

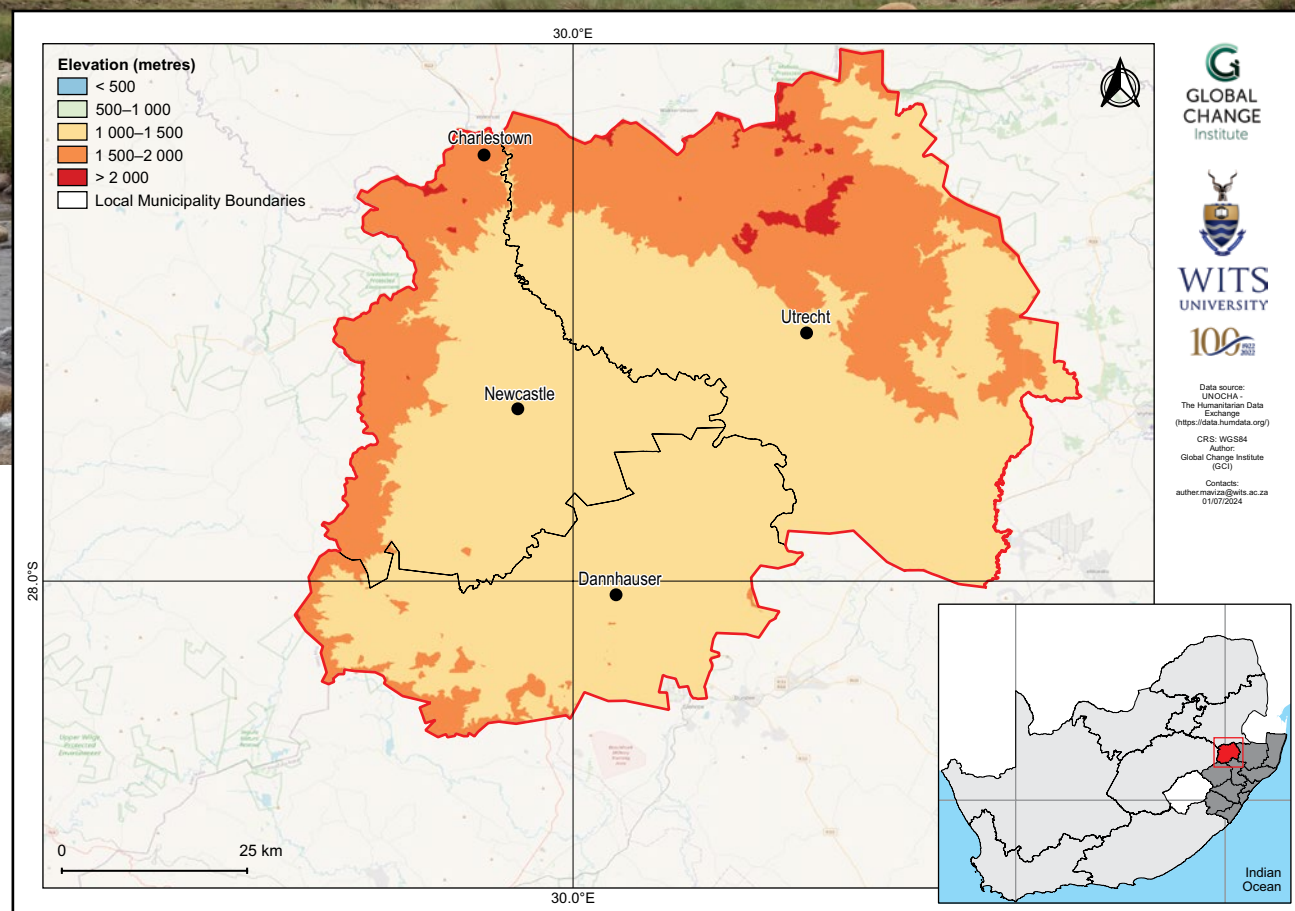
Amajuba District Municipality climate change fact sheet

KwaZulu-Natal, South Africa

MUNICIPAL

Introduction

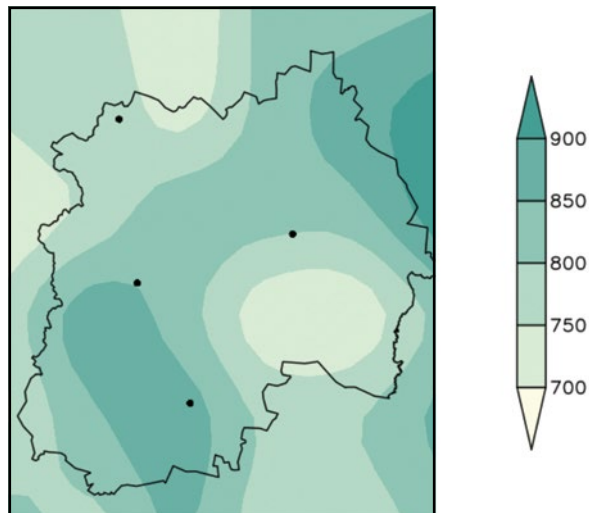
- This fact sheet is part of a series of district municipality fact sheets developed by the Wits GCI and SANBI. The fact sheets present a summary of observed and projected changes in climate over district municipalities in South Africa. They should be used together with the guidelines presented in the cover page.
- Amajuba District Municipality covers an area of 6 911 km², with elevation ranging from 1 000 m above sea level in the central, southern and eastern region, increasing to 2 000 m above sea level in the western and northern highlands in the Drakensberg foothills.
- The district experiences a temperate climate with warm, moderately wet summers and mild, dry winters. Occasional snowfall can occur in the mountainous regions.



