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Air pollution and climate change in 2030: a multi-model exercise for IPCC-AR4.

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About 20 global scale CTMs and GCMs ("The ACCENT-IPCC-AR4 modelling team") participated in a model exercise regarding the role of air pollution and climate change in 2030. We present model results using emissions of NOx, CO, NMVOC, SO2 and CH4 from the IIASA Current-legislation (CLE) and the Maximum-Feasible-Reduction (MFR) scenarios. These emissions are substantially lower than the widely applied IPCC SRES scenarios. The model results are contrasted with results from the high emissions SRES A2 scenario, to demonstrate the impact of currently decided legislation and the possibilities of implementing further emission control technologies. We will present an overview of the experiment, and give the first results regarding air pollution such as O3 and NO2, depositions. We will further present a first insight on the role of climate change on air pollution in 2030.