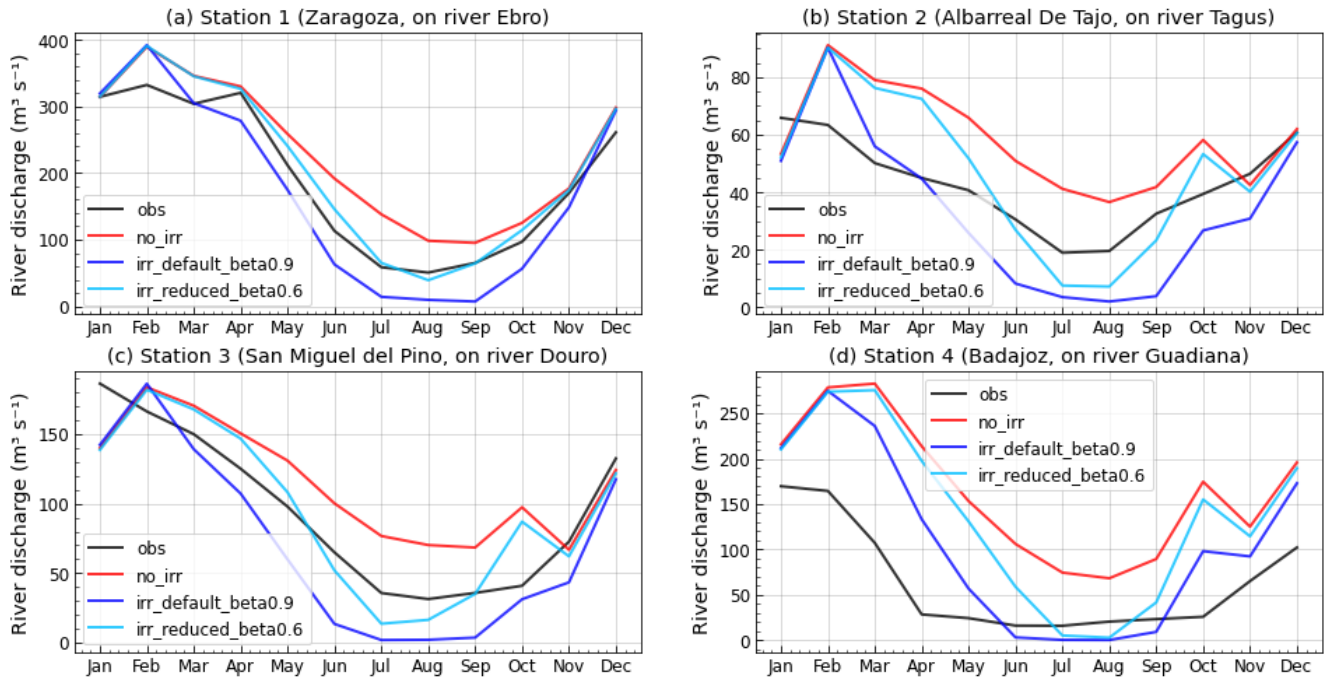
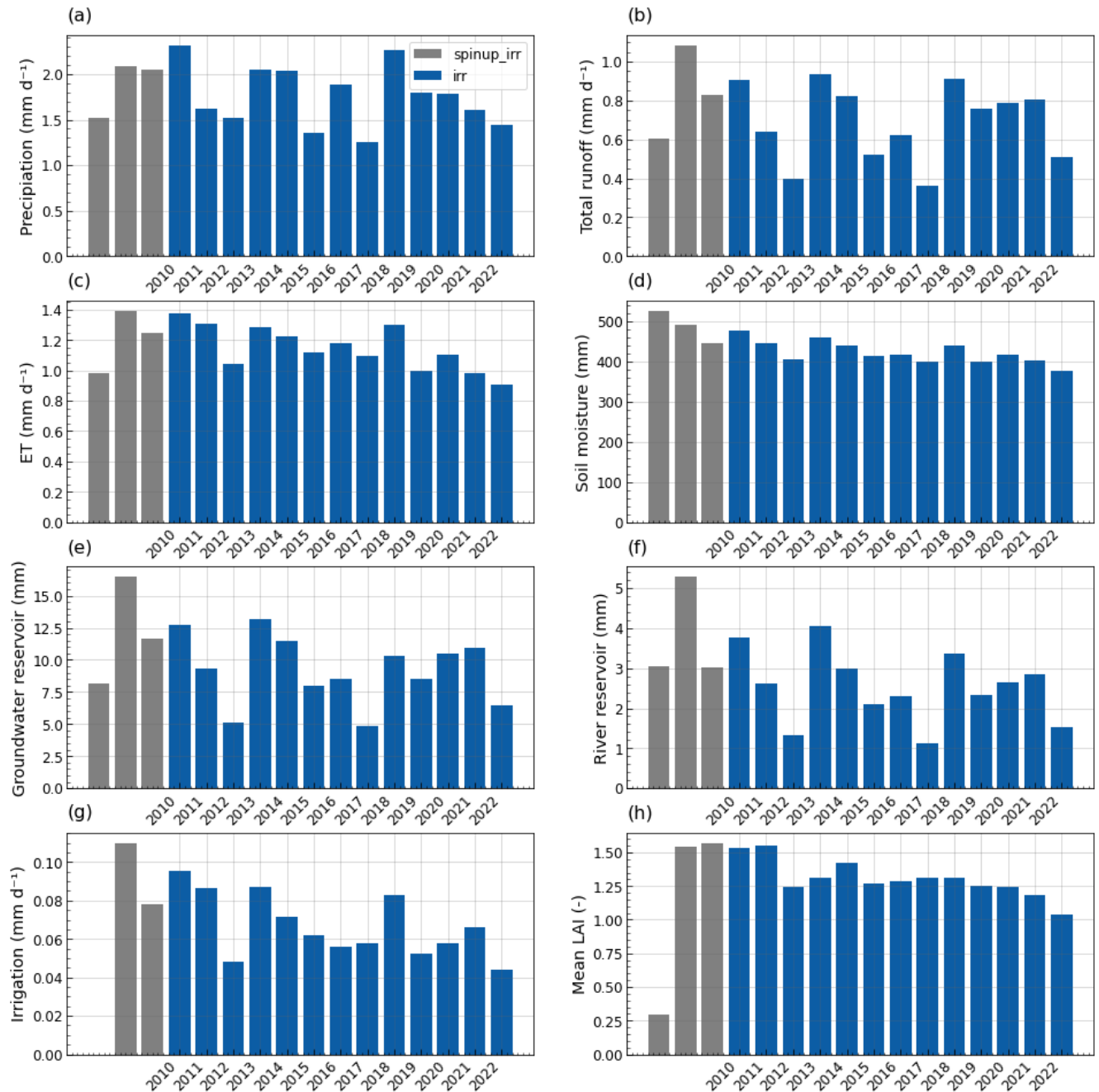


Appendix figure to explain the choice of the soil moisture target in the irrigation scheme. Seasonal cycle of river discharge at four stations in GRDC observations and three ORCHIDEE offline simulations, without irrigation, with the default target (90% of field capacity SM) and with the reduced target used in the article (60% of field capacity SM).

