Supplementary Figures

Accumulation of aerosols over the Indo-Gangetic plains and southern slopes of the Himalayas: distribution, properties and radiative effects during the 2009 pre-monsoon Season

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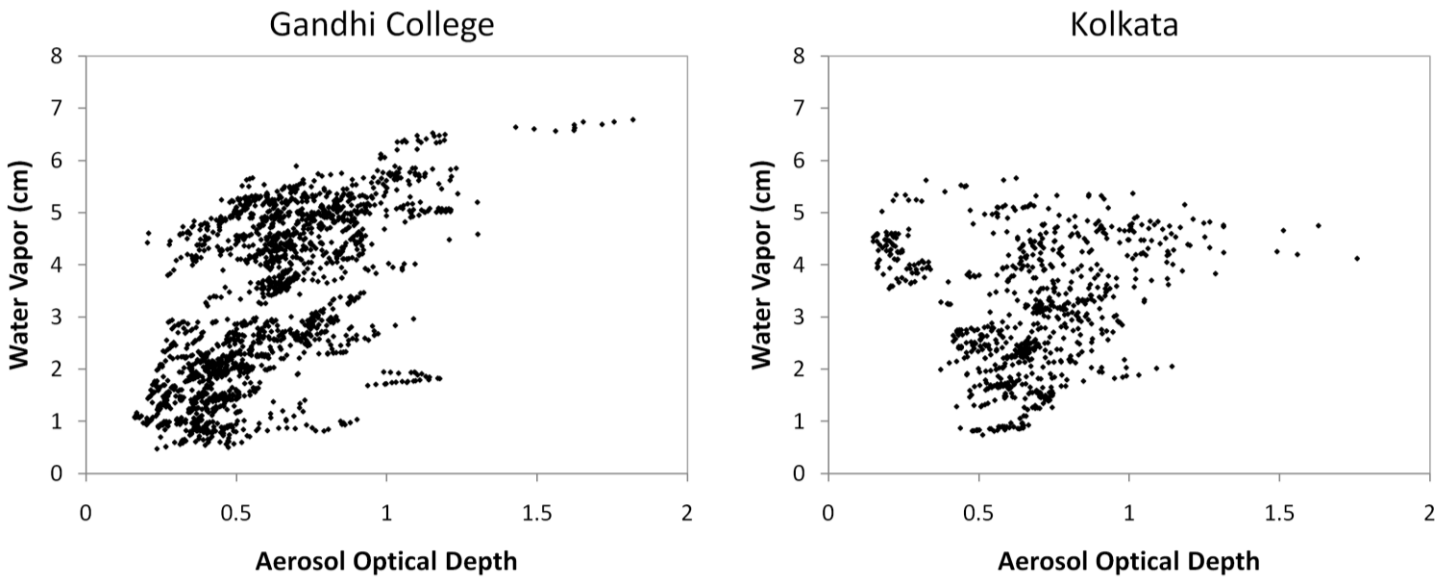

Fig. 1 A weak association is observed between AOD and WV over the eastern IGP as indicated by the data from AERONET stations at Gandhi College and Kolkata.

