Appendix to Chapter 5

Climate Change Projections

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Chapter 5 contains a set of figures summarising the regional changes in several important variables (seasonal mean temperature and precipitation, 95%ile daily precipitation, 90%ile daily maximum and minimum temperature and 25%ile seasonal mean precipitation) for specific important seasons. In this appendix we present these summary figures for these variables for all seasons.

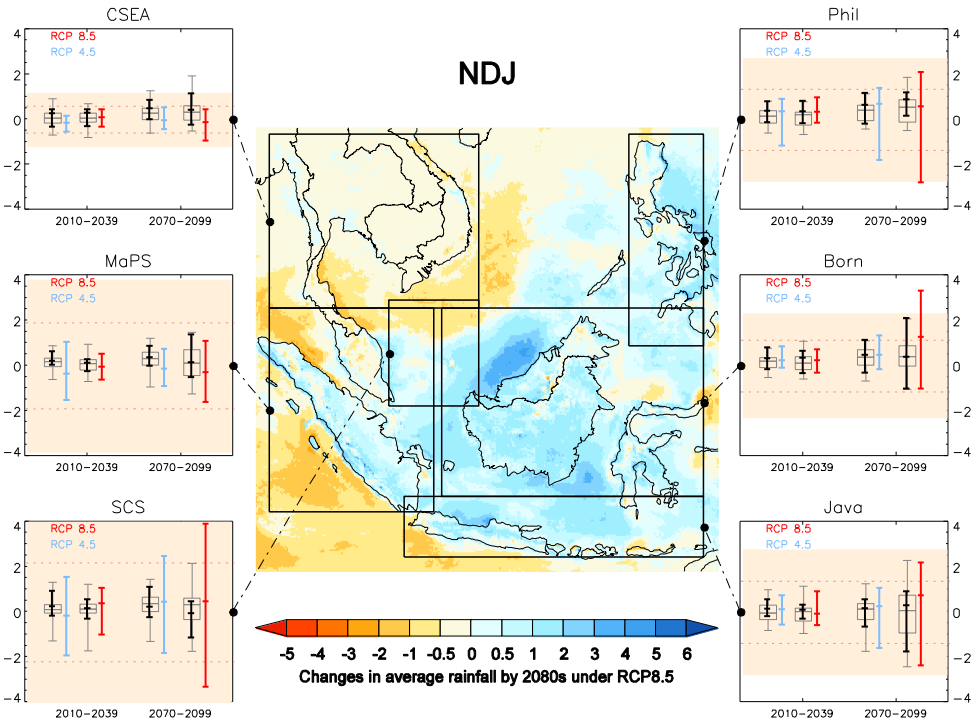


Fig A5.1: Projected changes in average precipitation (mm/day) in the NDJ season for the 9 dynamically downscaled CMIP5 models (right-hand coloured bar of each pair) compared to their driving GCMs (left-hand black bar of each pair) and those from the full CMIP5 ensemble (grey box and whiskers underlying the black bars). Range of changes averaged over the regions defined by the boxes on the map are displayed for the near-term (2010-2039) and the end of the century (2070-2099) compared to a baseline of 1980-2009 and for two different greenhouse gas concentration pathways, RCP4.5 (blue) and RCP8.5 (red). In the symbols for each region, the middle line represents the median and the ends the minimum and maximum values with, for the CMIP5 results, the boxes representing the interquartile range of the changes. The orange shading represents the two standard deviation range in interannual variability of the seasonal average over each region in the ERA-interim simulations for the baseline period with the red dashed lines indicating the one standard deviation range. The map displays the median change from the 9 RCM projections.

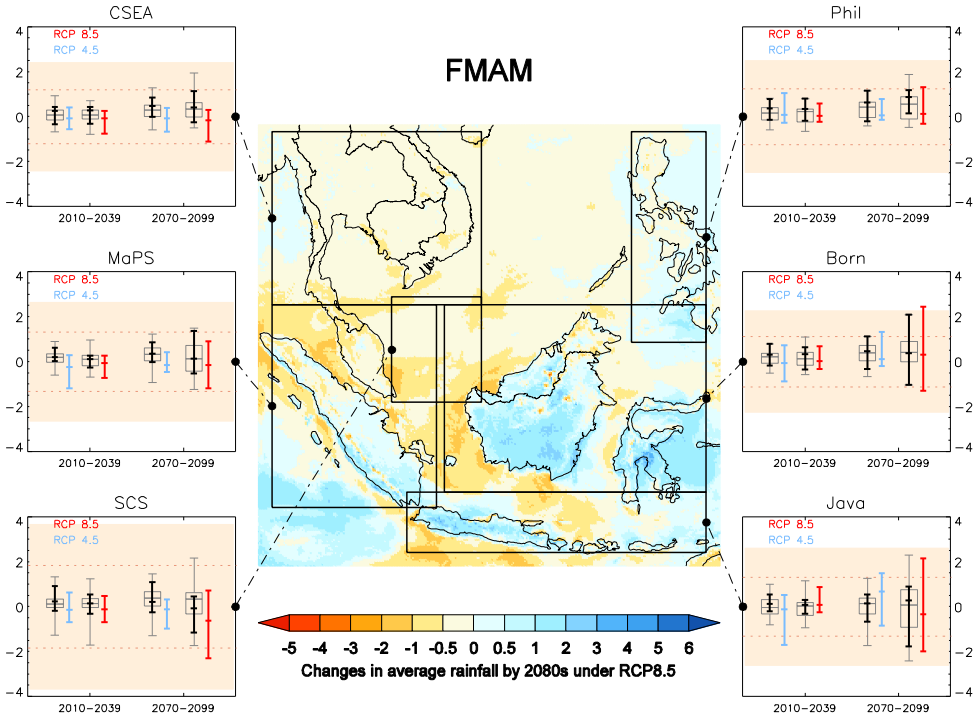


Fig A5.2: As Figure A5.1 but for FMAM.

