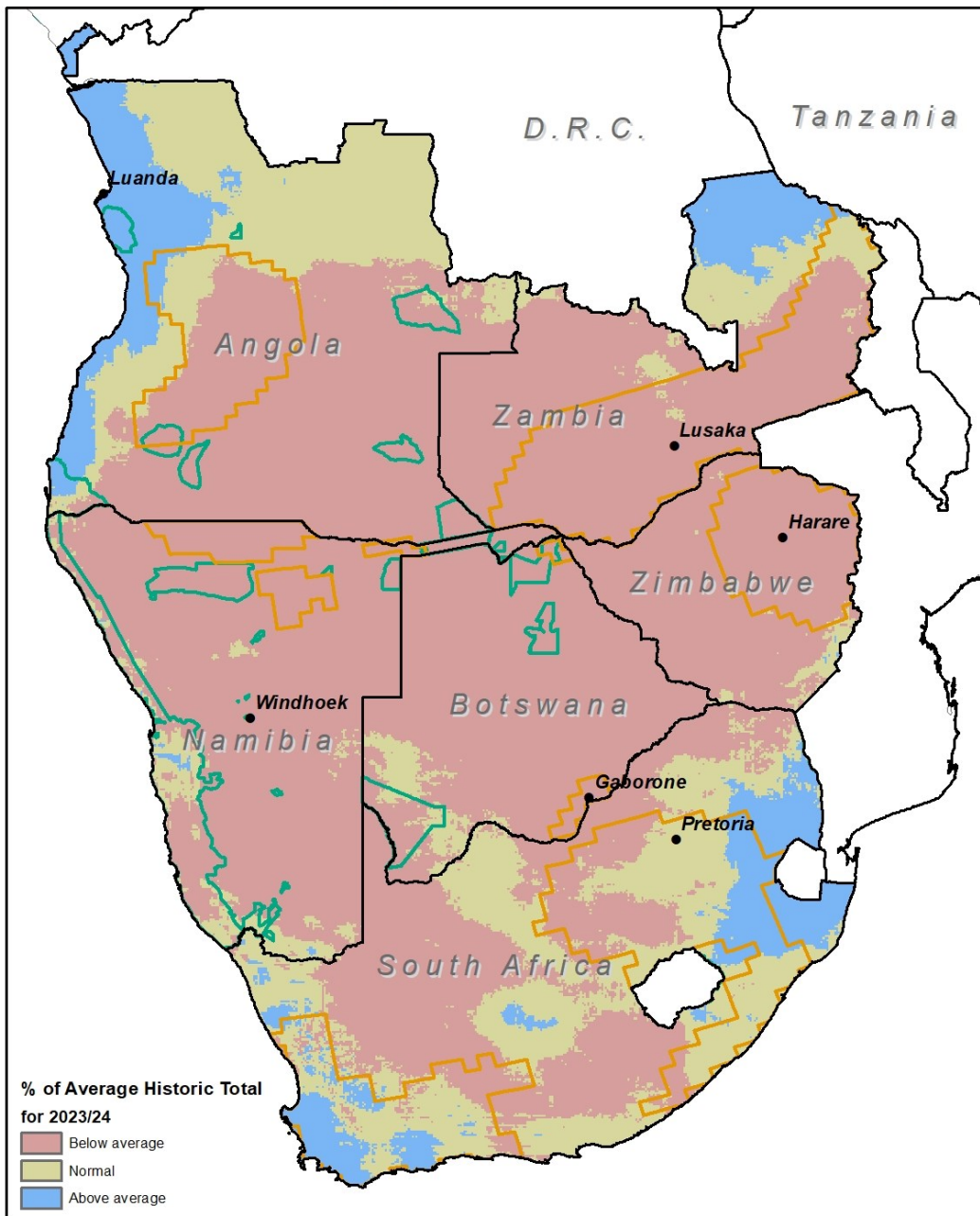


SASSCAL Info Map

Prolonged Drought in southern Africa in 2023/24

