

Assessing the Future wind Energy Potential in Portugal Using a CMIP6 Model Ensemble and WRF High-Resolution Simulations

Supplementary Material

WS CMIP6 Historical / ERA5 Median Differences

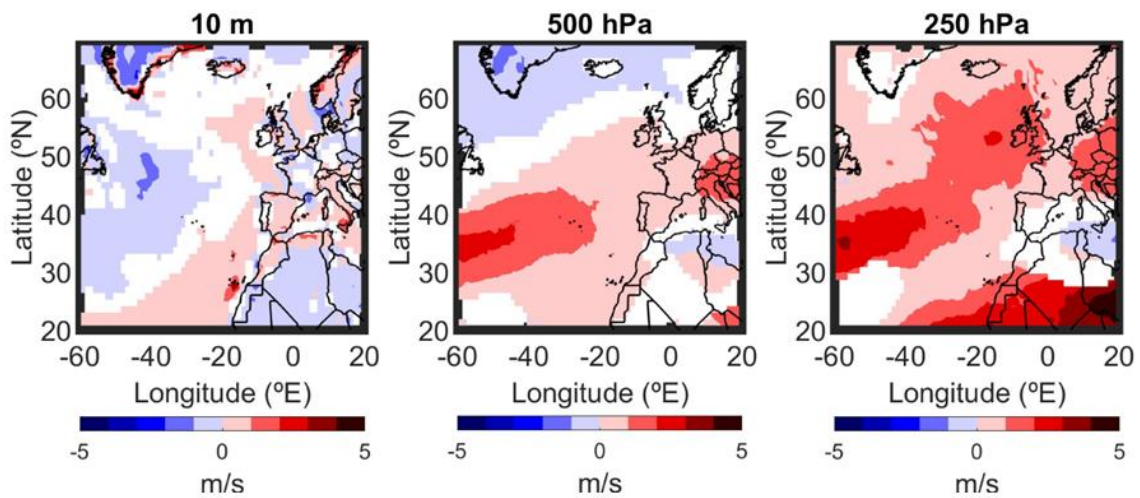


Figure S1. Wind speed (WS, m/s) median differences between the CMIP6 ensemble and ERA5 data for 1995–2014, at 10 m (left), 500 hPa (middle) and 250 hPa (right) levels.

WS CMIP6 Historical / ERA5 Overlap Percentage

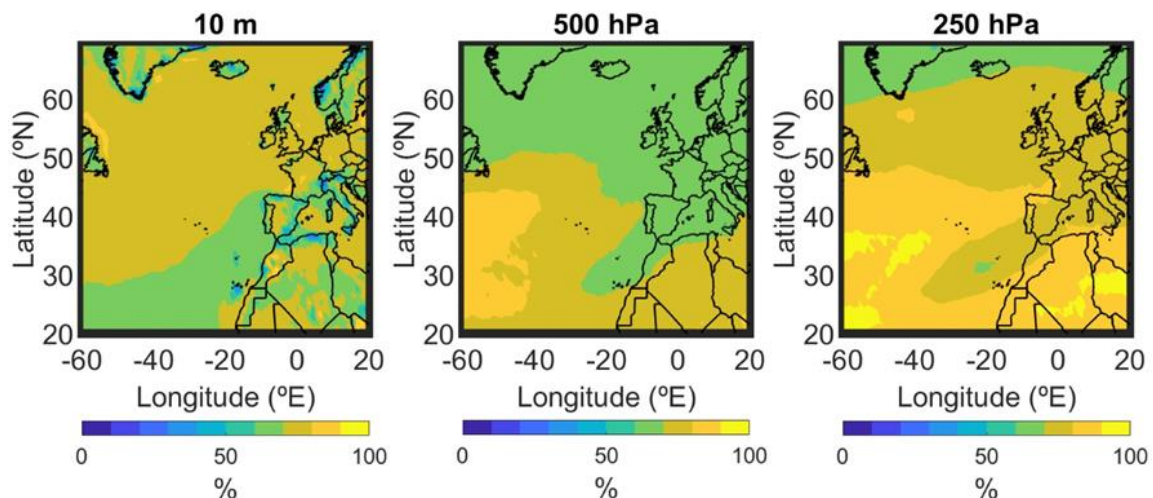


Figure S2. Wind speed (WS) overlap percentage (OP, %) between the CMIP6 ensemble and ERA5 data for 1995–2014, at 10 m (left), 500 hPa (middle) and 250 hPa (right) levels.

