



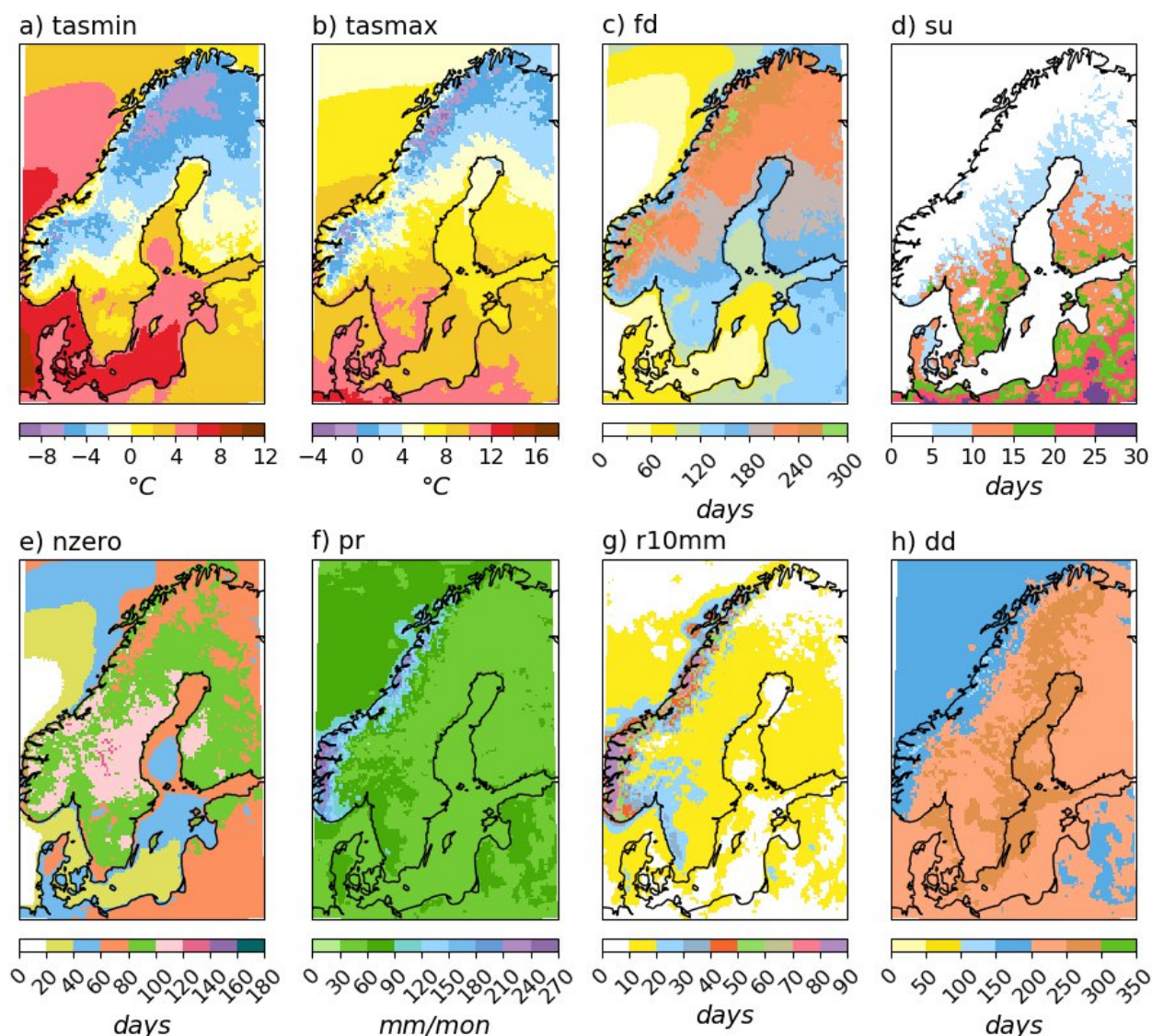
*Supplement of*

## **Projected climate change in Fennoscandia – and its relation to ensemble spread and global trends**

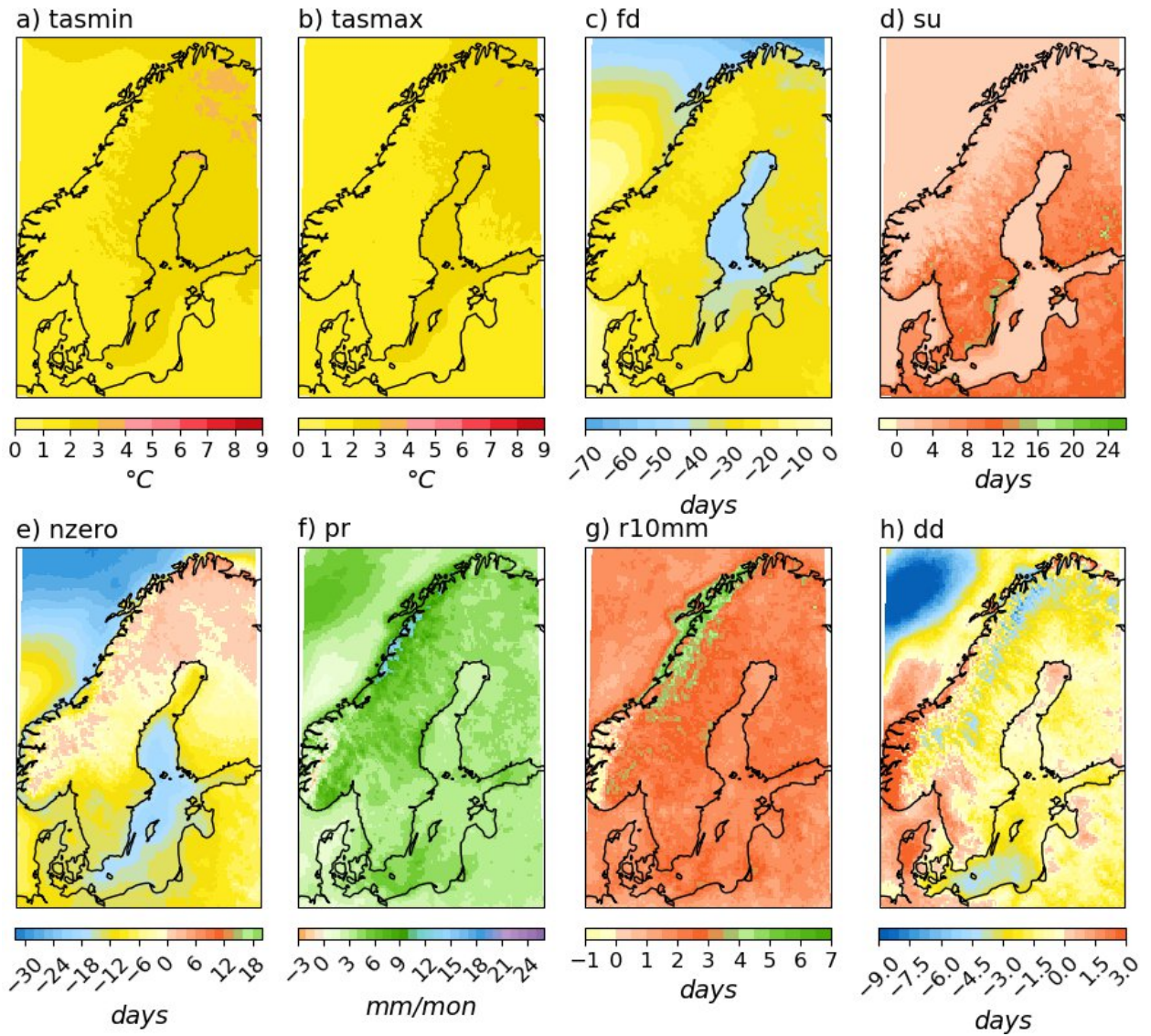
**Gustav Strandberg et al.**

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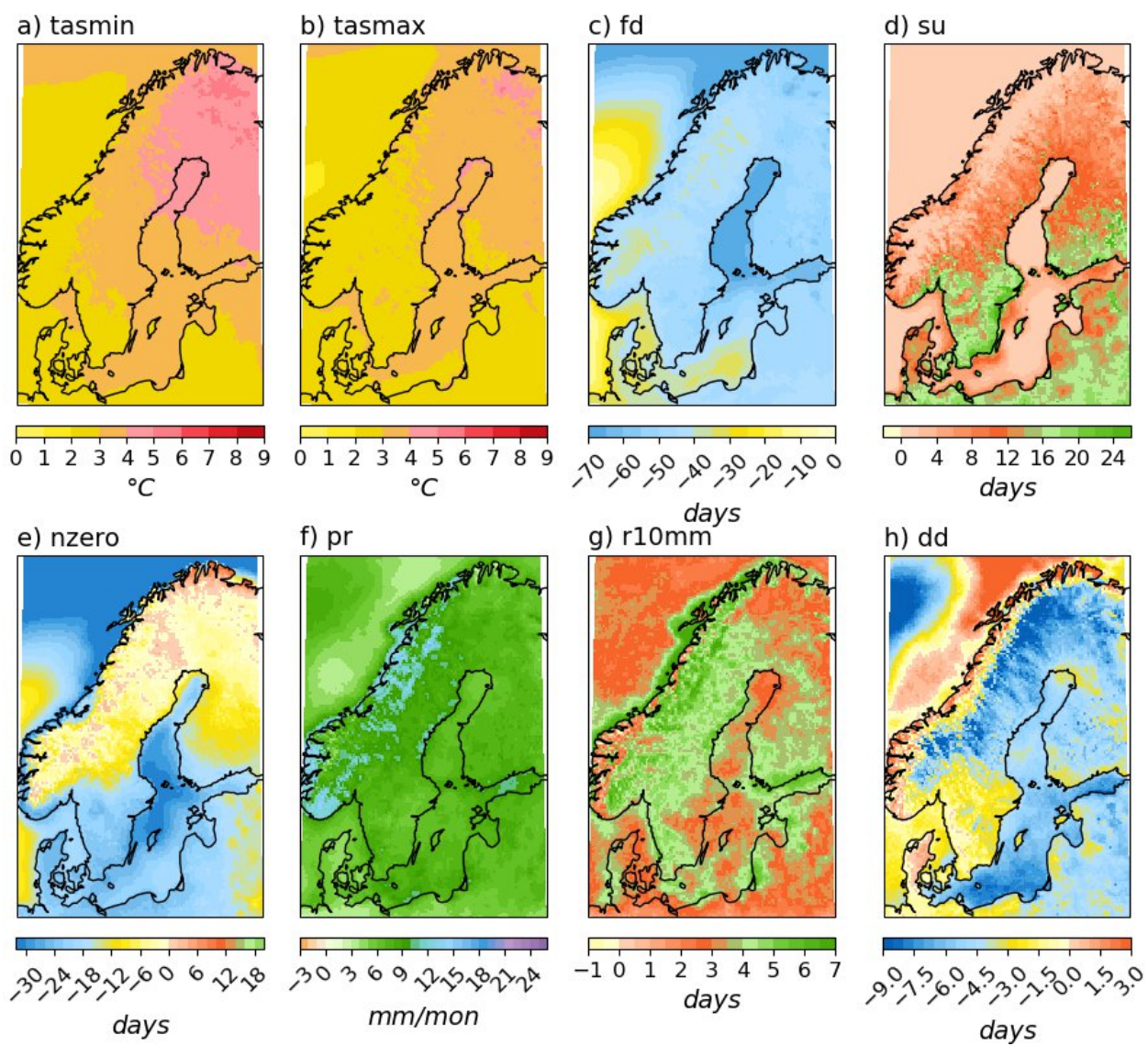


**Figure S1** Annual values in 1971-2000 according to SMHI-GridClim climatology. The maps show ensemble means of a) daily minimum temperature (tasmin, °C), b) daily maximum temperature (tasmax, °C), c) number of frost days (fd, days), d) number of summer days (su, days), e) number of days with zero crossings (nzero, days), f) mean precipitation (pr, mm/day), g) number of days with heavy precipitation (r10mm, days) and h) dry days (dd, days). See table 1 for definitions of the indicators.

