

## **Description of Additional Supplementary Files:**

**Supplementary Dataset 1:** Results of this study. Each file contains the results of annual and seasonal precipitation, runoff, evapotranspiration change, annual snow cover and glacier area change of 22 CMIP6 GCM models under different scenarios. And the averaged annual and seasonal contribution of rainfall runoff, snowmelt runoff, and glacier runoff of 22 CMIP6 GCM models for different scenarios.