

MedCLIVAR: Mediterranean Climate Variability. Analysis of precipitation along the North African and Middle East shore boundary of the Mediterranean Region.

Piero Lionello[†]; Claudia Pizzigalli; Letizia Congedi; Piero Lionello; Ahmed Hassan Fahmi; Ghada Al-Naber; Muhammad Shatanawi; Zohra Lili Chabaane; Mohamed W. H. Al Ashkar; Mohamed M. A. Wahab; Haifa G. B. Mailod

[†] University of Salento, Italy

Leading author: piero.lionello@unisalento.it

In the contest of MedCLIVAR, this study aims to analyze the precipitation in North Africa and Middle East, focusing on data from five countries: Tunisia, Egypt, Libya, Jordan and Syria. The analysis intercompares the climatology produced by a set of Regional Climate Models (RCMs) in the ENSEMBLES project with in situ observations at sub-regional/basin scale and with data from EOBs and CRU data sets. Among existing climate model data, the set produced by the ENSEMBLES project has the advantages of being a coordinated ensemble of transient simulations covering the period 1951-2050 (or 1951-2100) and the whole Mediterranean region at high spatial resolution (25 km). Preliminary results show that EOBs and CRU data set well represents the in situ data for each case study. The climate model producing the most reliable climatology varies across the region. Further, it is shown that the RCM model ensemble does not necessarily produce the most accurate results and that it can be outperformed in a specific area by an individual model.