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.

Anonymous Referee #1

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This manuscript describes the selection process used to identify land areas in Kenya and Tanzania that might support "re-greening" efforts in the development of "hydrological corridors" through the use of "sustainable land management" (SLM) practices, such as afforestation, gully rehabilitation, irrigation, terracing, and so forth. The greater goal of the effort is to assist a non-profit organization from The Netherlands in combating dryland desertification in East Africa. The authors draw largely on existing environmental data to create a GIS-based assessment of which land area(s) might be most suitable for the proposed project. The authors also examine national-level social and economic data to consider possible institutional support for the project. This is an interesting study (although the English language writing needs attention). I have four

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overall comments about this manuscript:

1. The authors assume that the land areas under consideration are "degraded," but do not demonstrate this empirically nor define what they mean by "degraded." The authors also assume that the land areas under study were once "green" (but do not explain what this means; perhaps "not degraded"?) and that these land areas need to be (and should be) "re-greened." Moreover, the authors assume that the people living in these land areas desire to have their lands "re-greened" and to have it done by people from outside their country and culture. These are some hefty assumptions. I think it's necessary for the authors to identify (make explicit) these assumptions and defend them.

2. The authors write that they "used a number of objective criteria for prioritizing potential areas for re-greening interventions," but the culmination of the analysis is a set of subjective rankings used to identify "desired characteristics" by giving high scores to some criteria and low scores to "less favourable ones." The result is a subjective assessment of what the authors feel is "best" for the success of SLM practices. This is ok to do, but the authors need to be up front about this and identify this process as a limitation of the study.

3. The "adaptive capacity wheel assessment" is especially subjective and not culturally sensitive. Moreover, the methods and interpretation of the results (including Table 5) are unclear. While I think it's very important to assess institutional capacity, the application of this particular kind of assessment seems rather biased and even ethnocentric. I think its inclusion in this manuscript weakens the paper.

4. Where do the data come from that were used to create Figures 2-6? How were these images created? This is especially important for Figures 3-6, which are assessments (not measurements). Also, the labels for each of the land areas only appear in Figure 6, and so the authors' observations throughout the manuscript are nearly impossible to follow.

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