SUPPLEMENTARY FIGURES
Detecting changes in global extremes under the GLENS-SAI climate intervention strategy

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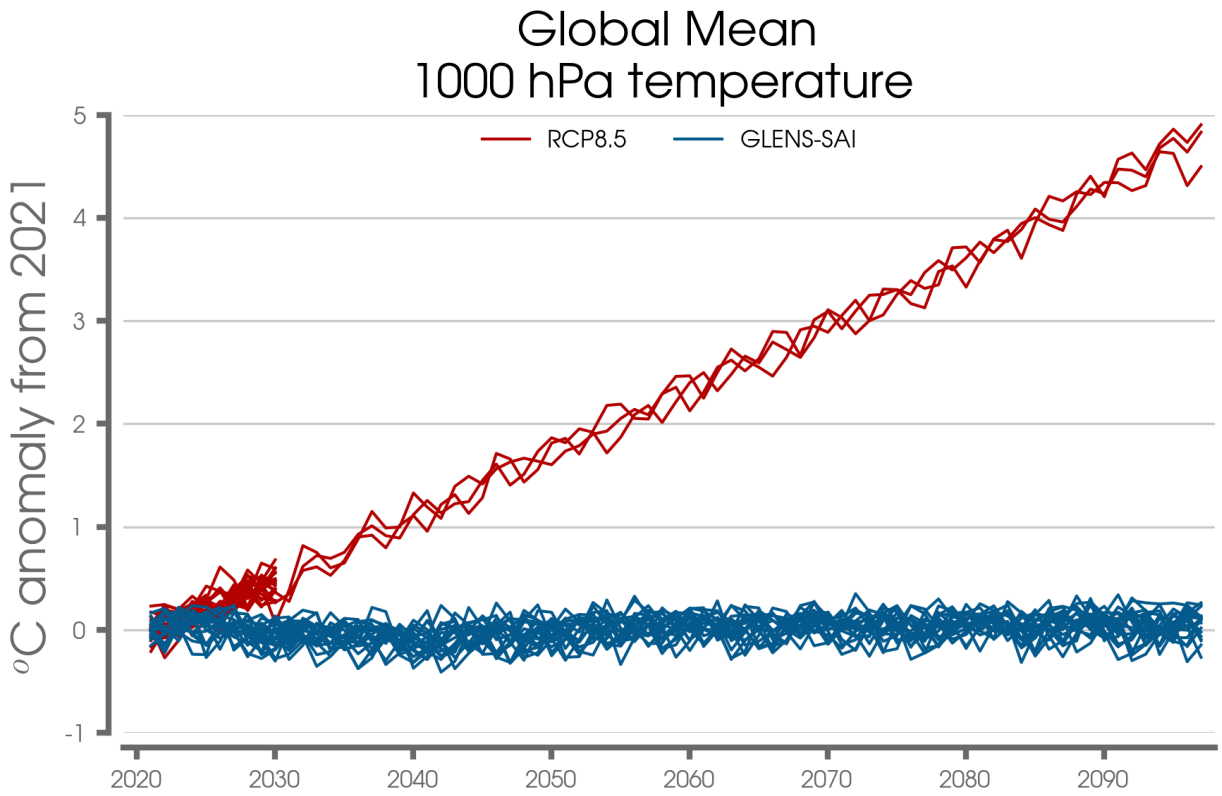


Figure S1: Global mean temperature anomaly from the 2021 ensemble mean for the RCP8.5 and GLENS-SAI ensembles.

