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Hydrology and
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Discussions



Supplement of

Global warming increases the frequency of river floods in Europe

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Supplementary figures

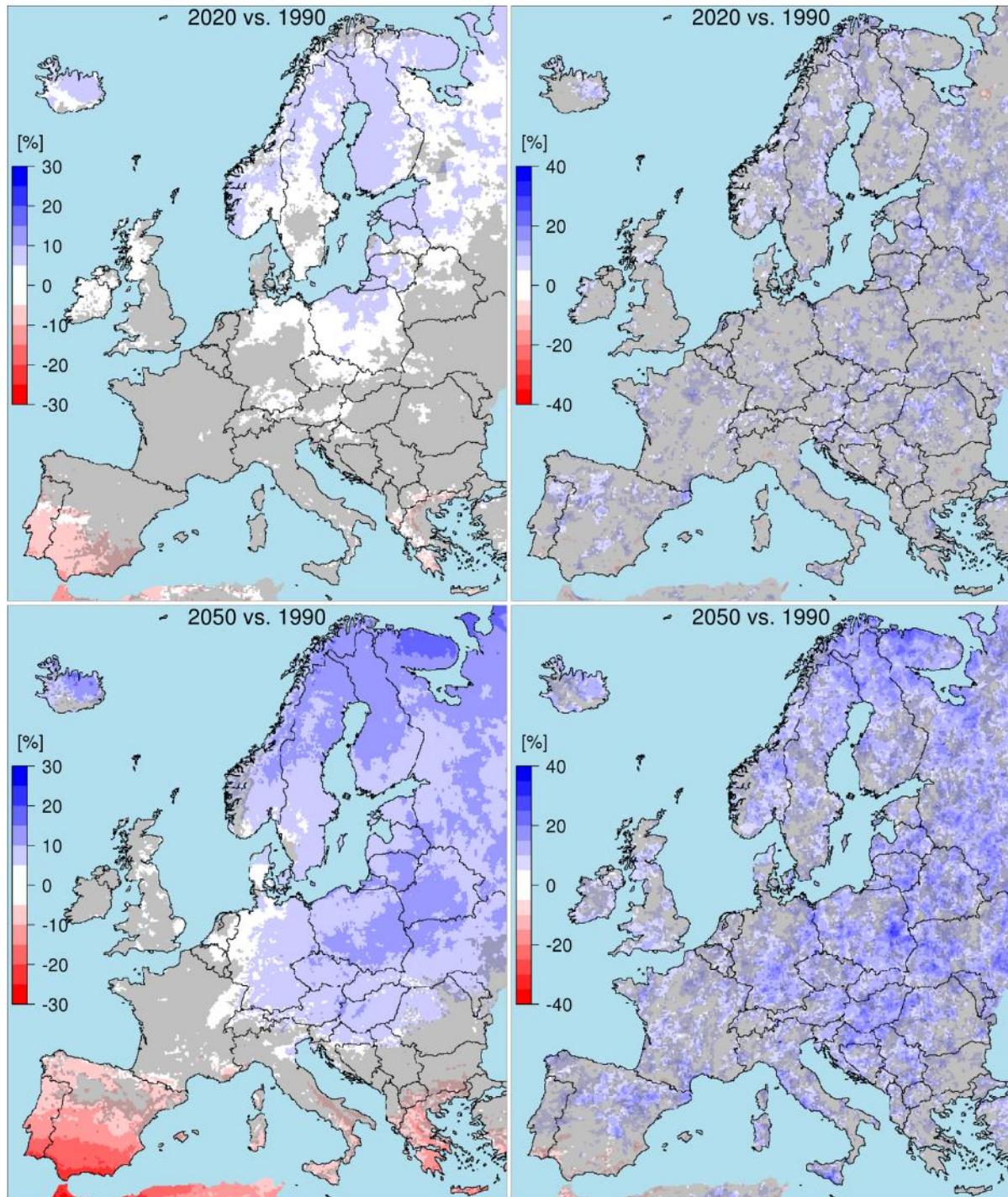


Figure S1: Relative change in annual precipitation (pr_{year} , left) and annual maximum daily precipitation (pr_{MAX} , right) for the time slice 2006-2035 (top) and 2036-2065 (bottom). Data points with $CV > 1$ are greyed out.

