

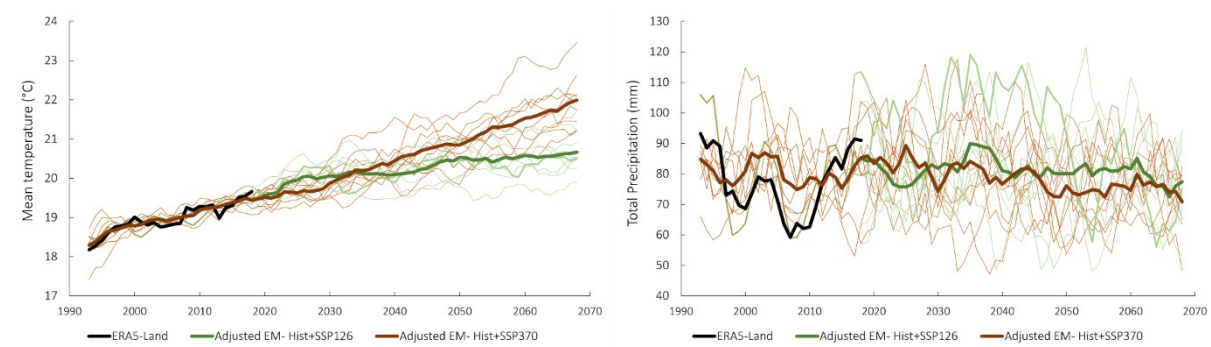
CLIMATE SERVICES

Incorporate Copernicus Climate Change Services (C3S) data for short-, medium-, and long-term projections. Climate services are co-designed to address local needs.

ACQUAOUNT returned high-resolution climate projections for its four pilot regions (Jordan, Lebanon, Sardinia and Tunisia) by statistically downscaling an sub set of models included in the CMIP6 (6th Coupled Model Intercomparison Project) ensemble under the SSP1-2.6 and SSP3-7.0 scenarios. The data-driven downscaling (formally a bias adjustment approach) exploits the weather variables made available from ERA5-Land for daily fields of precipitation, mean, maximum and minimum temperature, and relative humidity over 2021–2070 time span. Below are the key results for each region.

JORDAN

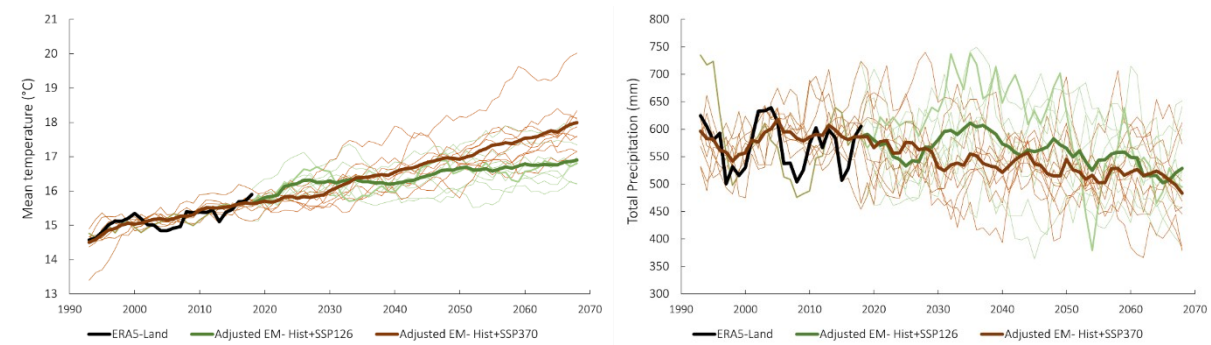
For Jordan the increase in temperature is relevant up to 4°C under SSP3-7.0 (2°C under SSP1-2.6). The variations in the cumulative yearly precipitation are limited with a tendency to a slight decrease (larger under the most severe scenario)



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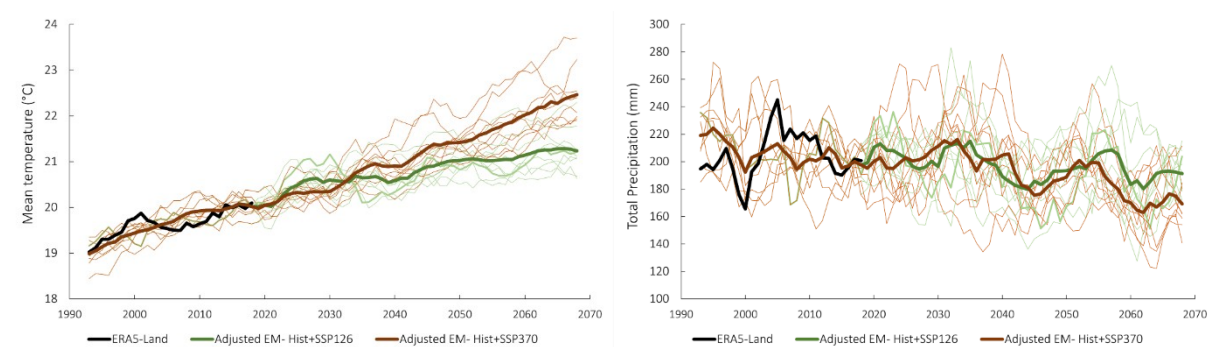
LEBANON

For Lebanon, the increase in temperature could attain 3°C at 2070 under SSP3-7.0 (2°C under the most optimistic SSP1-2.6). Nevertheless, over the area, it is clear the reduction in cumulative yearly precipitation up to 100 mm/year (about 15% of the total annual value)



TUNISIA

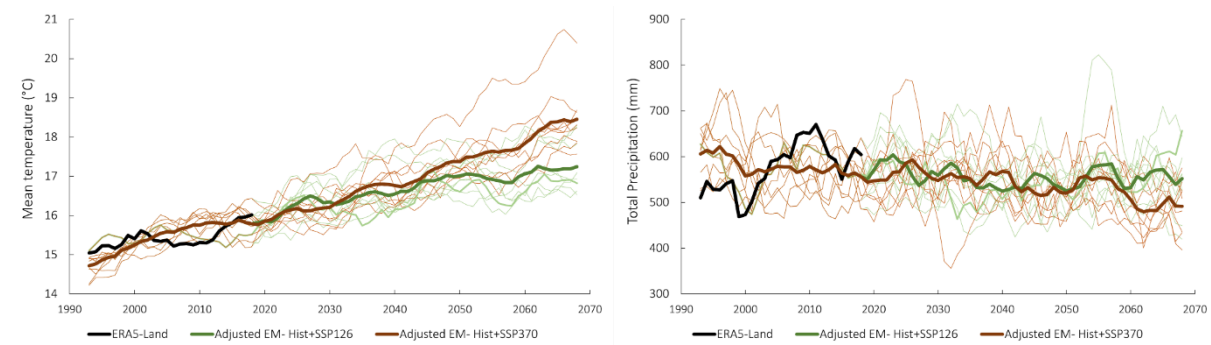
For Tunisia, the increase in temperature is clear under both the scenarios; however, while under SSP1-2.6 it seems to slow down in the second part of the XXI century, it is steadily increasing under the most severe one. The decreasing trend in cumulative yearly precipitation values is clear also if it has comparable magnitude under the two scenarios.



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SARDINIA

For Sardinia, the increase in temperature attains 3°C under the most pessimistic scenario and about 2°C under SSP1-2.6. In terms of cumulative yearly values, not dramatic variations are expected under the two scenarios.



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