



Comparison of precipitation change projections between two RCPs over Southern Europe

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The NASA GISS GCM ModelE in combination with the WRF model are used for the assessment of high-resolution precipitation change projection in the 2050s under two different RCPs (i.e. RCP4.5 and RCP8.5) over Southern Europe. Annual precipitation over Spain is estimated to decrease up to 40% for both RCPs with an exception of the coastal zone where RCP4.5 suggests an increase up to 80% over the south coast. Over Italy, both RCPs agree to an annual precipitation reduction up to 40% over the northern part of the country, while an increase up to 40% is estimated at the south. For the central part of the country RCP8.5 suggests a decrease in precipitation up to 40%, while RCP4.5 suggests an increase up to 40%. Over Greece, precipitation for both RCPs is estimated to change between $\pm 20\%$. However, precipitation change is seasonal depended and deviations from these trends are found between the seasons.

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