

Supplementary Material

Impact of aerosol loading in the Hindu Kush Himalayan region based on MERRA-2 reanalysis data

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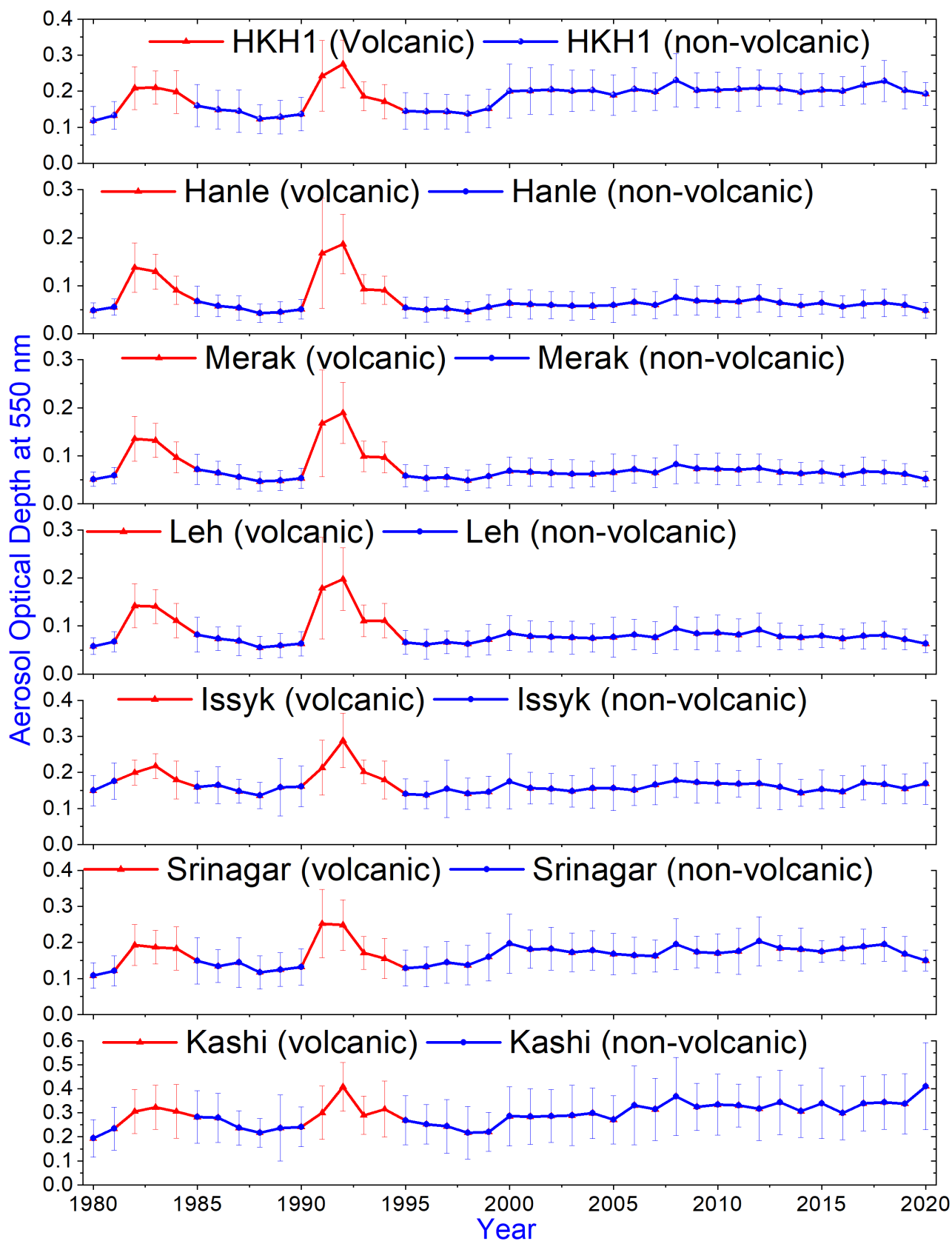


Figure S1. Yearly time series AOD (550 nm) at HKH1 region after removing the volcanic (blue color) and non-volcanic time (red color) of two major volcanic eruptions which were happening in 1982 at El Chichón and 1991 at Mt. Pinatubo.

