



Monitoring of Extreme Climate Events in Europe

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Extreme climate events such as heat and cold waves, droughts and periods of heavy precipitation with flooding draw the attention of the public due to the resulting damage and losses of lives. In the context of climate variability, it is important to monitor such events regularly over a long time span to learn about their possible and expected characteristics, their damage and risks, especially for a climatically very heterogeneous area like Europe.

The WMO RA VI Regional Climate Centre (RCC) Network (hosted by DWD) was established to provide climate services dedicated to the WMO RA VI Region (Europe and the Middle East). Monitoring of extreme climate events is one of the tasks of the WMO RA VI RCC-Network Offenbach Node on Climate Monitoring (RCC-CM). It is based on various sources, especially on input of the NMHS's, but also on additional information on appropriate web sites.

Extreme event monitoring is done by RCC-CM using various approaches, which complement each other:

- (i) A so called Climate Knowledge Data Base, which is a data base solution of a compilation of extreme event information taken from various sources, including information on known damage.
- (ii) The visualisation of parameters of extreme events such as beginning and end of an event, duration, intensity, geographical extension, including comparison with past events.
- (iii) A text description and interpretation of events on various levels of details. Events are described and published in monthly and annual bulletins, in an event calendar and dedicated reports.
- (iv) The establishment of a Climate Watch System (CWS), consisting of advisories on upcoming climate events using both climate monitoring and forecast results.