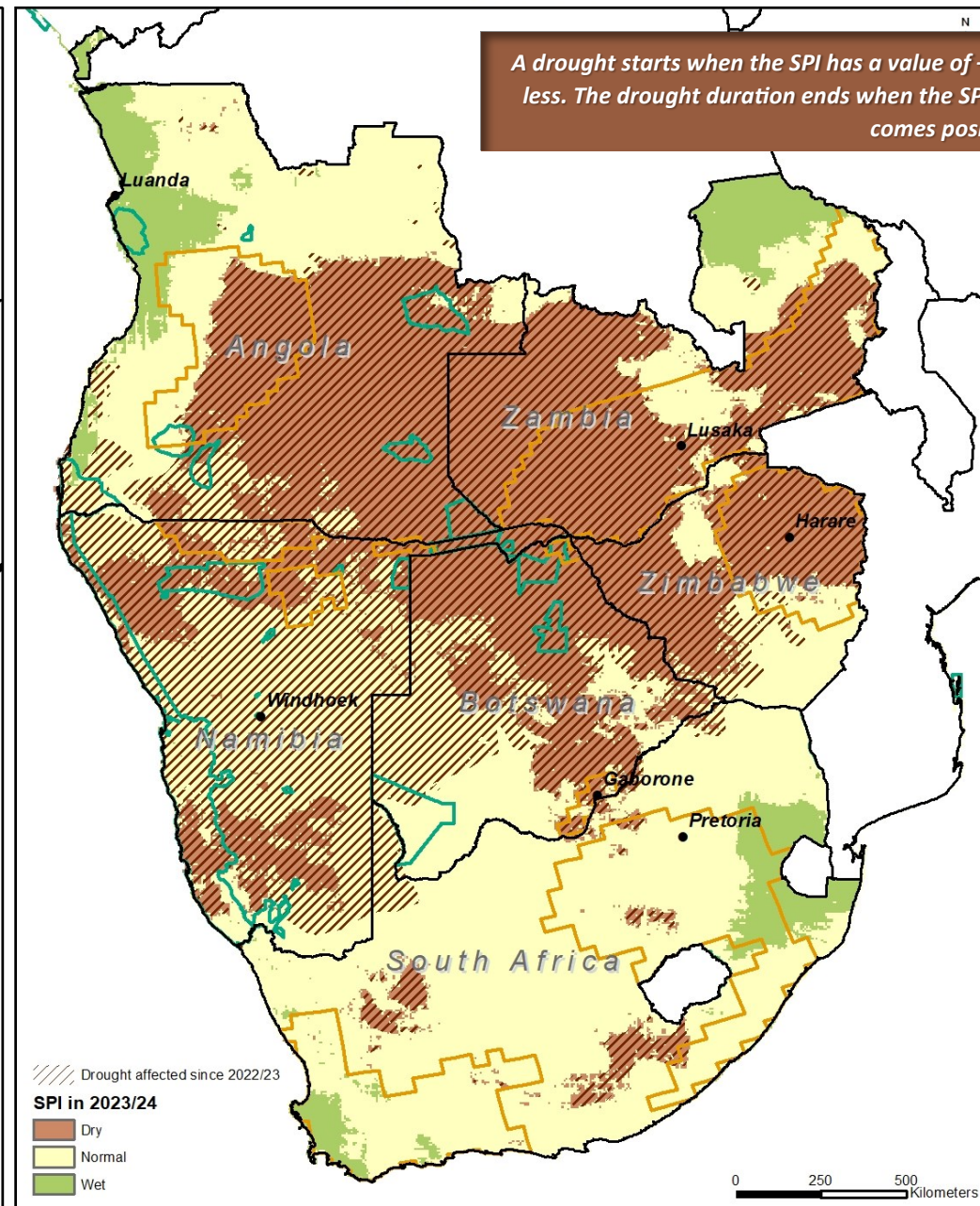
Percentage of Rainfall Total against long term Annual Average