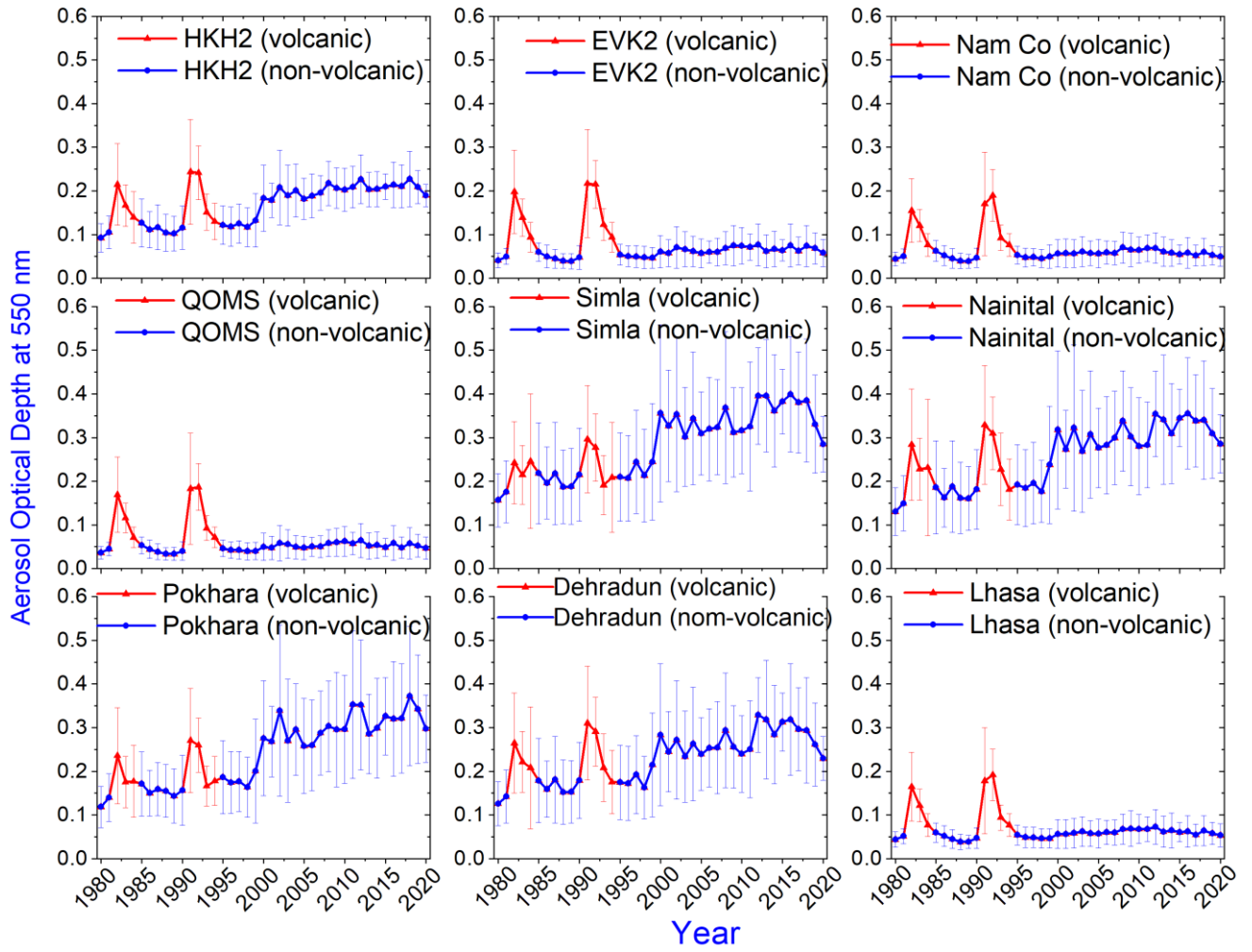


Figure S2. Yearly time series AOD (550 nm) at HKH2 region after removing the volcanic (blue color) and non-volcanic time (red color) of two major volcanic eruptions which were happening in 1982 at El Chichón and 1991 at Mt. Pinatubo.