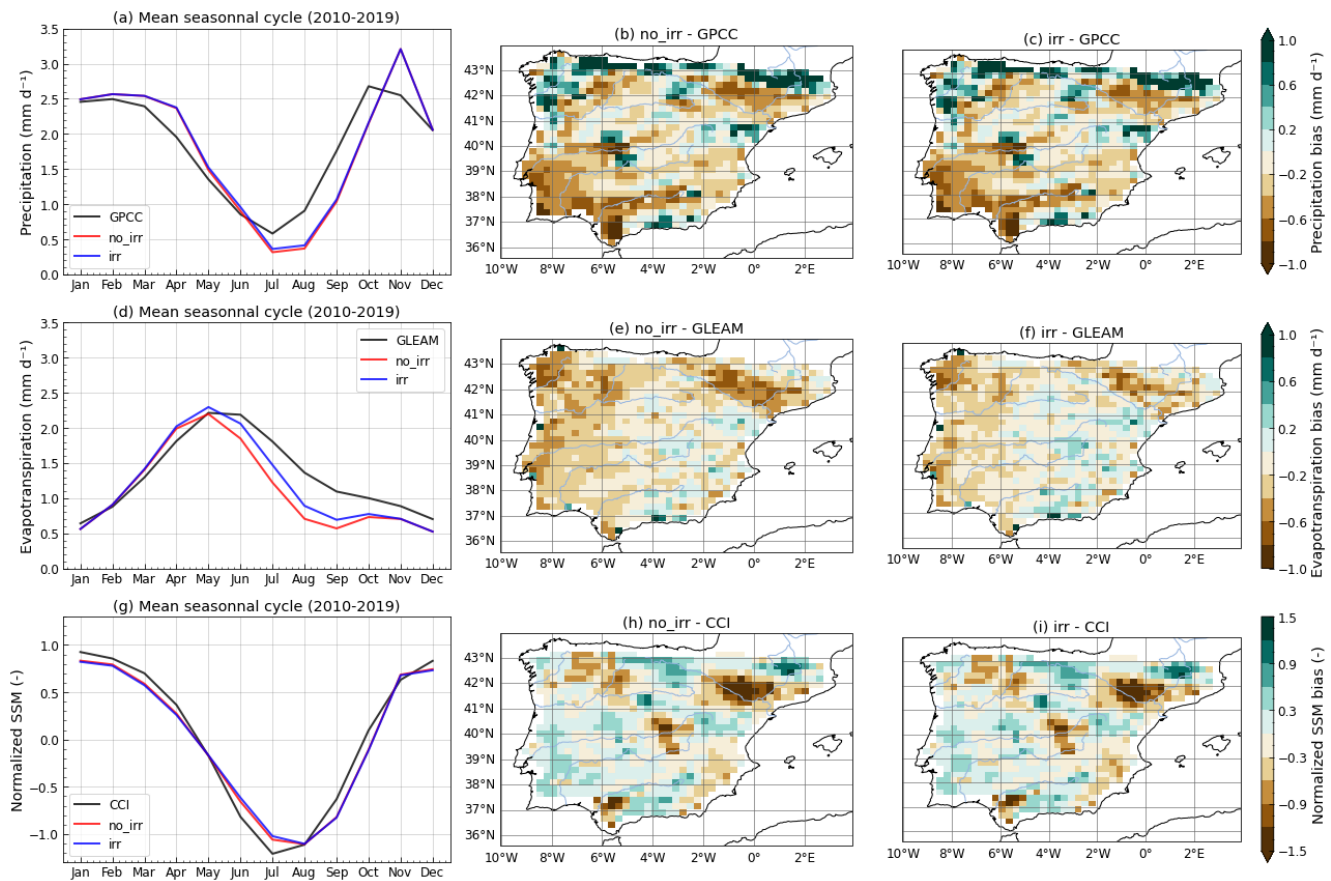
Will be complemented by technical details on the simulations run, and the previous results from Arboleda et al. 2024 discussing the possible values of this parameter.



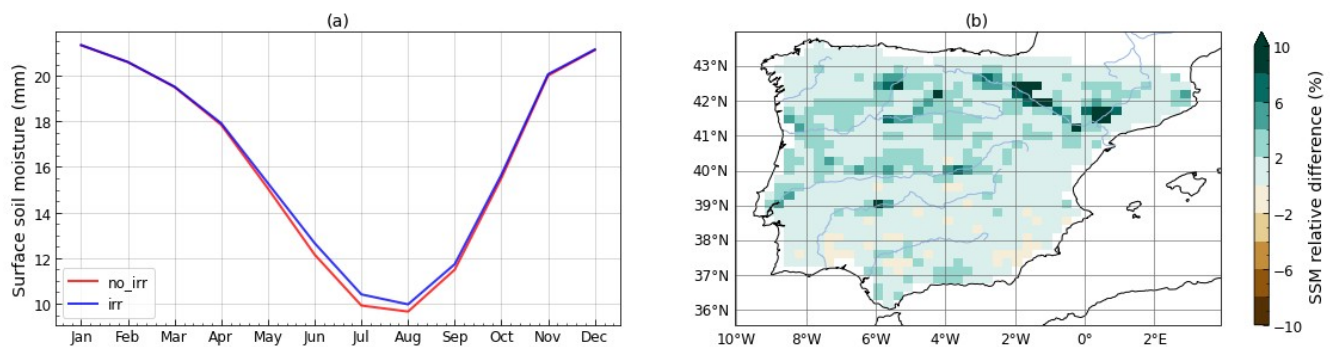
Appendix figure to justify the choice of three-year spin up. Annual mean of hydrological and vegetation variables in the *irr* simulation and its spin-up.
