Supplemental Information for:

Air quality, atmospheric variables and spread of COVID-19 in Delhi (India): An analysis

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Supplementary Table S1: Month when lockdown imposed by the countries.

| Month when Lockdown Imposed by the countries |
|---------------------------------------------|
| January, 2020                               |
| March,2020                                  |
| April,2020                                  |
| Mongolia, China                             |
| India, Bangladesh, Afghanistan, Kuwaït, Nepal, Vietnam, Bosnia, Uzbekistan, Sri Lanka, Kazakhstan, Chile, Bulgaria, Peru, Iran, Poland, Romania, Mexico, Israel, Lithuania, Nicosia, Czech, Slovakia, Hungary, France, Austria, Philippines, Belgium, Colombia, Ukraine, Japan, Switzerland, United Kingdom, Germany, Portugal |
| Indonesia, Uganda, Macedonia, Kosovo, Thailand, Serbia, Turkey, Singapore |

Adapted from Rodrí guez-Urrego and Rodrí guez-Urrego, 2020.

Supplementary Table S2: Cities studied that reported air pollution reduction during COVID-19 related lockdown.

| SL. No. | Authors                          | City studied                                                                 |
|---------|----------------------------------|-----------------------------------------------------------------------------|
| 1       | Navinya et al., (2020)           | Delhi, Ambala, Amritsar, Jaipur, Lucknow, Patna Jorapokhar, Kolkata, Ahmedabad, Dewas, Mumbai, Nagpur, Amaravati, Bangalore, Trivandrum, Chennai and Hyderabad (17 cities). |
| 2       | Jain and Sharma, (2020)          | Delhi, Mumbai, Chennai, Kolkata, and Bangalore (5 city).                    |
| 3       | Kumar et al., (2020)             | Delhi, Chennai, Hyderabad, Kolkata, and Mumbai (5 city).                    |
| 4       | Kotnala et al., (2020)           | Delhi                                                                       |
| 5       | Mahato et al. (2020)             | Delhi                                                                       |
| 6       | Gautam, 2020                     | India                                                                       |
| 7       | Srivastava et al., (2020)        | Delhi, New Delhi                                                            |
| 8       | Beig et al., (2020)              | Delhi, Mumbai, Pune, Ahmedabad, Mumbai, Chennai.                             |
| 9       | Mor et al., (2020)               | Chandigarh                                                                  |
| 10      | Sharma et al., (2020)            | Bhopal, Dewas, Jorapokhar, Patna, Gaya, Brajrajnagar, Kolkata, Faridabad, Amritsar, Jodhpur, Delhi, Agra, Kanpur, Varanasi, Amravati, Bengaluru, Thiruvananthapuram, Chennai in the south, as well as Ahmedabad, Mumbai, Nagpur, and Pune (22 cities). |
| 11      | Selvam et al., (2020)            | Surat, Ankleshwar, Vadodra, Ahmedabad, Gandhinagar, Jamnagar, Rajkot, Bhuj and Palanpur (9 cities of Gujarat). |
| No. | Authors               | Cities/Regions                                                                 |
|-----|-----------------------|-------------------------------------------------------------------------------|
| 12  | Ranjan et al., (2020) | Delhi, Kolkata, Bengaluru, and Mumbai, (also 10 coal mine areas).             |
| 13  | Shehzad et al., (2020)| Delhi and Mumbai.                                                              |
| 14  | Rodríguez-Urrego and Rodríguez-Urrego, (2020) | Delhi, (also 49 other capital cities of world). |
| 15  | Singh et al., (2020)  | Delhi and 4 regions (Central, North-West, South, and Indo- Gangetic Plain).    |
| 16  | Aman et al., (2020)   | Ahmedabad                                                                     |
| 17  | Babu et al., (2020)   | Delhi                                                                         |
| 18  | Agarwal et al., (2020)| Delhi, Lucknow, Kolkata, Mumbai, Chennai Jaipur, (also 6 cities of China).    |
| 19  | Bera et al., (2020)   | Kolkata                                                                        |
| 20  | Karuppasamy et al., (2020) | Delhi, New Delhi, Thrissur, Lucknow, Hyderabad, Chandigarh, Bhopal, Nagpur, Ghaziabad, Hapur, Gandhinagar, Chennai, Nashik, Mysore, Visakhapatnam, Mumbai, Jaipur, Patna, Muzaffarnagar, Thiruvananthapuram, Bengaluru, Shillong, Kolkata (23 cities). |
| 21  | Dhaka et al., (2020)  | Delhi                                                                         |
| 22  | Siddiqui et al., (2020)| Delhi, Ahmedabad, Kolkata, Mumbai, Hyderabad, Chennai, Bengaluru and Pune.    |
| 23  | Singh and Chauhan, (2020) | Delhi, Mumbai, Hyderabad, Kolkata, and Chennai. |
| 24  | Kumari and Toshniwal, (2020) | Delhi, Mumbai and Singrauli.                                                    |
| 25  | Kumar and Kumar, (2020) | Mumbai.                                                                        |
| 26  | Sarkar et al., (2020)  | Kolkata and Howrah.                                                           |
| 27  | Lokhandwala and Gautam, (2020) | Ghaziabad.                                                                      |
| 28  | Kumar, (2020)         | New Delhi, Kolkata, Ahmedabad, Mumbai, Chennai, Hyderabad.                     |
| 29  | Mahato and Ghosh, (2020) | Delhi, and other 9 cities like Ghaziabad, Faridabad, Gurugram, Noida, Muzaffarnagar, Bulandshahr, Greater Noida, Jind and Bhiwadi. |
| 30  | Sharma et al., (2020) | Ajmer, Alwar, Bhiwadi, Jaipur, Jodhpur, Kota, and Udaipur.                    |
| 31  | Reshmi et al., (2020) | Kannur, Kerala.                                                                |
| 32  | Gautam et al., (2020) | Delhi (A part of Delhi i.e. Delhi Technical University area, Okhla and Patparganj), Jind, Palwal Hisar, Agra, Kanpur, Noida. |
| 33  | Mitra et al., (2020)  | Kolkata                                                                        |
| 34  | Somani et al., (2020) | Delhi (R.K. Puram), Mumbai, (Powai), Kolkata (Jadavpur) and Chennai (Manali). |
| 35  | Bedi et al., (2020)   | Delhi, Mumbai, Kolkata and Chennai.                                            |
| 36  | Kumari et al., (2020) | Delhi, Amritsar, Ludhiana, Patiala, Udaipur, Bhiwadi, Jaipur, Jodhpur, Gurugram, Jind, Faridabad, Rohtak, Guwahati, Bhopal, Ujjain, Agra, Ghaziabad, Noida, Bulandshahr, Kanpur, Lucknow, Greater Noida, Varanasi, Hyderabad, Tirupati, Visakhapatnam, Ahmedabad, Mumbai, Nagpur, Pune, Chennai, Thiruvananthapuram, Jorapokhar, Gaya, Patna, Howrah, Kolkata, Bengaluru, Kalaburagi (39 cities). |
Supplementary Table S3: Spread of COVID-19 cases in India.