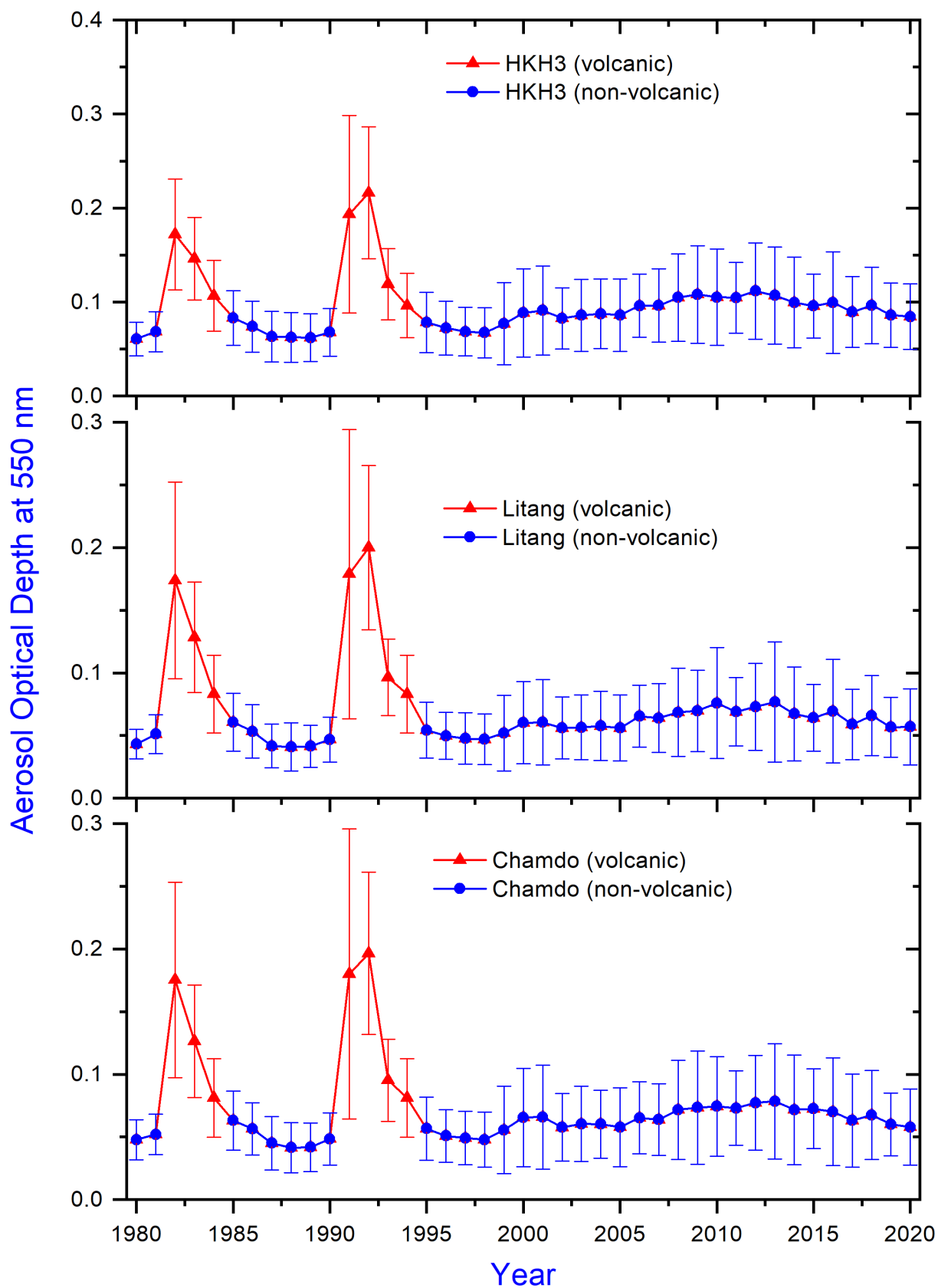


Figure S3. Yearly time series AOD (550 nm) at HKH3 region after removing the volcanic (blue color) and non-volcanic time (red color) of two major volcanic eruptions which were happening in 1982 at El Chichón and 1991 at Mt. Pinatubo.