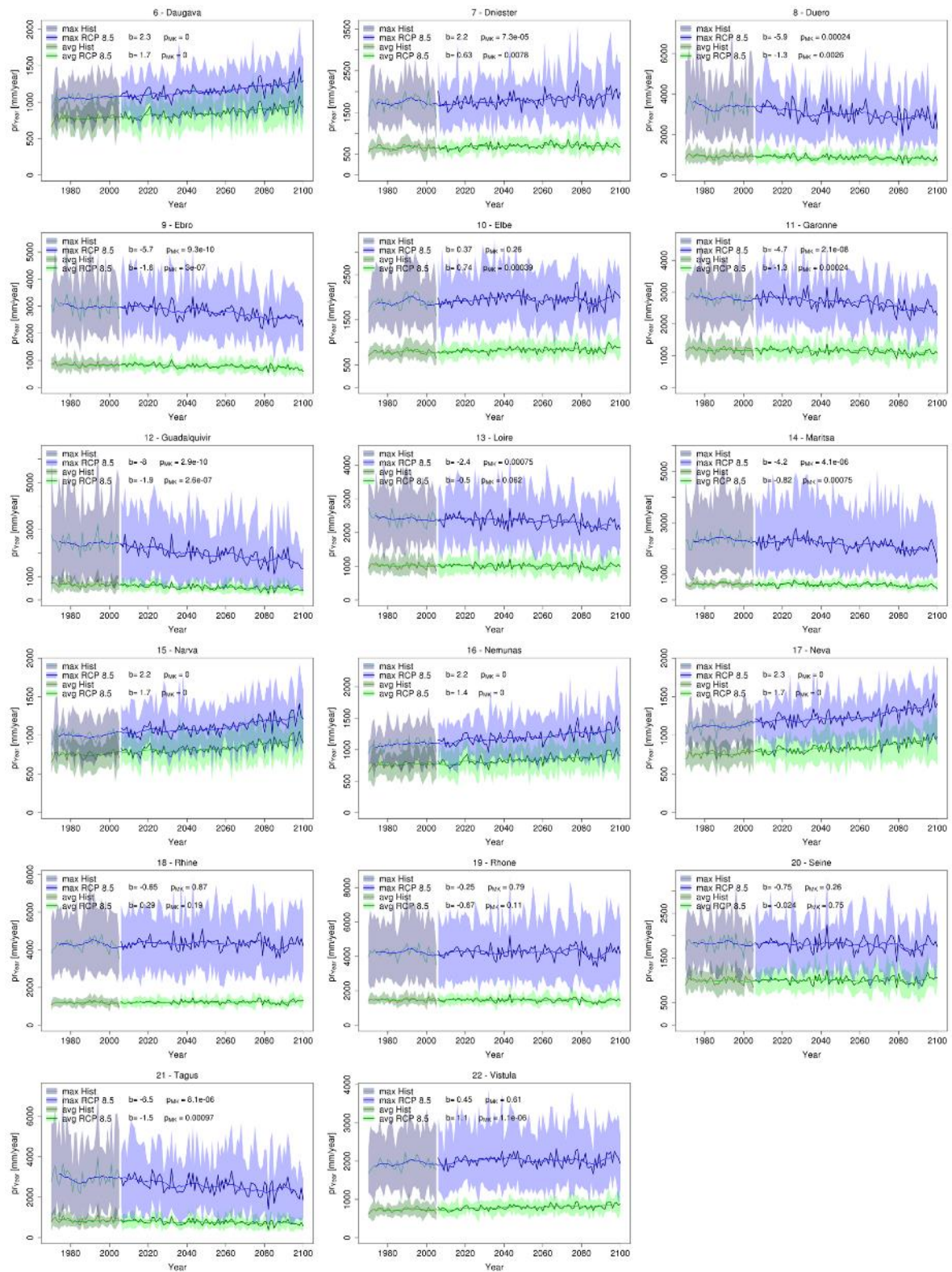


Figure S2: Annual precipitation total (pr_{Year}) for selected European river basins over time. Basins location is shown in Figure 1 (in yellow). Basin average (green shades) and maximum point value (blue shades) of the ensemble are shown together with the ensemble mean (thick lines) and the 10-year average (thin lines).