The figure will be complemented by technical details and correlation coefficients showing that from 2010 to 2022, most variables are driven by the interannual variability in precipitation.



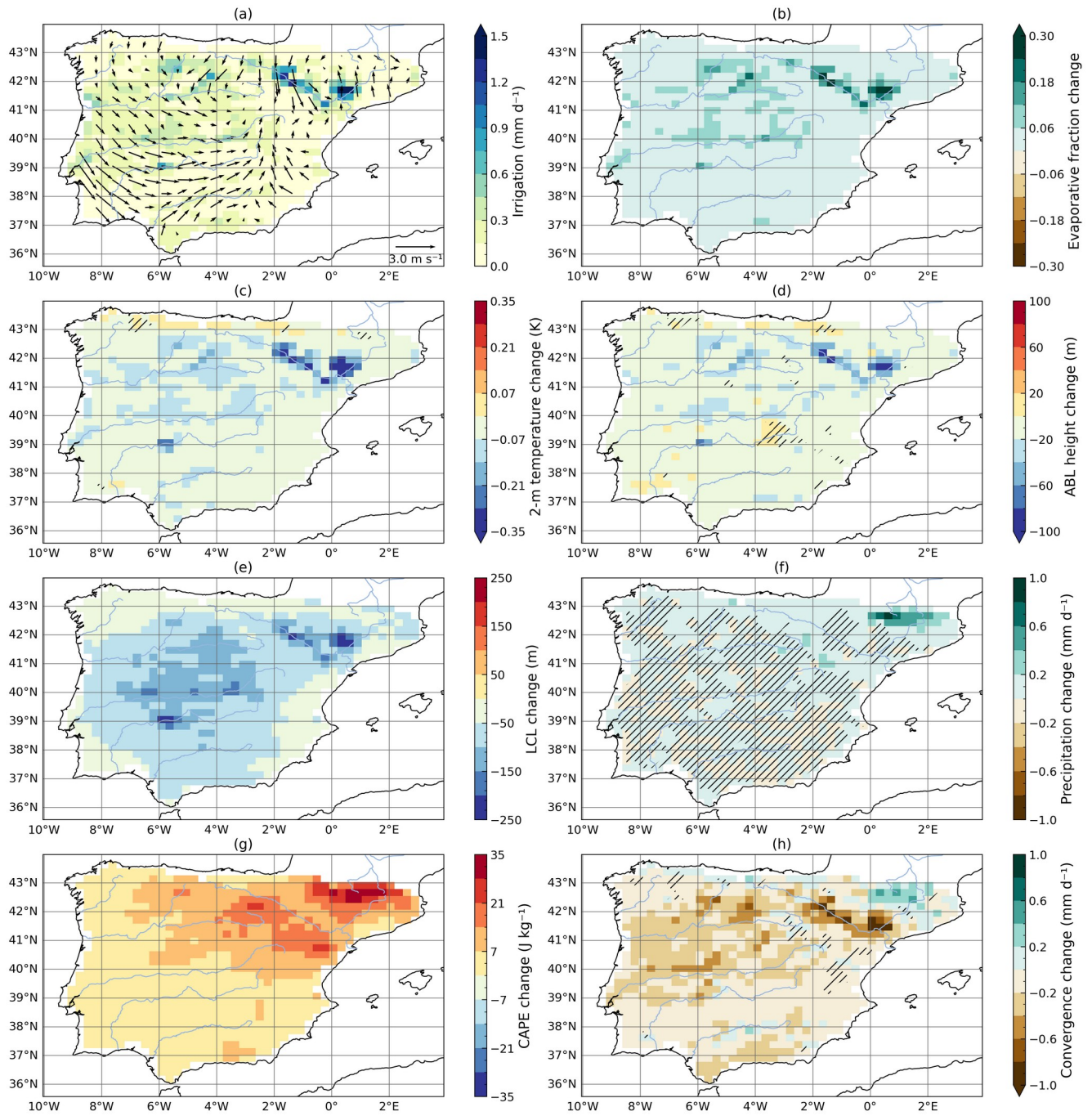
New version of Fig. 6 including an evaluation of normalized surface soil moisture with the ESA CCI COMBINED soil moisture product.