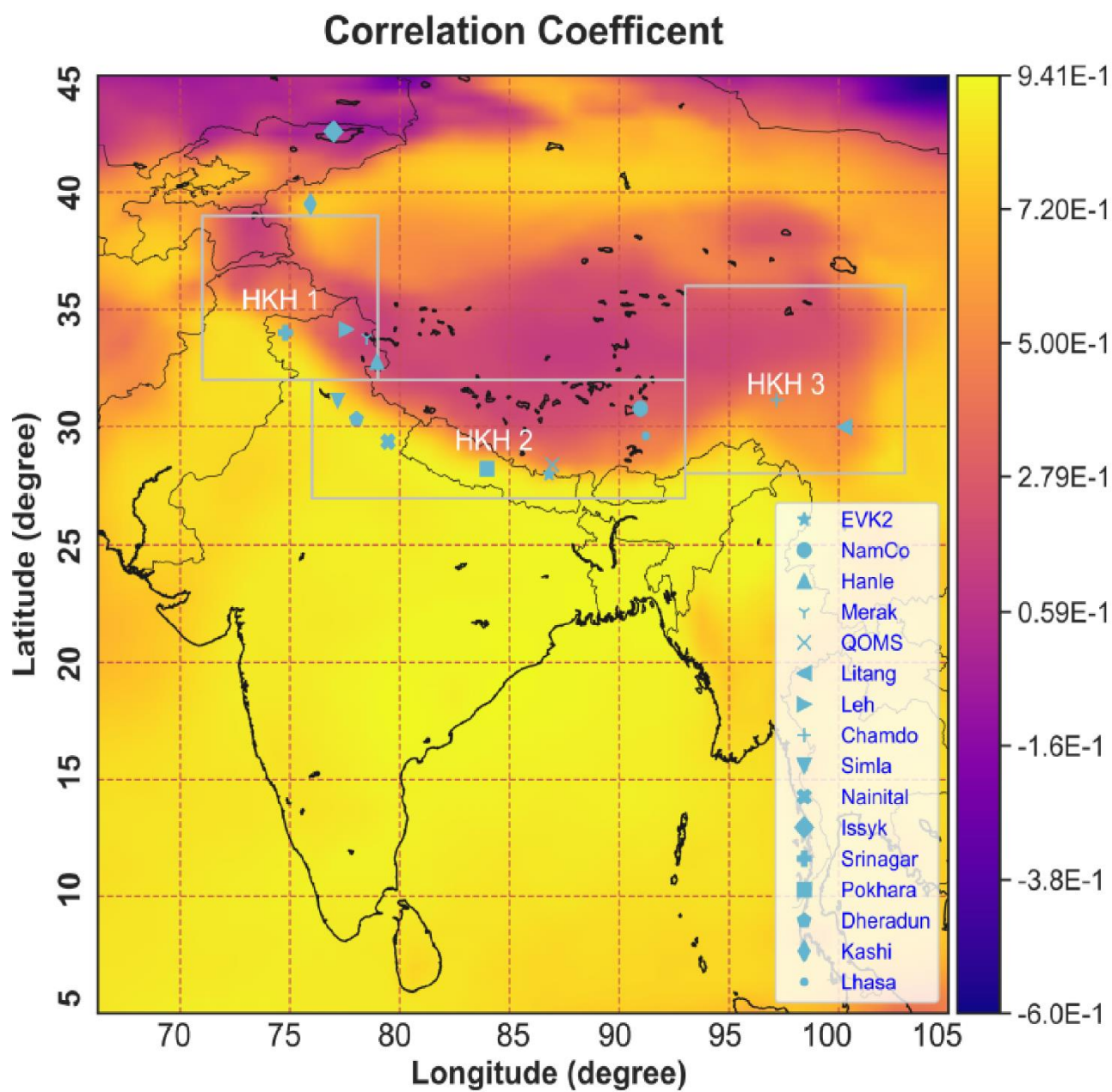


Figure S4. Correlation coefficient (R) for estimating trend estimation using MERRA-2 AOD at 550 nm during 1980-2020 over the sub-continent India.

