

## ***Interactive comment on “Hydrological corridors for landscape and climate restoration: Prioritization of re-greening areas in Kenya and Tanzania” by Judith E. M. Klostermann et al.***

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General comments: Contribution is focused on problems of restoration in Kenya and Tanzania. More accurately it is concentrated on evaluation and prioritization of different areas, which are candidate for restoration. System for evaluation includes soil, water, climate and social institutions also. In this contribution I mostly appreciate, that authors have not only focused on climate in a global scale but on a local scale as well. Moreover, text contains clear description causes of desertification in the sense of direct and indirect way. To my mind authors have prepared useful system for evaluation and for choosing areas which represent localities with more or less same weight. Creating this system looks like time-consuming and authors should seek for a clarification of this

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system

Reply: Thank you for your comment. Also in response to Reviewer 1, more details were added on how degraded areas were defined and how the partial assessments (water, soil, institutional capacity, climate) were made. We believe that with the added details further clarification is given. The reviewer's suggestion to comment on the usefulness of the system is a good one. To this effect, we will include the following statement in Section 7.1 Reflection on the method: "Although the integrated assessment method for selecting Hydrological Corridors requires a number of domain-specific assessments, these can be done simultaneously and can be based on available data, so that a first assessment of opportunities for greening can be made remotely before start of work on the ground. This could make the method appealing for similar assessments in data-scarce environments."

Specific comments: On pages number 5, line 15-20, I can see the information about enhancing soil health using amendments or altering physical and biological properties. You discuss the use of manure or compost for enhancing chemical fertile soil and for improving soil cover. I am missing the information how you can alter biological properties of soil.

Reply: the reviewer is right that little information is presented on how to alter the biological properties of soils. As stated, the SLM measures considered (listed in Appendix A) would mostly affect these indirectly, e.g. by less intensive use of land or replenishing soil organic matter. We feel that it is beyond the scope of the paper to provide further details on this here as it would affect the balance of attention given to the different domains of the assessment system. Moreover, an assessment of how SLM measures affect biological soil properties would be difficult, as such information is usually not available in spatial (map) format.