

Seasonal Forecast for the area of the east Mediterranean, Products and Perspectives

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ABSTRACT

The need for weather forecasts is increasing, since human activities are directly connected to weather. Even the need for more analytical and descriptive weather forecasts is increasing since the capability of modern technology is creating this parallel need. Weather forecasts are, roughly, divided into Synoptic forecasts (concerning the next few days), Seasonal forecasts (concerning the coming season or the next few months) and Climatic forecasts (concerning the prevailing climate from the mid to the end of the century).

Republic of Cyprus, through the Department of Meteorology, signed an MoU with Serbia Hydrometeorological Service which is hosting South East European Virtual Climate Change Centre (SEEVCCC), an organization recognized by WMO, as an organization providing the meteorological community with seasonal forecast concerning the area surrounding the Mediterranean Sea (MedCOF) and the area of Southeast Europe (SEECOF). SEVCCC model, which is concerning both SEECOF and MedCOF products, has a horizontal resolution of 0.25° for the atmospheric model and 0.2° for the ocean model. Atmosphere is resolved with 32 and ocean with 21 levels on the vertical. The connection between the two components is through a coupler that performs the exchange of atmospheric surface fluxes and Sea Surface Temperature (SST) after every atmospheric physical time step. The SEEVCCC model consists of 41 ensemble members and is issued ones per month, between 15th and 20th of a current month. The forecast is valid for 7 months ahead.

The Department of Meteorology is receiving SEEVCCC products every month and is issuing a seasonal forecast for the area of the East Mediterranean, valid for the next three months. Through seasonal forecast a general comment about SEECOF and seasonal forecasts is published, followed by a general overview of the weather expected for the next three months. The climatological characteristics of the period of forecast and a presentation of normal values (temperature and accumulated precipitation anomalies which is very important seasonal and climatic parameters), for a selection of meteorological stations, are also presented in graphical form. The seasonal forecasts ends with a qualitative validation-evaluation of the previous month seasonal forecast, by comparing observed values with anomalies. The seasonal forecast is uploaded during the first ten days of each month on the Departments official web page.

Seasonal forecasts have to be treated under the focus of risk analyses and evaluation concerning weather impact on the community. Water, Energy and Public health are issues which are connected to weather and have an impact from weather. Related Authorities have to inform and start planning and analysing risks from weather.