

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 2399
TO BE ANSWERED ON 15.07.2019

Air pollution in the country

2399. SHRI SANJAY SINGH:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) details of increase in air pollution in India in comparison with global scenario;
- (b) effects of air pollution on human health specially in metropolitan cities; and
- (c) details of steps to be taken to control the air pollution?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BABUL SUPRIYO)

- (a) The ambient air quality data for metropolitan cities / million plus urban agglomerations during 2016- 2018 is given in **Annexure-I**. Analysis of ambient air quality data during 2016- 2018 revealed that SO₂ levels were within the National Ambient Air Quality Standard (NAAQS) in all 50 cities during 2016-18. With respect to NO₂, 17 cities showed an increasing trend, 16 cities showed a decreasing concentration, 16 cities showed a fluctuating trend and 1 city revealed steady concentration. With respect to PM₁₀, 14 cities showed an increasing trend, 14 cities showed a decreasing concentration, 22 cities showed a fluctuating trend. With respect to PM_{2.5}, trends are available for 17 cities and out of 17 cities, 08 cities showed an increasing trend, 04 cities showed a decreasing concentration, 05 cities showed a fluctuating trend.
- (b) Though air pollution is one of the triggering factors for respiratory ailments and associated diseases, there are no conclusive data available in the country to establish direct correlation of death/ disease exclusively due to air pollution.
- (c) The Central Government has taken a number of initiatives for prevention, control and abatement of air pollution. These include

Plans and Directions

- Comprehensive Action Plan (CAP) identifying timelines and implementing agency for actions identified for prevention, control and mitigation of air pollution in Delhi and NCR has been notified.
- Graded Response Action Plan for different levels of air pollution in Delhi and NCR has been notified.
- National Clean Air Programme (NCAP) under the Central Sector “Control of Pollution” Scheme as a time bound national level strategy to tackle air pollution problem across the country in comprehensive manner has been launched.
- 102 non-attainment cities for formulation and implementation of city specific action plan under NCAP have been identified.

Monitoring

- Setting up of monitoring network for assessment of ambient air quality.
- Notification of National Ambient Air Quality Standards.
- Launch of National Air Quality Index.
- Implementation of Air Quality Early Warning System for Delhi in October, 2018 in association with Ministry of Earth Sciences (MoES).

Transport

- Leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi and from by 1st April, 2020 in the rest of the country.
- Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending.
- Promotion of public transport and improvements in roads and building of more bridges to ease congestion on roads.
- Operationalisation of Eastern Peripheral Expressway & Western Peripheral Expressway to divert non-destined traffic from Delhi.
- Streamlining the issuance of Pollution Under Control Certificate.

Industry

- Badarpur thermal power plant has been closed from 15th October, 2018.
- All brick kilns have been shifted to zig-zag technology in Delhi and NCR.
- Installation of on-line continuous (24x7) monitoring devices all red category industries in Delhi and NCR.
- Revision of emission standards for industrial sectors from time to time.

Biomass and Solid Waste

- A new Central Sector Scheme on ‘Promotion of Agricultural Mechanization for in-situ management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi’ for the period from 2018-19 and 2019-20 has been launched.
- Banning of burning of biomass.
- 3 Waste-to-Energy (W-t-E) plants are currently operational in Delhi with atotal capacity of 5100 Tonnes Per Day(TPD).
- Notifications of 6 waste management rules covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous wastes issued in 2016.

Dust

- Notifications regarding dust mitigation measures for construction and demolition activities.

- Number of mechanised road sweeping machines has been increased significantly and presently 60 machines are deployed for cleaning of roads in Delhi.

Public Outreach

- Ministry of Environment, Forest & Climate Change (MoEF&CC) and Delhi Government launched Clean Air for Delhi Campaign from 10th – 23rd Feb 2018 and to check air polluting activities pre and post Diwali, a special campaign called “Clean Air Campaign” during November 01, 2018 to November 10, 2018.
- Ministry is promoting peoples participation and awareness building among citizens for environmental conservation through Green Goods Deeds that focus on promotion of cycling, saving water and electricity, growing trees, proper maintenance of vehicles, following of lane discipline and reducing congestion on roads by car pooling etc.
- Development of mechanism for redressal of public complaints regarding air pollution issues in Delhi and NCR (through ‘Sameer App’, ‘Emails’(aircomplaints.cpcb@gov.in) and ‘Social Media Networks’ (Facebook and Twitter) etc.

As a result of these steps, in Delhi, the number of ‘Good’, ‘Satisfactory’, and ‘Moderate’ days has increased to 159 in 2018, as compared to 152 in 2017 and 106 in 2016, and the number of ‘Poor’, ‘Very Poor’ and ‘Severe’ days has reduced to 206, compared to 213 in 2017 and 246 in 2016. Analysis of Ambient air quality data of Delhi monitored under Continuous Ambient Air Quality Monitoring Stations (CAAQMS) during 2016-2018 revealed that there is reduction of 7.3 % in PM_{2.5} levels in 2018 over 2017 and 14.8% over 2016 and reduction of 8.6% in PM₁₀ levels in 2018 over 2017 and 16.5% over 2016.

