

Figure S1: Analyzing the relationship between drought severity and duration, using SSI-1 and SSI-6 for Chenab and Jhelum. Each subplot includes scatter plots (center) depicting correlation (R^2 values are also reported) between drought duration and severity, and marginal density plots of duration (top) and severity (right).

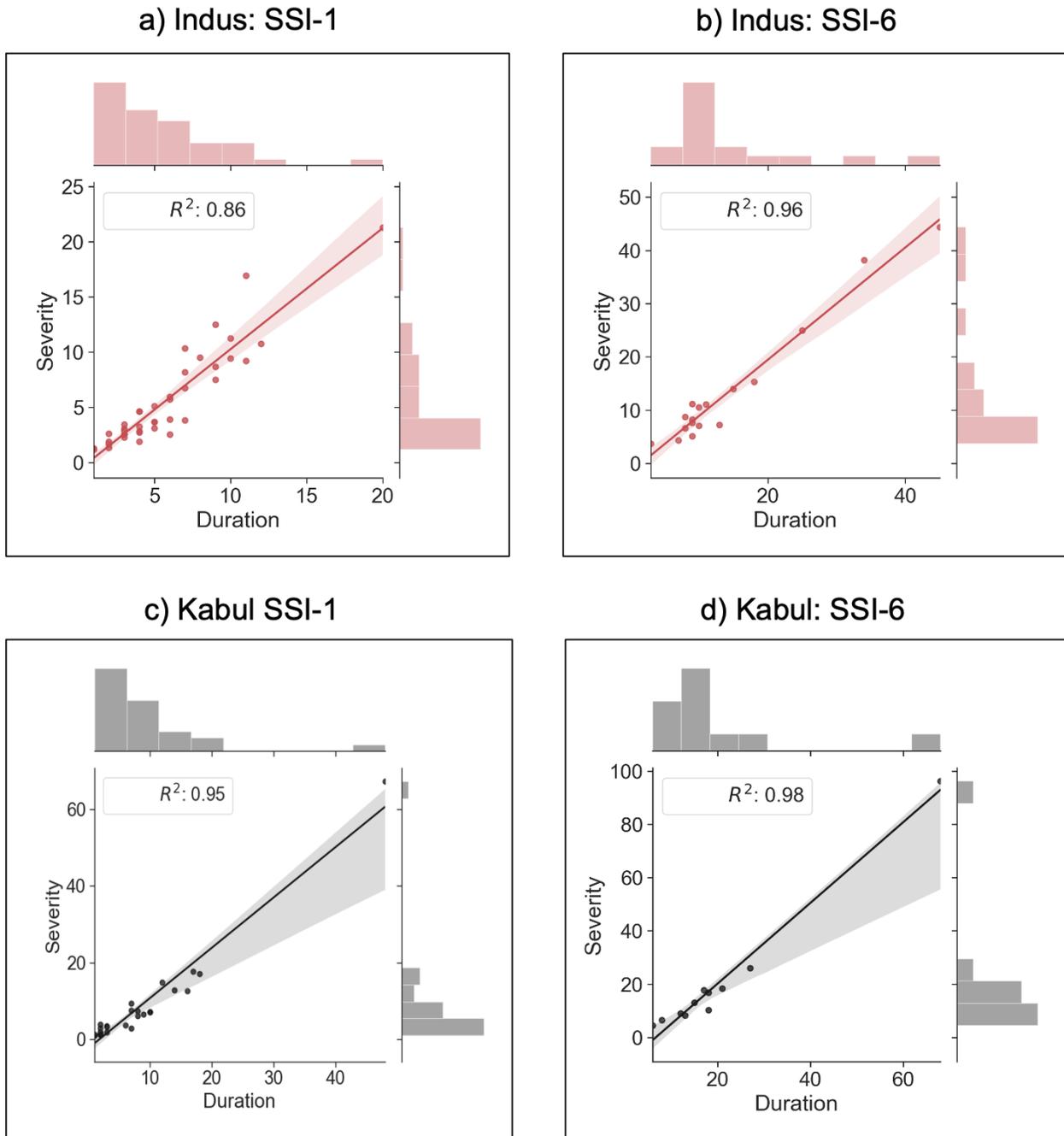


Figure S2: Analyzing the relationship between drought severity and duration, using SSI-1 and SSI-6 for Indus and Kabul. Each subplot includes scatter plots (center) depicting correlation (R^2 values are also reported) between drought duration and severity, and marginal density plots of duration (top) and severity (right).

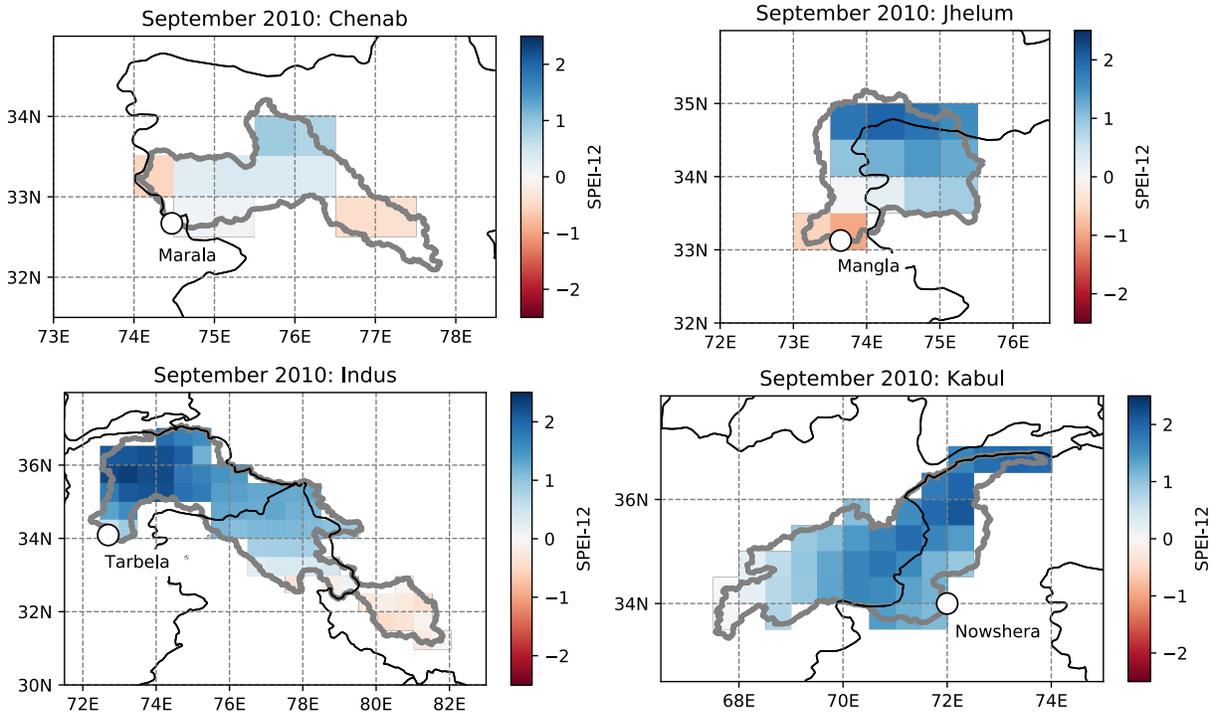


Figure S3: Spatial representation of the flood event of 2010 (flood event was observed in Indus, Jhelum and Kabul sub-basins only), in the Upper Indus sub-basins of Pakistan, i.e., a) Chenab, b) Jhelum, c) Indus and d) Kabul, using gridded SPEI-12 values of September 2010.