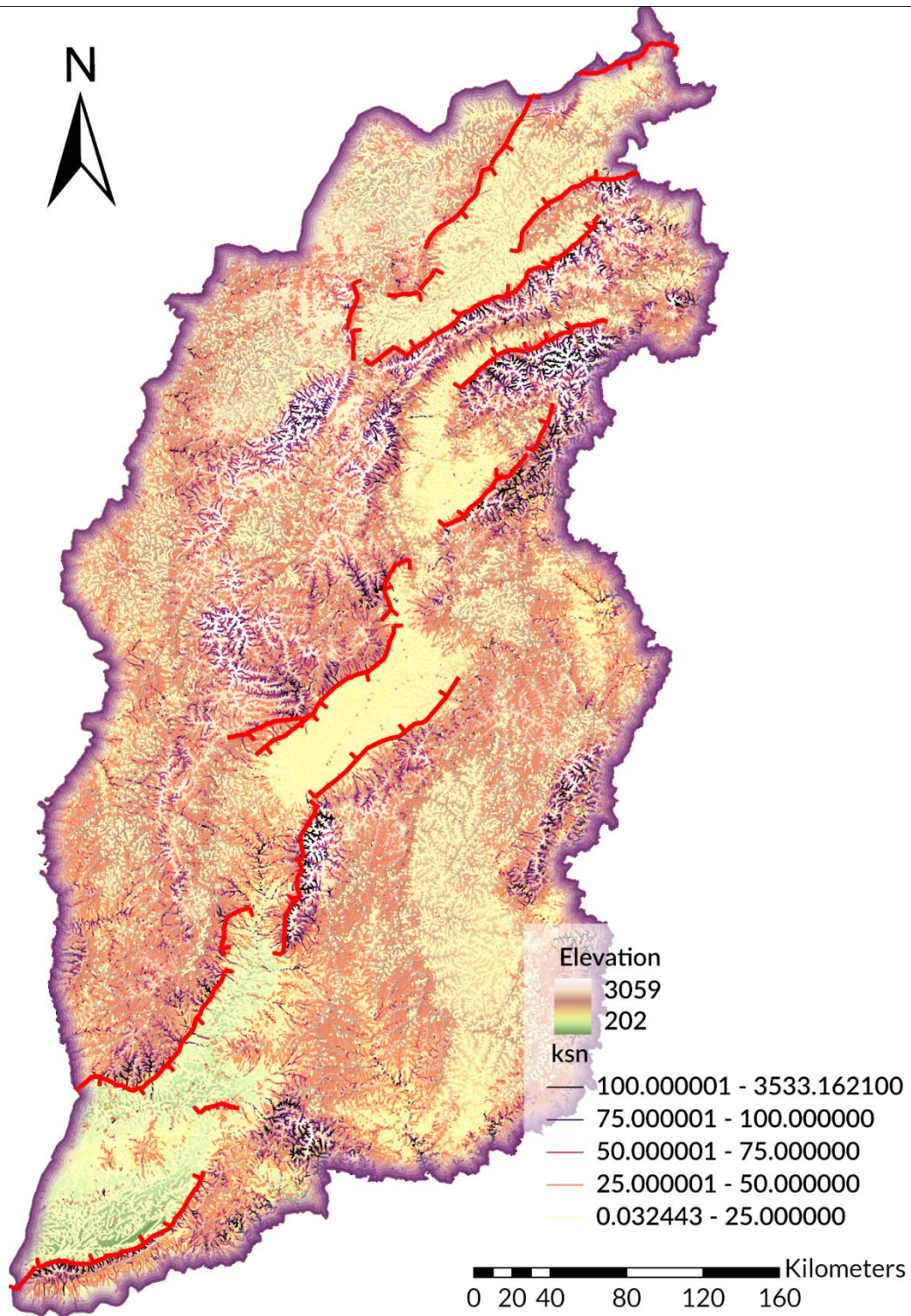


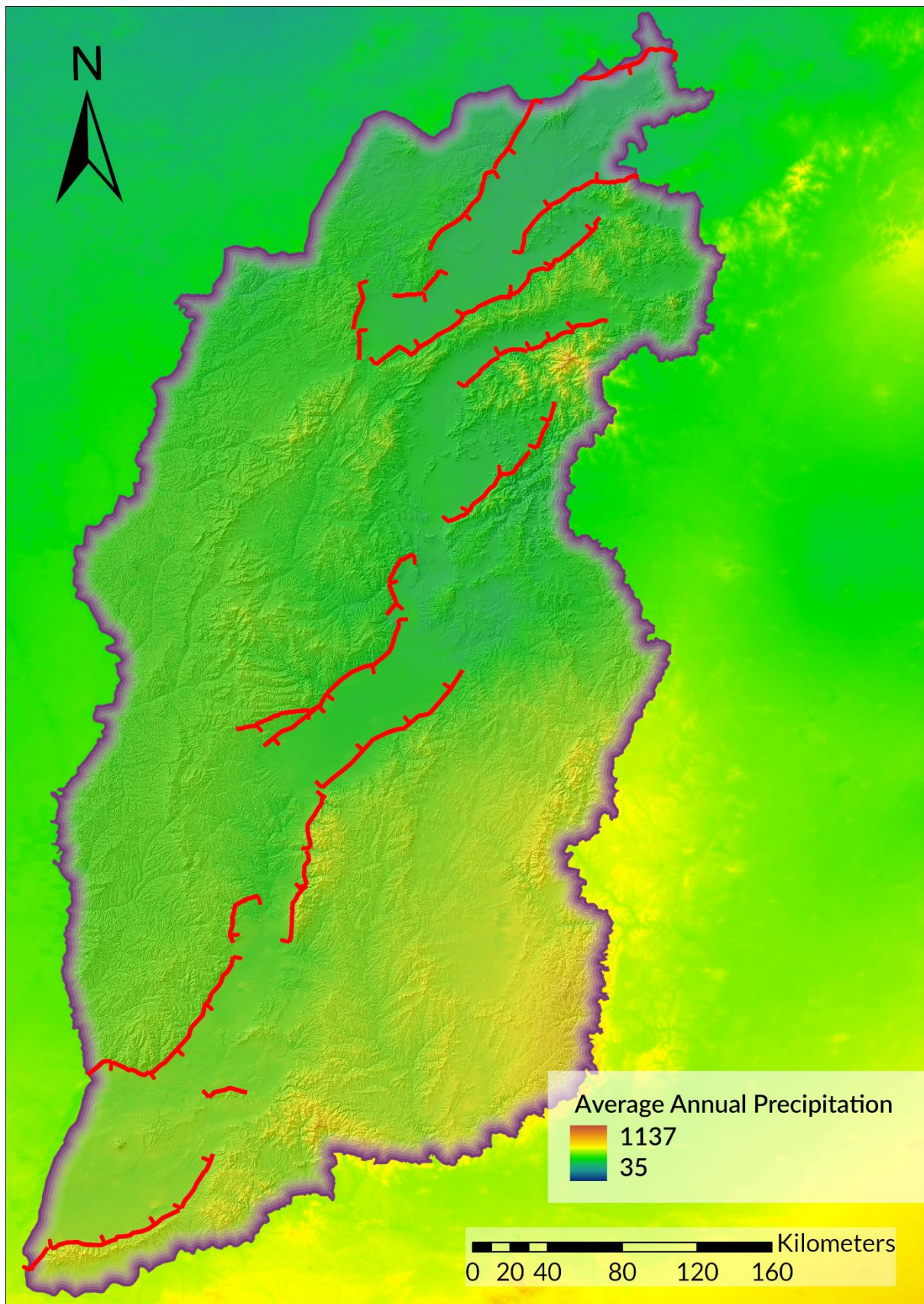
## Supplementary Materials

S1 – Streamnetwork map of the normalised channel steepness of the Shanxi Rift. See Fig. 5B of the main manuscript to compare with the basin averaged  $k_{sn}$  distribution



