



Linking the Copernicus emergency management and climate change services

Peter Salamon (1), Christel Prudhomme (2), and Vera Thiemig (1)

(1) European Commission, Joint Research Centre (JRC), Ispra, VA 21027, Italy (peter.salamon@ec.europa.eu), (2) European Center for Medium Range Weather Forecasting

Climate change adaptation is closely linked together with reducing the impacts of weather extremes such as floods, droughts, wildfires or wind storms. According to the latest IPCC special report on Global Warming of 1.5C°, climate models project an increase in hot extremes in most inhabited regions, heavy precipitation in several regions, and the probability of drought and precipitation deficits in some regions. Hence, investing now in better disaster risk management will make societies more climate-resilient for the future.

The Copernicus Emergency Management Service (CEMS) provides information supporting civil protection and emergency response operations (improving early warning activities and crisis response capacities), and prevention and preparedness actions (risk and recovery analyses) in relation to different types of disasters. Many of the tools in CEMS rely on the analysis of past events or the climatology of meteorological and hydrological variables to quantify how extreme the predicted weather events will be or to create risk maps of floods, droughts, etc. . The Copernicus Climate Change Service (C3S) with its atmospheric reanalysis of the global climate and the sectoral information systems provides an important set of data and tools to support the statistical analysis of weather-related extreme events. In turn, the output of the CEMS models and tools can be integrated into C3S to produce a long-term archive of weather-related extreme events to perform a trend analysis for calibration and validation of climate models. In this presentation we will illustrate the activities currently undertaken to link the two Copernicus services and provide an overview of future interactions to enhance synergies.