% for 2023/24
 against 1981/82 to 2022/23



Standardised Precipitation Index (SPI) against long term Annual Average

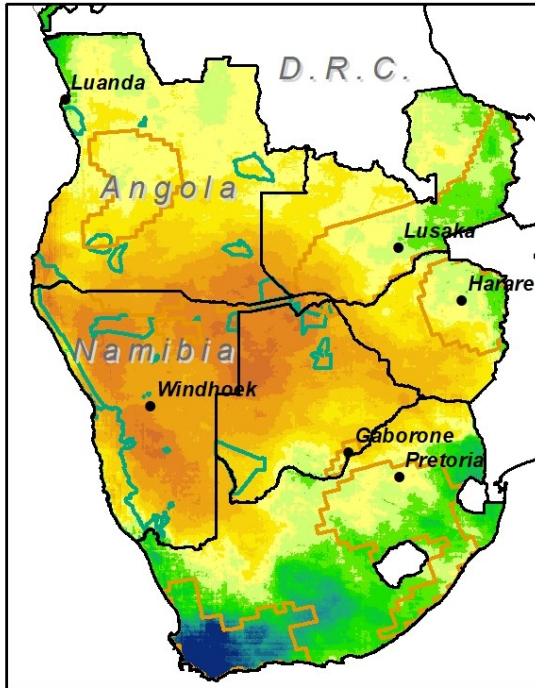
SPI for 2023/24
 against 1981/82 to 2022/23



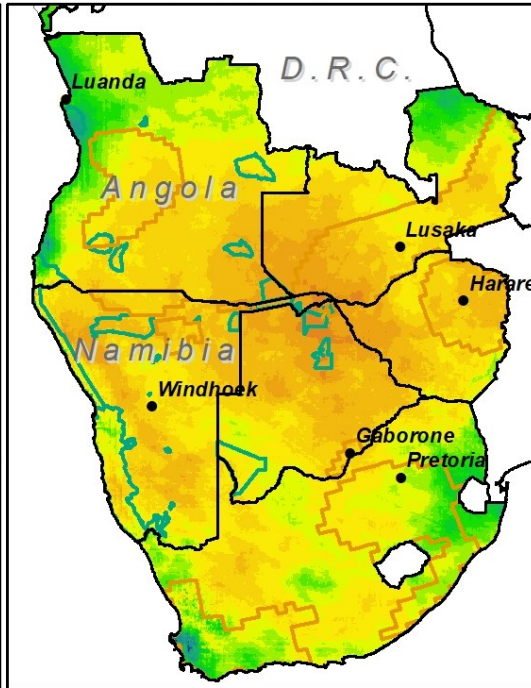
Prolonged Drought in southern Africa in 2023/24

