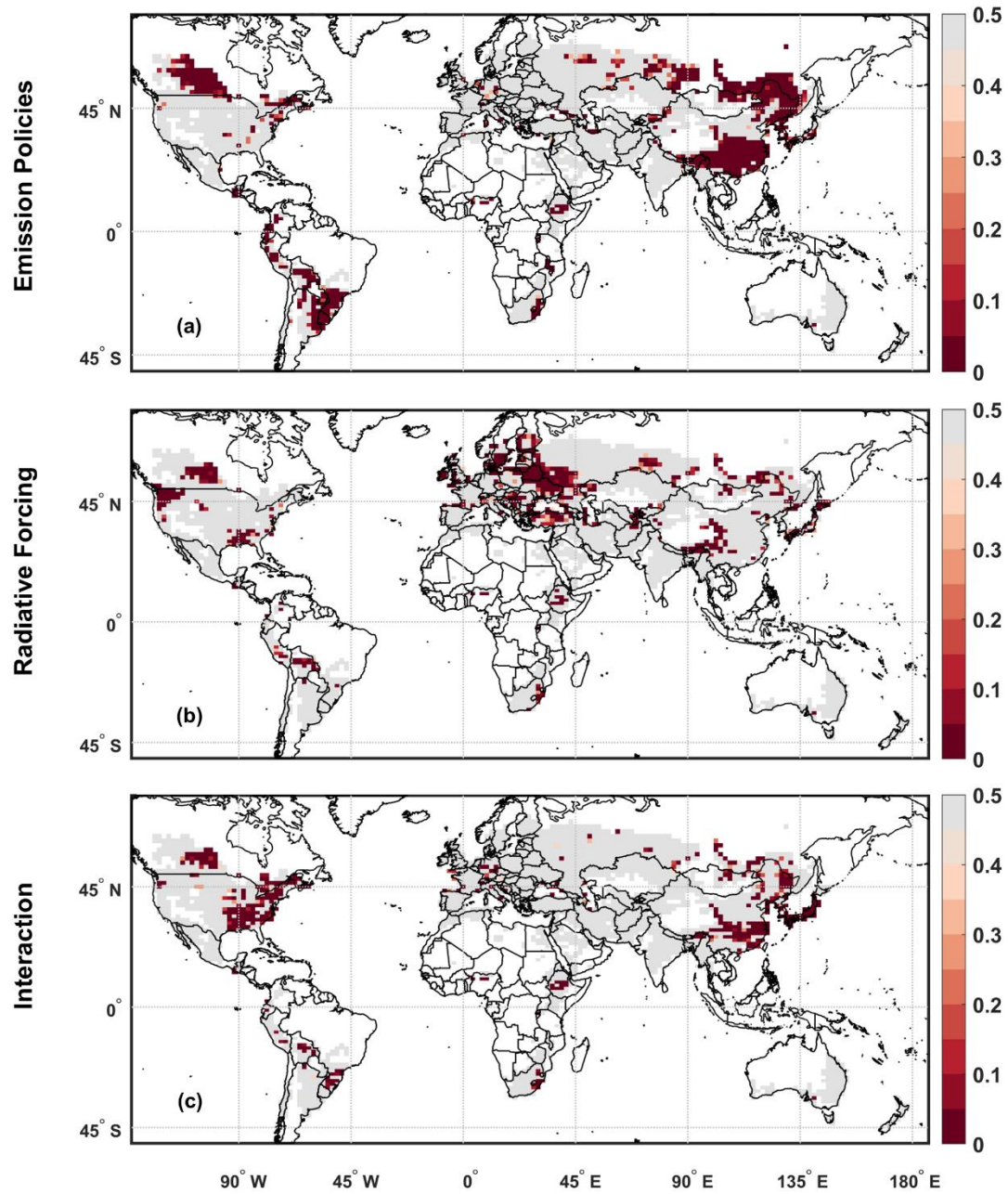


Table S4: p-values and 95% confidence intervals (corrected with Bonferroni) corresponding to the differences indicated in Table 4. Boundaries for p-values are defined according to the TOAR-II Recommendations for Statistical Analysis (Chang et al. 2023). p<0.01 indicates very high certainty and p>0.33 indicates very low certainty or no evidence.