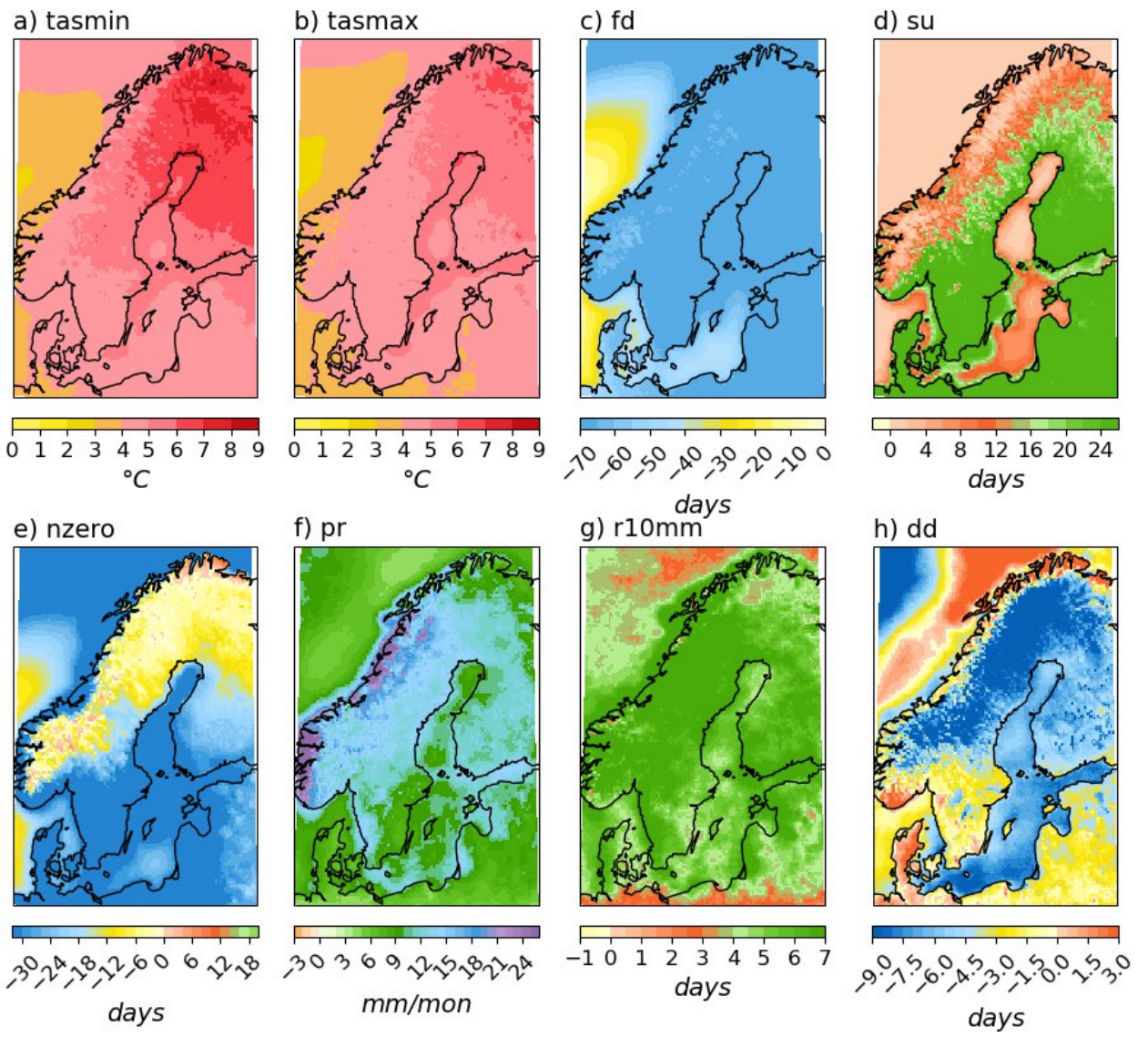


**Figure S2** Annual climate change anomalies in the CORDEX RCMs between 1971-2000 and 2071-2100 according to scenario RCP2.6. The maps show ensemble means of a) daily minimum temperature (tasmin, °C), b) daily maximum temperature (tasmax, °C), c) number of frost days (fd, days), d) number of summer days (su, days), e) number of days with zero crossings (nzero, days), f) mean precipitation (pr, mm/day), g) number of days with heavy precipitation (r10mm, days) and h) dry days (dd, days). See table 1 for definitions of the indicators.