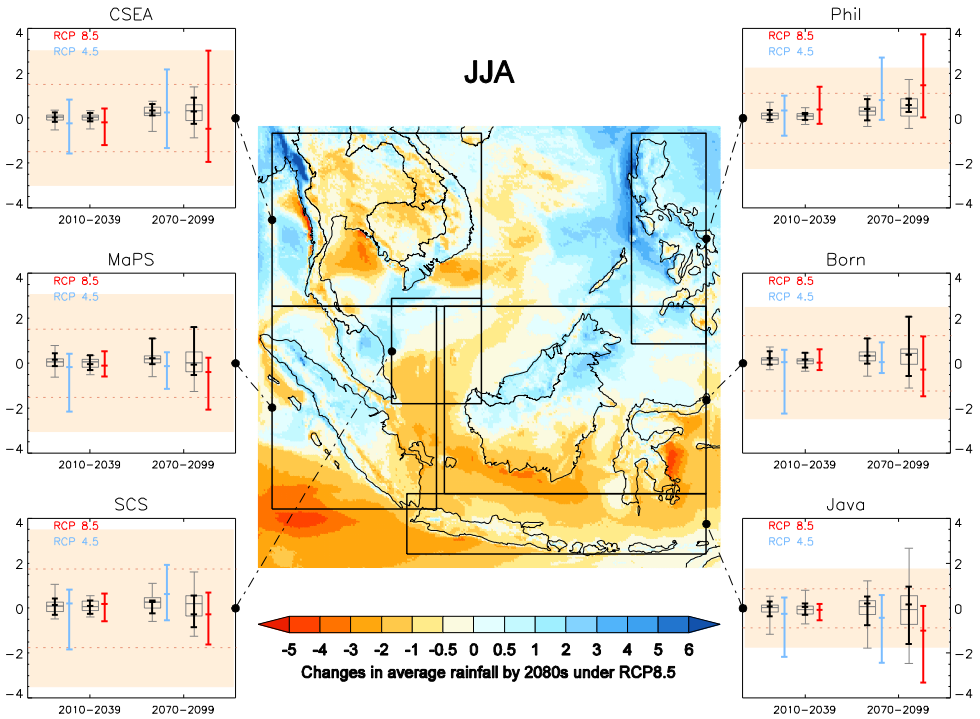


Fig A5.3: As Figure A5.1 but for JJA.

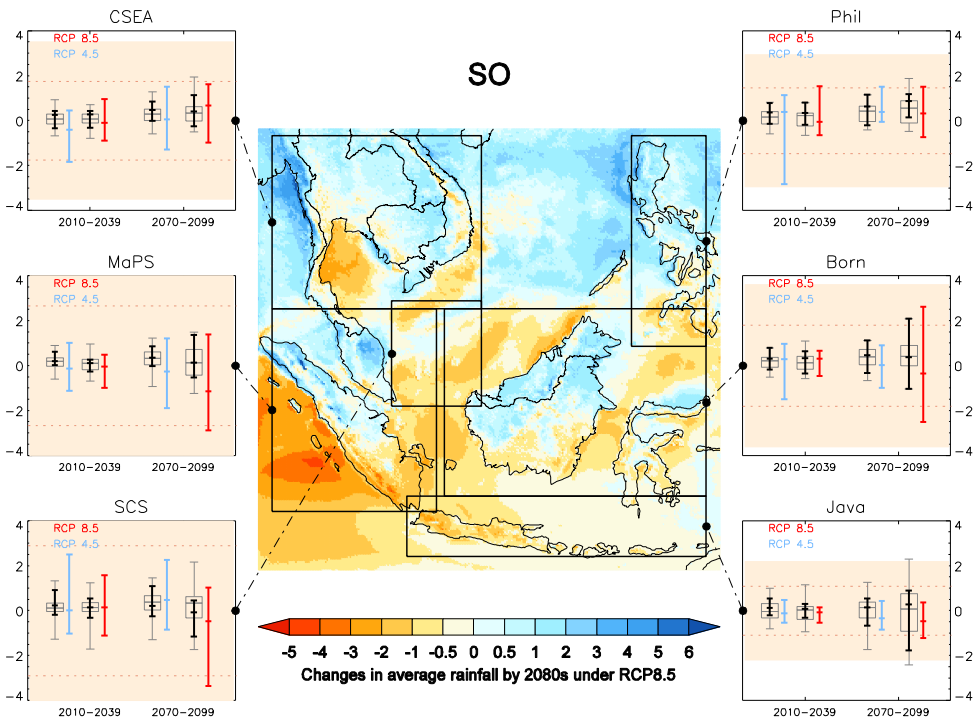


Fig A5.4: As Figure A5.1 but for SO.

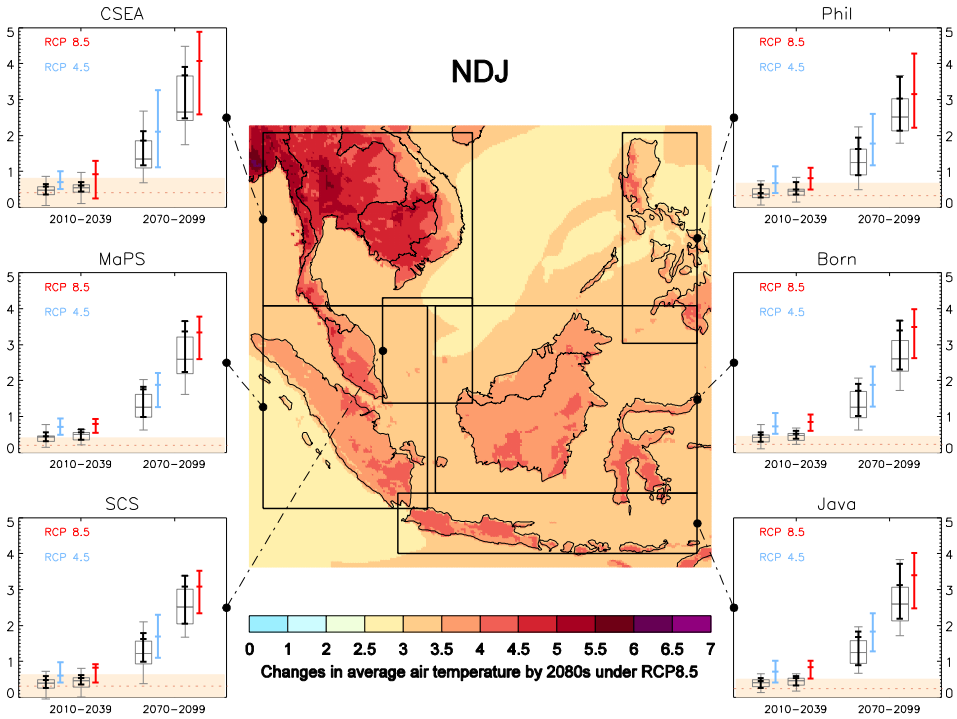


Fig A5.5: As Figure A5.1 but for surface air temperature (°C) in the NDJ season.

