

General comments

The revision is a significant improvement over the first manuscript version: the introduction is now relevant and well referenced, the paper is better structured and easier to follow, and the convergent cross mapping is introduced to solve the causality issue. However, I am still concerned about the claim on 90 % recycling ratio and hope the authors can address it.

The authors claim in the abstract that “Comparison of water volumes associated with in-mountain production of rainfall and snowmelt with that associated with evaporation in the oases revealed that about ~90% of the water flowing downslope to the oases was eventually returned to the Qilian Mountains as water vapour generated in the lowlands”. It seems, thus, that the authors base this claim entirely on the fact that the amount of the basin-wide precipitation and snowmelt correspond to about 90 % of the basin-wide evaporation. Possibly, the authors mean that wind directions, lack of nearby oases, bidirectional feedback based on convergent cross mapping, and orographic lifting may be indicative of a high recycling ratio. Comparison of water volumes is not sufficient to reveal the level of recycling. Because, theoretically, the amount of precipitation and snowmelt in the mountains could very well match the amount of oases evaporation, even if **all** evaporation from the oases would leave the river basin and **all** precipitation in the mountains would be fed by evaporation from elsewhere. It seems to me that it may be valid to claim that oases evaporation is likely to be important for mountain precipitation, but not valid to claim that the returning flow amounts to about 90 %. If the wind directions, orographic precipitation, and surrounding deserts **exclude** the possibility of significant external contribution, the authors should emphasize and elaborate on that to avoid misunderstandings. Perhaps the authors could consider to either clarify and strengthen their arguments, or soften their claim? (In fact, in the conclusion, the authors use the wording “seems to indicate” instead of “reveal”, which is at the other end of the uncertainty/certainty terminology scale.)

Specific or technical comments

L.156-162: The units for different water flows are sometimes kg m⁻² y⁻¹ and sometimes m³ y⁻¹.

L.371-372: Why “0.0” and not just “0”?

L. 401-402: For clarity, perhaps specify which “related timeseries” and/or “paired variables” you refer to.

Fig. 8: The legend for (c) and (d) did not include the circled and boxes for direct rainfall and snowmelt.

The reference Clark et al. 2014 should be 2015.

Regarding colour blind friendly colour schemes, see for example: Light and Bartlein (2004) The End of the Rainbow? Color Schemes for Improved Data Graphics. Eos, Vol. 85, No. 40. Available from: http://geography.uoregon.edu/datagraphics/EOS/Light-and-Bartlein_EOS2004.pdf