

Climatic projections in the Eastern Mediterranean using the regional climatic model PRECIS

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In order to investigate climatic changes and their impact in Greece as well as in the Eastern Mediterranean area, the regional climate model PRECIS has been implemented in the National Observatory of Athens (NOA). PRECIS model was developed in Hadley Centre (Meteorological Office, UK) and it is based on the latest version of the global climate model HadCM3. For the application of the PRECIS model at NOA a horizontal analysis of 25 km was selected, which is the finest resolution used, so far, in the area for regional climate modelling. This high resolution is necessary in order to better reproduce the orographic patterns of the area as well as the complex land-sea distribution. In the frame of this work, results from the following three scenarios are presented and discussed:

- climate simulation of the period 1961-1990 (considered as the reference period)
- climate simulation of the period 2071-2100 for the A2 scenario of the Intergovernmental Panel for Climate Change (IPCC).
- climate simulation of the period 2071-2100 for the B2 scenario of the IPCC.

Further, special emphasis is given in the frequency of extreme events in the period 2070-2100 compared to the current climate.