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(Gufran Beig, et al., Science of the Total Environment (Elsevier, Europe), 681, 305-311, doi: 10.1016/j.scitotenv.2019.04.347, 2019.)

ANATOMY OF THE WINTER 2017 AIR QUALITY EMERGENCY IN DELHI

- 1. The Indian capital Delhi experienced an environmental emergency in early November 2017 when levels of toxic PM_{2.5} particles surpassed Indian Standard by 11 times (WHO guidelines by 25 times) for about a week –longest time in recent record.**
- 2. SAFAR predicted this emergency with 48h lead time and provided the scientific explanation which reveals that it is largely an impact of Dust storm, originated 3000 km away in the middle east. This has been vindicated by the paper published by International scientific journal today.**
- 3. SAFAR revealed a rapid rise in PM_{2.5} to SEVERE level for a week and then an unexpected rapid decline for a week. Both phenomena were a surprise.**
- 4. The SAFAR –Early warning system revealed that the share of transported dust was as high as 65% on peak day during the extreme event period.**
- 5. A unique storyline connecting air pollution, monsoon dynamics, Dust storm and Stubble smoke from Punjab Haryana is established in this paper**
- 6. Paper concludes that mitigation strategies to meet air quality targets for a megacity like Delhi will be challenging given its geography and demographic structure and the large contributions from distant sources.**

