

## ***Interactive comment on “Three-decadal dynamics of mid-channel bars in downstream of the Three Gorges Dam, China” by Zhaofei Wen et al.***

**Anonymous Referee #2**

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The present manuscript introduces a description of the evolution of mid-channel bars (MCB) downstream of the Three Gorges Dam (TGD) in China. Authors used Landsat archive images in order to identify the MCB and describe their evolution in time. The study highlighted the impact of the TGD on sediment transport and also demonstrated that the small bars are more vulnerable and have the highest variability. The manuscript is quite easy to read and well structured, but it is mainly a qualitative study based on observations. I did not find a significant effort in the description of the dynamics driving the shift of the evolution of the bars. Given the macroscopic change induced by the construction of dam it would be interesting to give additional insights on the evolution of this system trying to understand how and when other bars will be affected. In this a numerical analysis on the evolution of the river system may be extremely useful.

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In my personal perspective, the manuscript does not contain any relevant conclusion. The results are quite obvious, the methodology is not innovative and the conclusion irrelevant. It is not surprising to observe that small fluvial bars are the most likely to disappear after a flood. Therefore, I do not understand what is the innovative contribution of the present manuscript beside the construction of the dataset.

The main contribution that may have some value is represented by the dataset reconstructed about the morphological evolution of the river system. Such a data base may be relevant and useful, but I believe that the author should consider to change journal and eventually propose the manuscript for Earth System Science Data or Data in Brief. I do not think that the manuscript can be accepted in HESS with any attempt to provide a physical explanation of the dynamics of fluvial bar and of their mutual interaction with the dam management.

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