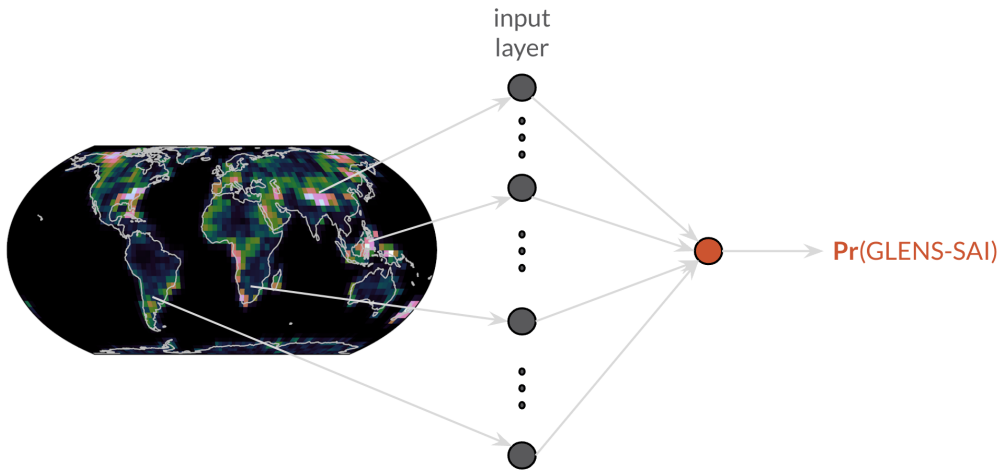
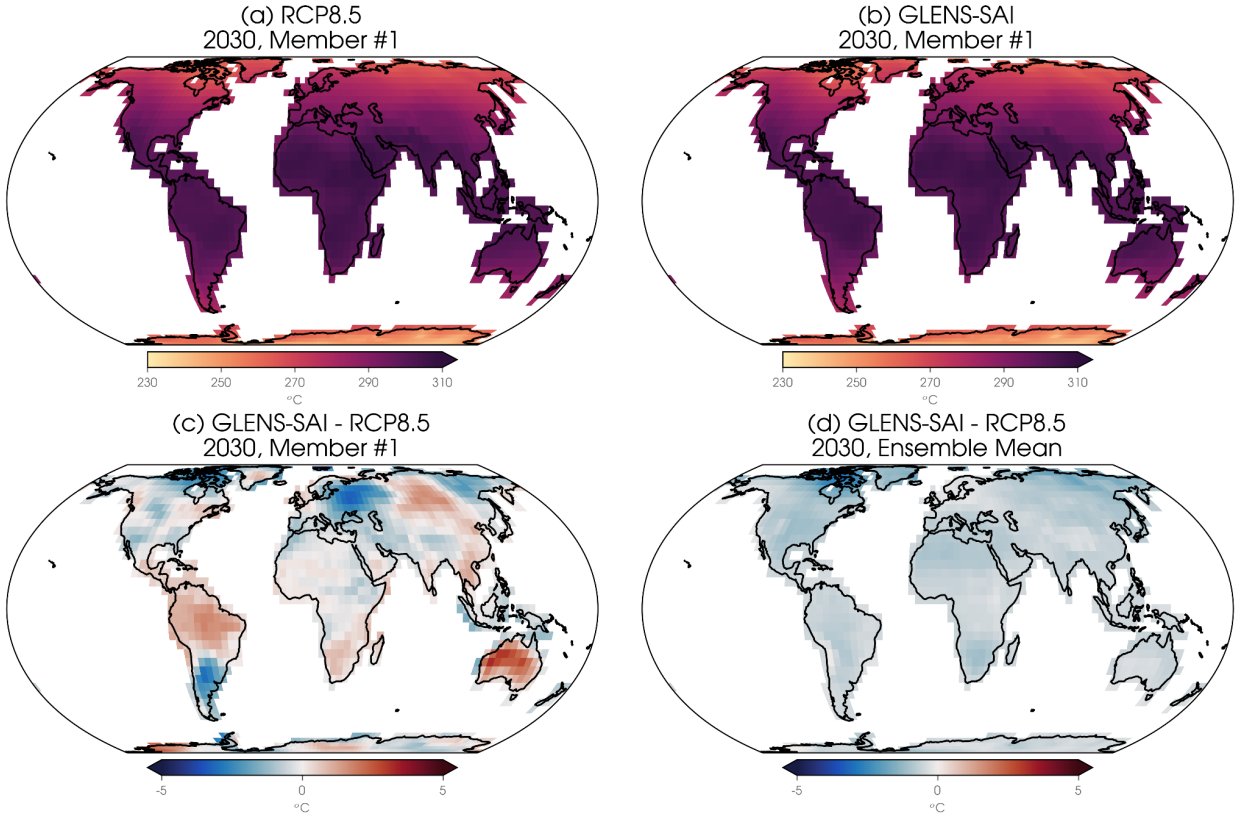
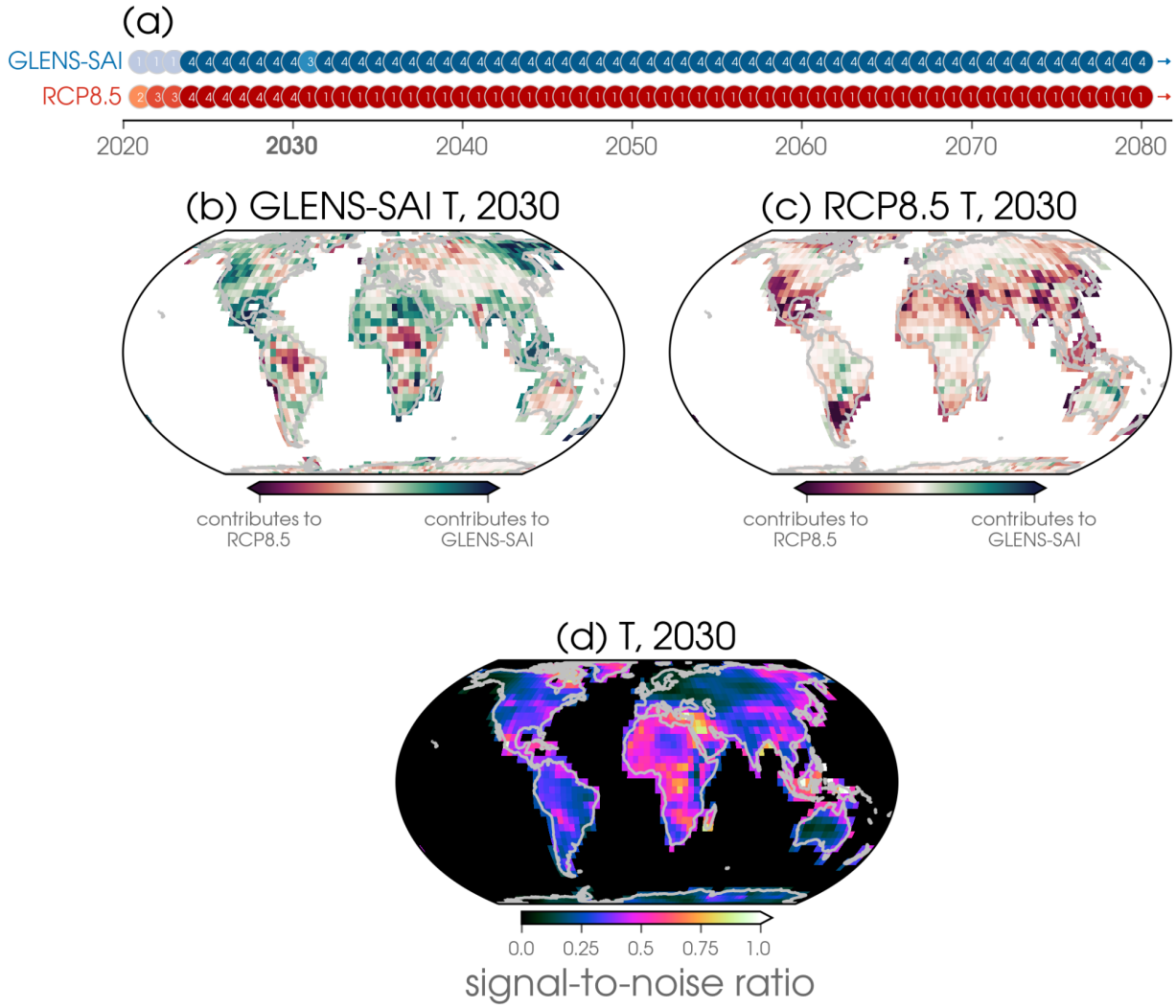


