Supplementary Figures

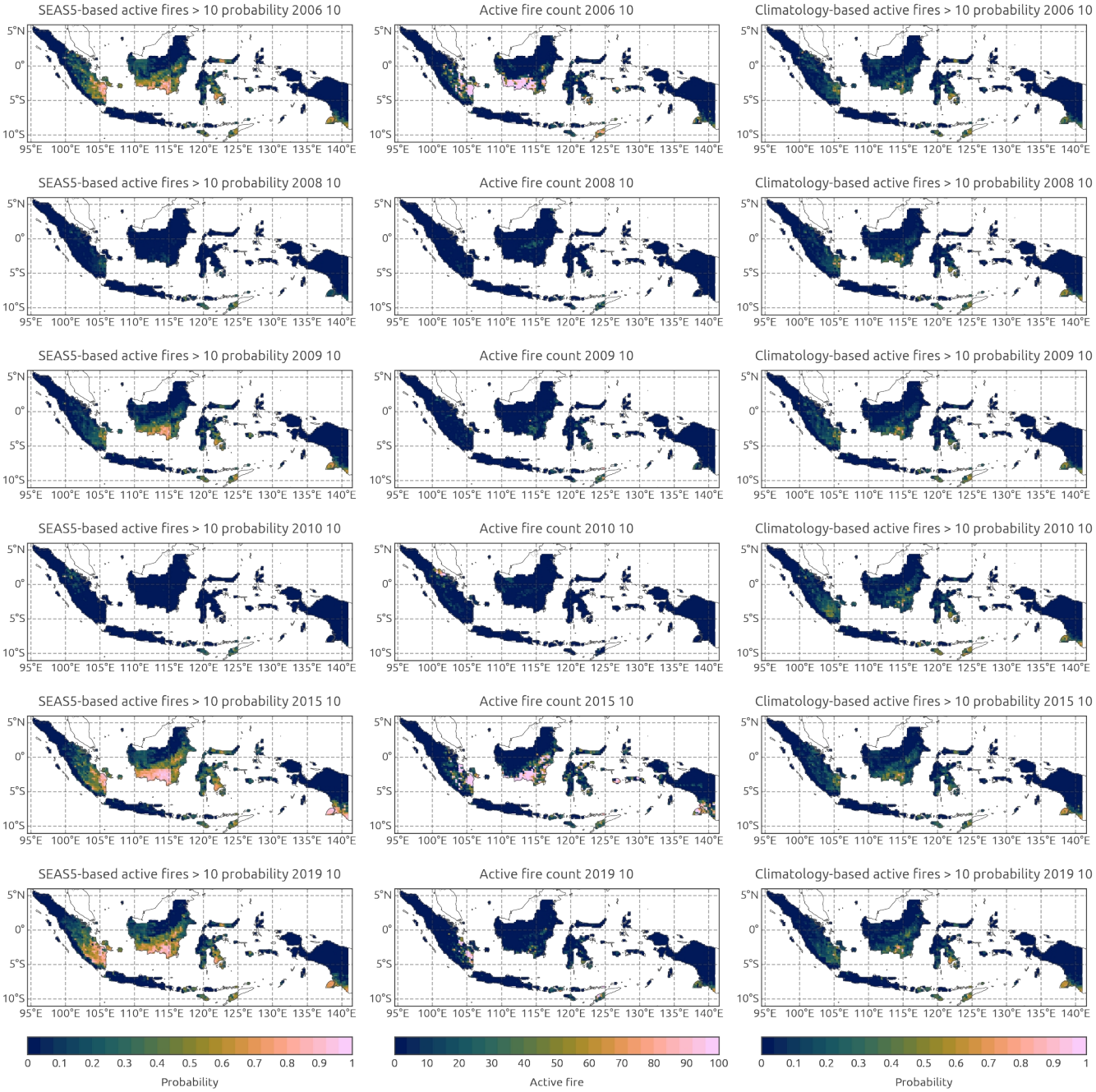

Figure S1: Model prediction of active fires > 10 cases probability and observed active fire counts. Shown are SEAS5-based (left column) and climatology-based (right column) probability predictions at lead time of 3 and observed monthly active fire counts for October in six example years (rows).

