

Interactive comment on “Local soil quality assessment of north-central Namibia: integrating farmers’ and technical knowledge” by Brice Prudat et al.

Anonymous Referee #2

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This is a very interesting and valuable work which deals with local soil assessment in Namibia by combining ethnopedology (eg. local farmers knowledge) and soil science. A new soil quality toolbox is provided to evaluate soil quality in a fast, cheap and easy way, which can be used by local farmers and researchers. From my point of view, it is an important paper, which could be improved significantly by using an international soil classification (WRB) and description of the different KwSus, making it accessible for a wider audience and allow for international comparison and land management studies in other areas comprising comparable environmental conditions.

This manuscript is written clearly and the data is well documented, however photo-

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graphic documentation of soil profiles (if available) and profile descriptions seem appropriate making it more attractive and better accessible to the readers.

The methodology seems generally adequate. However, I don't fully agree with the argument (page 7, line 23) against the measurement of the Cations exchange capacity. As high contents of carbonates and salts are expected it could be important to know which kind of salts are present to be able to adapt land management.

Also, it is not clear how soil fertility/chemical fertility, used in results and discussion, is defined in this study: Is it the potential of the soil to provide nutrients coming from natural sources or artificial with fertilizers? Or the plant available nutrients? In the results and discussion, the authors refer to chemical fertility, I would suggest replacing chemical fertility with soil fertility, as chemical fertility includes available nutrient contents, which were not measured. In section 3.2, page 10: The authors suggest a high chemical fertility and chemical exchange capacity for the omutunda units. This is misleading since it gives the reader the feeling that this soil is highly fertile. It should be made clear that this is relatively seen.

Fig. 1 needs a reference of the satellite image and hydrology data. A little box indicating the section of the study area in the map of Namibia would be useful. Fig. 2 needs some clarification as it seems that pH and $<20\mu\text{m}$ content were measured in high resolution and vary in depth.

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