

Interactive comment on “Assessing ecosystem services under water stress in the largest inland river basin in China based on hydro-ecological modeling” by Yang Yu et al.

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Dear referee, thank you very much for your valuable comments. Before thoroughly consideration on all the comments point-by-point, I would like to mention that the hydrological modeling processes, including model parameterization, calibration, boundary conditions and modeling challenges have already been discussed in our previous publications:

Yu, Y., Disse, M., Yu, R.D., et al. (2015). Large-Scale Hydrological Modeling and Decision-Making for Agricultural Water Consumption and Allocation in the Main Stem Tarim River, China. *Water.*, 7, 2821-2839. Yu, Y., Yu, R., Chen, X., et al. (2017). *Agri-*

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cultural water allocation strategies along the oasis of Tarim River in Northwest China. *Agricultural Water Management.*, 187, 24-36.

In addition, other aspects of water resource management can also be supported by authors from our research group:

Cyffka, B., Rumbaur, C., Disse, M., et al. (2013). Sustainable management of river oases along the Tarim River (P.R. China) and the ecosystem services approach. *Geography, Environment, Sustainability.*, 6, 77-90. Duethmann, D., Menz, C., Jiang, T., et al. (2016). Projections for headwater catchments of the Tarim River reveal glacier retreat and decreasing surface water availability but uncertainties are large. *Environmental Research Letters.*, 11, 054024. Patrick, K., Markus, D., Halik, ümüt. (2015). Effects of Land Use and Climate Change on Groundwater and Ecosystems at the Middle Reaches of the Tarim River Using the MIKE SHE Integrated Hydrological Model. *Water.*, 7, 3040-3056.

This paper is a summarizing paper for the 5-year Sino-German collaboration research project SuMaRiO (Sustainable Management of River Oasis along the Tarim River). We try to present our important research outcomes which would give warnings to decision-makers and benefit on regional sustainability. I agree some parts of the article are too vague and unclear. Thank you very much for the comments. We shall carefully think about the problems and revisions in the next steps.

Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, <https://doi.org/10.5194/hess-2020-80>, 2020.

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