

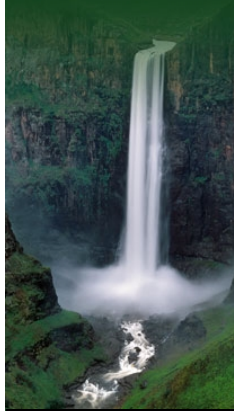
Orange-Senqu

River Awareness Kit

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The River Basin

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Climate and Weather: Principles of Climate and Meteorology: Climate Variability

Climate variability refers to the deviation of climate statistics over a given period of time (for example a specific month, season or year) from the long-term climate statistics relating to that corresponding calendar period. It thus describes how the climate over a comparatively short period varies from long-term climatic averages, often with direct consequences for water resource availability and management. For example, one direct result may be a change in availability of surface and groundwater resources. Individual events such as the El Niño or El Niña Southern Oscillation phenomena, or volcanic activity, can cause significant climate variation.

A critical variable for assessing trends in precipitation and evapotranspiration is the Coefficient of Variation (CV%), which can be applied to monthly meteorological data.

The CV is a statistical measure of the potential seasonal and interannual fluctuations in water availability for regions. Increased climate variability indicates larger year-to-year fluctuations, a higher CV and hence, less predictability in the climate.

CV is seen as a more accurate assessment for water availability than annual average precipitation/evapotranspiration, as it shows the natural year-to-year variability. Higher CV indicates a greater degree of precipitation on a year-to-year basis in a specific area (Schulze 2006). The variability of precipitation and evapotranspiration, both in time and in space across a region, directly influences the availability and variability of surface and groundwater resources.



The climate of the Orange-Senqu River basin is highly variable.
 Source: Vogel 2009
 (click to enlarge)

[Next: Climate Classification](#)

Interactive

Basin Map

Explore the sub-basins of the Orange-Senqu River

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Video Tour

Tour video scenes along the Orange-Senqu River related to the River Basin

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Geography Maps

Investigate land cover and terrestrial ecoregions in the basin

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Water Cycle

Examine how the hydrologic cycle moves water through and around the earth

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Food Web

Explore the interactions of living organisms in aquatic environments

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