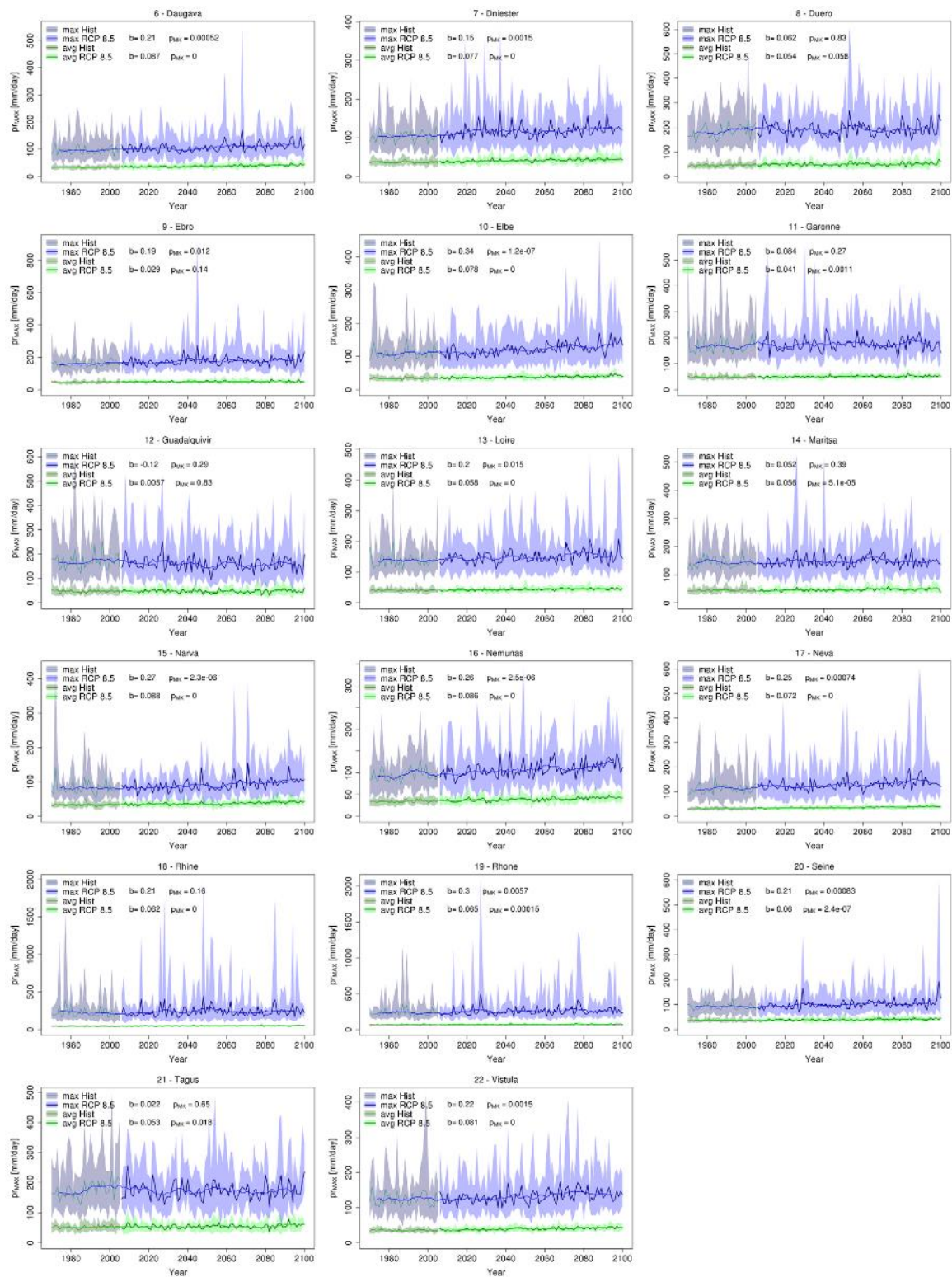


Figure S3: Annual maximum daily precipitation (p_{MAX}) for selected European river basins over time. Basins location is shown in Figure 1 (in yellow). Basin average (green shades) and maximum point value (blue shades) of the ensemble are shown together with the ensemble mean (thick lines) and the 10-year average (thin lines).