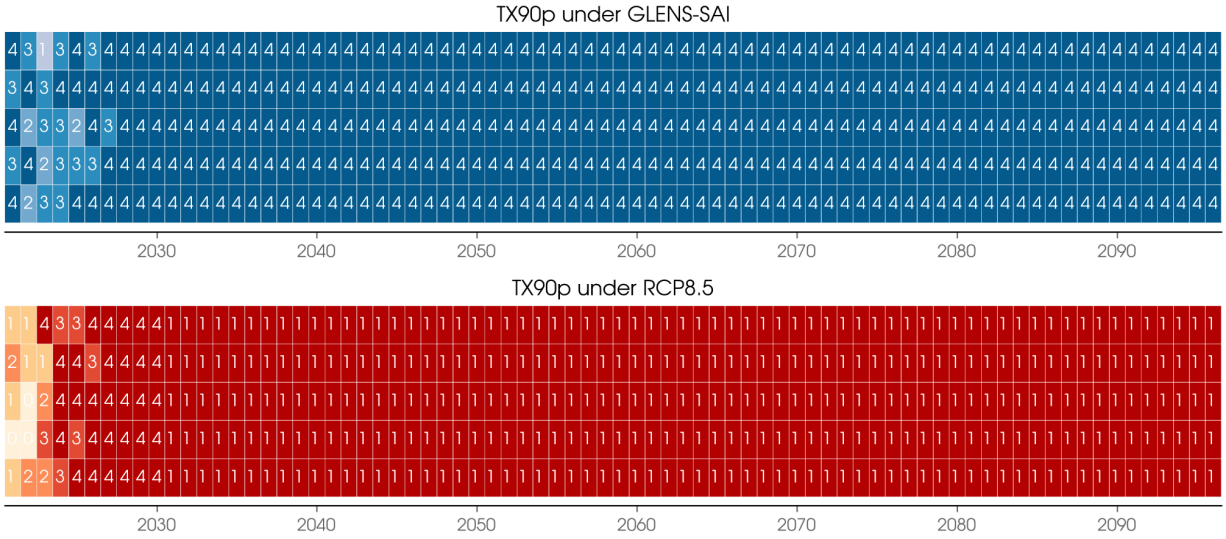
Figure S2: Logistic regression architecture.



