

Interactive comment on “A century scale human-induced hydrological and ecological changes of wetlands of two large river basins in Australia (Murray) and China (Yangtze): development of an adaptive water resource management framework” by G. R. Kattel et al.

Anonymous Referee #2

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The author discussed the long term impacts of human activity on hydrological and ecological regimes shifting in two world's large river basins. I found the article is well written; the topic is interesting and should find a relatively wide audience. I do have some questions:

1. What do the changes of N₂ imply in terms of human activities (e.g. construction dams)? I know the author discussed it in the paper or maybe I missed it. But perhaps

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the authors could elaborate a bit more on how this change is induced by human activity? What is the final consequence to the environment (say, dominance/distinct of one species leads to what consequence)?

2. The ecosystem of a basin might also be affected by other drivers other than only water quantity and quality. Have the authors consider other factors (e.g. nutrients)? Or can the authors justify the use of water quantity and quality as the only drivers?

3. In my opinion, the proposed adaptive WRM framework is rather vague and there is a lack of detailed contents. It is based on three pillars, but nothing more than that (with only one example in Yangtze Basin) and it is not at all into detail. I think the three bullet points that might have been mentioned in one way or another in literatures do not form a detailed innovative framework. The added value of this paper, in my opinion, should be the development of this framework. Therefore, I would suggest that the authors expand this section as it highlights the core of this paper.

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