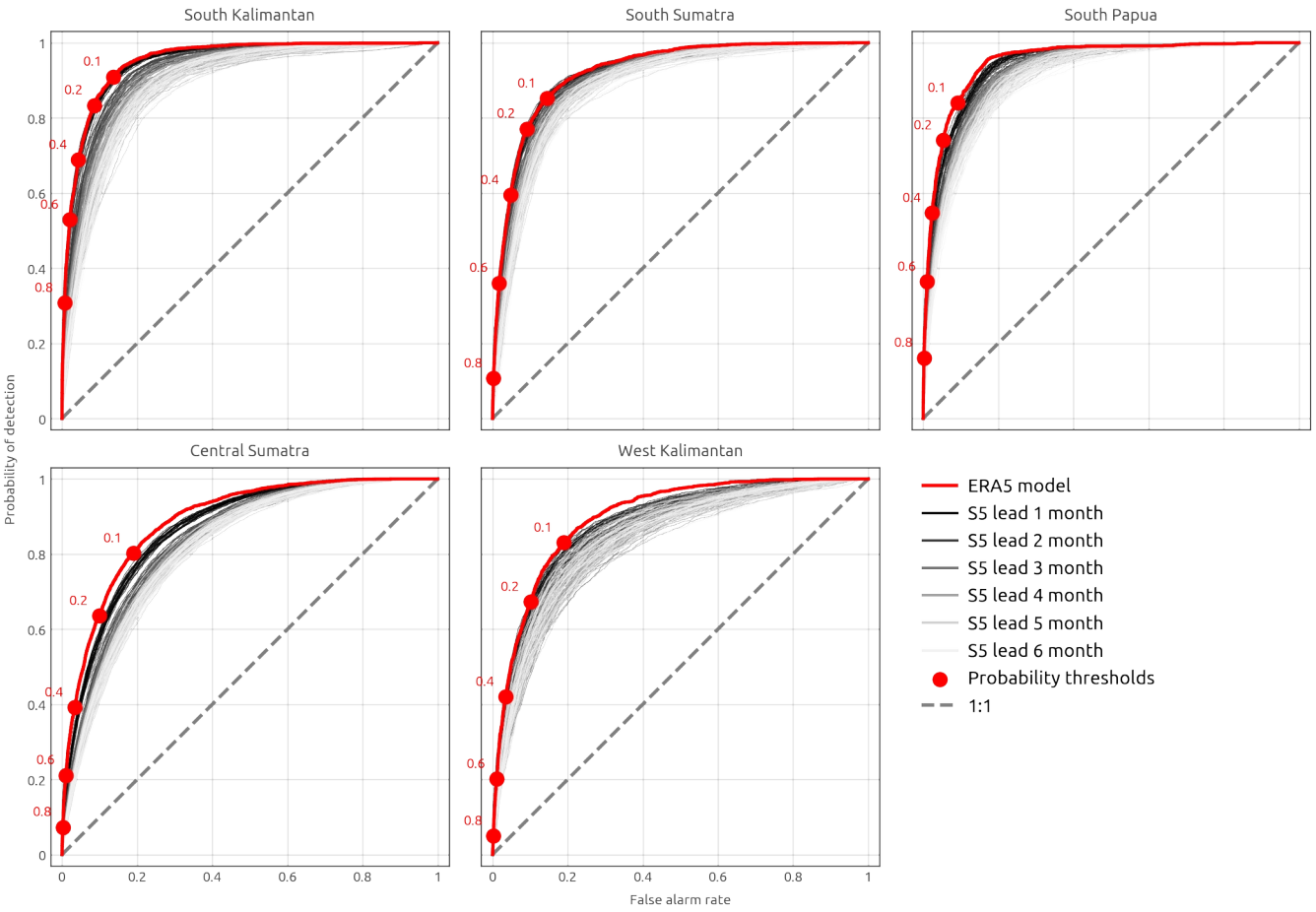

Figure S2: Probability of detection versus False alarm rate curves (ROC) for active fires > 10 cases predictions. Shown are curves derived for ERA5-based predictions (red) and SEAS5-based predictions by the individual ensemble members at 1-6 month lead times (greys). Red dots show ERA5 model probability thresholds.

