

# Orange-Senqu River Awareness Kit

**The River Basin**

- Introduction
- Geography
- Climate and Weather**
  - Principles of Climate and Meteorology
  - Climate of the Orange-Senqu River Basin
  - The Regional Climate
  - Climatic Patterns
  - Climatic Classification**
  - Water Scarcity in the Basin
  - Drought in the Basin
  - Climate Change
- Hydrology
- Water Quality
- Ecology and Biodiversity
- References



**Feedback**

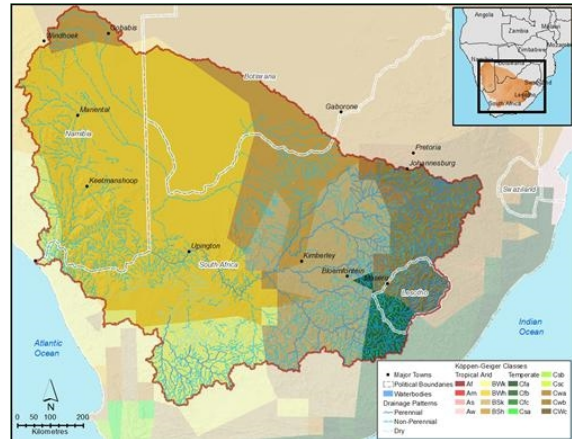
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## Climate and Weather: Climate of the Orange-Senqu River Basin: Climatic Classification of the Orange-Senqu River basin

In the [Köppen climatic classification](#), the Orange-Senqu River basin falls into the B (Dry Arid and Semi-Arid Climates) and C (Moist Subtropical Mid-Latitude Climates) classes.

For more information on the criteria used to define the **Köppen classification**, please refer to the [Physical Geography.net](#) website.

The distribution of these climate classification zones and the sub-divisions are displayed in the map below.

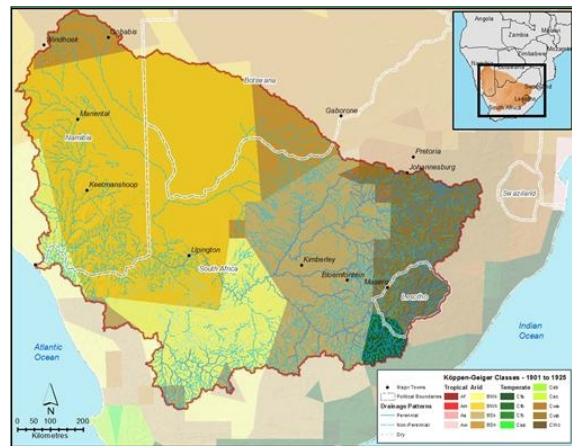


**Köppen classes for climate in the Orange-Senqu River basin.**  
 Source: Kottek et al. 2006  
 (click to enlarge)

For more information on the criteria used to define the [Köppen classification](#), please refer to the University of Veterinary Medicine of Vienna Köppen-Gieger website <http://koepfen-geiger.vu-wien.ac.at/index.htm>

### Climate Classification Modelling

The University of Veterinary Medicine of Vienna has also used historical climate records from the German WeatherService Global Precipitation Climatology Centre (GPCC), to develop a global retrospective assessment of Köppen-Gieger Classes for the period of 1901 to 1925. Furthermore, they have used inputs from global climate models to develop a projected Köppen-Gieger Climate Classification for 2076 to 2100.



**Retrospective Köppen-Gieger Climate Classification for the Orange-Senqu River basin (1901 - 1925).**  
 Source: Rubel and Kottek 2010  
 (click to enlarge)

## Interactive

**Basin Map**

Explore the sub-basins of the Orange-Senqu River

[enter](#)

**Video Tour**

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

[enter](#)

**Geography Maps**

Investigate land cover and terrestrial ecoregions in the basin

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**Water Cycle**

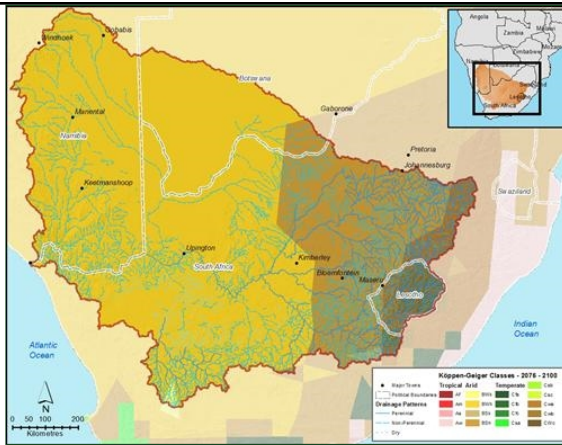
Examine how the hydrologic cycle moves water through and around the earth

[enter](#)

**Food Web**

Explore the interactions of living organisms in aquatic environments

[enter](#)

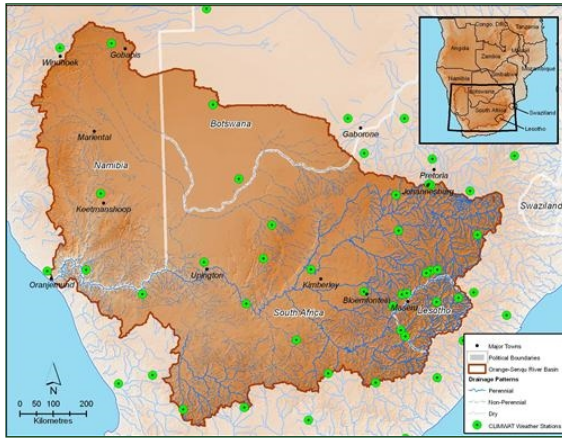


**Projected Köppen-Gieger Climate Classification for the Limpopo River basin (2076 - 2100).**

Source: Rubel and Kottek 2010  
 (click to enlarge)

**Meteorological data availability**

The national meteorological agencies of the Orange-Senqu River basin riparian states have contributed information to the FAO's database of world climate, known as the CLIMWAT database (FAO 1993). Climate data for stations across the basin are available from CLIMWAT (Alemaw and Sebusang 2008). The distribution of these stations is presented in the map below



**Distribution of climate stations contributing to the FAO CLIMWAT database.**

Source: Hatfield 2009, after Alemaw and Sebusang (2008); FAO (1993)  
 (click to enlarge)

**Next: Water Scarcity in the Orange-Senqu River Basin** ►