GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
LOK SABHA
STARRED QUESTION N0. 156
TO BE ANSWERED ON 08.03.2016

## Air Quality

*156. SHRI MUTHAMSETTI SRINIVASA RAO (AVANTHI):
Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:
(a) whether air quality in metropolitan cities including Mumbai has deteriorated in the recent past;
(b) if so, the details thereof, city-wise and the reaction of the Government thereto; and;
(c) the steps taken/proposed to be taken by the Government to mitigate air pollution and improve air quality in the metropolitan cities of the country?

## ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR)
(a) to (c): A statement is laid on the Table of the House.

Statement referred to in reply to Lok Sabha Starred Question No. 156 due for reply on 08.03.2016 regarding 'Air Quality' by SHRI MUTHAMSETTI SRINIVASA RAO (AVANTHI), Hon'ble Member of Parliament
(a) \& (b) Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) are monitoring ambient air quality across the country under National Air Quality Monitoring Programme (NAMP). Three air pollutants viz., Sulphur Dioxide $\left(\mathrm{SO}_{2}\right)$, Nitrogen Dioxide $\left(\mathrm{NO}_{2}\right)$ and Particulate Matter size equal to or less than 10 micron ( $\mathrm{PM}_{10}$ ), are monitored at all the 612 operating monitoring stations located in 254 cities/towns in 29 states and 5 union territories across the country. The ambient air quality data of the million plus cities including Mumbai is annexed.

Out of the 46 million plus cities, ambient air quality data collected during 2015 available for 41 cities indicate that the values of $\mathrm{SO}_{2}$ are within the NAAQS of $50 \mu \mathrm{~g} / \mathrm{m}^{3}$ (annual standard). The value of $\mathrm{NO}_{2}$ in 9 cities (namely Delhi, Faridabad, Howrah, Kalyan Dombovali, Kolkata, Pimpri-Chinchwad, Pune, Navi Mumbai and Thane) exceeded the NAAQS of $40 \mu \mathrm{~g} / \mathrm{m}^{3}$ (annual standard); while the value of $\mathrm{PM}_{10}$, in 38 cities do not comply with the NAAQS of $60 \mu \mathrm{~g} / \mathrm{m}^{3}$ (annual standard). The $\mathrm{PM}_{10}$ value in 3 cities (namely Chennai, Coimbatore and Vishakhapatnam) complies with the National Standard of $60 \mu \mathrm{~g} / \mathrm{m}^{3}$ (annual standard). The analysis of three year data also revealed that $\mathrm{SO}_{2} \& \mathrm{NO}_{2}$ levels at Mumbai are within the NAAQS. However, the level of $\mathrm{PM}_{10}$ exceeds the NAAQS of $60 \mu \mathrm{~g} / \mathrm{m}^{3}$ (annual standard) and shows decreasing trend in 2014 and 2015 compared to 2013.
(c) The steps taken by the Government to mitigate air pollution in metropolitan cities including Mumbai in the country include the following:-
(i) Notification of National Ambient Air Quality Standards envisaging 12 pollutants;
(ii) Formulation of environmental regulations / statutes;
(iii) Setting up of monitoring network for assessment of ambient air quality;
(iv) Introduction of cleaner / alternate fuels like gaseous fuel, ethanol blend etc. replacing petrol and diesel;
(v) Promotion of cleaner production processes;

Taking note of the gravity of Air Pollution, the Government has taken some more measures which include:
(i) Launched National Air Quality index by the Prime Minister in April, 2015 starting with 14 cities and now extended to 22 cities;
(ii) Implementation of Bharat Stage IV (BS-IV) norms in 63 selected cities and universalization of BS-IV by 2017;
(iii) Decision taken to leapfrog directly from BS-IV to BS-VI fuel standards by $1^{\text {st }}$ April, 2020;
(iv) Comprehensive review of all Waste Management Rules including Municipal Solid Waste, Plastic Waste, Hazardous Waste, Bio-medical Waste and Electronic Waste.
(v) Ban on burning of leaves, biomass, municipal solid waste;
(vi) Promotion of public transport network of metro, buses, e-rickshaws and promotion of car pooling, Pollution Under Control, lane discipline, vehicle maintenance;
(vii) Revision of existing environmental standards and formulation of new standards for prevention and control of pollution from industries.
(viii) Regular co-ordination meetings at official and ministerial level with Delhi and other State Governments within the NCR.
(ix) Issuance of directions under Section 5 of Environment (Protection) Act, 1986 and under Section 18(1)(b) of Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.
(x) Installation of on-line continuous (24×7) monitoring devices by major industries.