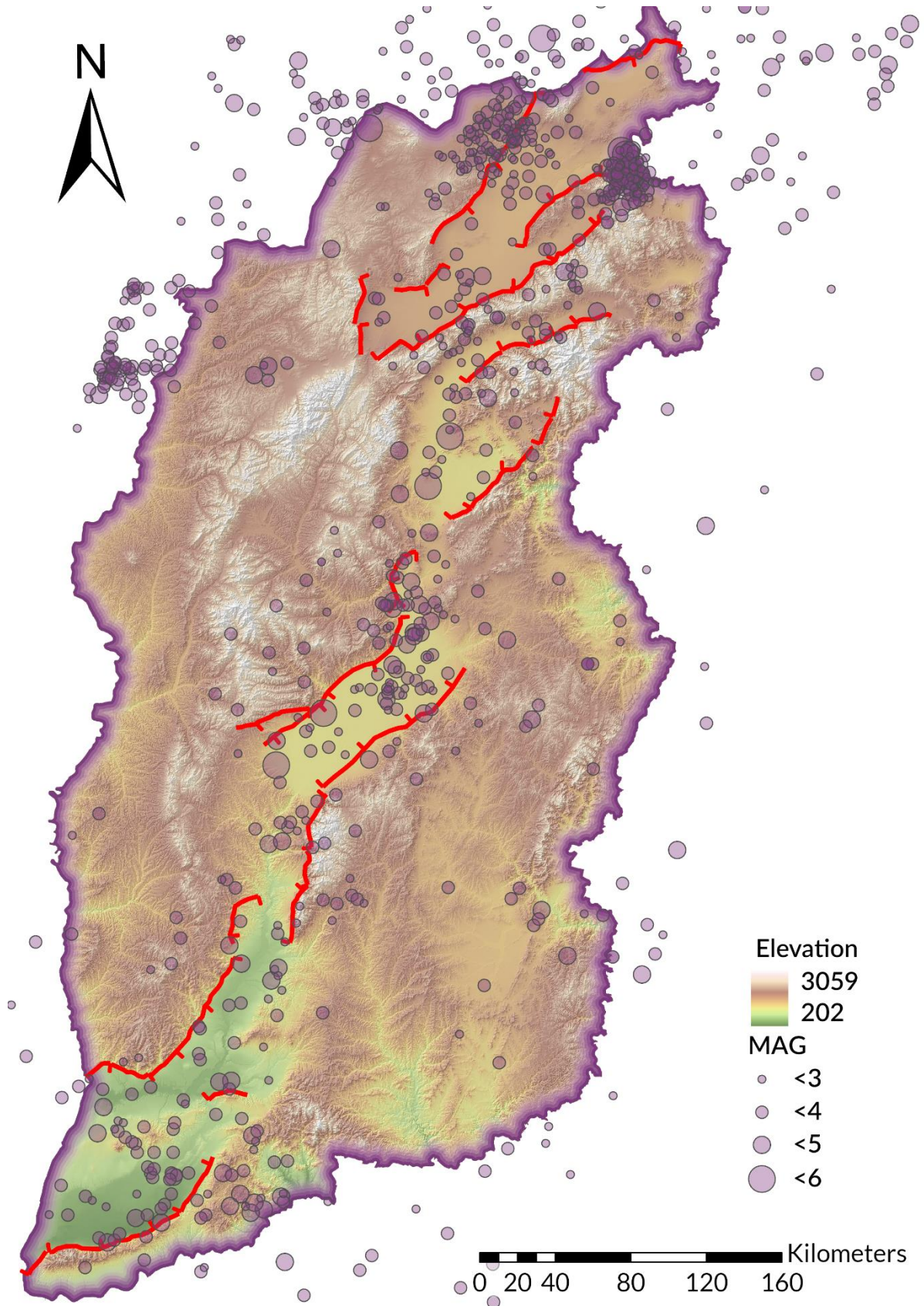


S2– Average annual precipitation of the Shanxi Rift showing little variation in precipitation across the area. Data from WoldClim2 (Fick and Hijmans, 2017)





S2– Topographic map of Shanxi with fault and Earthquakes from the ISC catalogue (Storchak et al., 2013; 2015; Di Giacomo et al., 2018) shown. Note the clusters of earthquakes in the RIZs



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