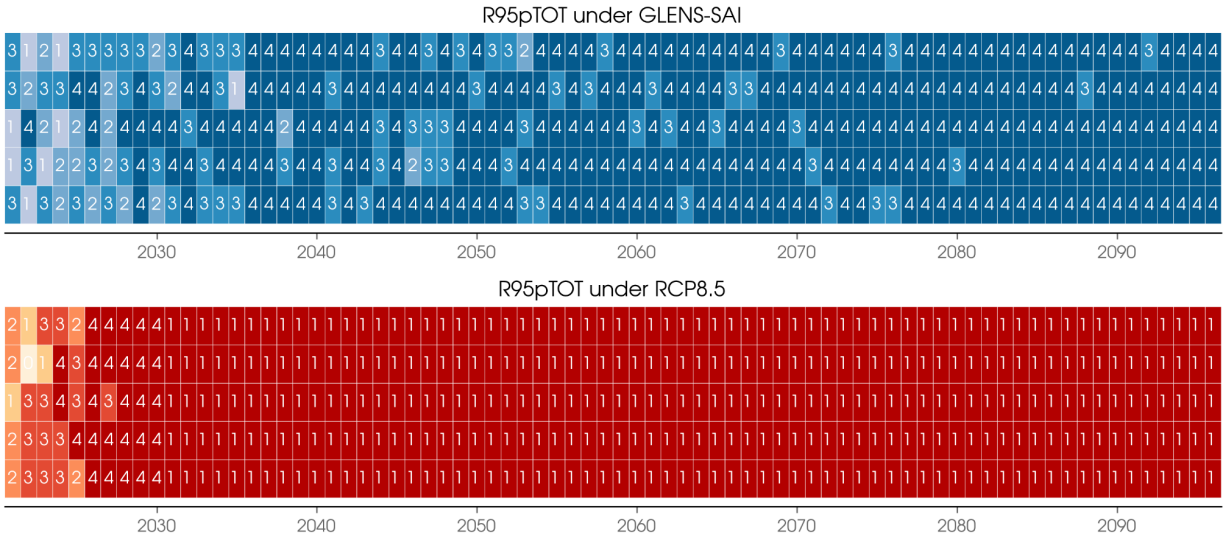
Supp. Figure S3: T. Annual mean 1000 hPa temperature in 2030 for ensemble member #1 of the (a) RCP8.5 and (b) GLENS-SAI simulations. (c) The difference in temperature between GLENS-SAI and RCP8.5 for ensemble member #1. (d) As in panel (c) but for the difference in the ensemble means (20 members for each simulation).



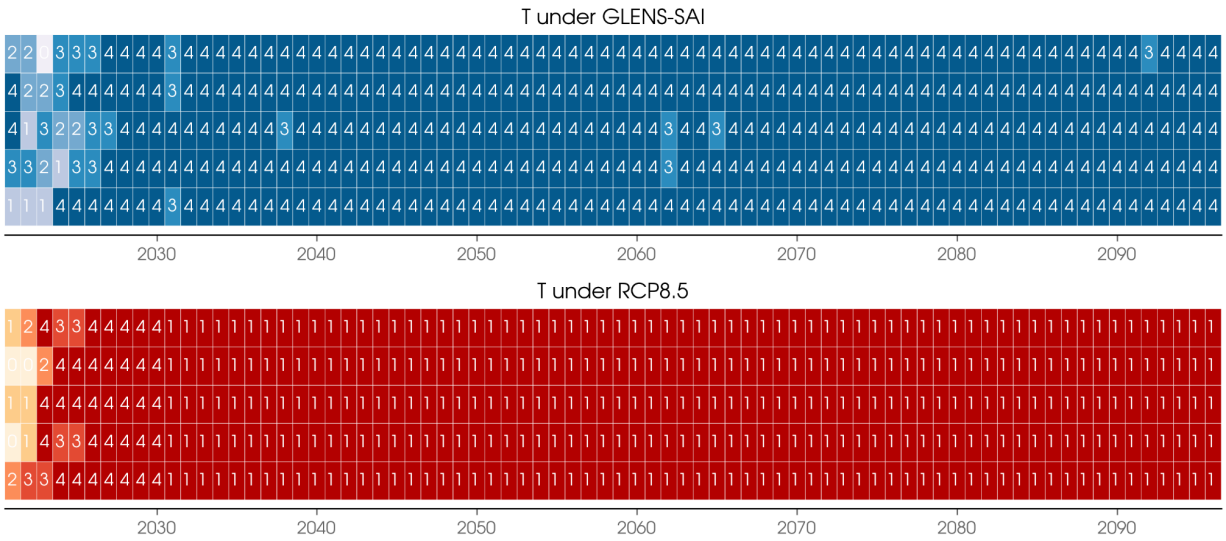
Supp. Figure S4: As in Figure 2 but for annual-mean 1000 hPa temperature.