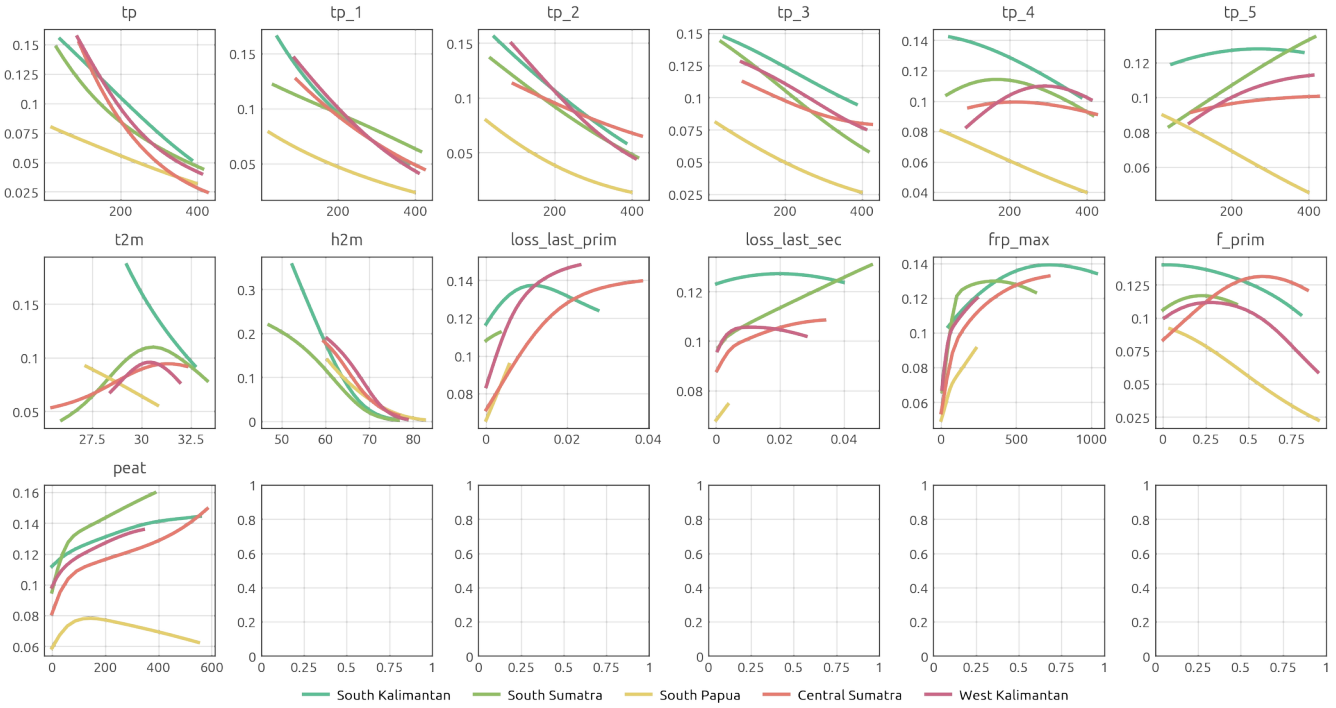

Fig. S3: Partial dependence plots for all input features, showing mean dependence between active fires > 10 probability and input feature values. Line colours indicate partial dependencies for different subregions. The subplot titles indicate features used: 'tp': total precipitation, 'tp_n': total precipitation for the month t-n, 't2m': 2m temperature, 'h2m': 2m relative humidity, 'loss_last_prim'; primary forest loss in previous year, 'loss_last_sec': secondary forest loss in previous year, 'frp_max': maximum active fire count in preceding years, 'f_prim': primary forest cover fraction, 'peat': peatlands fraction.