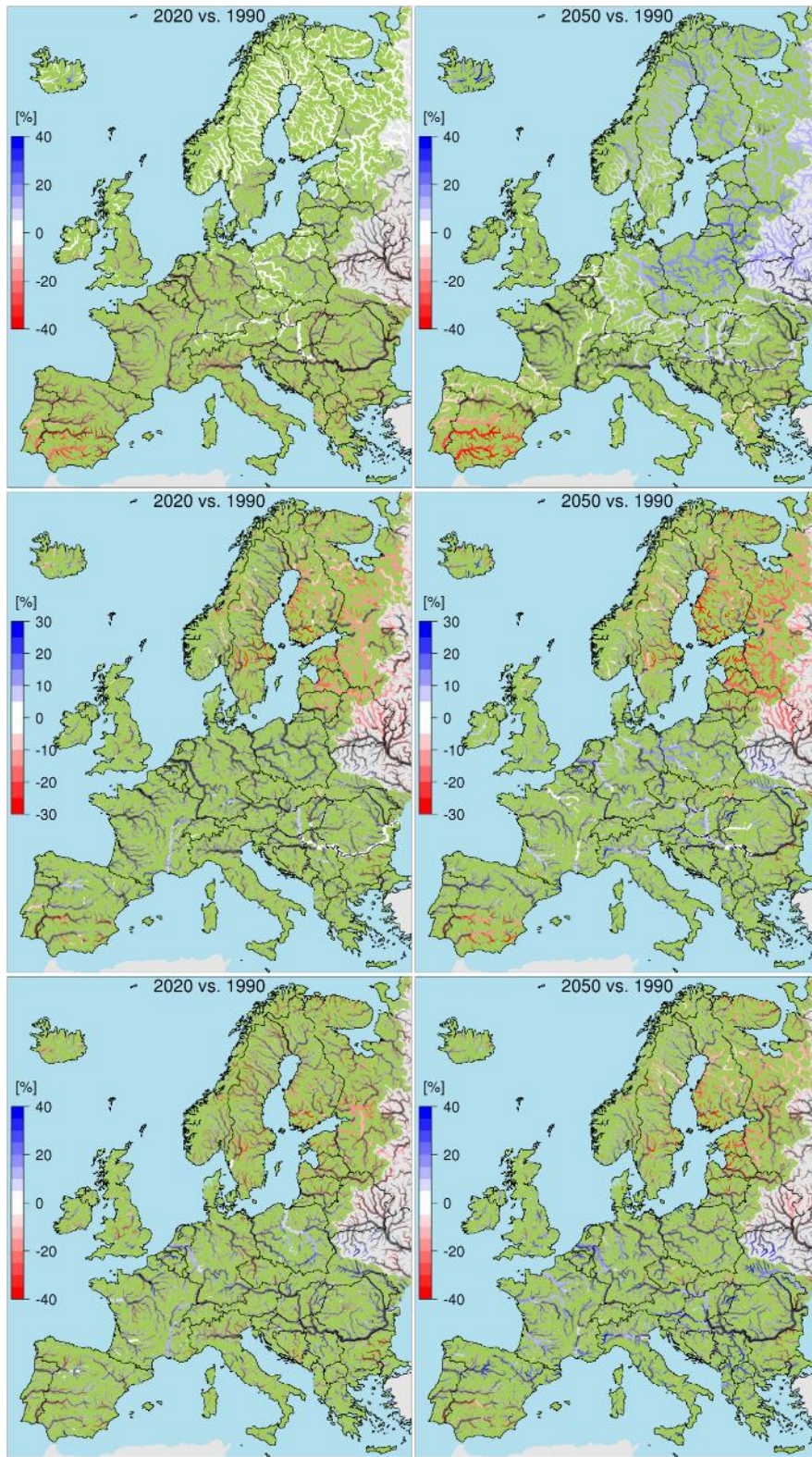


Figure S4: Relative change in average streamflow \bar{Q} (top), mean annual daily peak flow $\overline{Q_{MAX}}$ (center) and 100-year daily peak flow Q_{100} (bottom) for the time slice 2006-2035 (left) and 2036-2065 (right). Data points with $CV > 1$ are greyed out.

