



Ehenge: marginalized soil with high water use efficiency

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Ehenge is a soil that has been described by the communities of North-Central Namibia during different studies. Farmers consider this soil as nutrient-poor with a deep loose sand layer over a hardpan, called olumha. Despite its low nutrient content, this soil is usually cultivated because it holds water for a longer period than some more nutrient-rich soils. This characteristic is an advantage during growing season with scarce rains. It has been described so far as a (hypoluvic hyperalbic) Arenosol. The sequence of characteristic horizons is as follows: sandy A and E; thin accumulation horizon Bt on top of a Bg horizon. The latter is important for water storage during dry periods (as shown by water soil monitoring data). Management practices for this soil type are very different from other Arenosols, because the water dynamics are very specific, with high percolation rates combined with a high risk of waterlogging. The evolution of agriculture in North-Central Namibia will determine the future use and preservation of these soils, as the presence of hardpan is considered to be a limiting factor for agricultural development. The author demonstrates that this soil has a large potential for agricultural water use efficiency, in an area with very limited water resources and that might face longer dry period as an effect of climate change.