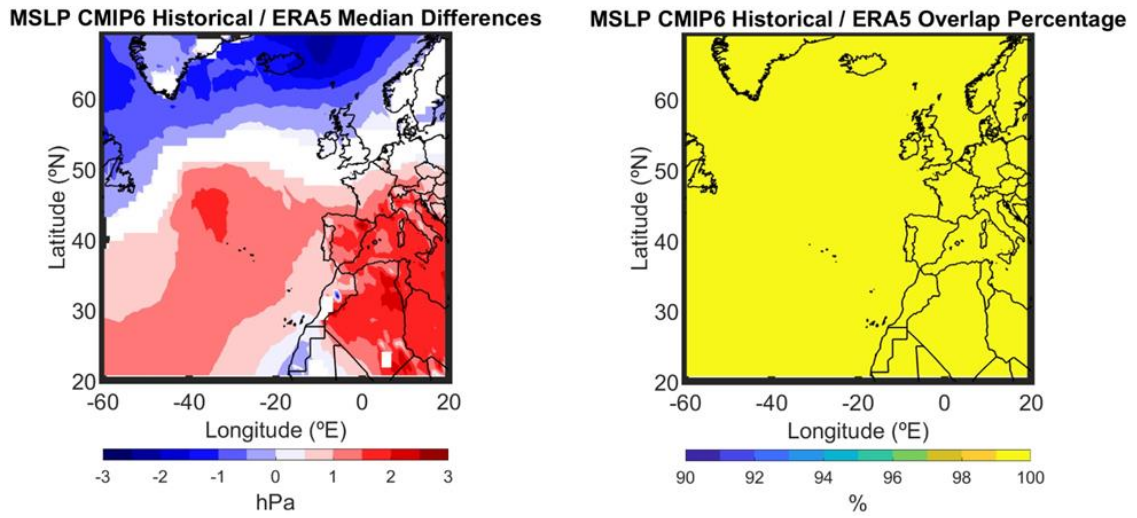


Figure S3. Sea level pressure (SLP, hPa) median differences (left side) and overlap percentage (OP, %, right side) between the CMIP6 ensemble and ERA5 data for 1995–2014.

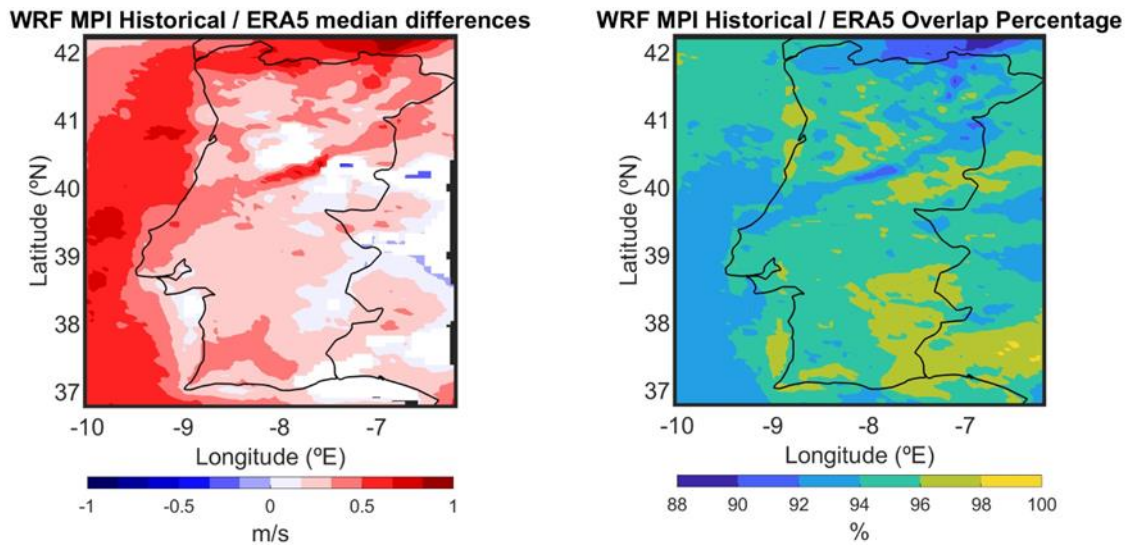


Figure S4. Wind speed (WS, m/s) median differences (left side) and overlap percentage (OP, %, right side) between the WRF MPI-based and ERA5-based simulations for 1995–2014.

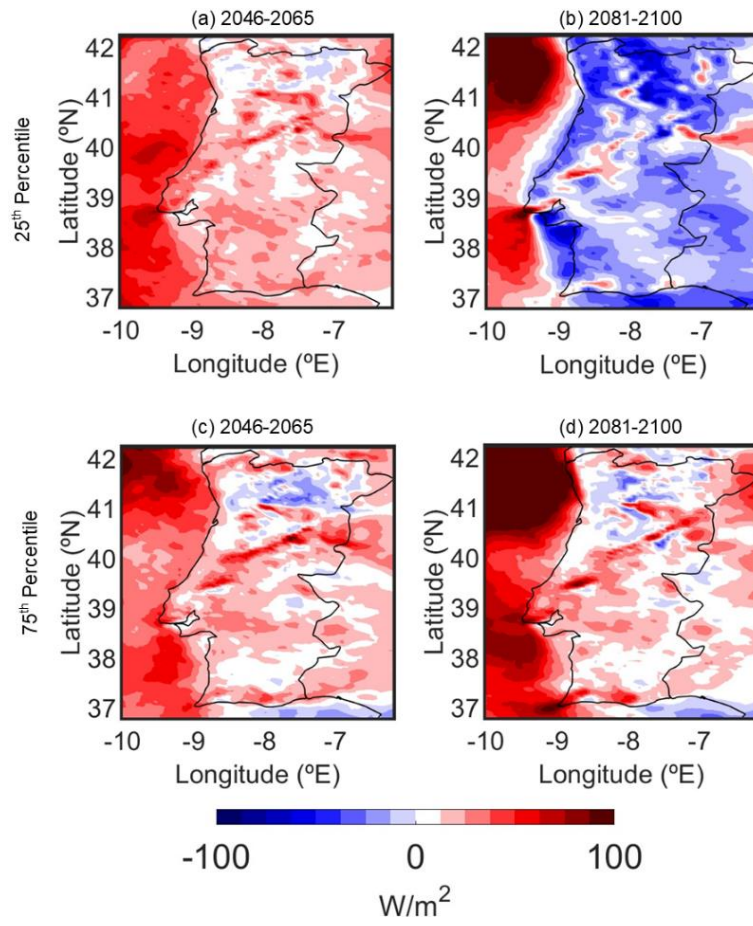


Figure S5. 25th and 75th percentile absolute anomalies of annual mean 100 m WPD (W/m^2) for (a, c) 2046–2065 and (b, d) 2081–2100, under SSP5-8.5, relatively to 1995–2014.