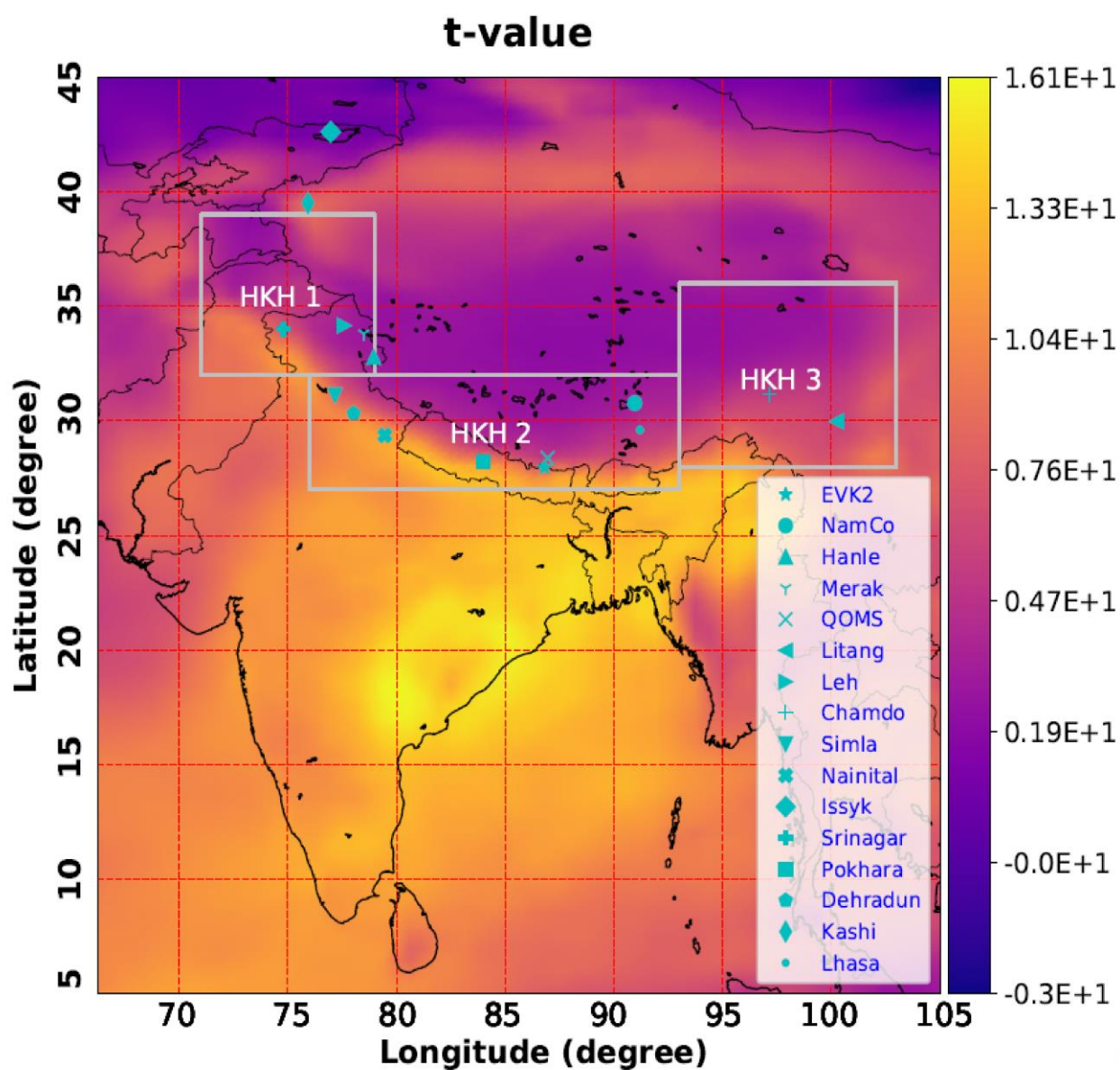


Figure S5. Student t test (t) or confidence level for estimating trend estimation using MERRA-2 AOD at 550 nm during 1980-2020 over the sub-continent India.