Annexure referred to in reply to Rajya Sabha Unstarred Question No. 2399 due for reply on 15.07.2019 regarding ‘Air pollution in the country’ by Shri Sanjay Singh, Hon’ble Member of Rajya Sabha

Annexure-I

Air quality status of million plus/ urban agglomerations cities for 2016, 2017 and 2018 under NAMP (Manual)

(Annual average in µg/m³)

| Sl. No | State | Sl. No | City | 2016 | | | | 2017 | | | | 2018 | | | |
|--------|----------------|--------|----------------|-----------------|-----------------|------------------|-------------------|-----------------|-----------------|------------------|-------------------|-----------------|-----------------|------------------|-------------------|
| | | | | SO ₂ | NO ₂ | PM ₁₀ | PM _{2.5} | SO ₂ | NO ₂ | PM ₁₀ | PM _{2.5} | SO ₂ | NO ₂ | PM ₁₀ | PM _{2.5} |
| 1. | Andhra Pradesh | 1. | Vijaywada | 6 | 44 | 102 | - | 6 | 29 | 99 | - | 5 | 21 | 77 | 29 |
| | | 2. | Vishakhapatnam | 8 | 18 | 77 | - | 9 | 17 | 73 | - | 10 | 20 | 77 | 49 |

| | | | | | | | | | | | | | | | |
|-----|-----------------|-----|--------------------|----|----|-----|-----|----|----|-----|-----|----|----|-----|-----|
| 2. | Bihar | 3. | Patna | 4 | 32 | 212 | - | 5 | 39 | 156 | - | 5 | 51 | 207 | - |
| 3. | Chandigarh | 4. | Chandigarh | 2 | 21 | 105 | 123 | 2 | 16 | 109 | 64 | 2 | 17 | 102 | 50 |
| 4. | Chattisgarh | 5. | Durg-Bhillainagar | 9 | 23 | 108 | - | 8 | 21 | 97 | - | 8 | 19 | 84 | - |
| | | 6. | Raipur | 12 | 31 | 148 | | 10 | 27 | 103 | | 14 | 20 | 65 | |
| 5. | Delhi | 7. | Delhi | 7 | 66 | 278 | 118 | 7 | 68 | 241 | 106 | 6 | 73 | 223 | 121 |
| 6. | Gujarat | 8. | Ahmedabad | 14 | 27 | 108 | 34 | 14 | 29 | 120 | 38 | 16 | 29 | 236 | 73 |
| | | 9. | Rajkot | 13 | 21 | 92 | 32 | 16 | 22 | 106 | 37 | 19 | 23 | 203 | 64 |
| | | 10. | Surat | 13 | 22 | 92 | 31 | 16 | 26 | 106 | 36 | 22 | 29 | 176 | 57 |
| | | 11. | Vadodara | 14 | 23 | 92 | 30 | 16 | 23 | 108 | 36 | 20 | 25 | 188 | 60 |
| 7. | Haryana | 12. | Faridabad | - | - | - | - | - | - | - | - | - | - | - | - |
| 8. | Jammu & Kashmir | 13. | Srinagar | - | - | - | - | - | - | - | - | - | - | 153 | - |
| 9. | Jharkhand | 14. | Dhanbad | 15 | 37 | 226 | - | 15 | 37 | 238 | - | 14 | 37 | 264 | - |
| | | 15. | Jamshedpur | 36 | 45 | 136 | - | 36 | 45 | 131 | - | 37 | 46 | 128 | - |
| | | 16. | Ranchi | 20 | 37 | 196 | - | 19 | 37 | 142 | - | 18 | 36 | 122 | - |
| 10. | Karnataka | 17. | Bangalore | 3 | 31 | 103 | 51 | 2 | 31 | 92 | 46 | 2 | 30 | 90 | 47 |
| 11. | Kerala | 18. | Kochi | 2 | 20 | 48 | - | 2 | 19 | 51 | - | 3 | 16 | 57 | - |
| | | 19. | Kollam | 4 | 8 | 46 | - | 3 | 6 | 43 | - | 3 | 5 | 47 | - |
| | | 20. | Kozhikode | 2 | 18 | 51 | - | 2 | 18 | 47 | - | 2 | 10 | 54 | 6 |
| | | 21. | Malapuram | 2 | 17 | 37 | - | 2 | 21 | 32 | - | 2 | 26 | 31 | - |
| | | 22. | Thiruvananthapuram | 10 | 25 | 53 | - | 10 | 26 | 49 | - | 9 | 24 | 49 | - |
| | | 23. | Thissur | 2 | 5 | 54 | - | 2 | 5 | 56 | - | 3 | 9 | 41 | - |
| 12. | Madhya Pradesh | 24. | Bhopal | 3 | 15 | 89 | 27 | 4 | 15 | 93 | 41 | 7 | 14 | 135 | 59 |
| | | 25. | Gwalior | 10 | 14 | 96 | 52 | 10 | 17 | 110 | 47 | 13 | 21 | 134 | 62 |
| | | 26. | Indore | 11 | 20 | 95 | 54 | 11 | 21 | 80 | 43 | 10 | 19 | 88 | 41 |
| | | 27. | Jabalpur | 10 | 23 | 71 | 32 | 10 | 21 | 74 | 23 | 7 | 17 | 119 | 43 |
| 13. | Maharashtra | 28. | Aurangabad | 14 | 39 | 92 | - | 10 | 33 | 83 | - | 13 | 35 | 70 | - |
| | | 29. | Mumbai | 6 | 30 | 119 | - | 3 | 18 | 151 | 40 | 2 | 21 | 166 | 46 |
| | | 30. | Nagpur | 16 | 26 | 118 | - | 9 | 27 | 102 | - | 10 | 28 | 103 | 44 |
| | | 31. | Nashik | 13 | 27 | 85 | - | 12 | 22 | 81 | - | 12 | 21 | 85 | - |
| | | 32. | Pune | 28 | 78 | 107 | - | 21 | 65 | 102 | - | 37 | 75 | 106 | - |
| | | 33. | Thane | 18 | 60 | 122 | - | 18 | 47 | 125 | - | 17 | 44 | 108 | - |
| | | 34. | Vasai- virar | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14. | Punjab | 35. | Amritsar | 12 | 29 | 194 | - | 11 | 27 | 168 | - | 13 | 34 | 177 | - |
| | | 36. | Ludhiana | 11 | 25 | 139 | - | 10 | 28 | 162 | - | 9 | 32 | 162 | - |
| 15. | Rajasthan | 37. | Jaipur | 8 | 33 | 199 | - | 8 | 30 | 177 | - | 8 | 32 | 165 | - |
| | | 38. | Jodhpur | 6 | 23 | 168 | - | 6 | 21 | 180 | - | 7 | 24 | 223 | - |