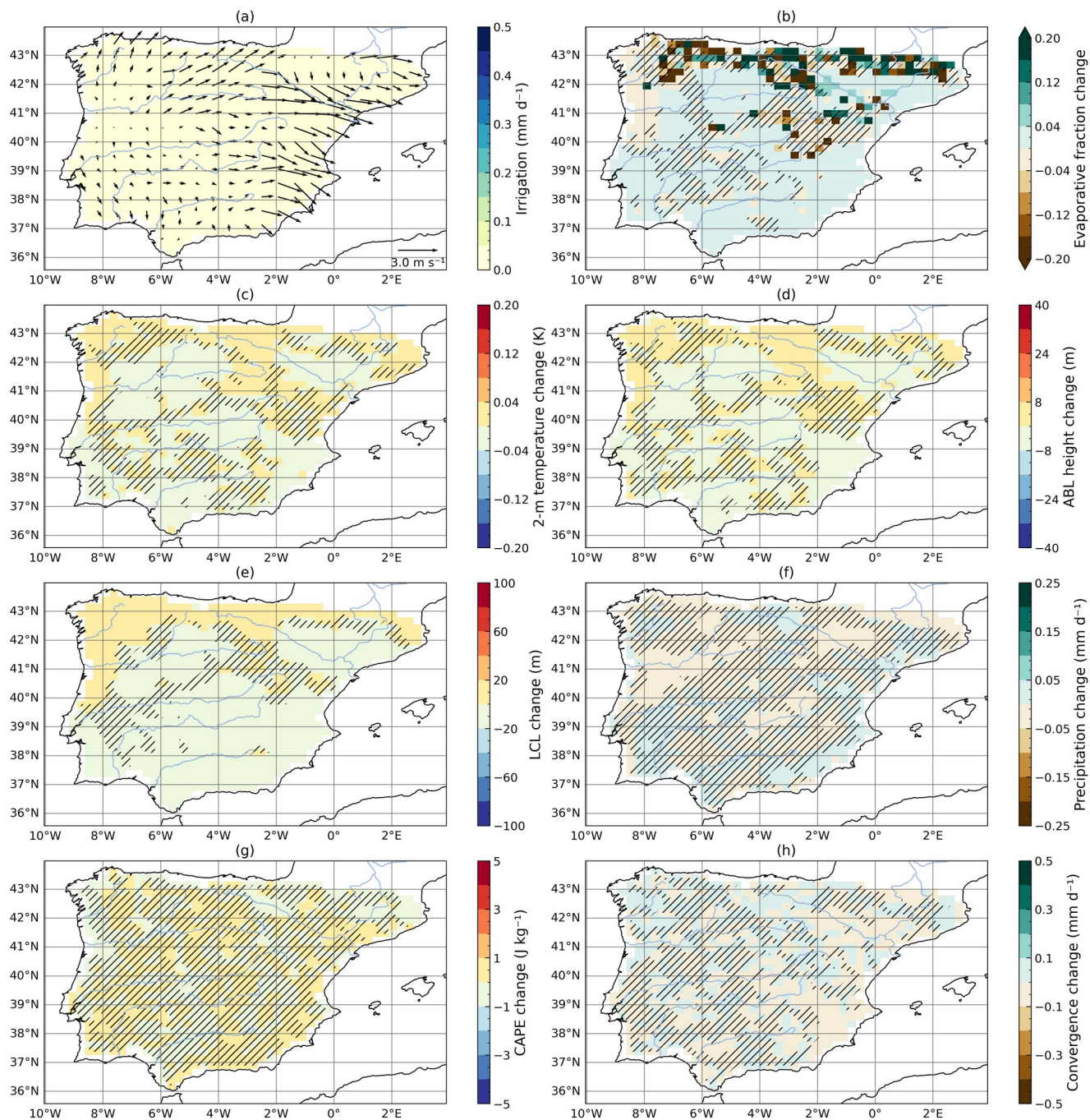
Appendix figure showing changes of surface soil moisture between the *no_irr* and *irr* simulations in absolute value (mm in the first 10cm of soil), to complement of the normalized SSM comparison.