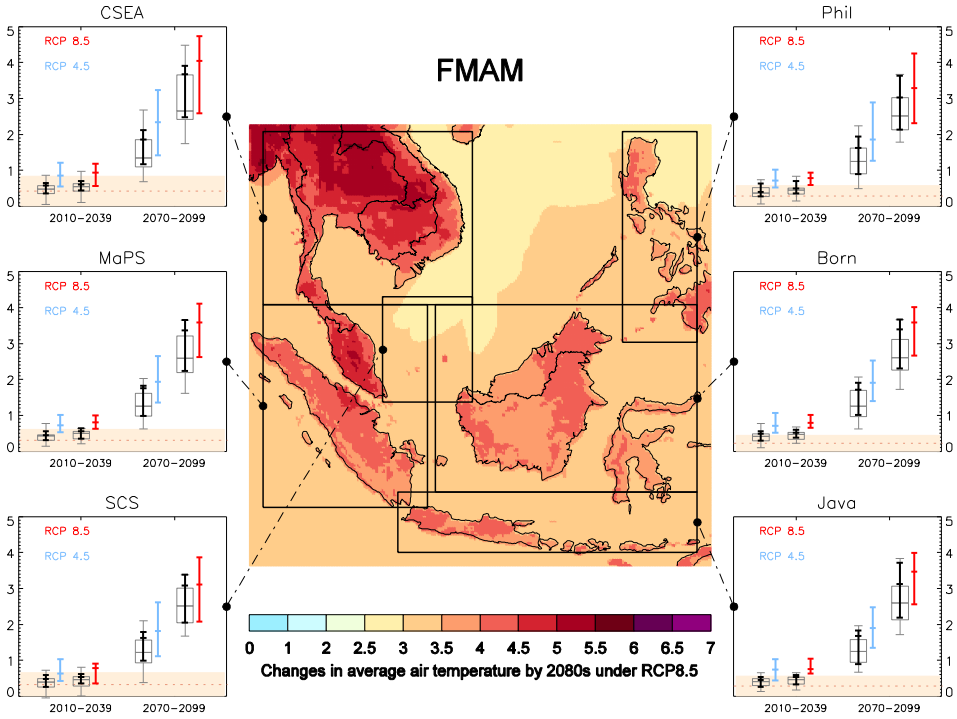


Fig A5.6: As Figure A5.5 but for FMAM.

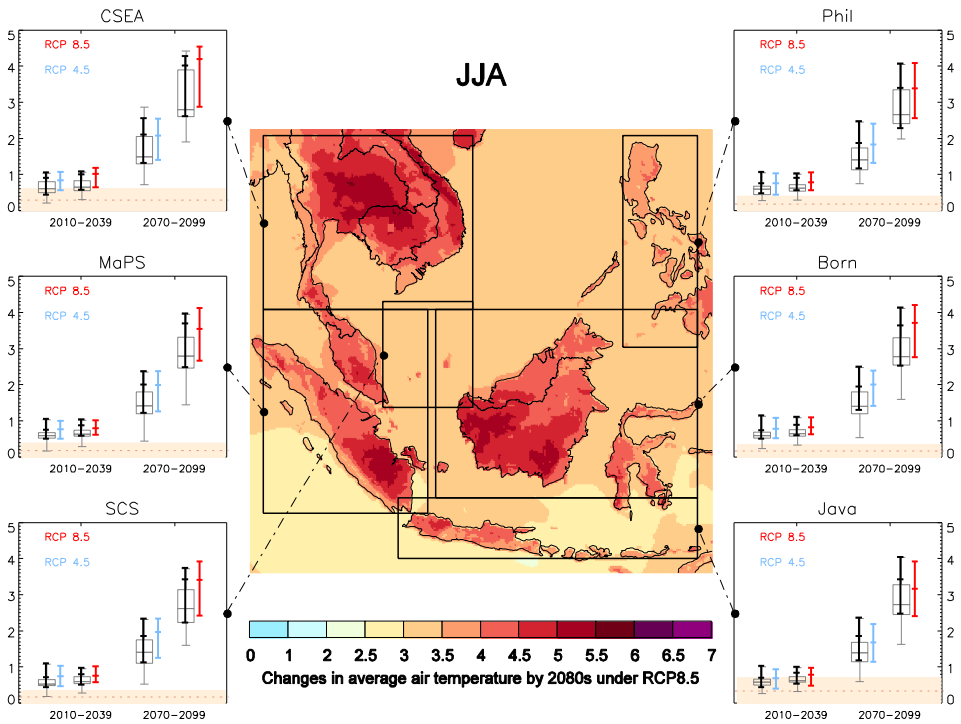


Figure A5.7: As Figure A5.5 but for JJA.

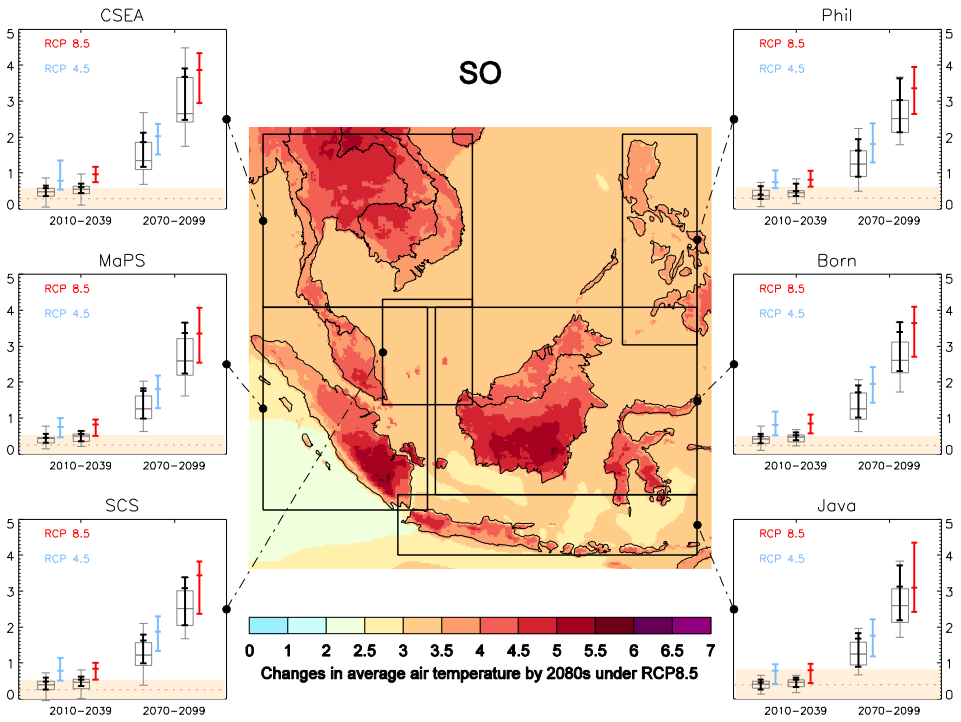


Figure A5.8: As Figure A5.5 but for SO.

