Climate change influence in Air Quality of Central Mexico

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A study of climate change influence on the air quality of Mexico City Metropolitan Area (MCMA) is presented. A downscaling technique is used to obtain the meteorological data for base case (1980’s) and climate scenario (2070’s). In order to identify the influence of climate variations the emissions inventory was kept constant for both scenarios. The air quality simulations were performed using a coupled meteorology-chemistry model. Temperature increment can induce more atmospheric reactivity but also modify the meteorology dynamics; with a coupled model both effects can be taking into account. Preliminary results show an increase in temperature of 2.4C (+/- 0.8C) in MCMA and in the region, in some periods the mixing height layer increased up to 250 m inducing a decrement of pollutants influencing the ozone concentration.