Observed climate: rainfall (1981–2000)

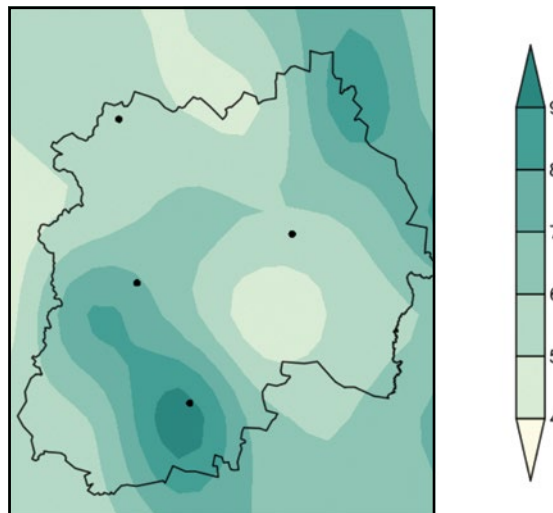
Mean annual rainfall

Mean annual rainfall ranges from 700 mm in the southeastern parts to 900 mm over southwestern parts.



Extreme rainfall days

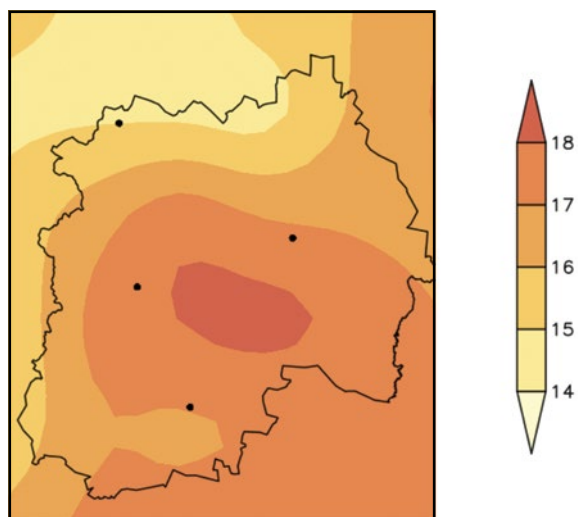
Observed mean annual number of extreme rainfall days range from 4 days over southeastern parts to more than 9 days over southwestern parts.



Observed climate: temperature (1981–2000)

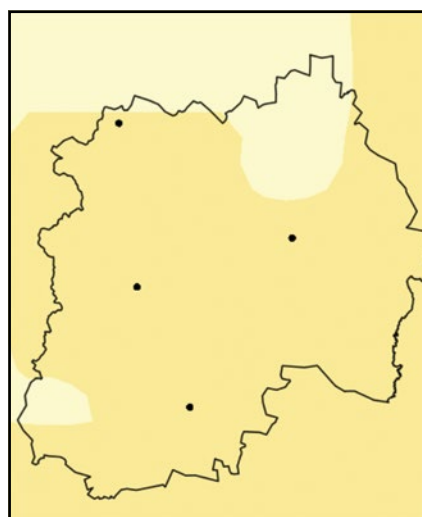
Mean annual temperature

Mean annual temperature ranges from 14 °C over the northern highlands to 18 °C over the central interior.



Very hot days

Observed mean annual number of very hot days is less than 1 day over the entire district.