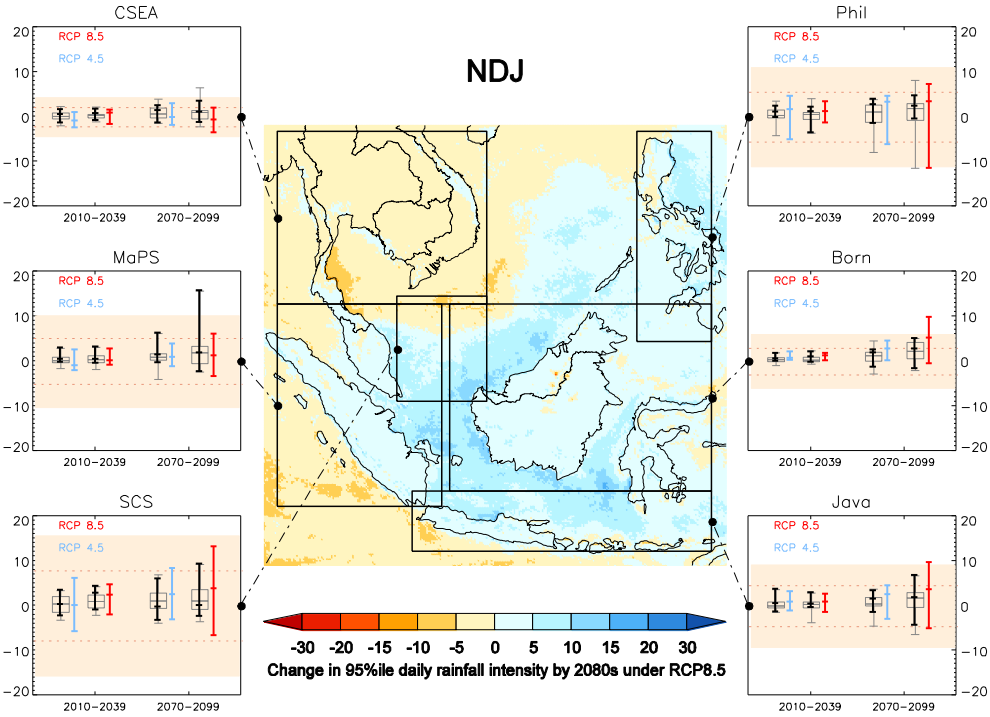


Figure A5.9: Summary of projected changes in the magnitude of the 95th percentile daily precipitation (mm/day) comparing the full CMIP5 ensemble with those from the RCMs used in this study and their driving GCMs for in the NDJ season following the format of Figure A5.1.

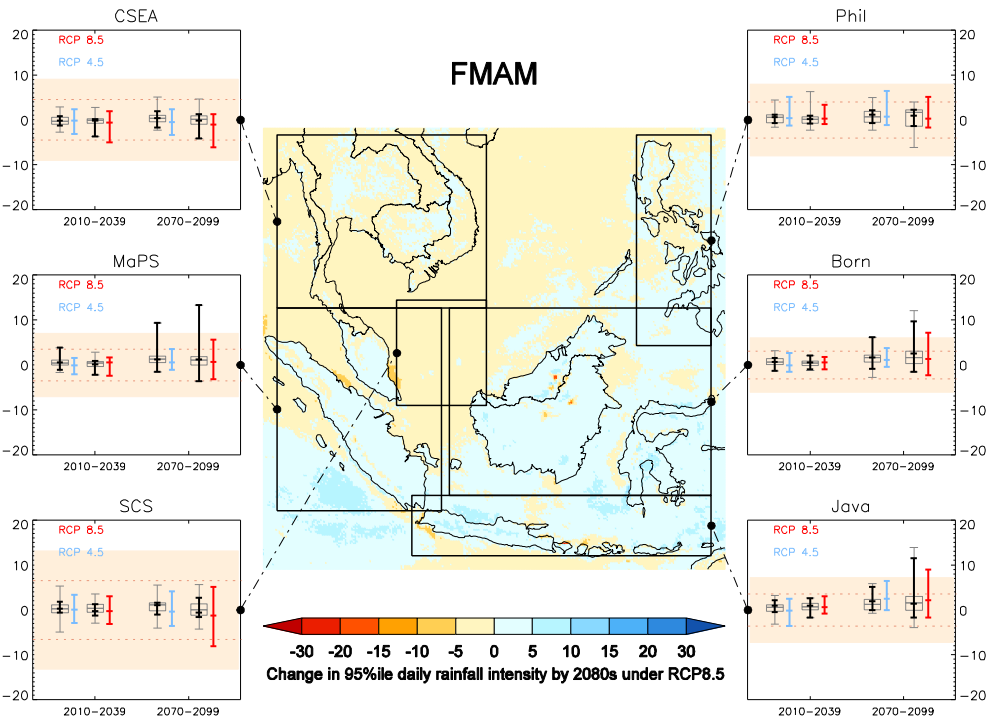


Fig A5.10: As Figure A5.9 but for FMAM.

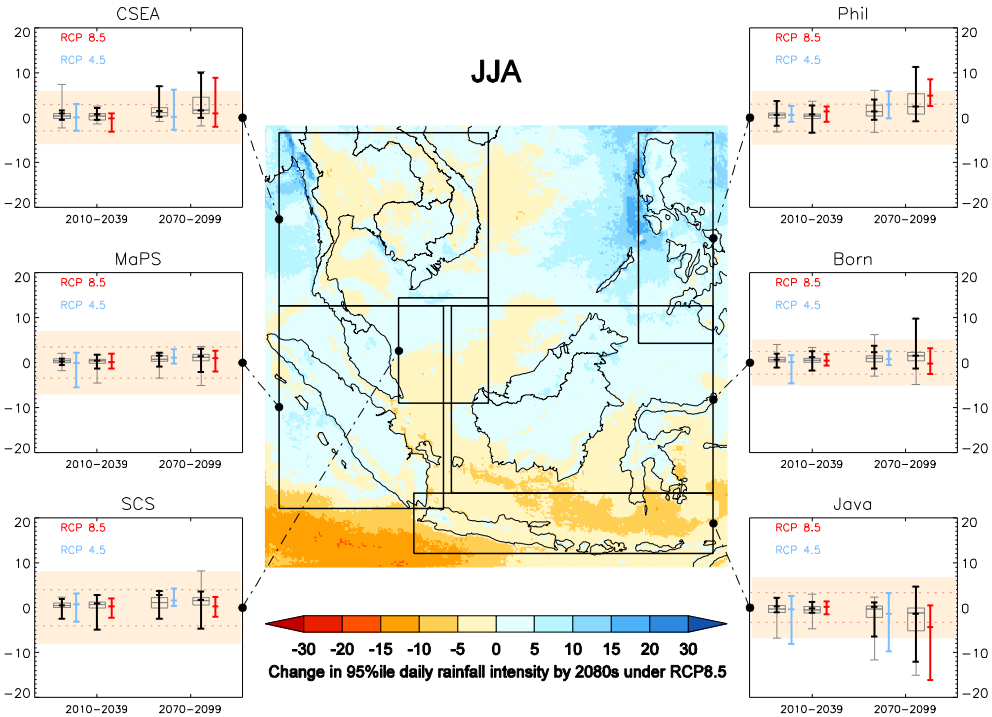


Fig A5.11: As Figure A5.9 but for JJA.

