

Sl.No.	States/UTs	2016	2017	2018
19.	Lakshadweep	0	0	0
20.	Madhya Pradesh	2,675	4781	4929
21.	Maharashtra	1,874	3487	3919
22.	Manipur	1,105	1094	1606
23.	Meghalaya	966	1454	1664
24.	Mizoram	1,318	1587	2339
25.	Nagaland	678	930	935
26.	Odisha	2,763	4416	3735
27.	Puducherry	0	9	4
28.	Punjab	45	320	487
29.	Rajasthan	66	260	292
30.	Sikkim	0	8	1
31.	Tamil Nadu	113	301	221
32.	Telangana	1,154	1748	1918
33.	Tripura	346	431	861
34.	Uttar Pradesh	691	1170	1165
35.	Uttarakhand	1,501	376	1385
36.	West Bengal	142	364	125
TOTAL		24,817	35,888	37059

Reduction of pollution in cities

36. SHRI KAPIL SIBAL: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) details regarding the pollution in the major cities of India during last three years, State/UT/year-wise;

(b) whether Government has taken steps to control air pollution, if so, the details of the plans thereof along with the implementation of the same; and

(c) whether Ministry has received proposals regarding the rain-maker aircraft to be used to reduce pollution, if so, the details thereof and the action taken by the Ministry with the reasons for delay in approval?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (DR. MAHESH SHARMA): (a) Ambient air quality is monitored at 731 locations covering 312 cities/towns in 29 States and 6 Union Territories across the country under National Air Quality Monitoring Programme (NAMP). The details of ambient air quality data for million plus cities during 2014-17 is given in the Statement-I (*See* below). Analysis of data revealed that SO₂ levels were within the National Ambient Air Quality Standard (NAAQS) in all 43 cities during 2014-17. With respect to NO₂, 9 cities showed an increasing trend, 10 cities showed a decreasing concentration and 24 cities showed a fluctuating trend. With respect to PM₁₀, 9 cities showed an increasing trend, 5 cities showed a decreasing concentration and 29 cities showed a fluctuating trend. With respect to PM_{2.5}, trends are available for 15 cities and out of 15 cities, 5 cities showed an increasing trend, 3 cities showed a decreasing concentration, 7 cities showed a fluctuating trend.

(b) The Ministry of Environment, Forest and Climate Change has launched National Clean Air Programme (NCAP) to tackle the problem of air pollution across the country in a comprehensive manner. The overall objective is to augment and evolve effective ambient air quality monitoring network across the country besides ensuring comprehensive management plan for prevention, control and abatement of air pollution and enhancing public awareness and capacity building measures. 102 non-attainment cities have been identified. City Action Plans have to be prepared for non-attainment cities. Till date 47 action plans have been received. Status is given in the Statement-II (*See* below).

Further, the measures taken/being taken by the Government to check pollution and improve the air quality *inter alia*, include; notification of National Ambient Air Quality Standards; setting up of monitoring network for assessment of ambient air quality; introduction of cleaner/alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending, launching of National Air Quality index; universalization of BS-IV from 2017; leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi and from 1st April, 2020 in the rest of the country; notification of Construction and Demolition Waste Management Rules; banning of burning of biomass; notifications regarding mandatory implementation of dust mitigation measures for construction and demolition activities; notification of Construction and Demolition Waste Management Rules; promotion of public transport network; streamlining the issuance of Pollution Under Control Certificate; issuance of directions under Section 18(1)(b) of Air (Prevention and Control of Pollution) Act, 1981 and under Section 5 of Environment (Protection) Act, etc.

(c) PAAC-EPC (Project Appraisal and Approval Committee – constituted for the utilization of Environment Protection Charge fund) in its meeting on 13th November, 2018, in-principle, approved IIT Kanpur project on cloud seeding for creating artificial rain in Delhi region to reduce air pollution. This could not be taken up due to unfavourable meteorological conditions.