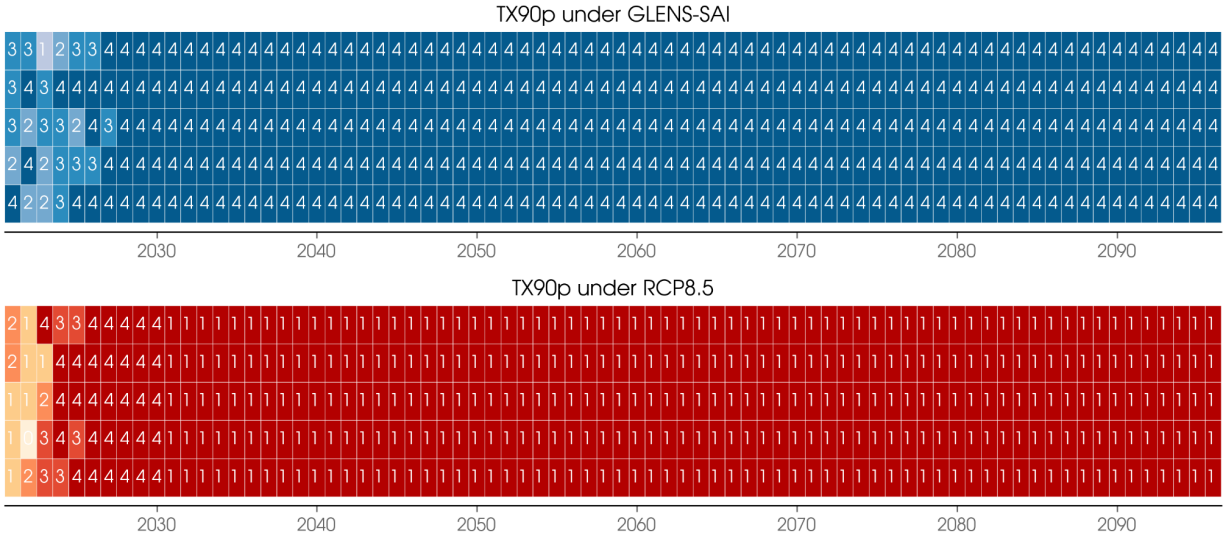
Supp. Fig. S5: Summary of model accuracy for five different logistic regression models (denoted by rows) trained using different random seeds and combinations of ensemble members for the training/testing split. The number of testing members correctly classified by the logistic regression model as a function of year is shown by white numbers. The colored shading denotes the fraction of available testing samples, split into five bins from light-to-dark: 0%, 25%, 50%, 75% and 100% correct.



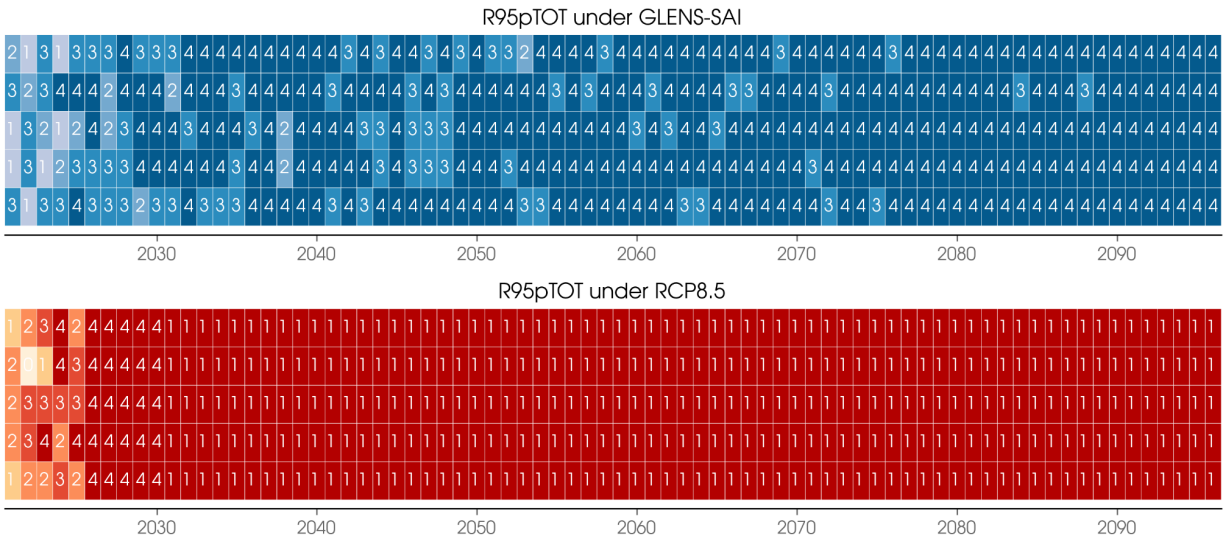
Supp. Fig. S6: As in Figure S5 but for R95pTOT.



