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Supplemental Material

Mortality due to Vegetation-Fire Originated PM_{2.5} Exposure in Europe – Assessment for the Years 2005 and 2008

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Figure S1. Deviations of mean temperature (Celsius degrees) and total precipitation (mm) in 2005 and 2008 from the average in 2005-2011 (April-October). The temperature and precipitation data originate from the operational archives of the European Centre for Medium-Range Weather Forecasts (ECMWF 2016).

Figure S2. Mean wind speed (m/s, 500 m height from the ground) and direction in 2005 and 2008 (April-October). The wind data originate from the operational archives of the European Centre for Medium-Range Weather Forecasts (ECMWF 2016).

Figure S3. Annual variation in particulate matter (PM) emissions from vegetation fires in selected world regions based on the Integrated Monitoring System for Wildland Fires (IS4FIRES, FMI 2016a). Europe = the geographical Europe (17 degrees West to 50 degrees East, 33 to 75 degrees North).

Figure S4. Measured and modelled monthly average concentrations of PM_{2.5} components at air-quality monitoring stations in a) Spain (strongly affected by vegetation fires) and b) Austria (mainly affected by other emission sources). Dots are the measured total PM_{2.5} concentrations and shades are the stacked modelled concentrations of different components simulated by using the chemical transport model System for Integrated modelLing of Atmospheric coMposition (SILAM, FMI 2016b). PPMr is the primary anthropogenic PM_{2.5}, EC is elemental carbon, and fire-PM is vegetation-fire originated PM_{2.5}.

References