ANNEXURE REFERRED TO IN REPLY TO PARA (a) \& (b) OF THE LOK SABHA STARRED QUESTION NO. 156 DUE FOR REPLY ON 08.03.2016 REGARDING AIR QUALITY BY SHRI MUTHAMSETTI SRINIVASA RAO (AVANTHI), HON'BLE MEMBERS OF PARLIAMENT

Air quality status of million plus cities for 2013, 2014 and 2015

| (Annual average ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { S. } \\ \text { No. } \end{gathered}$ | City | State | 2013 |  |  | 2014 |  |  | 2015 |  |  |
|  |  |  | $\mathrm{SO}_{2}$ | $\mathrm{NO}_{2}$ | PM ${ }_{10}$ | $\mathrm{SO}_{2}$ | $\mathrm{NO}_{2}$ | $\mathrm{PM}_{10}$ | $\mathrm{SO}_{2}$ | $\mathrm{NO}_{2}$ | PM ${ }_{10}$ |
| 1. | Agra | Uttar Pradesh | 5 | 21 | 184* | 8 | 12 | 182* | 8 | 15 | 192* |
| 2. | Ahmedabad | Gujarat | 12 | 17 | 79* | 13 | 20 | 85* | 13 | 20 | 86* |
| 3. | Allahabad | Uttar <br> Pradesh | 5 | 29 | 235* | 4 | 28 | 250* | 3 | 28 | 249* |
| 4. | Amritsar | Punjab | 13 | 40 | 180* | 14 | 42* | 187* | 12 | 34 | 169* |
| 5. | Aurangabad | Maharashtra | 10 | 37 | 84* | 12 | 39 | 85* | 12 | 40 | 82* |
| 6. | Bangalore | Karnataka | 13 | 26 | 113* | 13 | 30 | 140* | 5 | 20 | 131* |
| 7. | Bhopal | Madhya Pradesh | 3 | 26 | 220* | 2 | 20 | 156* | 3 | 23 | 168* |
| 8. | Chennai | Tamilnadu | 14 | 22 | 75* | 13 | 22 | 59 | 13 | 20 | 56 |
| 9. | Coimbatore | Tamilnadu | 4 | 24 | 56 | 5 | 25 | 48 | 4 | 25 | 47 |
| 10. | Delhi (DMC) | Delhi | 4 | 66* | 221* | 5 | 61* | 215* | 5 | 59* | 221* |
| 11. | Dhanbad | Jharkhand | 16 | 40 | 151* | 14 | 37 | 162* | 12 | 37 | 168* |
| 12. | Faridabad | Haryana | 12 | 26 | 196* | 13 | 25 | 197* | 15 | 73* | 105* |
| 13. | Ghaziabad | Uttar Pradesh | 26 | 34 | 285* | 26 | 39 | 246* | 23 | 37 | 247* |
| 14. | Gwalior | Madhya Pradesh | 13 | 27 | 197* | 11 | 17 | 148* | 10 | 14 | 127* |
| 15. | Howrah | West Bengal | 11 | 45* | 187* | 9 | 35 | 111 | 15 | 43* | 123* |
| 16. | Hyderabad | Telangana | 5 | 24 | 90* | 5 | 24 | 98* | 5 | 25 | 94* |
| 17. | Indore | Madhya Pradesh | 11 | 19 | 156* | 11 | 20 | 144* | 11 | 20 | 95* |
| 18. | Jabalpur | Madhya Pradesh | 2 | 23 | 69* | 2 | 23 | 69* | 9 | 26 | 88* |
| 19. | Jaipur | Rajasthan | 7 | 40 | 160* | 7 | 41* | 154* | 7 | 35 | 167* |
| 20. | Jodhpur | Rajasthan | 5 | 23 | 176* | 7 | 31 | 189* | 6 | 24 | 151* |
| 21. | Kalyan Dombivali | Maharashtra | 25 | 54* | 91* | 40 | 77* | 141* | 17 | 47* | 94* |
| 22. | Kanpur | Uttar Pradesh | 7 | 31 | 201* | 5 | 34 | 199* | 6 | 35 | 200* |
| 23. | Kolkata | West Bengal | 11 | 70* | 159* | 15 | IA | 107* | 6 | 53* | 108* |
| 24. | Kota | Rajasthan | 7 | 33 | 122* | 7 | 35 | 128* | 6 | 33 | 115* |
| 25. | Lucknow | Uttar Pradesh | 8 | 29 | 192* | 8 | 28 | 175* | 8 | 28 | 172* |
| 26. | Ludhiana | Punjab | 11 | 26 | 204* | 10 | 26 | 152* | 11 | 27 | 139* |
| 27. | Madurai | Tamilnadu | 14 | 22 | 41 | 13 | 26 | 45 | 13 | 26 | 65* |
| 28. | Meerut | Uttar Pradesh | 5 | 39 | 134* | 8 | 48* | 154* | - | - | - |
| 29. | Mumbai | Maharashtra | 3 | 13 | 117* | 4 | 20 | 95* | 3 | 23 | 90* |
| 30. | Nagpur | Maharashtra | 8 | 27 | 89* | 10 | 25 | 93* | 10 | 29 | 85* |
| 31. | Nashik | Maharashtra | 28 | 29 | 85* | 25 | 26 | 73* | 19 | 22 | 78* |
| 32. | Navi Mumbai | Maharashtra | 17 | 44* | 137* | 18 | 40 | 151* | 18 | 43* | 137* |
| 33. | Patna | Bihar | - | - | - | - | - | - | - | - | - |
| 34. | Pimpri Chinchwad | Maharashtra | 20 | 43* | 86* | 22 | 41* | 93* | 19 | 53* | 98* |
| 35. | Pune | Maharashtra | 20 | 41* | 88* | 23 | 45* | 92* | 20 | 59* | 96* |
| 36. | Raipur\$ | Chattisgarh | 15 | 41* | 305* | 16 | 41* | 329* | 13 | 36 | 186* |
| 37. | Rajkot | Gujarat | 12 | 17 | 87* | 13 | 19 | 82* | 13 | 19 | 83* |
| 38. | Ranchi | Jharkhand | 19 | 36 | 177* | 18 | 34 | 197* | - | - | - |