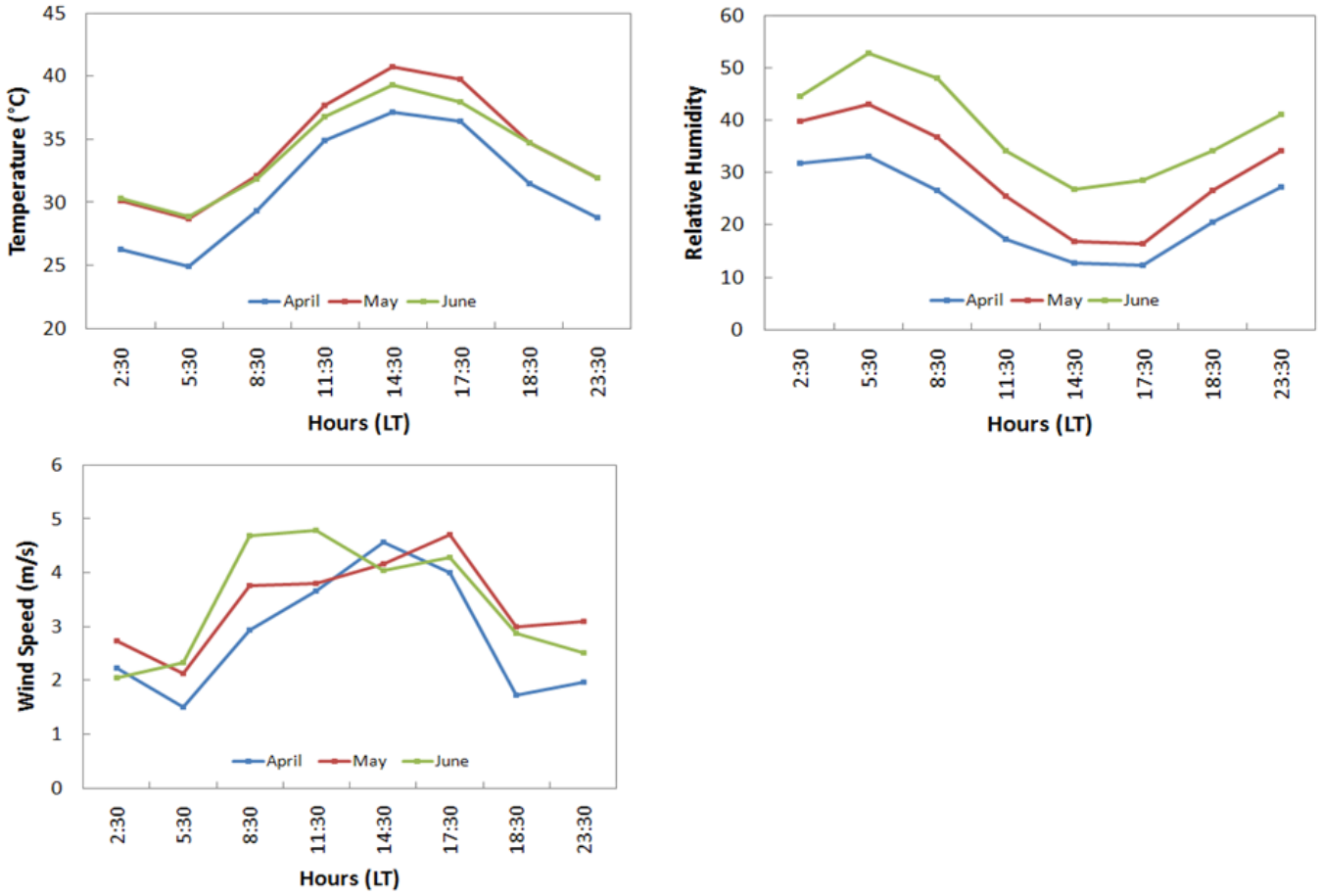

Fig. 2 Hourly mean variations of Temperature, Relative Humidity and wind speed recorded near the Jaipur measurement site for April, May and June. Three-hour intervals of data are shown from 2:30 to 23:30 corresponding to local time at Jaipur. Relative Humidity for all months during pre-monsoon period is less than 50% over Jaipur.

