



EURO4M contribution to climate services development

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For science-based risk management and adaptation strategies most users need information about climate trends and changing probabilities of high impact extremes (wind storms, floods, heat waves, etc). Also, there is a need for actual information to help place observed high-impact weather events in a long-term historical context. This presentation will present and discuss the final outcomes of four years of research and development of high-resolution climate datasets and climate change information products in the EU-FP7 project EURO4M.

EURO4M addressed the situation of fragmentation and scarcity of long-term climate change information in Europe. It did so by combining seamlessly the Essential Climate Variable (ECV) data sets from satellites (which are spatially extensive but short), ground-based stations (which consist of long-term records but are spatially sparse and maintained by individual nations), and model-based regional reanalyses (which are comprehensive but computationally expensive).

Most users don't have the resources and expertise to handle and combine the terabytes of basic observation data produced from these different sources. They need integrated climate products with added value. In EURO4M the focus was on the European scale serving stakeholders such as the European Commission for their climate actions and the European Environment Agency for their environmental assessment reports. At the national (and local) level, a wide range of users also benefitted from the Europe-wide efforts as these provided a reference for coordination across country borders and across different sectors. Examples of added value products developed as part of EURO4M are the so-called Climate Information Bulletins (CIBs). These bulletins provide scientific input for policy implementation and near-real time reporting of emerging extreme events at the European scale. Experience shows that, after an extreme event occurs, the large scale picture for multiple countries or an entire river basin is often lacking. It cannot simply be derived from the information provided by the individual countries affected. EURO4M developed the tools to be able to quickly and efficiently compile and present a broader, more detailed picture of significant European climate anomalies and their impacts than was previously possible.

Part of the EURO4M legacy will be candidate for inclusion in a future Copernicus climate change service, whereas the remainder will be further developed and expanded in the EU-FP7 follow-on project UERRA.

Website: www.euro4m.eu