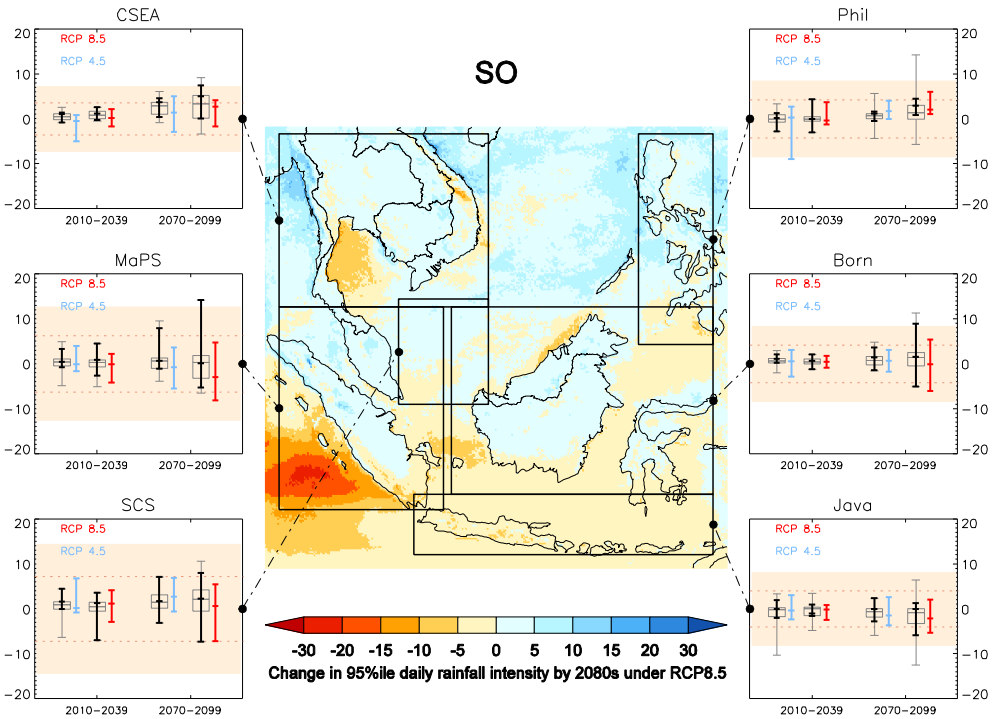
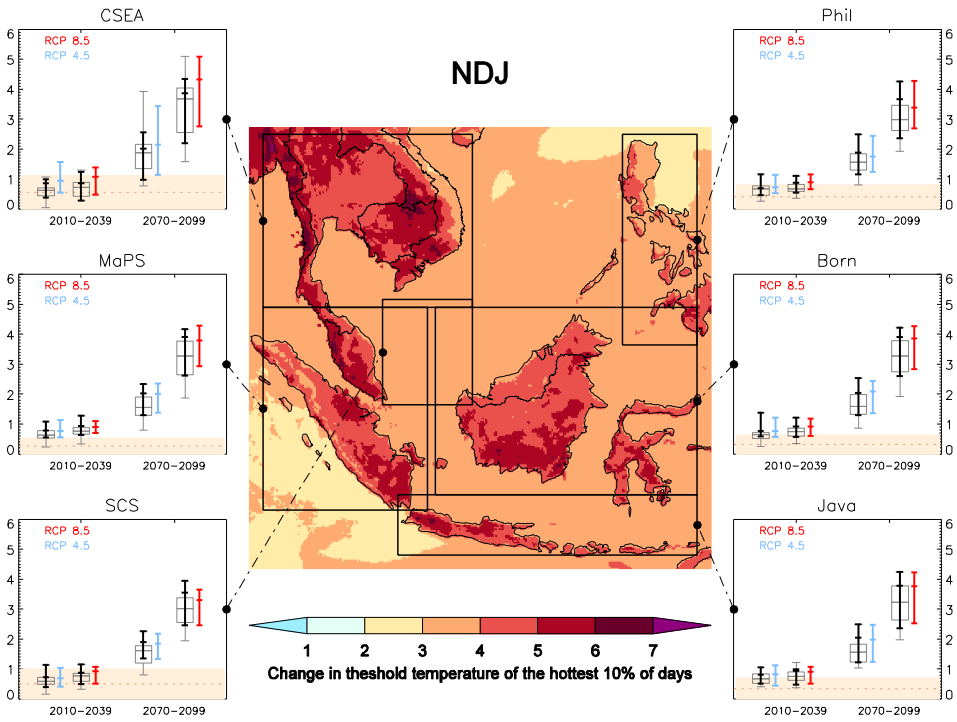


Fig A5.12: As Figure A5.9 but for SO.



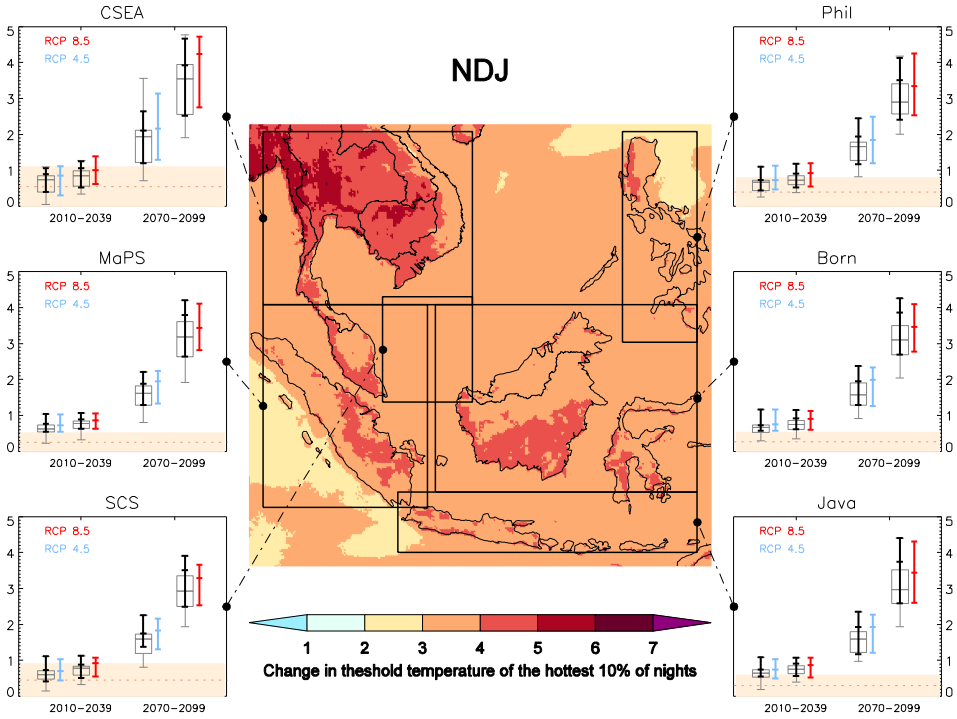


Fig A5.13: As Figure A5.9 but for change in the 90th percentile of daily maximum temperature (top) and minimum temperature (bottom) in °C in the NDF season.

