

Session 9: Mega cities

Satellite Remote Sensing of Air Pollution in Mega cities.

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Abstract

Current space-borne sensors have the capability to routinely map the spatial distribution of aerosols over both land and ocean. NASA's Moderate Resolution Imaging Spectrometer (MODIS) onboard the Terra and Aqua satellites now routinely provide aerosol optical thickness (AOT) values that can be used for tracking aerosols over the globe. We explore the potential of using satellite derived values from MODIS for air quality studies over mega cities. Recent results over Alabama, USA indicate that there is a good correlation between $PM_{2.5}$ mass measured at the surface and MODIS derived column AOT values. We extend this analysis to several mega cities over the globe and discuss the advantages and limitations of using satellite data for air quality research.