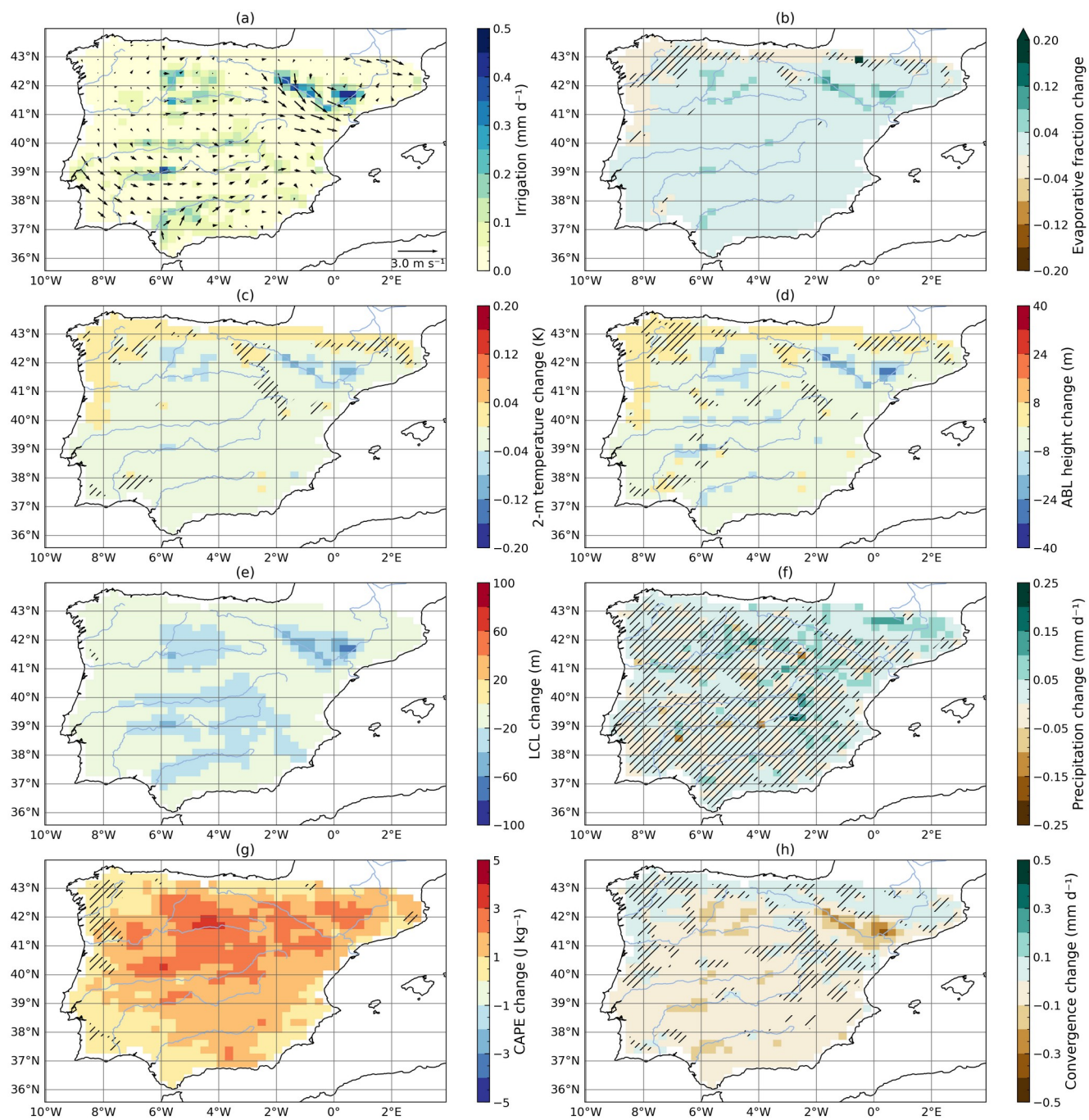
New version of Figure 7 with different color bars for water-related and other variables.



Appendix figure analog to Fig. 7 showing results in winter (DJF).



Appendix figure analog to Fig. 7 showing results in spring (MAM).



Appendix figure analog to Fig. 7 showing results in autumn (SON).

