

Caiundo - Climate

The core site Caiundo is located ca. 90 km south of the confluence of the Cubango and Cuebe Rivers and has an altitude of 1,155 m. The climate at this site is characterized by semi-arid conditions with a pronounced rainy season between December and March and a dry period from May to September (Fig. 1). During the period 1971 to 2000, the annual mean rainfall was determined to be 732 mm (Tab. 1). Over the period 1950 to 2009, the annual rainfall in Caiundo shows a high interannual variability without any obvious trend (Fig. 2). Caiundo has an annual mean temperature of 22.5 °C with October and July being the hottest and the coldest months with average mean temperature of 26.3 °C and 16.8 °C

respectively. The long-term annual mean temperature shows a low interannual variability with an increase in temperature since the mid 1960s (Fig. 3). On average

17 frost days per year were recorded between June and September.

Table 1: General information and key figures.

| Climate | Time period |
|------------------------------------|--------------------------------|
| semi-arid | 1971-2000 |
| Annual mean temperature | Mean diurnal temperature range |
| 22.5 °C | 16.4 °C |
| Mean number of frost days per year | Annual mean rainfall |
| 17 | 732 mm |
| Dry season | Vegetation period |
| May to September | November to April |

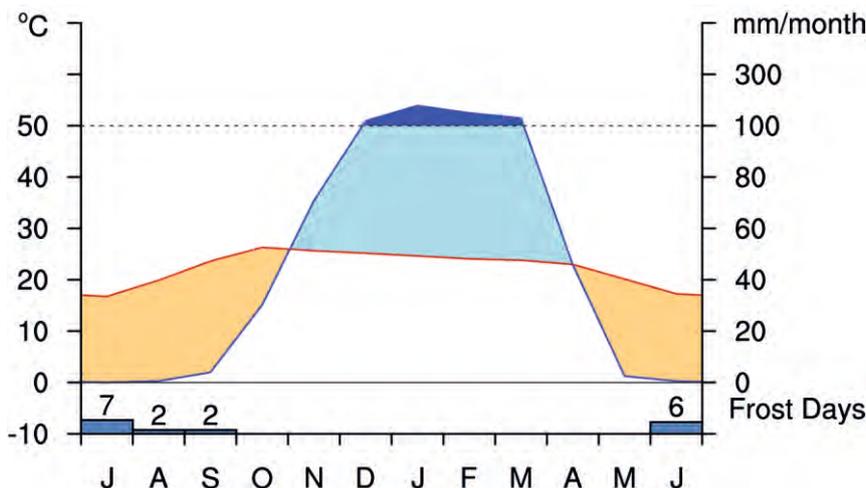


Fig. 1: Walter-Lieth climate diagram of Caiundo (data source: Temperature from the Climatic Research Unit (CRU), rainfall from the Global Precipitation Climatology Centre (GPCC)).

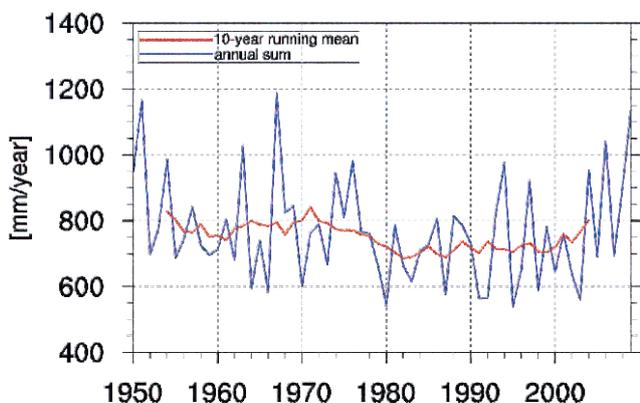


Fig. 2: Annual sum of rainfall in Caiundo between 1950 and 2009 (data source: Global Precipitation Climatology Centre (GPCC)).

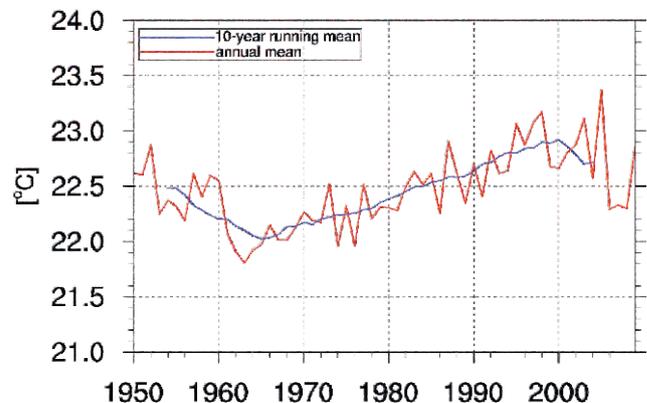


Fig. 3: Annual mean temperature in Caiundo between 1950 and 2009 (data source: Climatic Research Unit (CRU)).

Acknowledgements

This study was funded by the BMBF (The Future Okavango project). For details see authors' general acknowledgements in this volume.

Data source

Temperature data, frost days, diurnal temperature range were taken from the Climatic Research Unit (CRU) (Mitchell & Jones 2005). Rainfall data were taken from the Global Precipitation Climatology Centre (GPCC) (Becker et al. 2013). Both gridded observational data sets have a horizontal resolution of $0.5^\circ \times 0.5^\circ$ (about 55 km x 55 km). Altitude was taken from the NASA Shuttle Radar Topographic Mission (SRTM) 90 m Digital Elevation Database, (Jarvis, A., Reuter, H. I., Nelson, A., Guevara, E., (2008): Hole-filled SRTM for the globe Version 4, available from the CGIAR-CSI SRTM 90 m Database (<http://srtm.csi.cgiar.org>)).

References

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- Mitchell, T.D., Jones, P.D. (2005): An improved method of constructing a database of monthly climate observations and associated high-resolution grids. – *International Journal of Climatology* **25**: 693–712. [CrossRef](#)

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