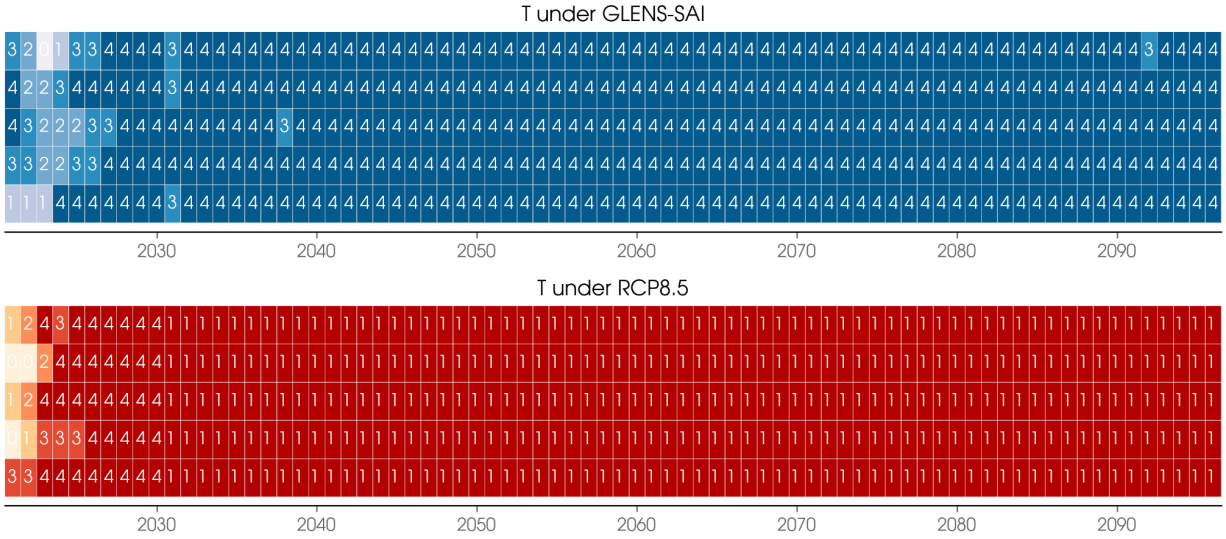
Supp. Fig. S7: As in Figure S5 but for 1000 hPa temperature.



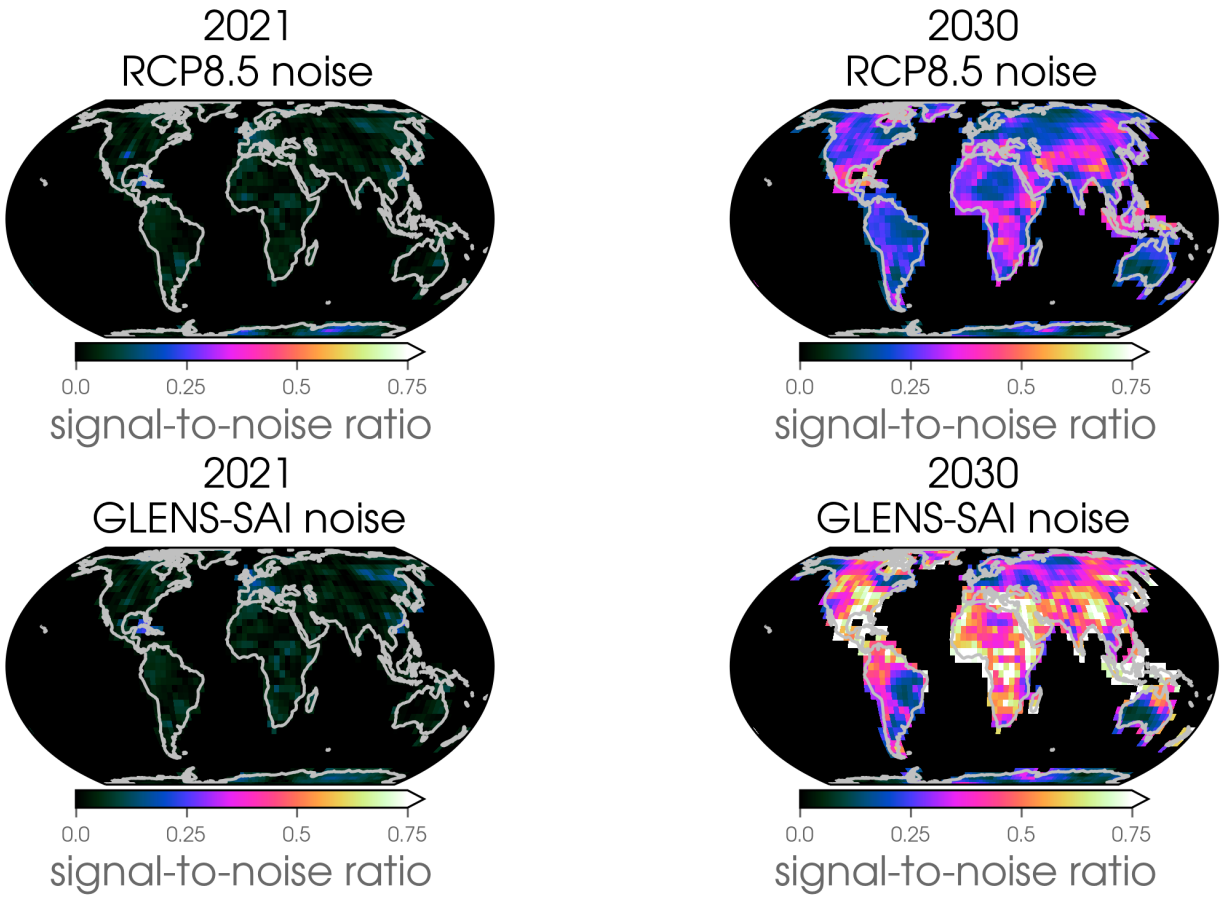
Supp. Fig. S8: As in Figure S5 using a ridge parameter of 0.0.