Percentage of Rainfall Total against against long term average

% for 2022/23
against 1981/82 to 2021/22

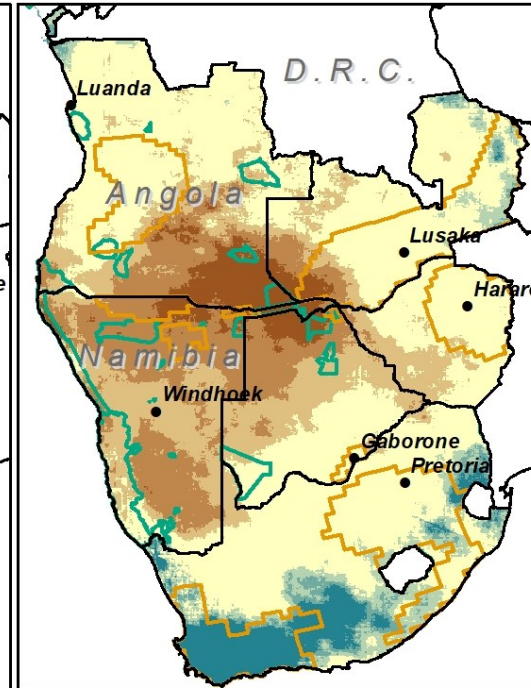


% for 2023/24
against 1981/82 to 2022/23

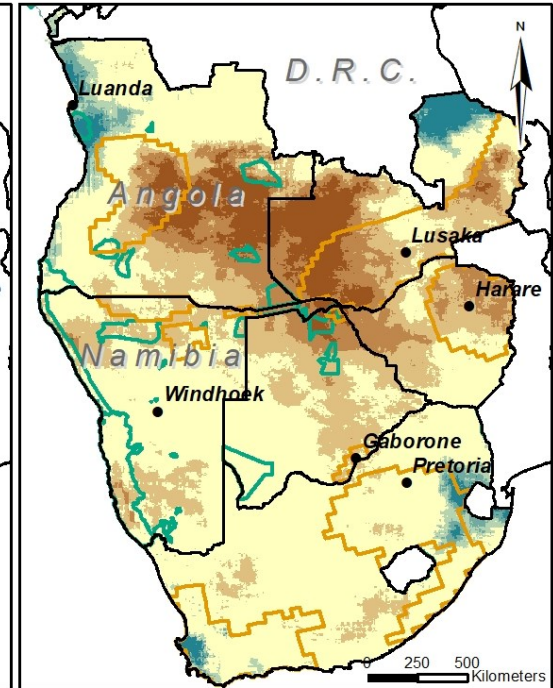


Standardised Precipitation Index (SPI) against long term average

SPI for 2022/23
