (*low confidence*).

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*).

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