| | | | | | | | | | | | | | | | |
|-----|---------------|-----|------------|----|----|-----|----|----|----|-----|-----|----|----|-----|-----|
| | | 39. | Kota | 7 | 30 | 109 | - | 8 | 28 | 130 | - | 7 | 28 | 152 | - |
| 16. | Tamilnadu | 40. | Chennai | 10 | 18 | 65 | 25 | 9 | 17 | 62 | 32 | 9 | 16 | 78 | 34 |
| | | 41. | Coimbatore | 6 | 24 | 59 | 35 | 5 | 26 | 49 | 34 | 6 | 23 | 54 | 32 |
| | | 42. | Madurai | 15 | 24 | 76 | 38 | 14 | 23 | 67 | 30 | 12 | 20 | 84 | 34 |
| | | 43. | Trichy | 12 | 20 | 95 | 27 | 12 | 20 | 86 | | 17 | 23 | 110 | 53 |
| 17. | Telangana | 44. | Hyderabad | 5 | 27 | 101 | 49 | 6 | 28 | 108 | 54 | 5 | 30 | 105 | 55 |
| 18. | Uttar Pradesh | 45. | Agra | 5 | 22 | 198 | - | 4 | 19 | 185 | 124 | 4 | 22 | 209 | 106 |
| | | 46. | Allahabad | 4 | 37 | 196 | - | 4 | 40 | 140 | - | 4 | 45 | 231 | - |
| | | 47. | Ghaziabad | 15 | 28 | 235 | - | 22 | 34 | 280 | - | 21 | 43 | 245 | 103 |
| | | 48. | Kanpur | 7 | 39 | 217 | - | 7 | 45 | 224 | - | 7 | 47 | 218 | - |
| | | 49. | Lucknow | 8 | 27 | 214 | - | 8 | 26 | 246 | 102 | 7 | 30 | 217 | 108 |
| | | 50. | Meerut | 7 | 55 | 157 | - | 7 | 52 | 153 | - | 7 | 58 | 177 | - |
| 19. | West Bengal | 51. | Varanasi | 11 | 32 | 256 | - | 10 | 38 | 244 | - | 9 | 34 | 189 | - |
| | | 52. | Asansol | 13 | 42 | 211 | 88 | 12 | 37 | 163 | 67 | 13 | 35 | 146 | 58 |
| | | 53. | Kolkata | 4 | 49 | 113 | 70 | 6 | 41 | 120 | 71 | 6 | 44 | 148 | 86 |

NB. NA- no monitoring station in the city, '-' data not available, National Ambient Air Quality Standard (NAAQS) for Residential, Industrial, Rural and others Areas (Annual average) for SO₂ = 50 µg/m³, NO₂ = 40 µg/m³, PM₁₀ = 60 µg/m³ & PM_{2.5} = 40 µg/m³ and SO₂ = 20 µg/m³, NO₂ = 30 µg/m³, PM₁₀ = 60 µg/m³ and PM_{2.5} = 40 µg/m³ for Ecologically sensitive area. The data furnished in the table for year 2018 is as available on date.