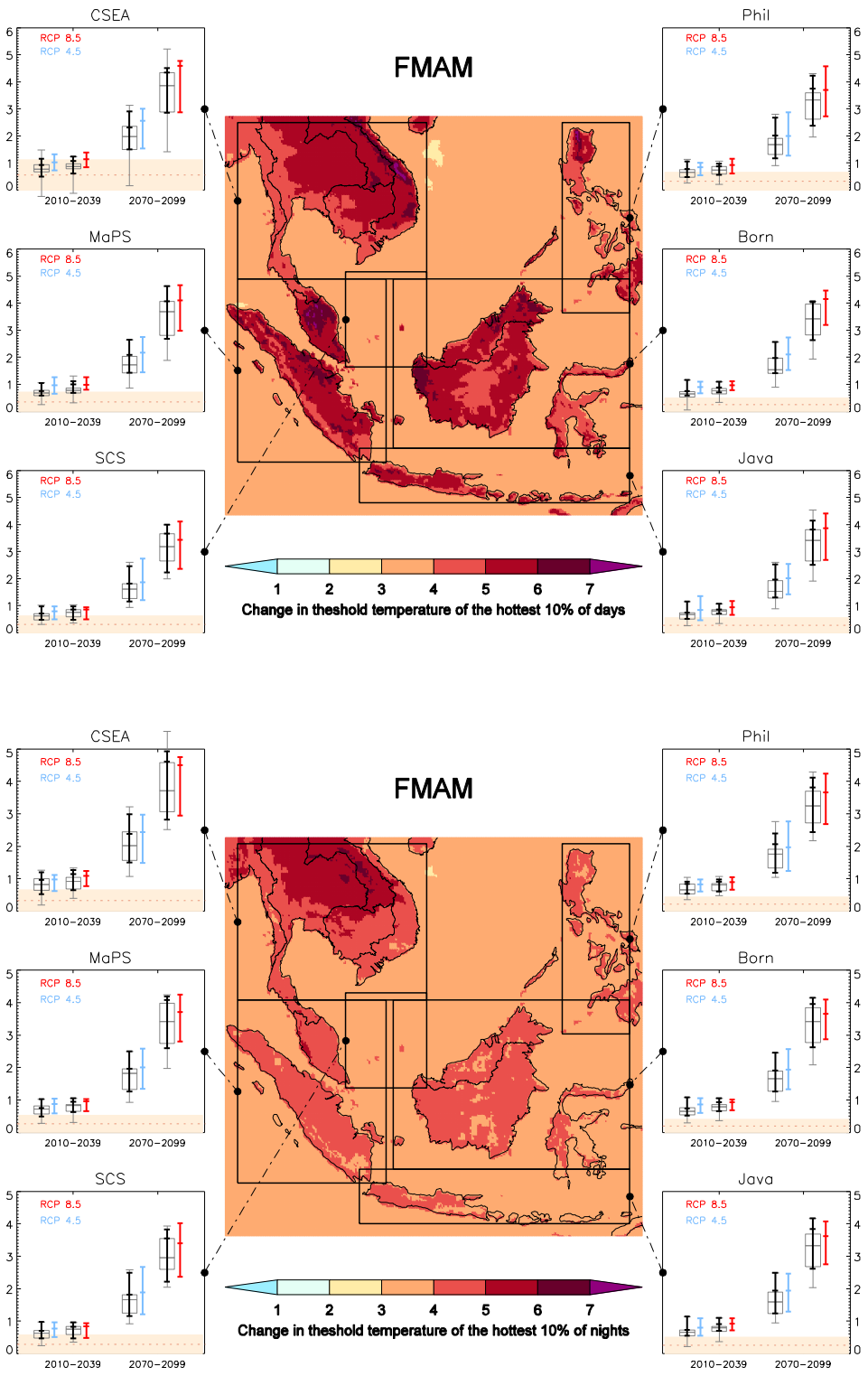


Fig A5.14: As Figure A5.13 but for FMAM.

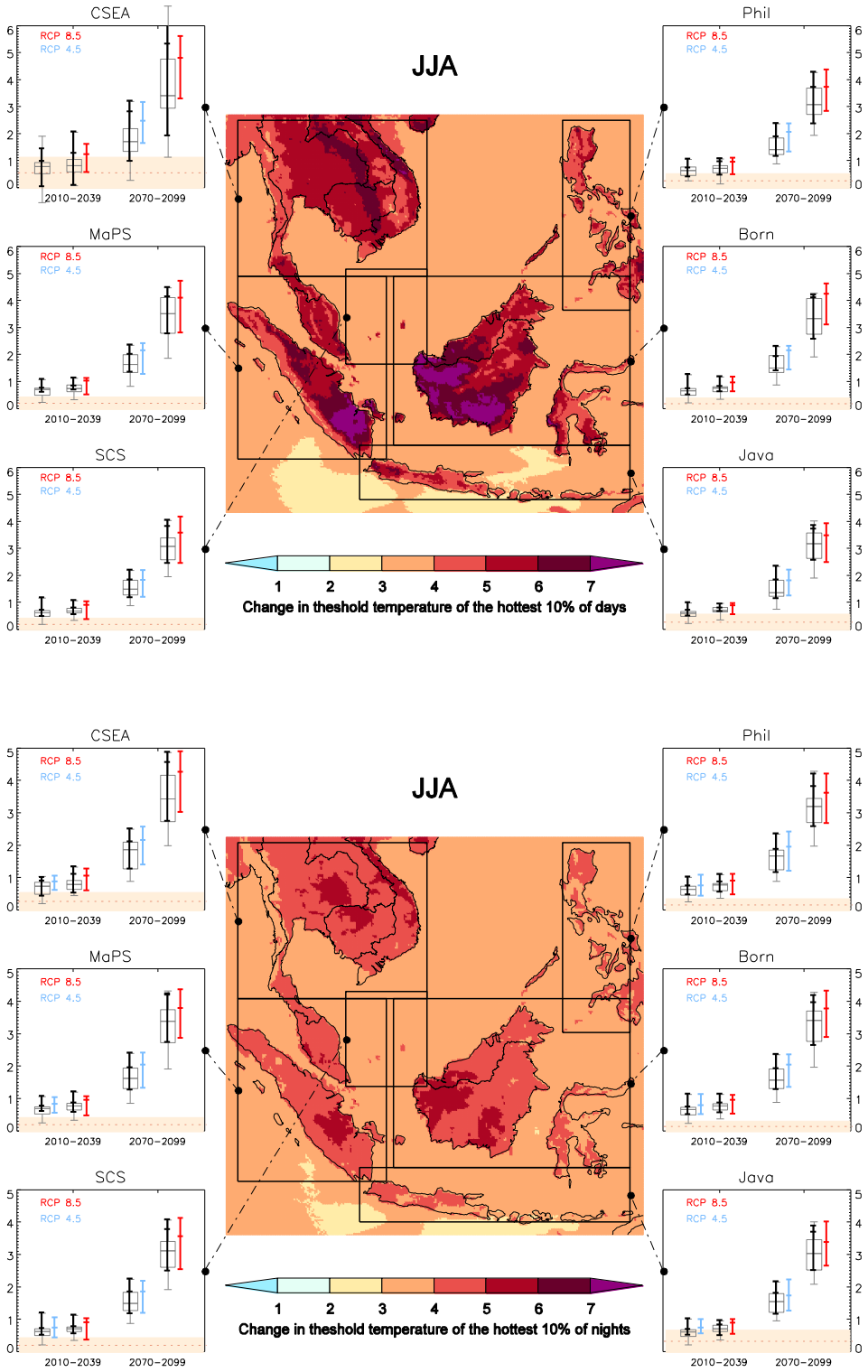


Fig A5.15: As Figure A5.13 but for JJA.

