



Air quality assessment in the periurban area of Mexico Megacity during dry hot season in 2011 and 2012

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Air quality is a human health threat not only in urbanized areas, it also affects the surrounding zones. Interaction between urban and rural areas can be evaluated by measurements and using models for regional areas that includes in its domain the peri-urban regions. The use of monitoring sites in remote areas is useful however it is not possible to cover all the region the use of models can provide valuable information about the source and fate of the pollution and its transformation.

In order to evaluate the influence of the Mexico Megacity in the air quality of the region, two field campaigns were performed during the dry hot season during 2011 and 2012. Meteorological and pollutant measurements were made during February and March 2011, in three sites towards the south east of Mexico Megacity, and from March to April 2012 towards the west after the Popocatepetl-Iztaccihuatl mountain range. Air quality modeling was performed by using the National Emissions Inventory 2008 during the studied periods, a comparison between measurements and the air quality model was performed. This type of studies can offer information about the pollutant distribution, the meteorological conditions and the exactness of emissions inventories. The latest can be useful for emissions inventory developers and policy makers.