

Interactive comment on “Trends of streamflow, sediment load and their dynamic relations for the catchments in the middle reaches of the Yellow River in the past five decades” by Z. L. Gao et al.

Anonymous Referee #2

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Trends of streamflow, sediment load and their dynamic relation for the catchment is an important subject currently widely investigated by international water research communities. This manuscript is a fairly concise, well-organized presentation of an interesting and important topic in the areas of water conservation and water resources in China. The results would be useful for local government and water resources management. But I am not sure whether the authors have published the article already. I found a few web sites where similar topics have been published, including an English web site and a Chinese one. For example:

C1692

<http://www.agrpaper.com/trend-of-streamflow-sediment-load-and-their-dynamic-relation-at-watershed-in-the-middle-reaches-of-yellow-river-during-the-past-five-decades.htm>

<http://wenku.baidu.com/view/675879130b4e767f5acfce1e.html>

The authors have to first answer: (1) whether the results have been published elsewhere; (2) for the Chinese article you have published, what are the main differences between this paper and the Chinese one.

If the main results are not yet published before, I recommend this manuscript to be published after major revision after considering comments listed below.

Specific comments:

1) The manuscript should be checked and edited by a native English speaker. 2) The introduction section of this paper is not well written. I think the material is not well organized and not clearly presented. Literature review: There has been significant work completed already in identifying change point of climatic and hydrological variables in China and abroad, and the authors have not been at all comprehensive in summarizing much of this work. These publications should be acknowledged, besides authors should convince the readers the practical merit of their research. 3) I am not convinced that the method to determine change point in mean values and variance is the best way to identify points in the data record where changes have occurred. Many researches have identified change point of hydrological and climatic variables, at the very least, the authors need to convince the readers that the approach that they have selected possesses sufficient statistical power to warrant its selection in preference to one of the available alternative approaches. For example, please explain why you chose Pettitt test to detect change point, but not other test such as Sequential Mann-Kendall test? 4) I agree with your conclusion of the effects of the LUCC on streamflow, sediment load, and their dynamic relations. However, I think the authors should add more discussion about their relation, and at least need to convince the readers understand the

C1693

significance of your research.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 5487, 2012.

C1694