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Indigenous vs. International soil classification system in Ohangwena Region, Namibia

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This poster will present soil diversity in North-Central Namibia, with a focus on soil fertility. It aims to show the correspondence and differences between an international and an indigenous soil classification system.
International classifications, like World Reference Base for Soil Resources (WRB), are very helpful tools to share information in soil science and agriculture. However, these classification are meaningful for large scale soil processes understanding but local specificities cannot be understood and differentiated. On the other hand, knowledge that farmers have on cultivated soils is very accurate and adapted to local agricultural use. However, their knowledge should be properly defined and translated to be used by scientists. Once their knowledge can be read by scientists, it provides very powerful tools for soil mapping and characterization.
Analysis so far has focused on the area of Ondobe (30 km West from Eenhana, Ohangwena region). This area is located between two major systems, the Cuvelai floodplain to the West and the Kalahari Woodlands to the East. While all the cultivated soils from this region would be classified as Arenosols (WRB), the local classification differentiates five major soil types (Omutunda, Ehenge, Omufitu, Elondo, Ehenene). In WRB classification, these soils correspond, roughly, to specific Arenosols, respectively Hypereutric, Albic, Haplic, Rubic and Salic Arenosols.
Further work will evaluate, the local variation inside each indigenous soil types. Hierarchical classification using soil field descriptors will be used to create statistic soil groups. These new groups will then be compared to each classification system.