Challenges in modeling of hydrology and water resources under climate change in high mountains in Asia

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Modeling of hydrology and water resources in high mountains in Asia should be a major topic in next stage of GEWEX RHP in Asia. In this presentation, I am going to discuss its difficulties and state-of-the-art tools to overcome the difficulties, by showing some examples of very recent results around me including the modeling of debris impact on melting in a high-resolution modeling and the effect of precipitation and temperature data on future projection.