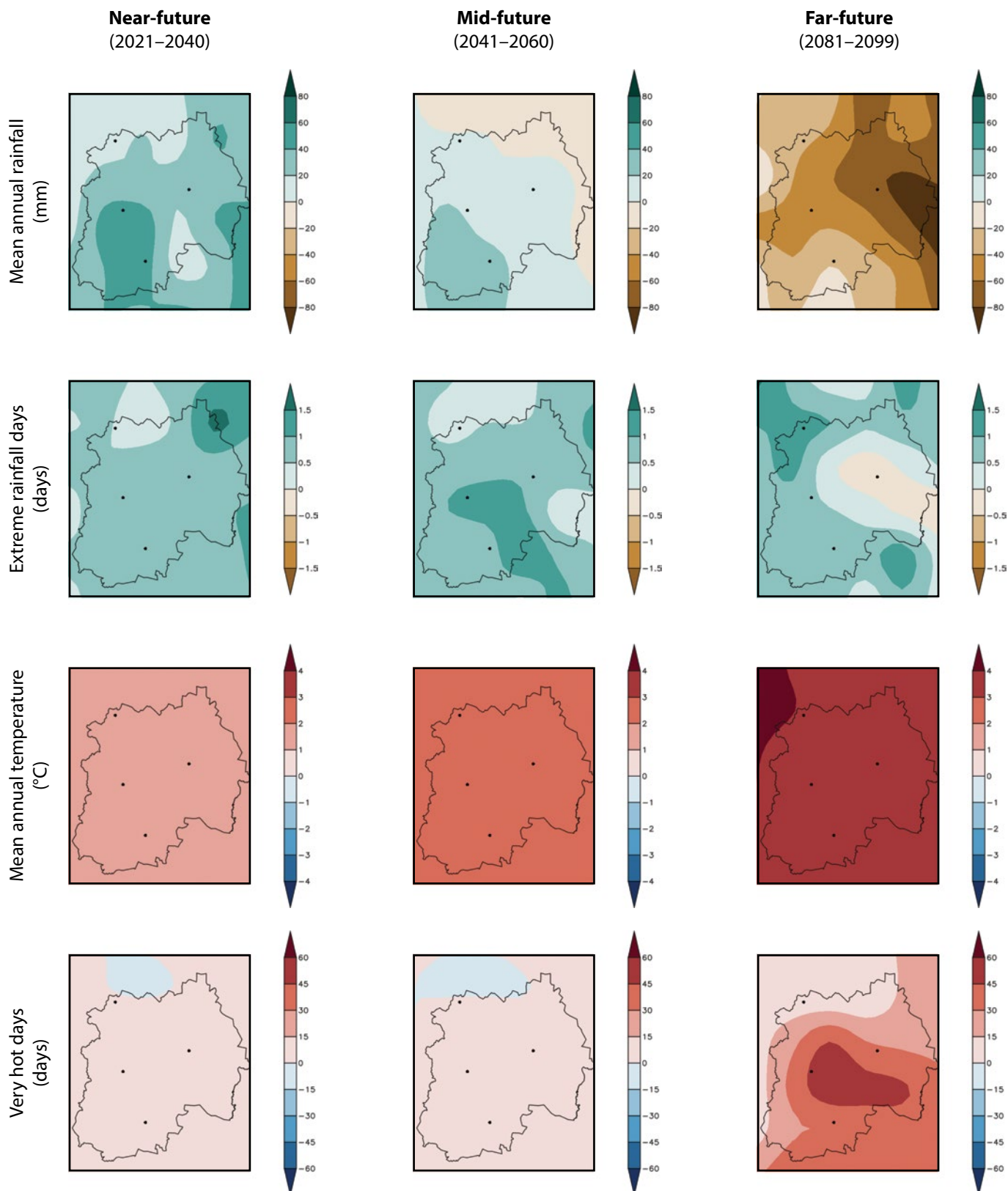


Observed climate trends (overview)

- 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 increase in mean annual rainfall in the near- and mid-future (*low confidence*); decreases in the far-future (*low confidence*).
- Projected increase in the frequency of extreme rainfall events over the mountainous regions (*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 in the near- and mid-future (*low confidence*) and far-future (*medium confidence*).



Projected future climate change (*detailed*)

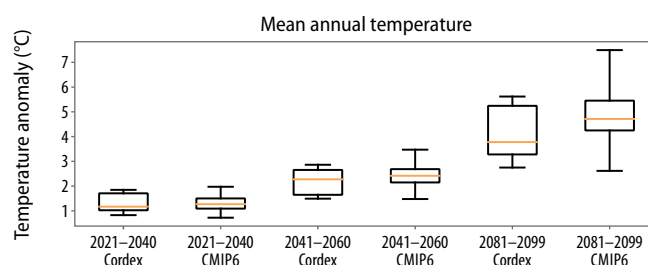
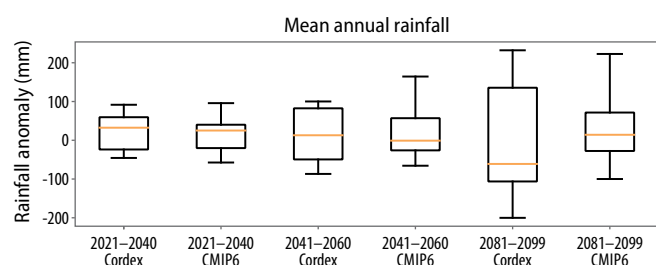
Near- and mid-future

- Projected increase in rainfall (*more likely than not*).
- Projected increase in extreme rainfall events over the entire district (*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*).

Far-future

- Projected decrease in rainfall over the entire district (*more likely than not*).
- Projected increase in extreme rainfall events over the mountainous regions (*likely*).
- Projected increase in temperature and warm extremes (*virtually certain*), with drastic increases over the central interior; decrease in cold extremes (*very likely*).
- Projected increase in agricultural and meteorological drought (*medium confidence*).

Climate model projections: model agreement and uncertainties



Mean annual rainfall

- Averaged across the district, rainfall is projected to increase in the near- and mid-future (*low confidence*).
- General rainfall decreases are projected for 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 near- and mid-future (*low confidence*) and far-future (*medium 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 3.0 °C in the mid-future and 5.0 °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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