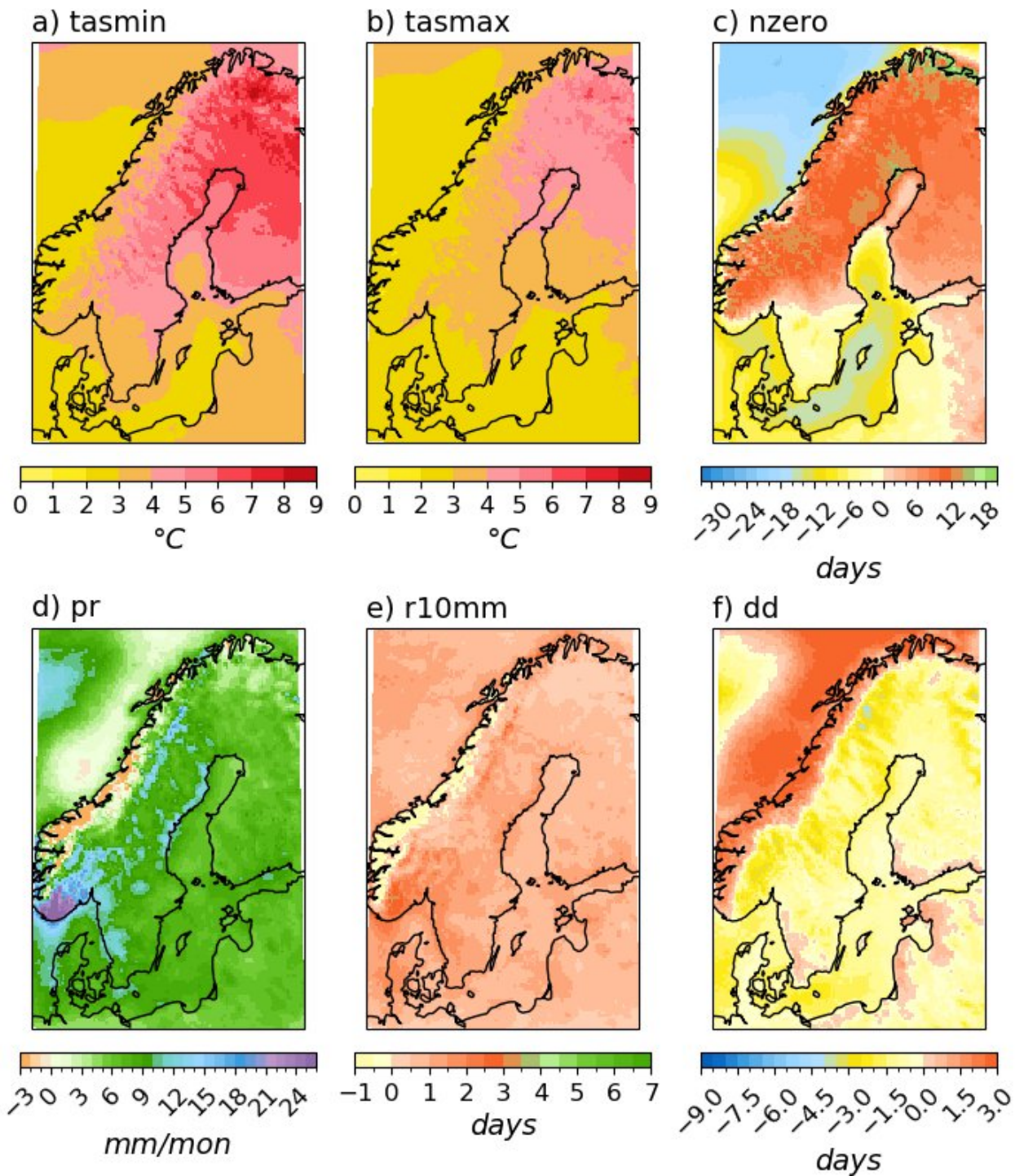


**Figure S3** Same as S1, but for RCP4.5

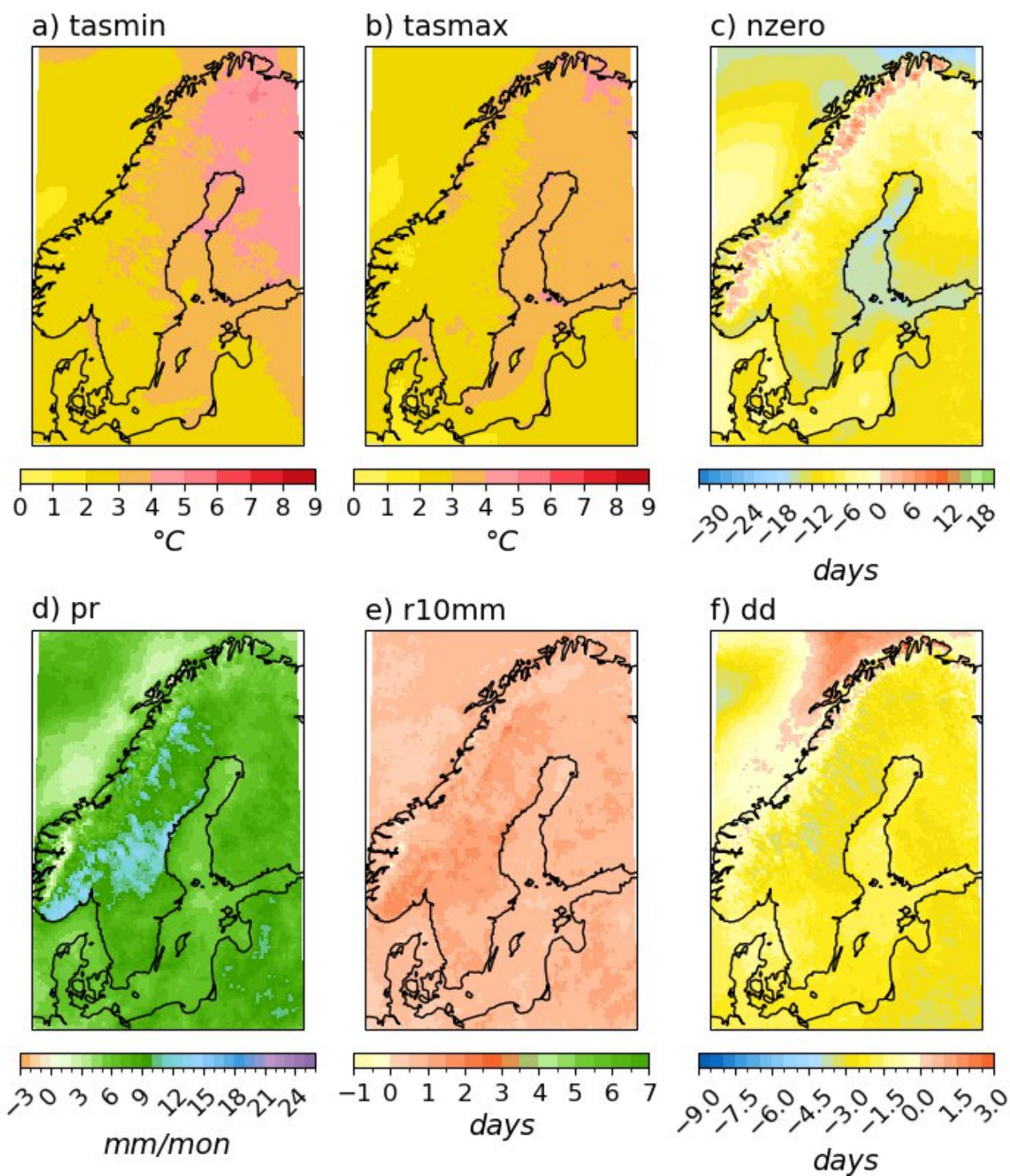


**Figure S4** Same as S1, but for RCP8.5



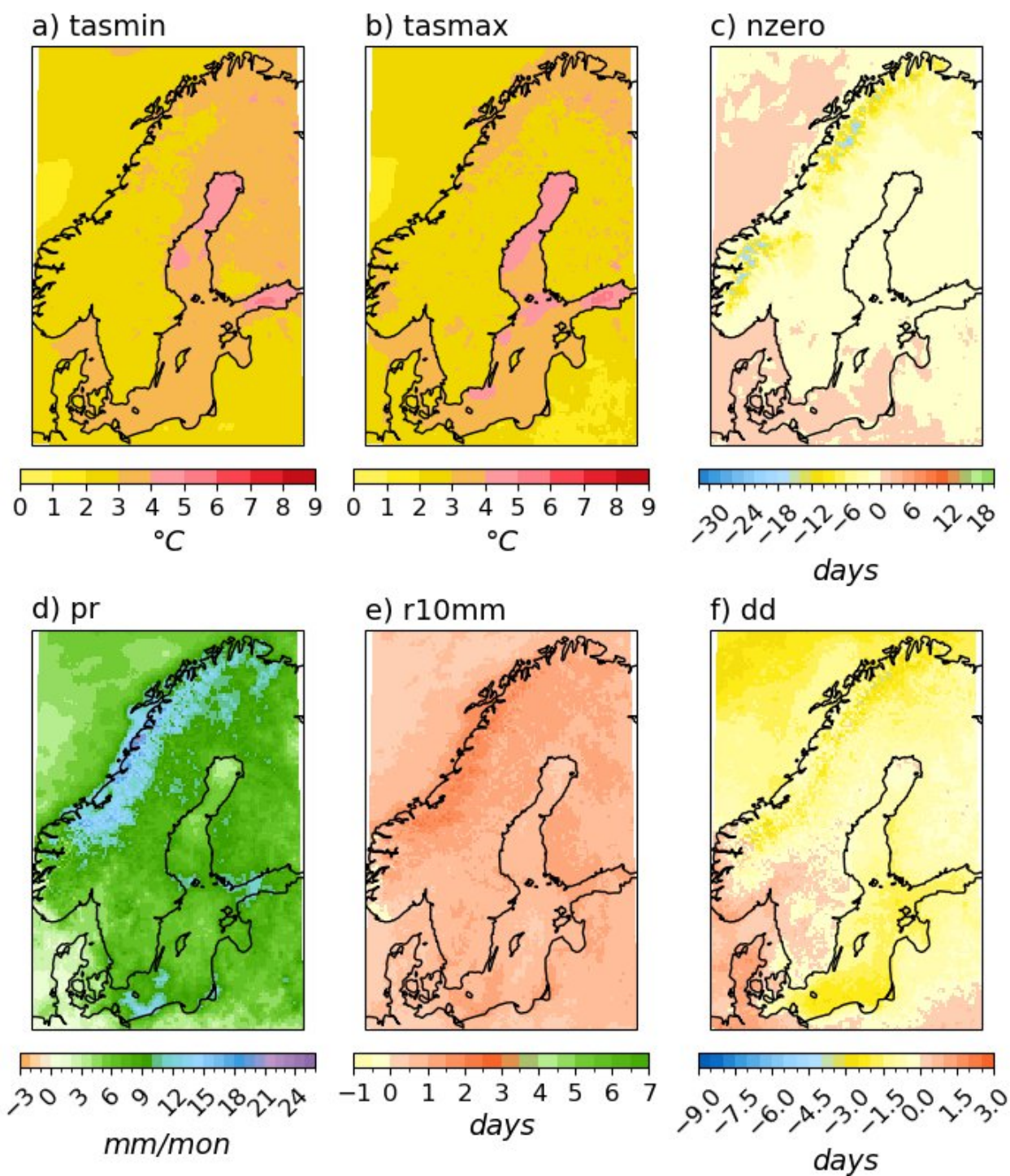


**Figure S5** Climate change anomalies in the CORDEX RCMs in winter (DJF) between 1971-2000 and 2071-2100 according to scenario RCP4.5. The maps show ensemble means of a) daily