

Interactive comment on “HESS Opinions: A Planetary Boundary on Freshwater Use is Misleading” by Maik Heistermann

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Received and published: 22 May 2017

In AC9, I suggested that any revision of the freshwater PB should be *explicit* about the processes which we think might be able to “*push the Earth system outside the stable environmental state of the Holocene*”, and also be *explicit* about our existing knowledge gaps. If, e.g., the disruption of terrestrial moisture recycling is considered crucial, then the boundary should be redefined accordingly, including an explicit acknowledgement of our fundamental gaps in qualitative and quantitative understanding. Fig. 1 of this addendum exemplifies (!) how such a revision might look like in terms of the main PB figure. To be sure, however, such a step would still not answer why regional (or “cross-scale”) processes should be represented by a global number.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2017-112, 2017.

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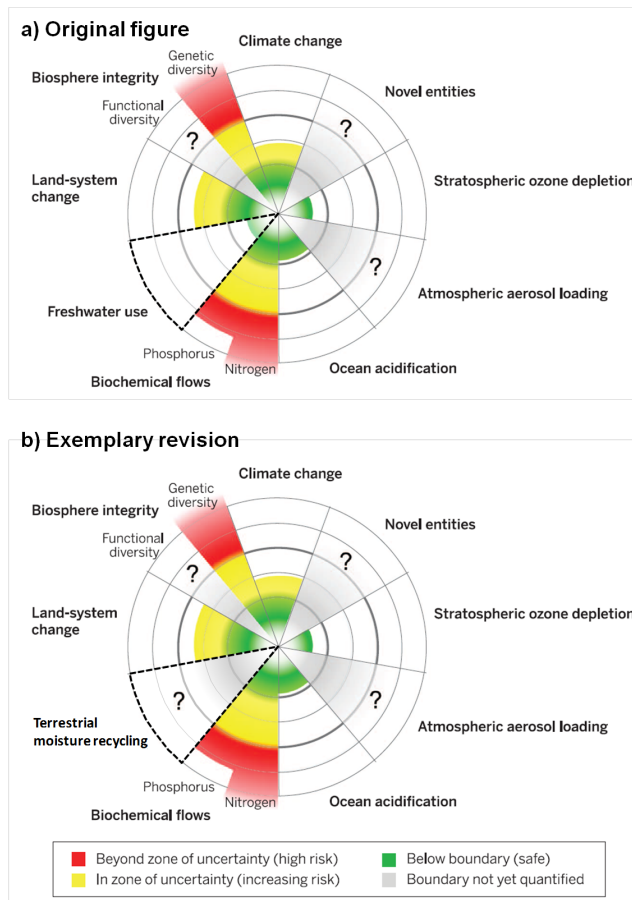


Fig. 1. (a) shows the original core figure of the PB framework; (b) exemplifies the idea of being "explicit" with regard to the processes and our existing knowledge gaps.

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