Statement-I

*Details of air quality status of million plus cities for the year
2014, 2015, 2016 and 2017*

Sl.No.	State	Cities	(Annual average in $\mu\text{g}/\text{m}^3$)			
			SO ₂	NO ₂	PM ₁₀	PM _{2.5}
2014						
1.	Uttar Pradesh	Agra	5	19	178	-
2.	Gujarat	Ahmedabad	13	20	84	29
3.	Uttar Pradesh	Allahabad	4	28	250	-
4.	Punjab	Amritsar	11	31	145	-
5.	Maharashtra	Aurangabad	12	39	85	-
6.	Karnataka	Bangalore	13	30	139	-
7.	Madhya Pradesh	Bhopal	2	21	160	63
8.	Tamil Nadu	Chennai	13	22	57	-
9.	Tamil Nadu	Coimbatore	5	25	49	-
10.	Delhi	Delhi	5	61	217	81
11.	Jharkhand	Dhanbad	14	36	16	-
12.	Maharashtra	Dombivali/Ambemath				-
13.	Haryana	Faridabad	14	26	199	-
14.	Uttar Pradesh	Ghaziabad	27	39	242	-
15.	Madhya Pradesh	Gwalior	11	17	144	-
16.	West Bengal	Howrah	9	35	111	-
17.	Telangana	Hydrabad	5	24	95	-
18.	Madhya Pradesh	Indore	11	20	143	-
19.	Madhya Pradesh	Jabalpur	2	23	73	-
20.	Rajasthan	Jaipur	7	43	150	-
21.	Rajasthan	Jodhpur	7	31	190	-

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
22.	Uttar Pradesh	Kanpur	40	77	141	-
23.	West Bengal	Kolkata	6	34	199	-
24.	Rajasthan	Kota	9	70	122	-
25.	Uttar Pradesh	Lucknow	7	35	127	-
26.	Punjab	Ludhiana	8	28	174	-
27.	Tamil Nadu	Madurai	10	26	146	-
28.	Uttar Pradesh	Meerut	13	26	46	-
29.	Maharashtra	Mumbai	8	48	15	-
30.	Maharashtra	Nagpur	4	20	96	-
31.	Maharashtra	Nashik	25	26	72	-
32.	Maharashtra	Navi Mumbai	18	40	151	-
33.	Bihar	Patna	7	37	17	-
34.	Maharashtra	Pimpri Chinchwad	22	41	93	-
35.	Maharashtra	Pune	23	4	9	-
36.	Chhattisgarh	Raipur	16	41	329	-
37.	Gujarat	Rajkot	13	19	82	30
38.	Jharkhand	Ranchi	18	34	197	-
39.	Jammu and Kashmir	Srinagar	@	@	@	@
40.	Gujarat	Surat	15	20	89	31
41.	Maharashtra	Thane	18	60	10	-
42.	Gujarat	Vadodara	15	21	8	32
43.	Uttar Pradesh	Varanasi	19	32	13	-
44.	Maharashtra	Vasai-Virar	NA	NA	NA	NA
45.	Andhra Pradesh	Vijayawada	5	24	100	-
46.	Andhra Pradesh	Visakhapatnam	13	20	64	-
2015						
1.	Uttar Pradesh	Agra	4	22	186	-
2.	Gujarat	Ahmedabad	13	21	89	29
3.	Uttar Pradesh	Allahabad	4	26	250	-
4.	Punjab	Amritsar	11	30	148	-

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
5.	Maharashtra	Aurangabad	13	40	83	-
6.	Karnataka	Bangalore	6	20	119	54
7.	Madhya Pradesh	Bhopal	3	23	158	105
8.	Tamil Nadu	Chennai	13	20	59	22
9.	Tamil Nadu	Coimbatore	4	25	47	30
10.	Delhi	Delhi	5	65	220	95
11.	Jharkhand	Dhanbad	12	37	168	-
12.	Maharashtra	Dombivali/Ambarnath	20	53	104	-
13.	Haryana	Faridabad	15	74	105	56
14.	Uttar Pradesh	Ghaziabad	23	37	260	-
15.	Madhya Pradesh	Gwalior	10	14	125	77
16.	West Bengal	Howrah	15	43	123	73
17.	Telangana	Hyderabad	4	23	93	-
18.	Madhya Pradesh	Indore	11	20	97	-
19.	Madhya Pradesh	Jabalpur	9	28	90	40
20.	Rajasthan	Jaipur	7	36	171	-
21.	Rajasthan	Jodhpur	6	24	152	-
22.	Uttar Pradesh	Kanpur	6	36	201	-
23.	West Bengal	Kolkata	7	56	105	55
24.	Rajasthan	Kota	6	34	134	-
25.	Uttar Pradesh	Lucknow	8	28	169	-
26.	Punjab	Ludhiana	11	27	139	-
27.	Tamil Nadu	Madurai	13	25	64	32
28.	Uttar Pradesh	Meerut	6	39	144	-
29.	Maharashtra	Mumbai	4	25	106	26
30.	Maharashtra	Nagpur	10	25	90	-
31.	Maharashtra	Nashik	15	23	78	-
32.	Maharashtra	Navi Mumbai	18	42	125	-
33.	Bihar	Patna	4	41	204	-
34.	Maharashtra	Pimpri Chinchwad	23	52	102	-

