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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Climate change and runoff contribution by hydrological zones of cryosphere catchment of Indus River, Pakistan" *by* Kashif Jamal et al.

Anonymous Referee #2

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This paper addresses a very important topic and basin. The changing headwaters of the Indus are of major societal concern, because of downstream effects, and the science is challenging and poorly understood. However, the paper at its current stage of development is not yet publishable. It needs: A clearer review of the relevant international literature relating to Himalayan climate change and flow studies Justification for the hydrological model selected, including relevant comparable applications Modelling methodology to be more fully explained. How was the model optimized given limited data, what criteria were used, what temporal resolution. How were multiple elevation zones fitted without supporting flow data? The paper speculates about the future of snow covered area and uses this in simulations. However there is no explanation, dis-

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Discussion paper

cussion or justification given for the changes Future climate scenarios are reported to be wetter, but flows are said to decrease. How can this be? Finally, the paper is generally written at a level of English that is not suitable for publication. The authors should take advice on the English presentation in any further submission.

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