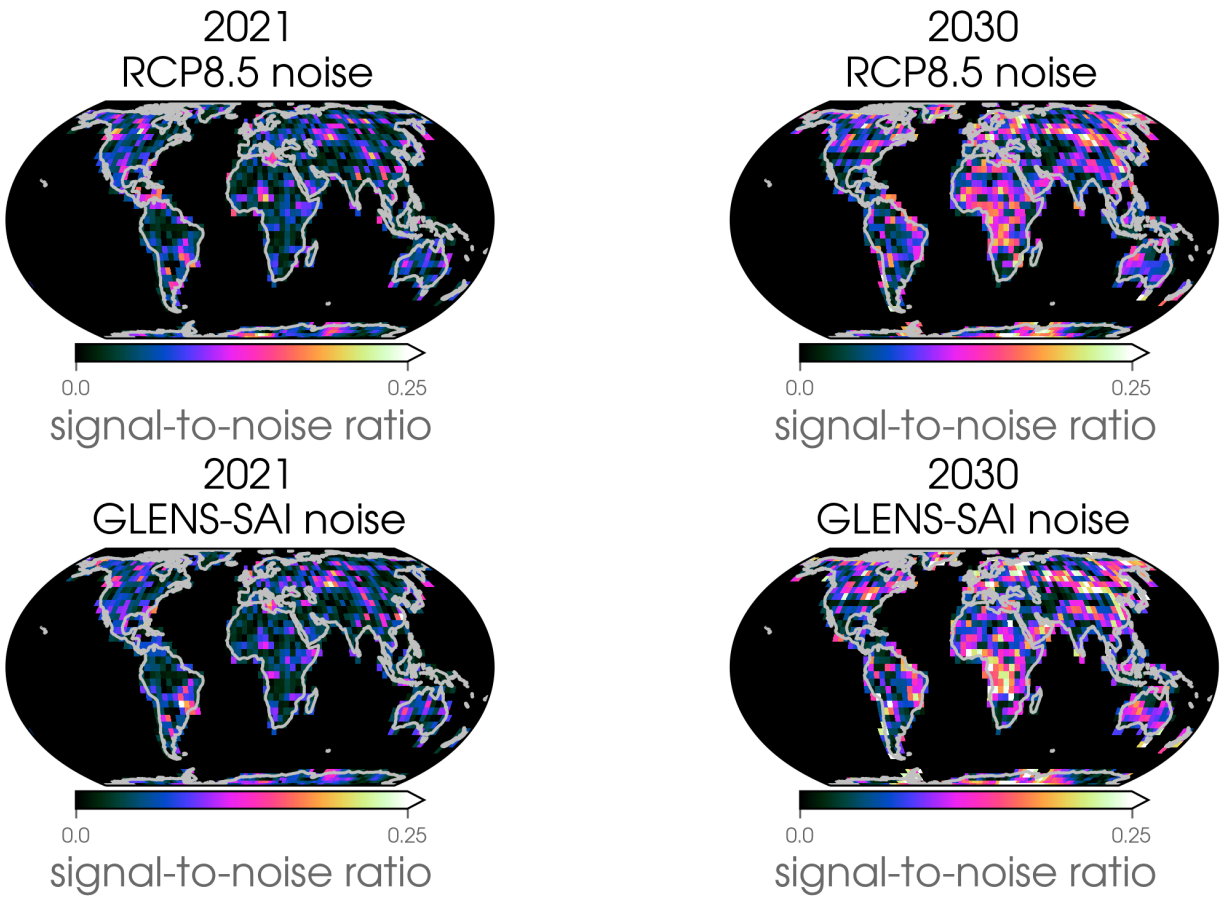
Supp. Fig. S9: As in Figure S5 but for R95pTOT using a ridge parameter of 0.0.