| States and Union territories       | Confirmed cases as on 19 June, 2020 | % of Total Case per million population* |
|-----------------------------------|-------------------------------------|----------------------------------------|
| Maharashtra                       | 124331                              | 32.23% 1106.40                          |
| Gujarat                           | 26141                               | 6.78% 432.51                            |
| Delhi                             | 53116                               | 13.77% 3163.94                          |
| Tamil Nadu (TN)                   | 54449                               | 14.11% 754.69                           |
| Rajasthan                         | 14156                               | 3.67% 206.51                            |
| Madhya Pradesh (MP)               | 11582                               | 3.00% 159.47                            |
| Uttar Pradesh (UP)                | 15785                               | 4.09% 79.00                             |
| Andhra P                          | 7961                                | 2.06% 160.58                            |
| WB                                | 13090                               | 3.39% 143.41                            |
| Punjab                            | 3832                                | 0.99% 138.12                            |
| Telangana                         | 6526                                | 1.69% 186.44                            |
| JK                                | 5680                                | 1.47% 452.90                            |
| Karnataka                         | 8281                                | 2.15% 135.54                            |
| Haryana                           | 9743                                | 2.53% 384.32                            |
| Bihar                             | 7181                                | 1.86% 68.98                             |
| Kerala                            | 2912                                | 0.75% 87.17                             |
| Odisha                            | 4677                                | 1.21% 111.43                            |
| Chandigarh                        | 381                                 | 0.10% 360.98                            |
| Jharkhand                         | 1965                                | 0.51% 59.57                             |
| Tripura                           | 1178                                | 0.31% 320.64                            |
| Uttarakhand                       | 2177                                | 0.56% 215.84                            |
| Assam                             | 4904                                | 1.27% 157.15                            |
| HP                                | 619                                 | 0.16% 90.17                             |
| Chhattisgarh                      | 2028                                | 0.53% 79.39                             |
| Ladakh                            | 744                                 | 0.19% 2715.33                           |
| Andaman & Nicobar (A&N)           | 45                                  | 0.01% 118.24                            |
| Meghalaya                         | 44                                  | 0.01% 14.83                             |
| Puducherry                        | 286                                 | 0.07% 229.18                            |
| Goa                               | 725                                 | 0.19% 497.07                            |
| Manipur                           | 681                                 | 0.18% 238.46                            |
| DNH                               | 62                                  | 0.02% 180.39                            |
| Mizoram                           | 130                                 | 0.03% 118.48                            |
| AP                                | 103                                 | 0.03% 74.44                             |
| Nagaland                          | 198                                 | 0.05% 100.00                            |
| Sikkim                            | 70                                  | 0.02% 116.67                            |
| Total                             | 385783                              | 100.00%                                 |

Source: Compiled by author from different respective state’s website.
*As per 2011 population census of India.
Supplementary Figure Caption

**Fig. S1**: Location of Delhi, India.