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
35.	Maharashtra	Pune	23	62	99	-
36.	Chhattisgarh	Raipur	13	36	188	-
37.	Gujarat	Rajkot	13	19	83	30
38.	Jharkhand	Ranchi	19	36	220	-
39.	Jammu and Kashmir	Srinagar	@	@	@	@
40.	Gujarat	Surat	14	20	89	31
41.	Maharashtra	Thane	28	58	117	-
42.	Gujarat	Vadodara	14	20	87	33
43.	Uttar Pradesh	Varanasi	19	33	145	-
44.	Maharashtra	Vasai-Virar	NA	NA	NA	NA
45.	Andhra Pradesh	Vijayawada	6	37	110	-
46.	Andhra Pradesh	Visakhapatnam	9	19	61	-

2016

1.	Uttar Pradesh	Agra	5	22	198	-
2.	Gujarat	Ahmedabad	14	27	108	34
3.	Uttar Pradesh	Allahabad	4	37	196	-
4.	Punjab	Amritsar	12	29	194	-
5.	Maharashtra	Aurangabad	14	39	92	-
6.	Karnataka	Bangalore	3	31	103	51
7.	Madhya Pradesh	Bhopal	3	15	89	27
8.	Tamil Nadu	Chennai	10	18	65	25
9.	Tamil Nadu	Coimbatore	6	24	59	35
10.	Delhi	Delhi	7	66	278	118
11.	Jharkhand	Dhanbad	15	37	226	-
12.	Maharashtra	Dombivali/Ambarnath	26	76	128	-
13.	Haryana	Faridabad	-	-	-	-
14.	Uttar Pradesh	Ghaziabad	15	28	235	-
15.	Madhya Pradesh	Gwalior	10	14	96	52
16.	West Bengal	Howrah	10	59	119	67
17.	Telangana	Hyderabad	4	27	100	49

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
18.	Madhya Pradesh	Indore	11	20	95	54
19.	Madhya Pradesh	Jabalpur	10	23	71	32
20.	Rajasthan	Jaipur	8	33	199	-
21.	Rajasthan	Jodhpur	6	23	168	-
22.	Uttar Pradesh	Kanpur	7	39	217	-
23.	West Bengal	Kolkata	4	49	113	70
24.	Rajasthan	Kota	7	30	109	-
25.	Uttar Pradesh	Lucknow	8	27	214	-
26.	Punjab	Ludhiana	11	25	139	-
27.	Tamil Nadu	Madurai	15	24	76	38
28.	Uttar Pradesh	Meerut	7	55	157	-
29.	Maharashtra	Mumbai	6	30	119	20
30.	Maharashtra	Nagpur	16	26	118	-
31.	Maharashtra	Nashik	13	27	85	-
32.	Maharashtra	Navi Mumbai	19	46	118	-
33.	Bihar	Patna	4	32	212	-
34.	Maharashtra	Pimpri Chinchwad	32	71	105	-
35.	Maharashtra	Pune	28	78	107	-
36.	Chhattisgarh	Raipur	12	31	148	-
37.	Gujarat	Rajkot	13	21	92	32
38.	Jharkhand	Ranchi	20	37	196	-
39.	Jammu and Kashmir	Srinagar	@	@	@	@
40.	Gujarat	Surat	13	22	92	31
41.	Maharashtra	Thane	18	60	122	-
42.	Gujarat	Vadodara	14	23	92	30
43.	Uttar Pradesh	Varanasi	11	32	256	-
44.	Maharashtra	Vasai-Virar	NA	NA	NA	NA
45.	Andhra Pradesh	Vijayawada	6	44	102	-
46.	Andhra Pradesh	Visakhapatnam	8	18	77	-