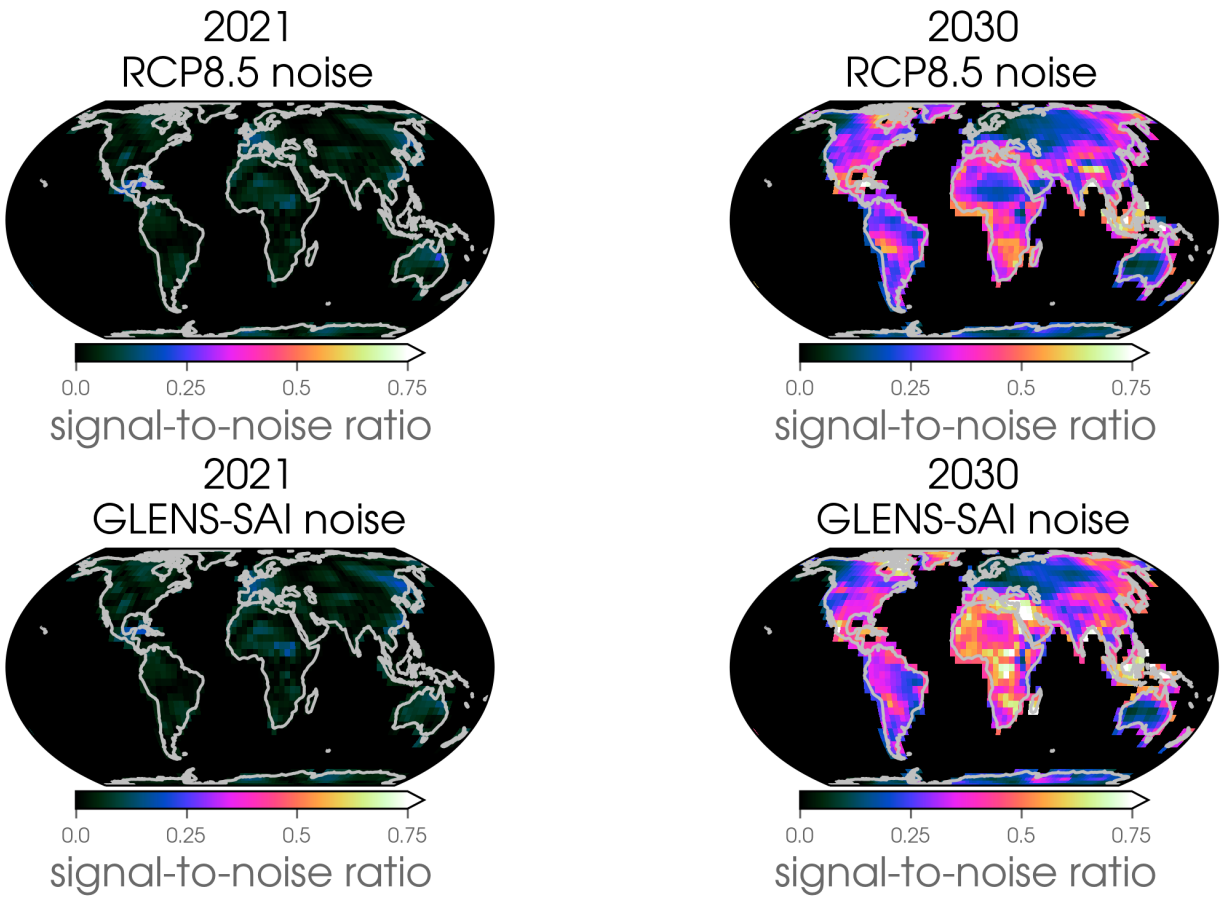
Supp. Fig. S10: As in Figure S5 but for 1000 hPa temperature using a ridge parameter of 0.0.



Supp. Fig. S11: Signal-to-noise ratios for TX90p where the noise is defined differently depending on the simulation used to compute the maximum minus minimum (range).



Supp. Fig. S12: As in Supp. Fig. S12 but for R95pTOT.



Supp. Fig. S13: As in Supp. Fig. S12 but for 1000 hPa temperature.