| 39. | Shrinagar | Jammu <br> \&Kashmir | $@$ | $@$ | $@$ | $@$ | $@$ | $@$ | $@$ | $@$ | $@$ |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40. | Surat | Gujarat | 13 | 20 | $88^{*}$ | 15 | 20 | $89^{*}$ | 14 | 20 | $89^{*}$ |
| 41. | Thane | Maharashtra | 17 | 32 | $110^{*}$ | 18 | $60^{*}$ | $109^{*}$ | 28 | $58^{*}$ | $116^{*}$ |
| 42. | Vadodara | Gujarat | 14 | 19 | $89^{*}$ | 15 | 21 | $87^{*}$ | 14 | 21 | $89^{*}$ |
| 43. | Varanasi | Uttar <br> Pradesh | 19 | 28 | $145^{*}$ | 19 | 32 | $139^{*}$ | 19 | 36 | $174^{*}$ |
| 44. | Vasai-virar | Maharashtra | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 45. | Vijaywada | Andhra <br> Pradesh | 5 | 19 | $104^{*}$ | 5 | 24 | $100^{*}$ | 5 | 34 | $107^{*}$ |
| 46. | Vishakhapatnam <br> (GVMC) | Andhra <br> Pradesh | 13 | 18 | $67^{*}$ | 13 | 20 | $64^{*}$ | 8 | 18 | $60^{*}$ |

NB. NA- no monitoring station in the city, @ -monitoring station sanctioned but not yet operational, ‘‘data not received, IA inadequate data, \$ -there are three operating station in Raipur, however during 2013,2014 only one station is in operation and for 2015 two monitoring stations are operating, *Concentration exceeding NAAQS of 50 $\mu \mathrm{g} / \mathrm{m3}$ for $\mathrm{SO}_{2}, 40 \mu \mathrm{~g} / \mathrm{m3}$ for $\mathrm{NO}_{2}, 60 \mu \mathrm{~g} / \mathrm{m} 3$ for $\mathrm{PM}_{10}$, and $40 \mu \mathrm{~g} / \mathrm{m} 3$ for $P M_{2.5}$ for Residential/ industrial / other area \& $20 \mu \mathrm{~g} / \mathrm{m} 3$ for SO2, $30 \mu \mathrm{~g} / \mathrm{m} 3$ for NO2, and $60 \mu \mathrm{~g} / \mathrm{m} 3$ for Ecologically sensitive area. The data furnished in the table for year 2015 is as available on date.