| Region ^b | 2050 ΔPOD ₆ | | | 2100 ΔPOD ₆ | | |
|---------------------|-------------------------|--------------------|--------------------|------------------------|---------------------|---------------------|
| | [mmol m ⁻²] | | | | | |
| | SSP1 | SSP3 | SSP5 | SSP1 | SSP3 | SSP5 |
| East Asia | 0.02 [-1.25,-0.03] | <0.01 [-0.16,0.98] | 0.04 [0.01,1.03] | <0.01 [-1.72,-0.72] | >0.33 [-0.36,0.78] | >0.33 [-1.07,0.17] |
| South-East Asia | >0.33 [-0.38,0.06] | <0.01 [0.38,0.84] | <0.01 [0.34,0.82] | <0.01 [-0.78,-0.40] | <0.01 [0.43,0.89] | 0.05 [-0.40,0.00] |
| South Asia | >0.33 [-0.45,0.43] | <0.01 [0.59,1.65] | <0.01 [0.19,1.29] | 0.02 [-0.89,-0.03] | <0.01 [0.81,1.91] | >0.33 [-0.21,0.77] |
| Central Asia | <0.01 [-0.40,-0.10] | <0.01 [0.44,0.86] | 0.01 [0.04,0.50] | <0.01 [-0.52,-0.24] | <0.01 [0.38,0.78] | >0.33 [-0.22,0.10] |
| North America | <0.01 [-2.13,-0.47] | 0.23 [-1.59,0.09] | >0.33 [-1.49,0.23] | <0.01 [-2.19,-0.55] | <0.01 [-1.81,-0.15] | >0.33 [-1.43,0.27] |
| Central America | <0.01 [-0.58,-0.42] | <0.01 [0.23,0.47] | <0.01 [0.49,0.73] | <0.01 [-0.79,-0.63] | <0.01 [0.31,0.59] | <0.01 [-0.35,-0.13] |
| South America | 0.29 [-1.03,0.09] | >0.33 [-0.31,0.89] | >0.33 [-0.38,0.82] | 0.02 [-1.16,-0.04] | >0.33 [-0.26,0.88] | >0.33 [-0.90,0.24] |
| Rus.-Bel.-Uk. | <0.01 [-1.11,-0.31] | >0.33 [-0.64,0.34] | >0.33 [-0.71,0.17] | <0.01 [-1.19,-0.43] | >0.33 [-0.68,0.24] | >0.33 [-0.75,0.15] |
| Europe | <0.01 [-1.36,-0.42] | >0.33 [-0.69,0.29] | >0.33 [-0.68,0.42] | <0.01 [-1.43,-0.51] | >0.33 [-0.73,0.23] | >0.33 [-0.55,0.45] |
| North Africa | <0.01 [-0.56,-0.42] | <0.01 [0.26,0.44] | <0.01 [0.10,0.28] | <0.01 [-0.71,-0.57] | <0.01 [0.29,0.49] | <0.01 [-0.19,-0.03] |
| Sub-Saharan Africa | 0.18 [-0.01,0.13] | <0.01 [0.38,0.60] | <0.01 [0.68,0.88] | <0.01 [-0.30,-0.18] | <0.01 [0.83,1.03] | <0.01 [0.40,0.74] |
| Middle East | <0.01 [-0.48,-0.18] | <0.01 [0.45,0.81] | >0.33 [-0.14,0.34] | <0.01 [-0.75,-0.53] | <0.01 [0.53,0.83] | >0.33 [-0.20,0.1] |



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Figure S3: p-values for the ANOVA (Figure 8) corresponding to the factors: (a) Emission Policies (EP), (b) Radiative Forcing (RF), and (c) Interaction (I).