

Interactive comment on “The use of remote sensing to quantify wetland loss in the Choke Mountain range, Upper Blue Nile basin, Ethiopia” by E. Teferi et al.

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Reply to comments of referee #2

General comments: This paper uses standard techniques applied to a new geographic area. Because this type of work has not been done in the region investigated, and because it has application to many other parts of the world, I recommend that it be published after some minor corrections. In addition, the results document an important reduction in wetland area in the study area. The paper is well-written overall. The methods section is a bit lengthy considering standard processing steps are involved,

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but perhaps OK because it gives the reader a clear idea of the steps followed.

Response: We are grateful to the reviewer who took the time to review our research paper in detail.

Specific comments:

Comment #1 to #14

Response: We have done the corrections accordingly.

Comment # 15: “Fig.4, why the large decrease in cultivated land?”

Response: One of the reasons to use post-classification comparison change detection technique is because it provides information about the trajectories of change. So according to Table 6 on Page 6275, about 46% (1352 km²) of the existing woody vegetation (Eucalyptus plantation) has come from cultivated land. Therefore the expansion of eucalyptus plantation is growing at the expense of cultivated land. Since the productive capacity of the land is threatened by loss of nutrients through erosion, farmers of the locality are looking for another option. Currently farmers of Mt. Choke prefer Eucalyptus plantation than crop cultivation. In this way they are responding to the decline in crop yield.

Comments #16: “Methods section...I think there is a bit of unnecessary detail in the atmospheric correction and topographic correction sections. Can it be shortened while maintaining critical information?”

Response: We have reduced the contents of Section 3.2.2 (Page 6250 & 6251), Section 3.2.3 (Page 6252), and Section 3.2.4 (Page 6253 & 6254).

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 6243, 2010.