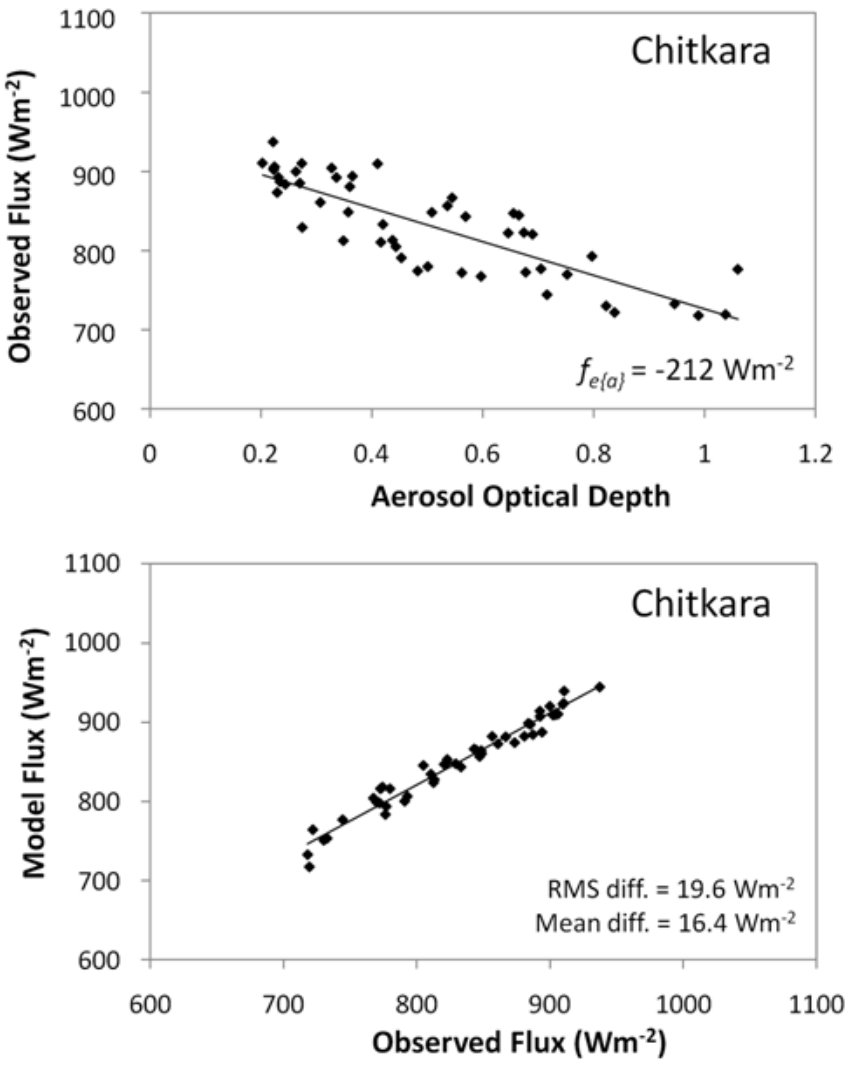

Fig. 3 Aerosol forcing efficiency ($f_{e\{a\}}$)at surface from instantaneous pyranometer solar flux measurements collocated with the sunphotometer at Chitkara (top panel) for the 25°-35° solar zenith angle interval during pre-monsoon season of 2009; (bottom panel) comparison of observed and model simulated surface flux with rms and mean difference values shown in bottom panel for Chitkara.

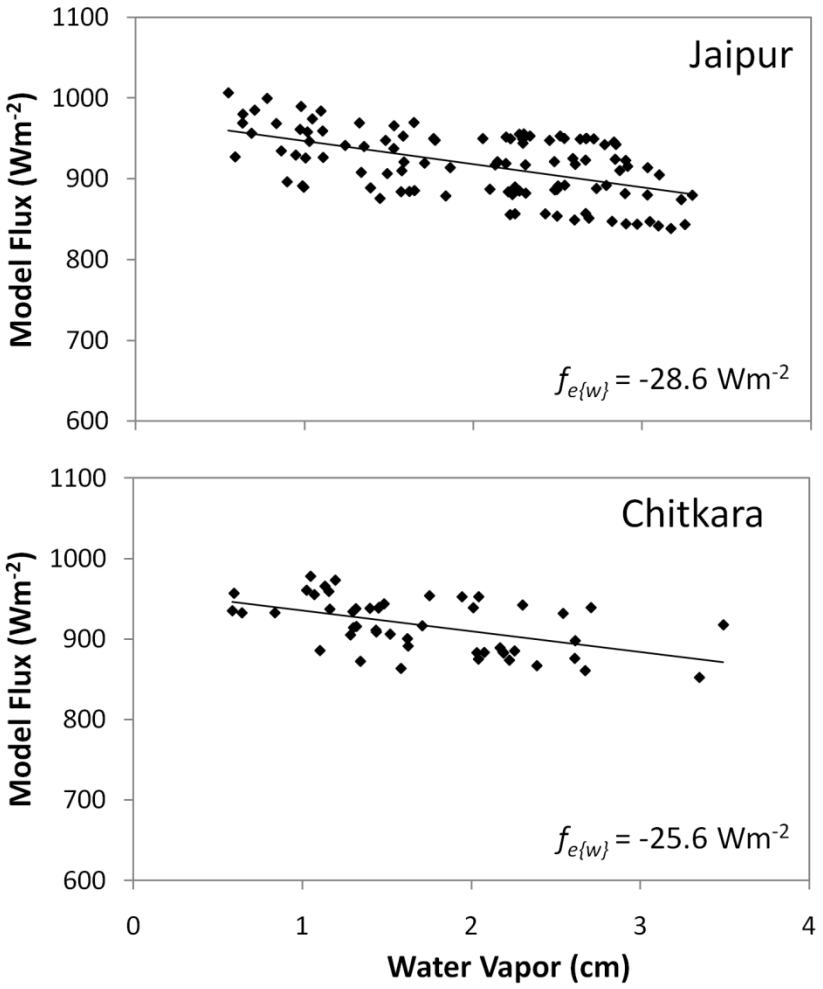

Fig. 4 Modeled flux as a function of instantaneous water vapor retrievals from sunphotometer, with no aerosol input (AOD=0), for Jaipur (top) and Chitkara (bottom) for the 25°-35° solar zenith angle interval during pre-monsoon season of 2009. The forcing efficiency ($f_{e\{w\}}$) due to water path abundance is estimated to be -28.6 W-m^{-2} and -25.6 W-m^{-2}, respectively.