

Orange-Senqu River Awareness Kit

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The River Basin

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Climate and Weather: Principles of Climate and Meteorology: **Water Scarcity**

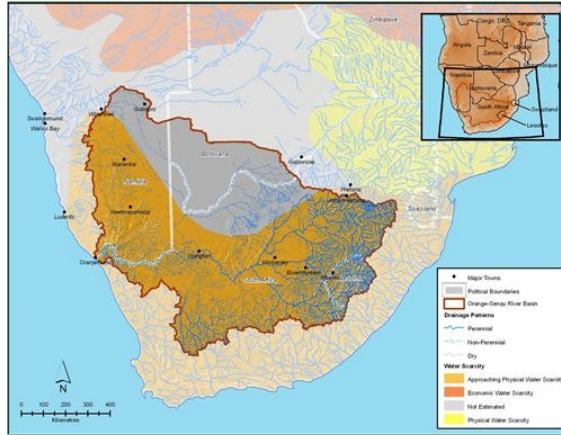
Water scarcity compares **water demand** (or water withdrawal) and **water availability** to estimate the amount of water left over when all demands are fulfilled by available water. It is normally expressed as a ratio (water withdrawal/water availability) and environments with a ratio of 0,4 or more are considered to be in a state of severe water scarcity. **Water Scarcity** is an essential cross-cutting vulnerability issue that should be considered in all development initiatives.

The UN World Water Assessment Programme defines water scarcity as:

- Physical water scarcity
- Economic water scarcity

Physical water scarcity means that water demand or withdrawals exceed or are close to exceeding water availability. **Economic water scarcity** means that even though water may be naturally present, human, institutional and financial issues have limited access to clean water.

This can be seen in the following map from the [United Nations World Water Development Report 3](#) (World Water Assessment Programme 2009).



Water scarcity in southern Africa.

Source: Hatfield 2009, after World Water Assessment Programme 2009 (click to enlarge)



Southern Botswana receives very little annual rainfall.

Source: Department of Water Affairs Botswana 2001 (click to enlarge)

Next: Drought ▶

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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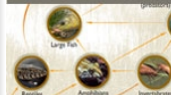
Water Cycle



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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