minimum temperature (tasmin, °C), b) daily maximum temperature (tasmax, °C), c) number of days with zero crossings (nzero, days), d) mean precipitation (pr, mm/day), e) number of days with heavy precipitation (r10mm, days) and f) dry days (dd, days). See table 1 for definitions of the indicators.



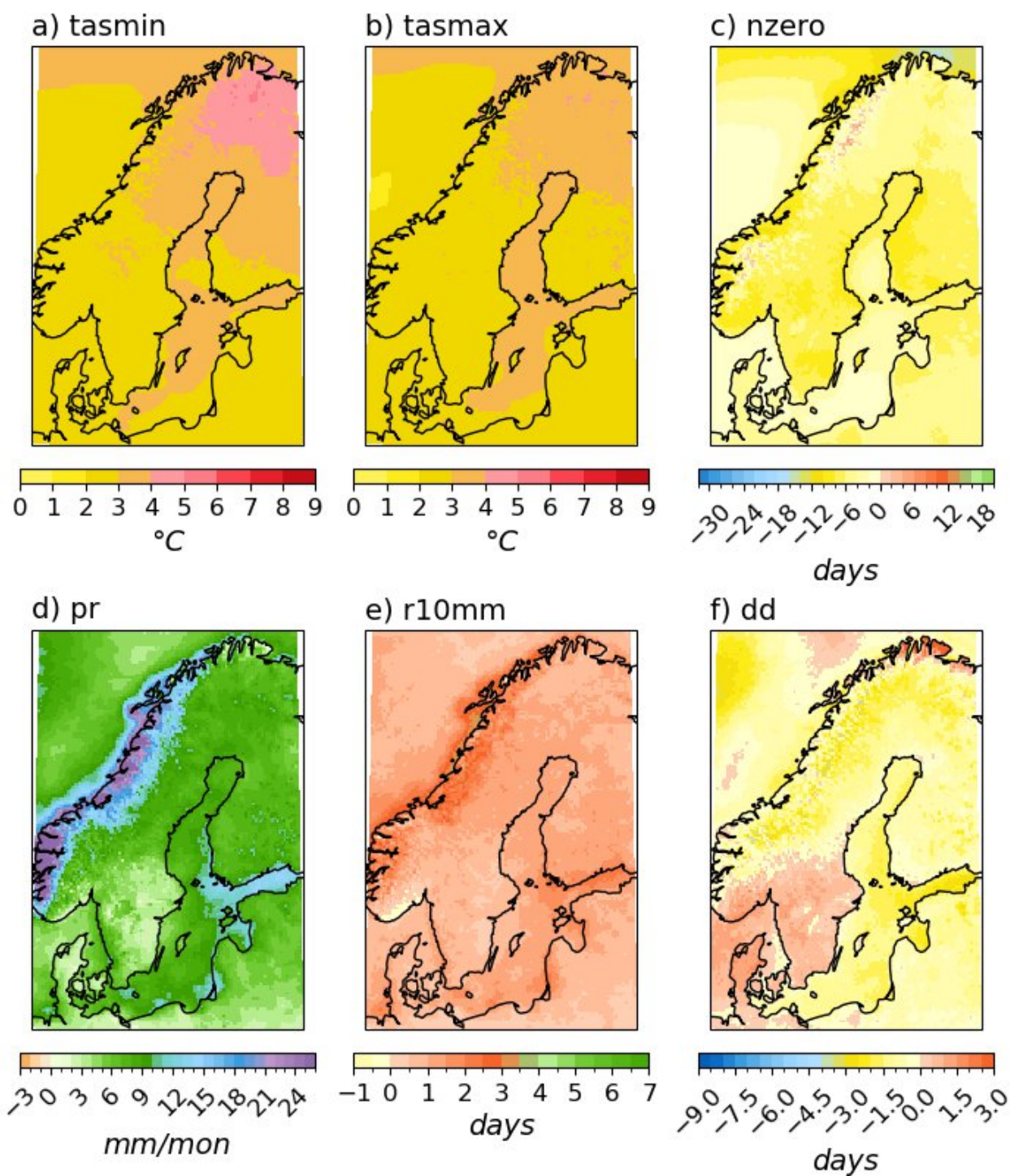
**Figure S6** Same as Fig S5 but for spring (MAM).