against 1981/82 to 2021/22



SPI for 2023/24
against 1981/82 to 2022/23

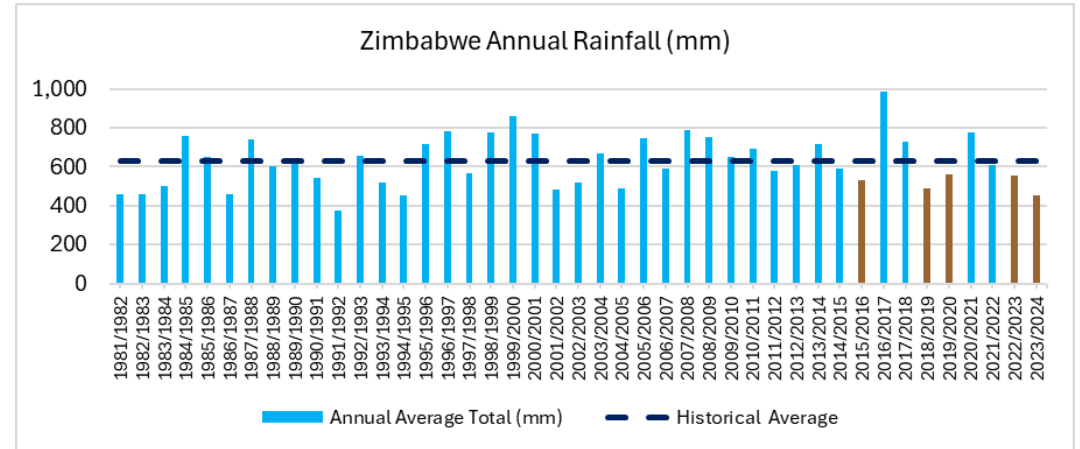
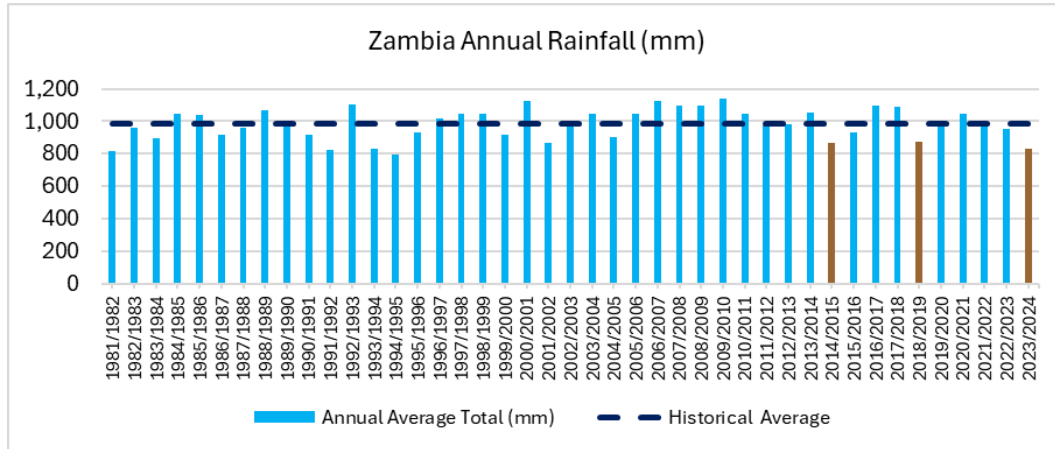
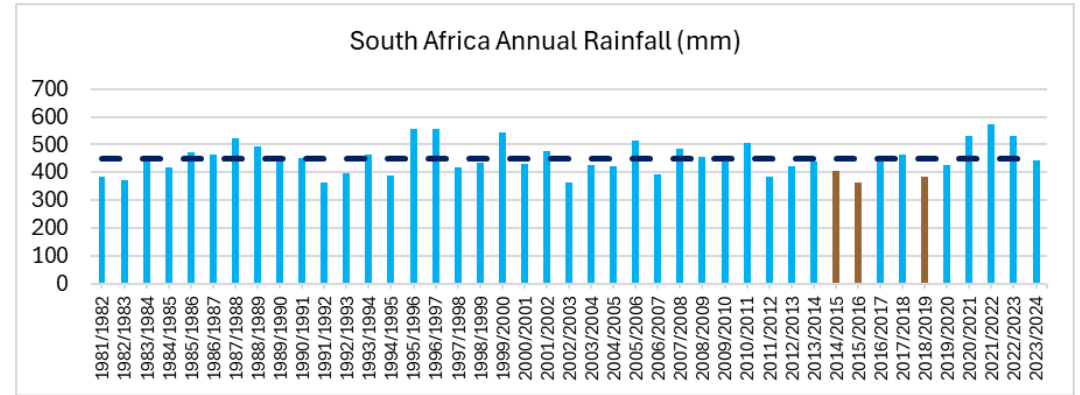
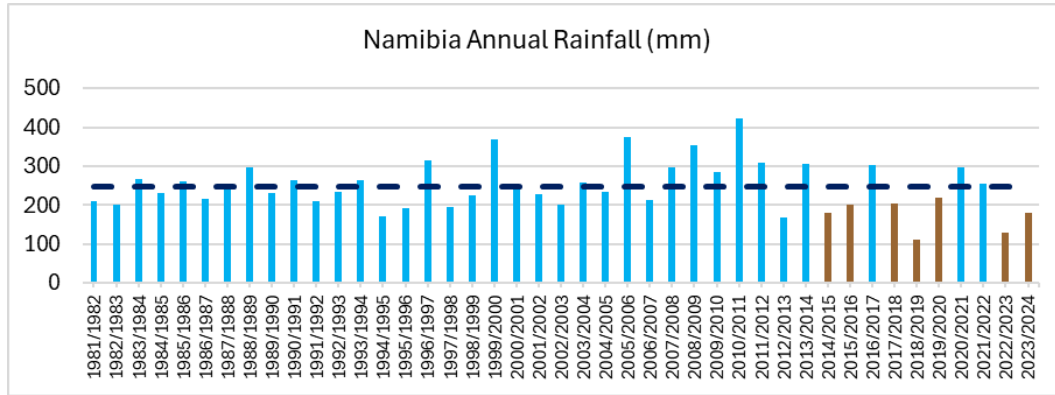
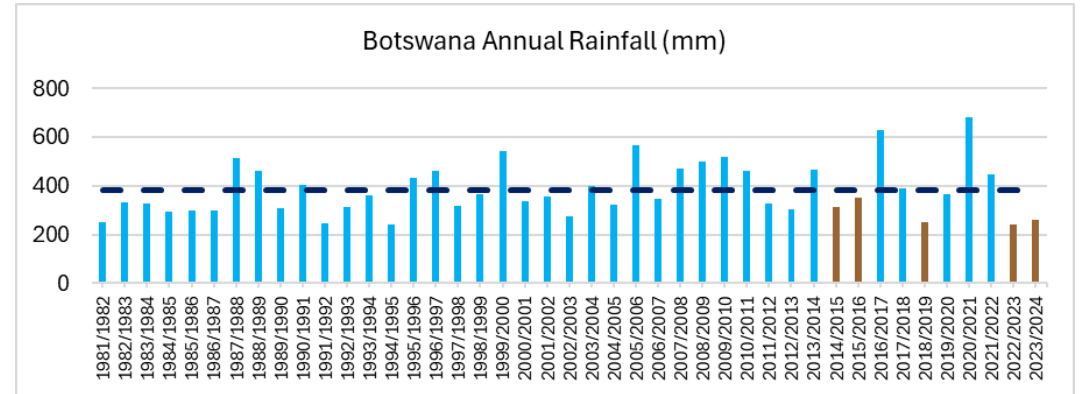
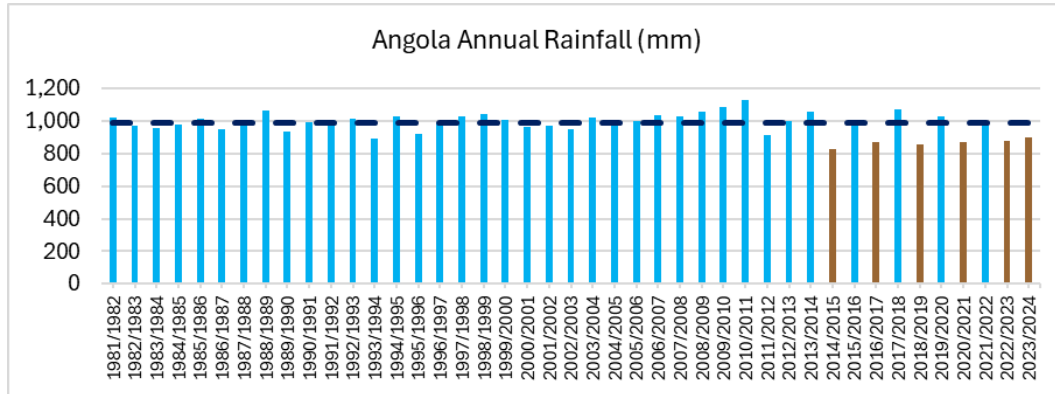