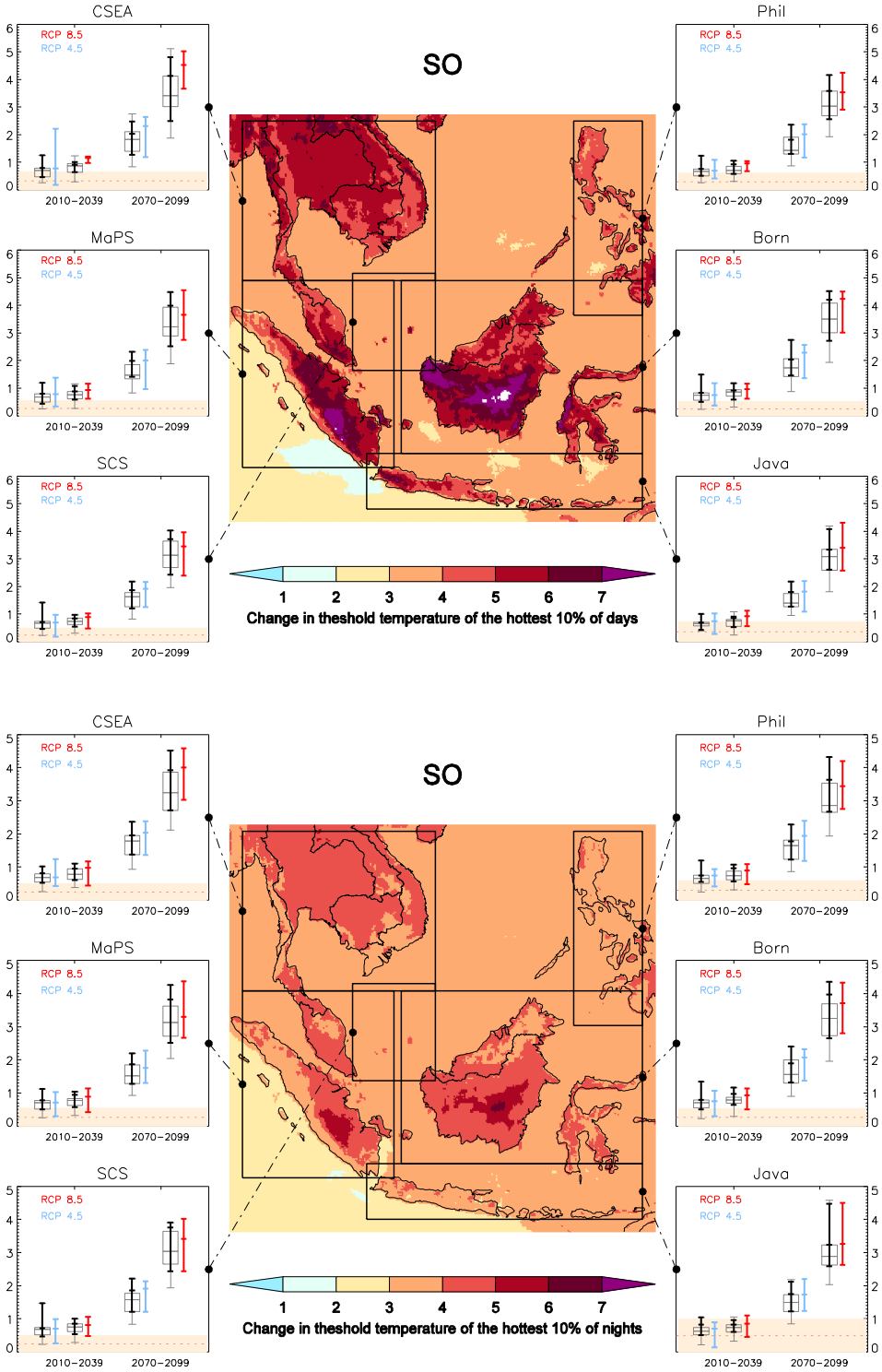


Fig A5.16: As Figure A5.13 but for SO.

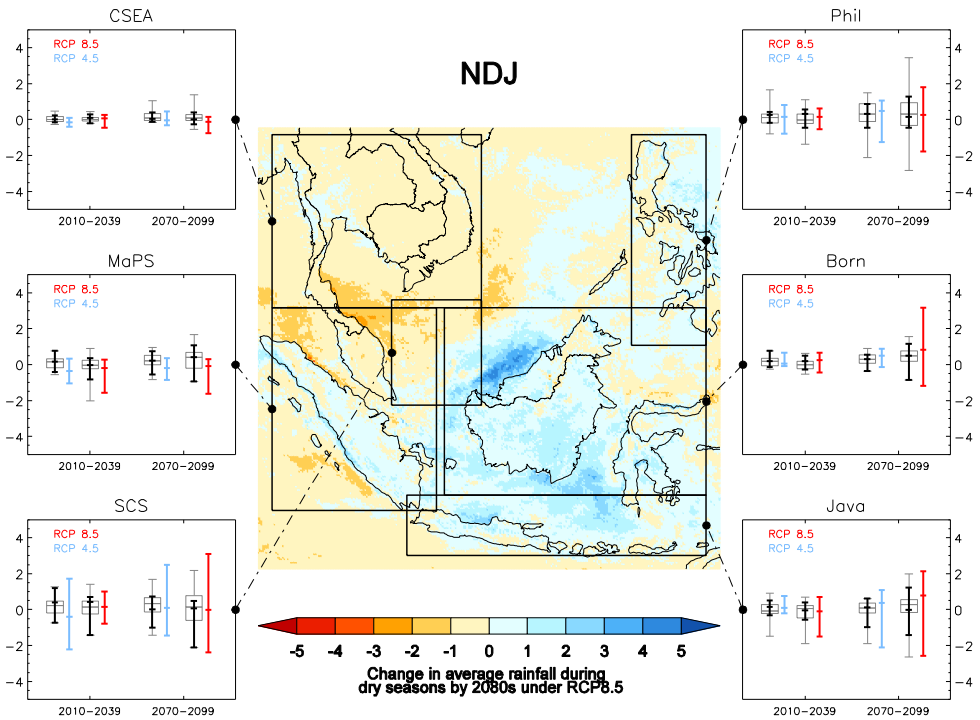


Figure A5.17: As figure A5.13 but for change in the 25th percentile of seasonal mean precipitation (mm/day) in the NDJ season. Note that insufficient data are available to calculate estimates of the standard deviations of the interannual variability of this index.