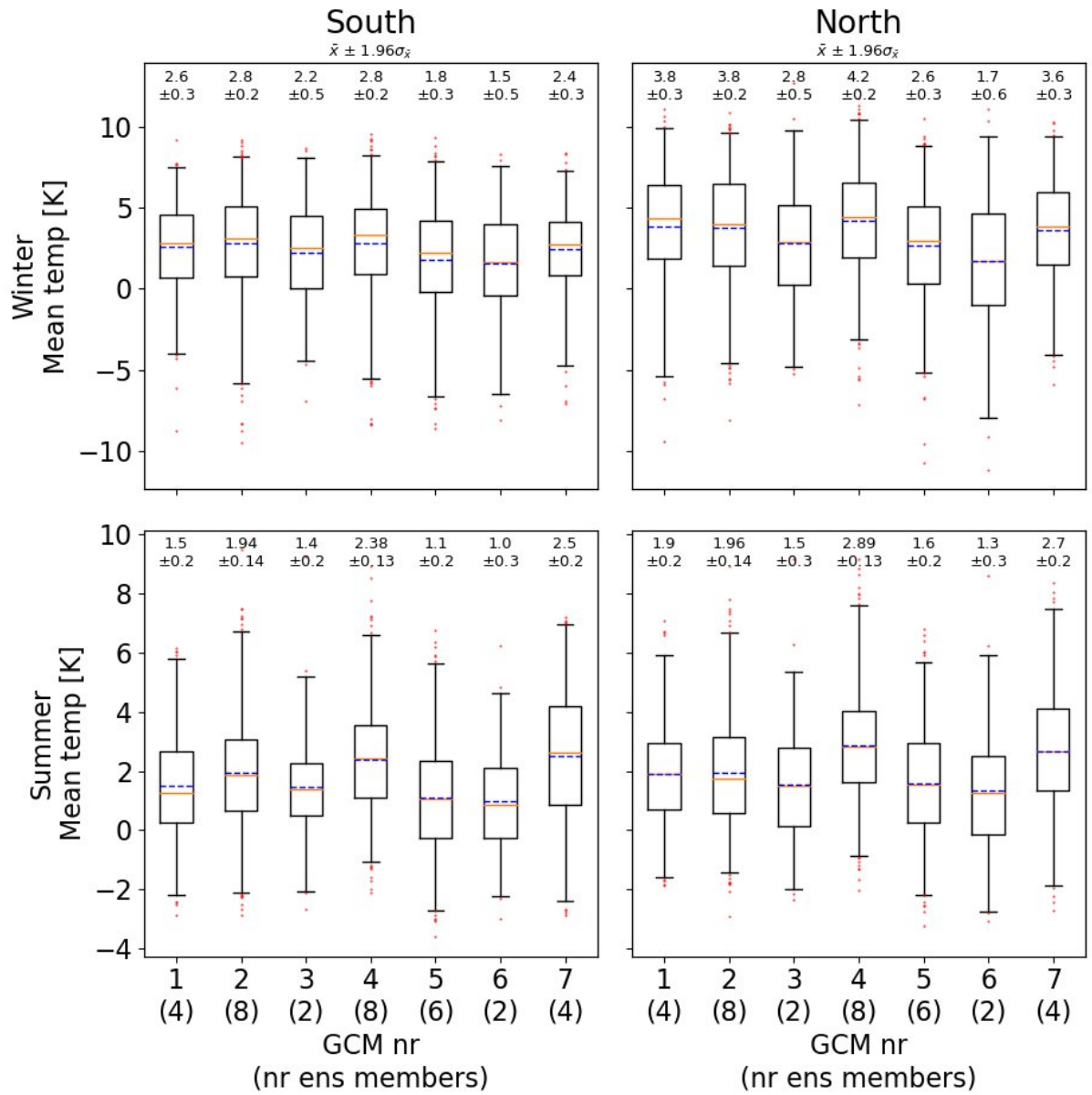


**Figure S7** Same as Fig S5 but for summer (JJA).



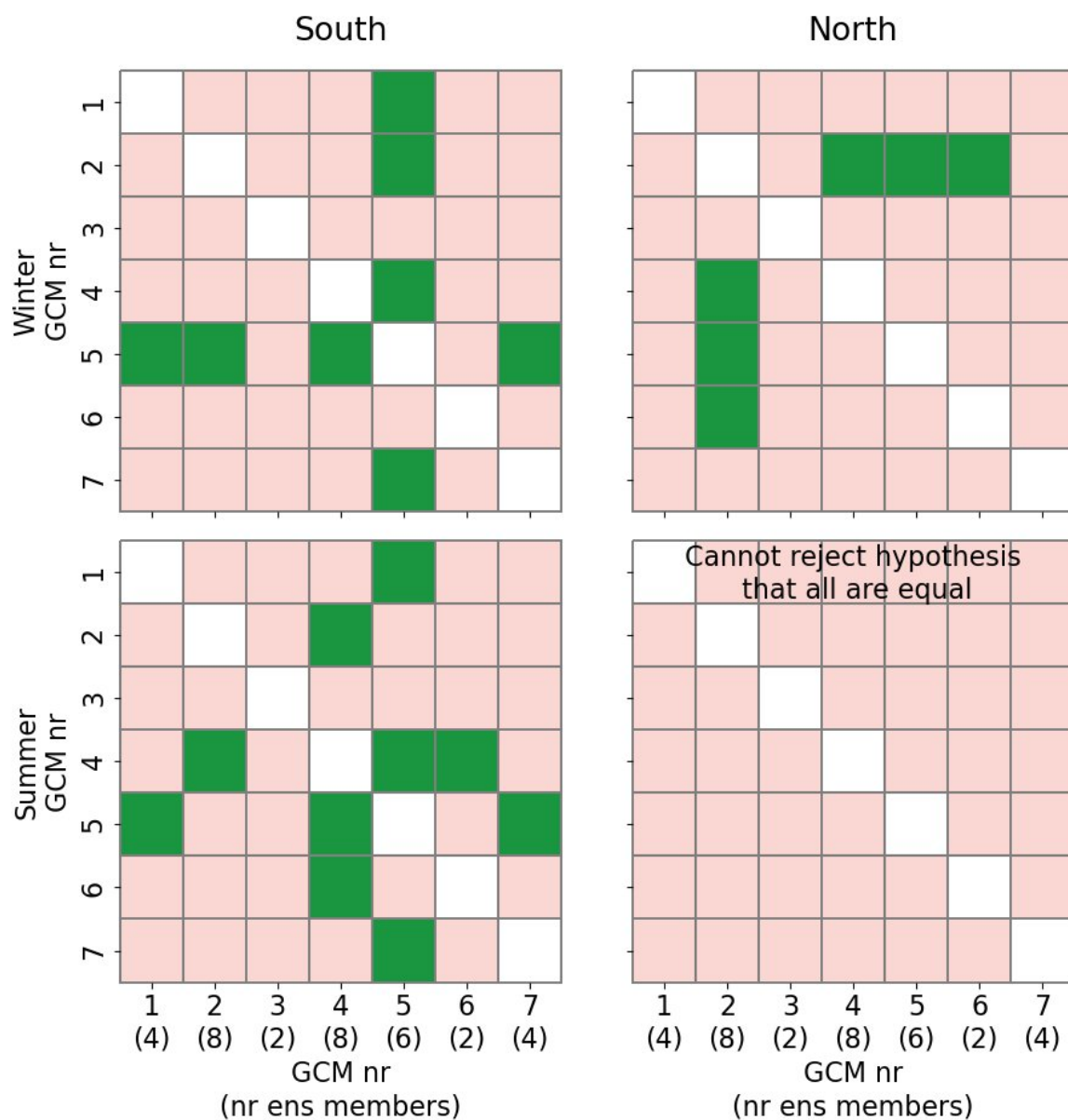


**Figure S8** Same as Fig S5 but for autumn (SON).

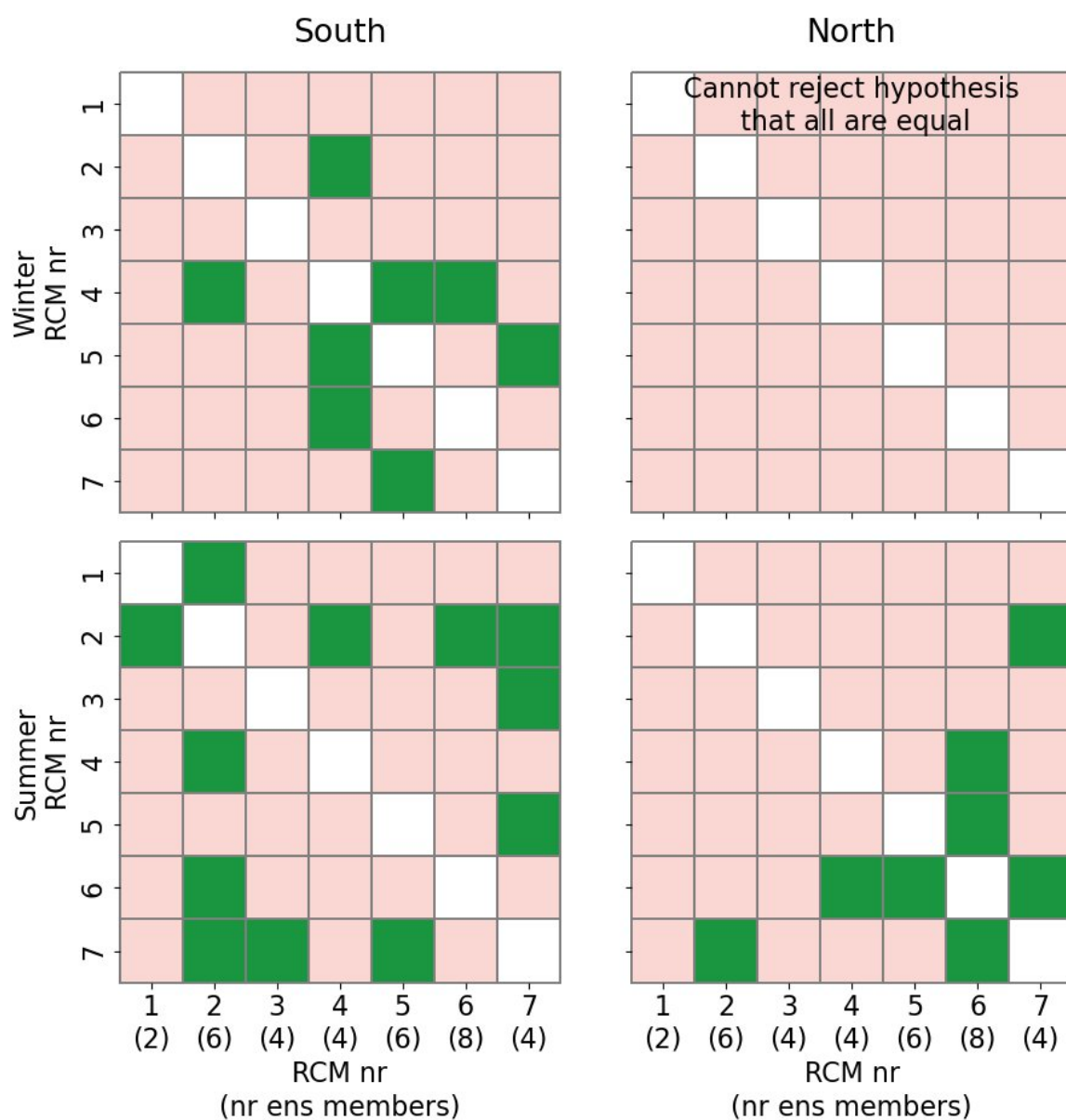


**Figure S9** Temperature differences in the RCM17 ensemble between the period 1971-2000 and GWL2 for winter (top row) and summer (bottom row) in southern Sweden (left) and northern Sweden (right). Numbers indicate sub-ensemble numbers, with the number of members in parenthesis.



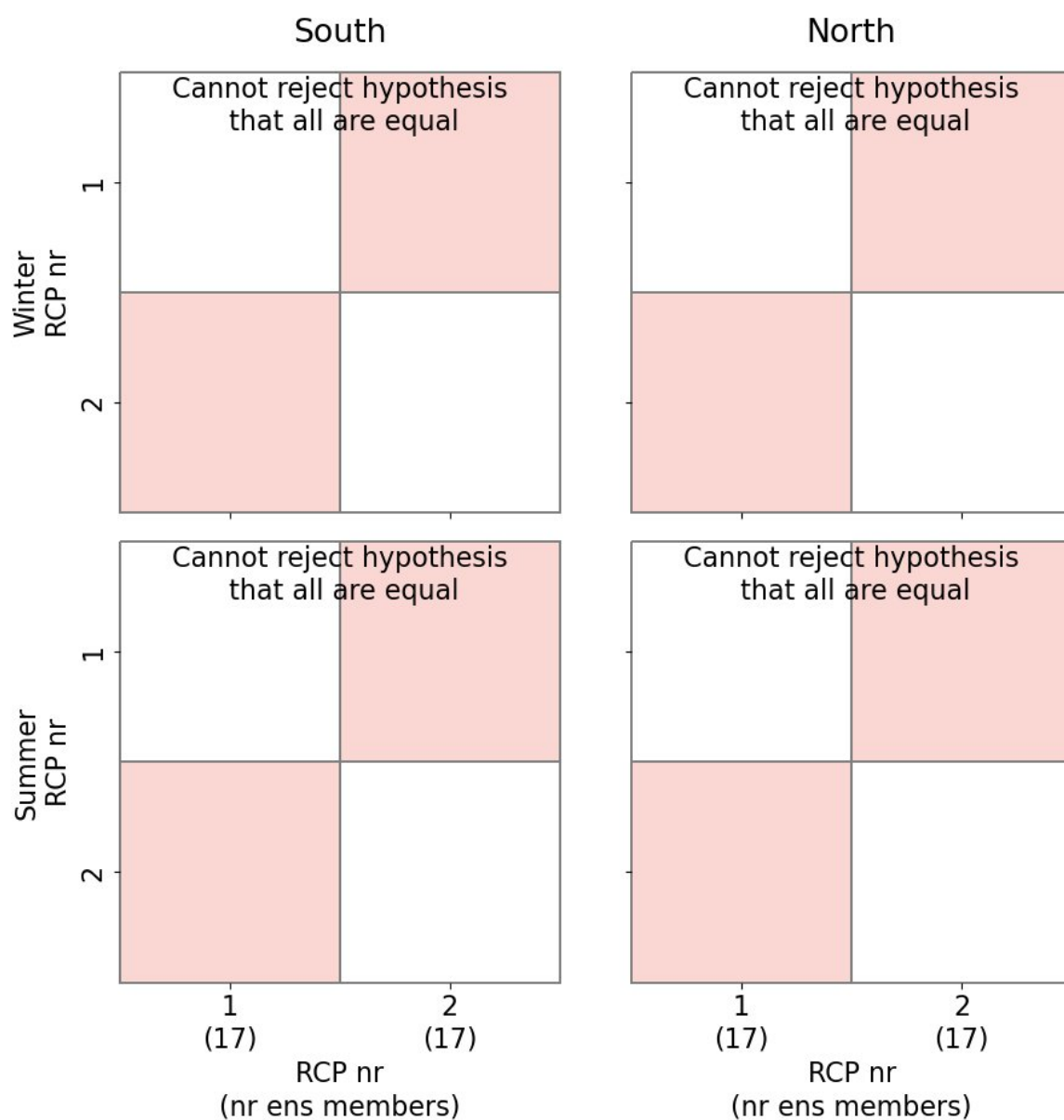


**Figure S10** Matrix of significant differences in precipitation (pr) between GCM-based sub-ensembles. Green colours indicate significant differences between two sub-ensembles and pink non-significant differences. White colours indicate that an ensemble is compared with itself. Numbers indicate sub-ensemble numbers, with the number of members in parenthesis.



**Figure S11** Matrix of significant differences in precipitation (pr) between RCM-based sub-ensembles. Green colours indicate significant differences between two sub-ensembles and pink non-significant differences. White colours indicate that an ensemble is compared with itself. Numbers indicate sub-ensemble numbers, with the number of members in parenthesis.





**Figure S12** Matrix of significant differences in the CORDEX RCMs in tas between RCP-based sub-ensembles. Numbers indicate sub-ensemble numbers, with the number of members in parenthesis. Since there are no significant differences it is not possible to reject the hypothesis that they are all equal.