Application and verification of ECMWF products 2011

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1. Summary of major highlights

The ECMWF forecasts are extensively used in operative work of LEGMC. Data are assembled and visualized in the internal web portal. Though verification of the ECMWF products has not been done during the year 2010.

2. Use and application of products

2.1 Post-processing of model output

2.1.1 Statistical adaptation

2.1.2 Physical adaptation

2.1.3 Derived fields

2.2 Use of products

The ECMWF deterministic products are the base of the operational 7-day and longer term forecasts. Products are also widely used by hydrologists, especially during the spring flood period.

Data in GRIB format are received through Dissemination, visualized with Metview and placed on the internal web-portal for the forecasters. Products in PNG and CSV format are made both on our servers and ecgate.

Over 50 maps and time-series of combinations of the different products are provided daily. Products like EPS and seasonal forecast, regional weekly anomalies, Epsgrams and EFI are taken also from ECMWF website.

Based on the ECMWF model outputs, several parameters are routinely calculated as well:

- 0°, –20° and –30° level;
- K, Total totals and CAPE indexes;
- accumulated precipitation over a fixed time interval;
- 2m relative humidity

3. Verification of products

3.1 Objective verification

3.1.1 Direct ECMWF model output (both deterministic and EPS)

3.1.2 ECMWF model output compared to other NWP models

3.1.3 Post-processed products

3.1.4 End products delivered to users

3.2 Subjective verification

3.2.1 Subjective scores (including evaluation of confidence indices when available)

3.2.2 Synoptic studies

Heavy icing and snowfall during 24.-26.12.2010

4. References to relevant publications