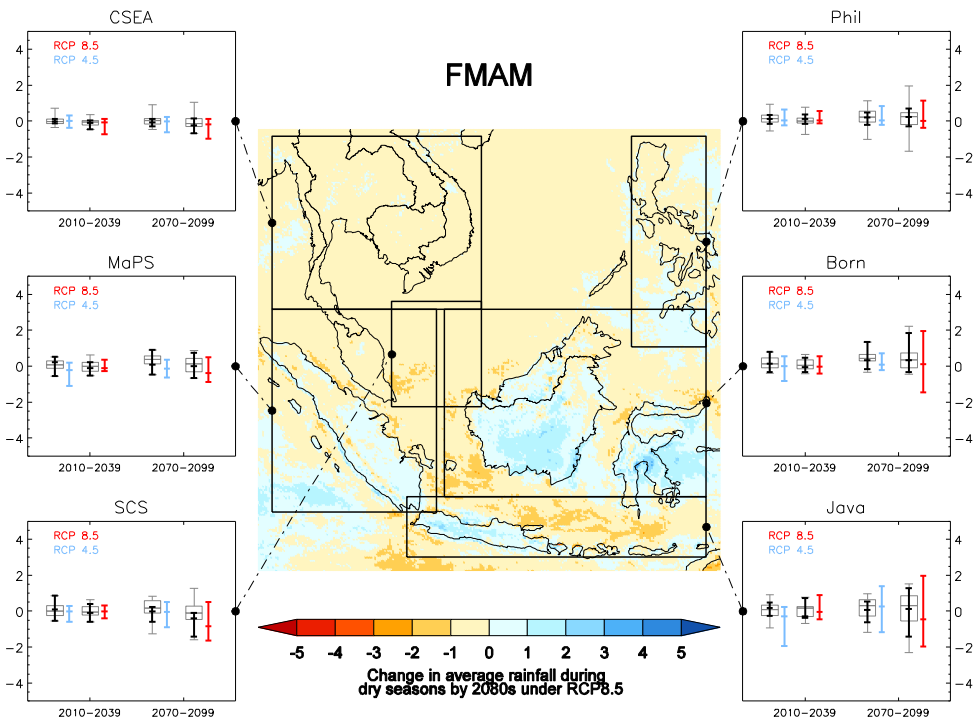


Fig A5.18: As Figure A5.17 but for FMAM.

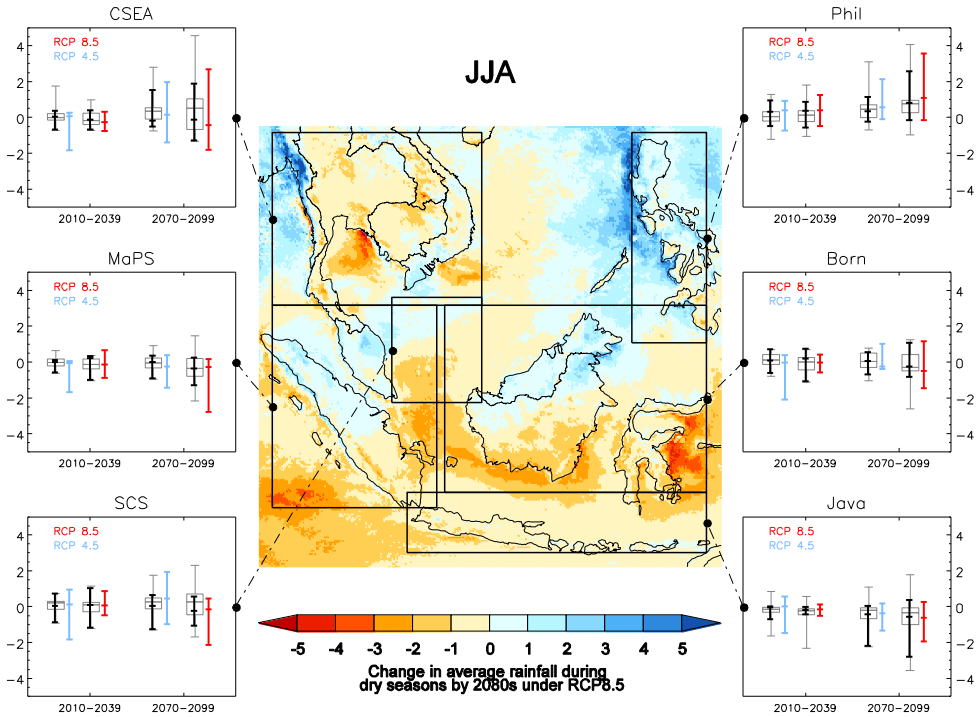


Fig A5.19: As Figure A5.17 but for JJA.

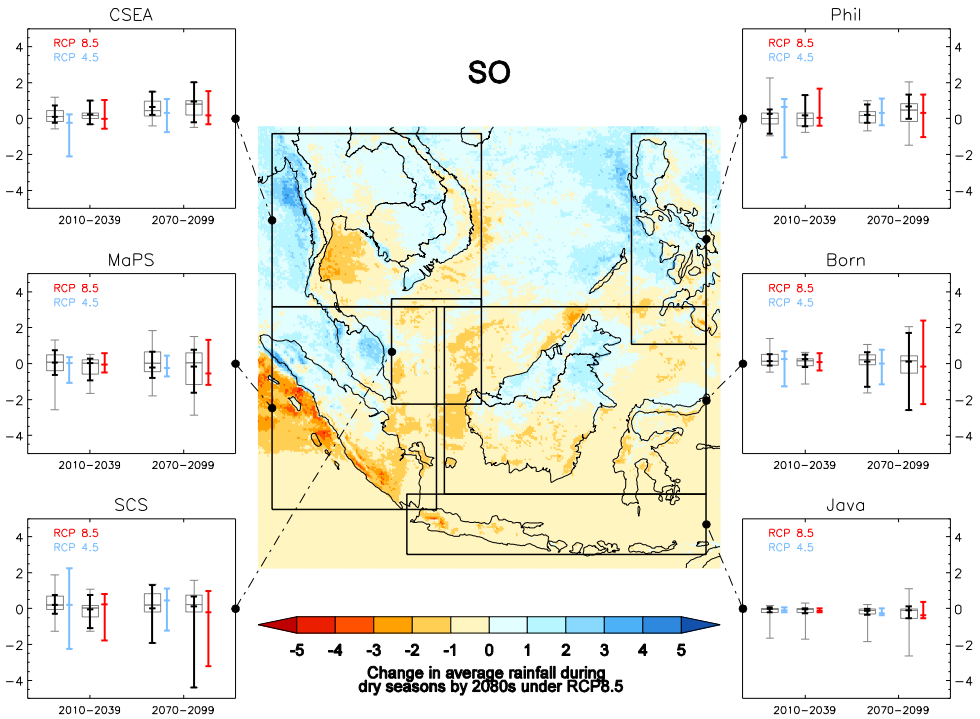


Fig A5.20: As Figure A5.17 but for JJA.