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
2017						
1.	Uttar Pradesh	Agra	4	19	185	124
2.	Gujarat	Ahmedabad	14	29	120	38
3.	Uttar Pradesh	Allahabad	4	40	140	
4.	Punjab	Amritsar	11	27	168	-
5.	Maharashtra	Aurangabad	10	33	83	-
6.	Karnataka	Bangalore	2	31	92	46
7.	Madhya Pradesh	Bhopal	4	15	93	41
8.	Tamil Nadu	Chennai	9	17	62	32
9.	Tamil Nadu	Coimbatore	5	26	49	34
10.	Delhi	Delhi	7	68	241	106
11.	Jharkhand	Dhanbad	15	37	238	-
12.	Maharashtra	Dombivali/Ambemath	27	70	176	-
13.	Haryana	Faridabad	-	-	-	-
14.	Uttar Pradesh	Ghaziabad	22	34	280	-
15.	Madhya Pradesh	Gwalior	10	17	110	47
16.	West Bengal	Howrah	11	63	110	64
17.	Telangana	Hyderabad	6	28	108	54
18.	Madhya Pradesh	Indore	11	21	80	43
19.	Madhya Pradesh	Jabalpur	10	21	74	23
20.	Rajasthan	Jaipur	8	30	177	-
21.	Rajasthan	Jodhpur	6	21	180	-
22.	Uttar Pradesh	Kanpur	7	45	224	-
23.	West Bengal	Kolkata	6	41	120	71
24.	Rajasthan	Kota	8	28	130	-
25.	Uttar Pradesh	Lucknow	8	26	246	102
26.	Punjab	Ludhiana	10	28	162	-
27.	Tamil Nadu	Madurai	14	23	67	30
28.	Uttar Pradesh	Meerut	7	52	153	-
29.	Maharashtra	Mumbai	3	18	151	40

Sl.No.	State	Cities	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
30.	Maharashtra	Nagpur	9	27	102	-
31.	Maharashtra	Nashik	12	22	81	-
32.	Maharashtra	Navi Mumbai	22	45	105	-
33.	Bihar	Patna	5	39	156	-
34.	Maharashtra	Pimpri Chinchwad	23	61	82	-
35.	Maharashtra	Pune	21	65	102	-
36.	Chhattisgarh	Raipur	10	27	103	-
37.	Gujarat	Rajkot	16	22	106	37
38.	Jharkhand	Ranchi	19	37	142	-
39.	Jammu and Kashmir	Srinagar	@	@	@	@
40.	Gujarat	Surat	16	26	106	36
41.	Maharashtra	Thane	18	47	125	-
42.	Gujarat	Vadodara	16	23	108	36
43.	Uttar Pradesh	Varanasi	10	38	244	-
44.	Maharashtra	Vasai-Virar	NA	NA	NA	NA
45.	Andhra Pradesh	Vijayawada	6	29	99	-
46.	Andhra Pradesh	Visakhapatnam	9	17	73	-

NA- no monitoring station in the city, @ -monitoring station sanctioned but not yet operational, '-' data not available/received, 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 and 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.

Statement-II

Details of approved plans by six member committee status

Sl.No.	State	City
1.	Chhattisgarh	Bhillai Korba Raipur
2.	Telangana	Hydrabad Patencheru Nalgonda
3.	Delhi	Delhi

Sl.No.	State	City
4.	Tamil Nadu	Thoothukudi
5.	Chandigarh	Chandigarh
6.	Karnataka	Bangalore Devanagere Gulburga Hubli-Dharwad
7.	Odisha	Angul Balasore Bhubaneswar Cuttack Rourkela Talcher
8.	Himachal Pradesh	Baddi Damtal Kala Amb Nalagarh Paonta Sahib Parwanoo Sunder Nagar
9.	Rajasthan	Alwar Jaipur Jodhpur Kota Udaipur
10.	Jammu and Kashmir	Jammu Srinagar
11.	Bihar	Patna Gaya Muzaffarpur
12.	Madhya Pradesh	Bhopal

Sl.No.	State	City
		Dewas
		Indore
		Sagar
		Ujjain
		Gwalior
13.	West Bengal	Kolkata
14.	Andhra Pradesh	Guntur
		Kurnool
		Nellore
		Vijayawada
		Visakhapatnam

United Nations Report on Climate Change

37. SHRI RIPUN BORA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether Government has received any United Nations (UN) Report on Climate Change on one degree celsius increase of global warming;

(b) if so, summary of report thereof and process proposed on limiting warming in the climate;

(c) action proposed by Government to reduce temperature by 0.5 degree within next ten years thereof; and

(d) details of stringent decision of Government to control temperature, investment plan and the findings of local Government and NGOs therein?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (DR. MAHESH SHARMA): (a) and (b) India is a Party to the Inter-governmental Panel on Climate Change (IPCC) which is an inter-governmental body for assessing the science related to climate change. IPCC was jointly established by United Nations Environment Programme and World Meteorological Organisation in 1988 to provide policymakers with regular scientific assessments concerning climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation strategies. Scientists from all over the world, including India, contribute to the IPCC assessment reports.