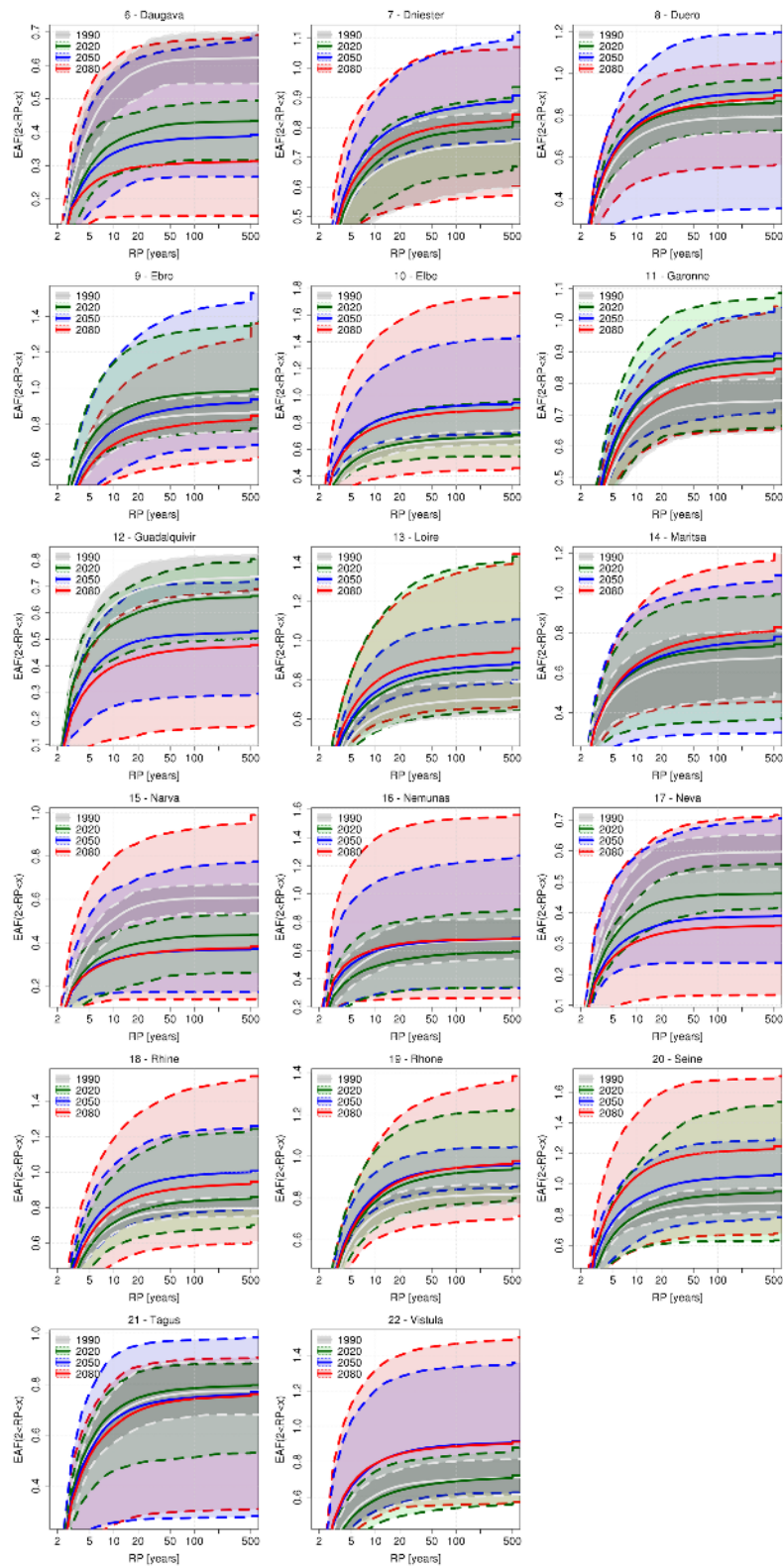


Figure S5: Expected annual frequency of peak flows with return period larger than 2 years for selected European river basins (see location in Figure 1) for the baseline simulation and the three future time slices.