

Impact of Intensified Weather Extremes on Europe's Economy

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Weather extremes are expected to intensify under future warming. In a globalized world, Europe's economy will be impacted directly by recurring regional extreme weather events such as the 2013 flooding or the 2003 heatwave, but also indirectly through its economic connectedness with the rest of the world. This project investigates the impacts of intensified weather extremes on Europe's economy under different climatic and socio-economic futures and develops and assesses possible adaptation strategies at the company, the national and the EU level. To this end, the impact of heatwaves, floods and tropical storms as well as possible developments of Europe's economy and trade relations until 2050 will be projected. Based on these projections, the direct and indirect effects on Europe's economy will be assessed using a numerical model of economic loss propagation. The model will be calibrated by hindcasting recent weather extremes. Overall, the project addresses the combined impact of two major global challenges of the 21st century - climate change and economic connectedness - and provides solution strategies with strong global implications.

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