

Response of soil nutrients and erodibility to slope aspect in the northern agro-pastoral ecotone, China

Review:

Abstract:

Line 18: it is better to say how soil erosion is considered **one of** a major environmental and social problem... leads to the **changes in soil physico-chemical characteristic**, impacting plant growth. (Changes in soil characteristics do not implicate degradation).

Line 23: what is typical watershed?

Introduction:

Lines 42 and 43: Please, stick to the comments above.

Line 68: There is currently no soil erosion model that can accurately predict soil erosion rates.... I do not agree. What about radionuclides, which are the mostly recommended technique for estimation soil erosion losses in absolute amounts.

Line 82: which topographic factors? Yes, in the next sentence you mention slope (gradient and position of slope), but you need to precise which else topographic factors in brackets, and emphasize the slope as the most important.

Line 97: ".....soil erosion in this zone is considered very serious". How many? Do you have approximate information in $t\ ha^{-1}\ y^{-1}$?

Line 113: Please, explain why do you think that about hypothesis number 3.

Line 133: Please, put a reference in brackets about rock formation, any official map or reference as you did for the soil types before.

Soil sampling and analysis:

Generally, you need to mention the name of laboratory where the analysis were conducted.

Key factors impacting soil and vegetation related to slope aspect:

Please, throw out the first two sentences and focus on analyzing the results

Please, avoid (in whole manuscript) terminology: "Our study"..., better use "The results of this research" in passive construction.