



Interactive comment on “Surface and subsurface flow effect on permanent gully formation and upland erosion near Lake Tana in the Northern Highlands of Ethiopia” by T. Y. Tebebu et al.

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Is this true “Loss of soil from gully erosion lowers crop yields, . . .” Response: changed to “reduces agricultural productivity. . .” Add a comma before ‘gully’ in Line 97. Check similar instances somewhere Response: changes made Line 116: replace ‘as we show later’ with “as shown in the results and discussion section of this study” Response: changes made Line 121: add a comma after ‘Nigeria’ Response: changes made I suggest you write ‘interrill’ not ‘inter rill’ Response: changes made Line 149: not important to include the description in the parenthesis. Response: changes made Be consistent

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and use 'sub-watershed' throughout Response: changes made Table 2 needs some editing (last column) Response: changes made Show map of Ethiopia and location of the DM watershed in Figure 1 Response: changes made Legend for figure 2b is not clear. Use larger font size. Response: changes made Use large font for x-axis title on Figure 4 Response: changes made Text in figure 6a is too small to read Response: changes made Line 346: remove one 'period'. Response: changes made Is the unit in Line 451 correct? Do you mean per year? Response: yes, changes made Please check the manuscript for typos. I see some issues. Response: We have checked the manuscript Lines 487-490; But that is not the case at DM watershed. Response: we have added that this is one explanation, and not necessarily the cause in DM, although it is to some extent, as indicated by stakeholders. For the 2005, how did you compute the depth to estimate gully soil loss? Response: we have added that the estimates are based on the areal extent. Quickbird images provide areal extent not depth Response: we have added that the estimates are based on the areal extent. Line 406-408: Is this estimation valid without a depth of gully info? Response: Yes, because we have the stakeholder info that there was no gully prior to 1981, and thus since we can measure the gully extent and depth in 2008, we can estimate the long term average gully erosion rates.

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