According to *reliefweb*, in 2023/24, southern Africa experienced its worst drought in over 100 years. The severe drought is believed to be a consequence of the impacts of the El Niño event, and a climate-driven crisis. The maps and graphs, derived from 43 years of CHC CHIRPS 2.0 precipitation data, demonstrate that particularly Angola, Botswana, Namibia and Zimbabwe have been suffering from a prolonged drought that already started during the 2022/23 rainfall year.

The WMO (World Meteorological Organisation) recommends that the Standardized Precipitation Index (SPI) be used by all National Meteorological and Hydrological Services to characterise meteorological droughts (WMO 2012). A drought starts when the SPI has a value of -1 or less. The drought duration ends when the SPI becomes positive. Accordingly, it can be derived that large parts of Angola, Botswana, Namibia, Zambia and South Africa already started suffering from a drought during the 2022/23 rainfall year. Drought affected areas have increased during the 2023/24 rainfall year.

While only indicative and averaged over the whole country area, the average annual rainfall totals by country suggest that Namibia has suffered the most droughts in the past ten years, with seven of the past ten years being below average rainfall years. Similarly, Angola has suffered six below average rainfall years in the past ten years. For Botswana and Zimbabwe, five out of the past ten rainfall years have been below average rainfall years. For Zambia and South Africa, three out of the past ten rainfall years have been below average rainfall years.

Prolonged Drought in southern Africa in 2023/24



References:

1. Funk, C., Peterson, P., Landsfeld, M. et al. The climate hazards infrared precipitation with stations—a new environmental record for monitoring extremes. *Sci Data* 2, 150066 (2015). <https://doi.org/10.1038/sdata.2015.66>
2. WMO. 2012. Standardized Precipitation Index User Guide
3. Reliefweb. 2024. Southern Africa: El Niño Regional Humanitarian Overview, September 2024.

Data Source: CHC CHIRPS 2.0 precipitation data from 1981 to September 2024