

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 1974
TO BE ANSWERED ON 12.12.2024

Air Pollution

1974 SHRI VIVEK K. TANKHA:

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

- (a) the progress of National Clean Air Programme (NCAP) in achieving its target to achieve 20 to 30 per cent reduction in PM10 and PM2.5 concentrations by 2024;
- (b) whether NCAP has managed to reduce pollution, if so, the details thereof, State-wise and year-wise;
- (c) the number of machines delivered under the Turbo Happy Seeder (THS) machine initiative till 2024, State-wise and year-wise; and
- (d) how effective GRAP has been considering the present pollution levels in Delhi?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) & (b): National Clean Air Programme (NCAP) launched by Ministry of Environment, Forest and Climate Change (MoEF&CC) in January 2019 with an aim to improve air quality in 130 cities (non-attainment cities and Million Plus Cities) in 24 States/UTs by engaging all stakeholders. NCAP envisages reduction by 20-30% in PM10 concentration over baseline in year 2017 by 2024-25. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national standards (60 microgram/cubic meter) by 2025-26.

Non-attainment cities identified under NCAP in 2019 was based on PM10 concentrations. PM2.5, being a subset of PM10, also reduces to some extent with actions aimed at PM10 control.

As per the annual performance assessment carried out for 2023-24, 97 cities out of 130 cities have shown improvement in air quality in terms of PM10 concentrations in FY 2023-24 as compared to base levels of 2017-18. 55 cities have achieved reduction of 20% and above in PM10 levels in 2023-24 with respect to the levels of 2017-18. Further, 18 cities conform to national ambient air quality standards in terms of Particulate Matter concentrations during FY 2023-24.

Details of improvement in PM10 concentrations of 130 Cities in FY 2023-24 w.r.t. FY 2017-18 are enclosed as **Annexure-I**.

(c): Ministry of Agriculture and Farmers Welfare under Centrally Sponsored Scheme on Crop Residue Management extends financial support to the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution in Delhi & National Capital Region due to stubble burning since 2018-19. The scheme promotes the use of in-situ and ex-situ Crop Residue Management machines through financial assistance to farmers, Cooperative societies, Farmers Producer Organizations and Panchayats. State and year-wise details of Crop Residue Management machines including Happy Seeders provided during 2018-19 till 2024-25 (as on 1st December) are provided at **Annexure II**.

(d): Revised Graded Response Action Plan (GRAP) has been formulated by Commission for Air Quality Management (CAQM). The GRAP, which is an emergency response measure, provides a specific set of actions depending on air pollution levels (Air Quality Index) in Delhi-NCR to be implemented by identified agencies for controlling the adverse air quality, particularly during the winter periods. Stricter regulations and restrictions imposed during the periods under GRAP help in averting further deterioration of Air Quality.

The GRAP classifies air quality into four stages:

- (i) Stage I – Poor (AQI between 201-300)
- (ii) Stage II – Very Poor (AQI between 301-400)
- (iii) Stage III – Severe (AQI between 401-450)
- (iv) Stage IV – Severe + (AQI >450)

Based on daily forecasts from the IMD and IITM, actions for Stages II, III, and IV are implemented in advance if the projected AQI levels are expected to persist for three or more days. Certain guidelines comprising of measures such as prohibition on entry of trucks into Delhi, ban on construction activities, closing of schools, closure of brick kilns, hot mix plants and stone crushers, ban on diesel generator sets, garbage burning in landfills, plying of visibly polluting vehicles etc. are prescribed. These measures have helped in reducing air quality deterioration within the area.

Annexure I

Improvement in PM₁₀ concentrations in Cities under NCAP during FY 2023-24 with respect to FY 2017-18

S.No	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
1	Andhra Pradesh	Kadapa	75	42	44
2		Kurnool	79	56	29
3		Anantapur	78	59	24
4		Nellore	64	52	19
5		Chittoor	70	59	16
6		Ongole	65	56	14
7		Rajahmundry	85	76	11
8		Guntur	66	61	8
9		Eluru	72	68	6
10		Srikakulam	69	68	1
11		Vizianagram	72	73	-1
12	Assam	Sibsagar	73	41	44
13		Silchar	49	32	35
14		Guwahati	103	119	-16
15		Nagaon	82	107	-30
16		Nalbari	87	127	-46
17	Bihar	Muzaffarpur	147	168	-14
18		Gaya	79	104	-32
19	Chandigarh	Chandigarh	114	116	-2
20	Chhattisgarh	Korba	57	59	-4
21	Delhi	Delhi	241	208	14
22		Nalagarh	146	68	53

S.No	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
23	Himachal Pradesh	Sunder Nagar	78	44	44
24		Parwanoo	66	39	41
25		Baddi	174	111	36
26		Kala Amb	118	100	15
27		Damtal	55	52	5
28		Paonta Sahib	84	90	-7
29	Jammu and Kashmir	Jammu	157	101	36
30		Srinagar	132**	96	27
31	Karnataka	Devanagere	74	66	11
32		Hubli-dharwad	79	71	10
33		Gulburga	55	56	-2
34	Madhya Pradesh	Ujjain	93	84	10
35		Sagar	73	74	-1
36		Dewas	83	99	-19
37	Maharashtra	Akola	111	85	23
38		Latur	82	66	20
39		Amravati	102	87	15
40		Chandrapur	118	102	14
41		Sangli	87	77	11
42		Kolhapur	89	86	3
43		Jalna	99	102	-3
44		Solapur	81	96	-19
45		Jalgaon	70	97	-39
46	Meghalaya	Byrnihat	175	104	41

S.No	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
47	Nagaland	Kohima	127	68	46
48		Dimapur	142	97	32
49	Odisha	Kalinga Nagar	109	101	7
50		Talcher	113	113	0
51		Rourkela	99	111	-12
52		Bhubaneswar	85	114	-34
53		Cuttack	93	129	-39
54		Balasore	84	124	-48
55		Angul	97	167	-72
56	Punjab	Jalandhar	178	111	38
57		Naya Nagal	87	59	32
58		Khanna	142	100	30
59		Pathankot/ Dera Baba	79	56	29
60		Gobindgarh	148	126	15
61		Patiala	106	91	14
62		Dera Bassi	88	102	-16
63	Rajasthan	Alwar	152	127	16
64		Udaipur	127	121	5
65	Tamil Nadu	Thoothukudi	123	57	54
66	Telangana	Sangareddy	85	81	5
67		Nalgonda	59	59	0
68	Uttar Pradesh	Bareilly	207	80	61
69		Firozabad	247	102	59
70		Moradabad	222	115	48

S.No	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
71		Khurja	195	104	47
72		Raebareli	145	91	37
73		Gorakhpur	150	111	26
74		Noida	229	182	21
75		Gajraula	204	167	18
76		Jhansi	109	96	12
77		Anpara	175	166	5
78	Uttarakhand	Dehradun	250	109	56
79		Rishikesh	129	76	41
80		Kashipur	99	98	1
81	West Bengal	Durgapur	150	106	29
82		Haldia	92	87	5

Improvement in PM₁₀ concentrations of Million Plus Cities/ Urban Agglomerations in FY 2023-24 with respect to FY 2017-18

S.No.	State	City	PM10 concentrations in 2017-18 (µg/m ³) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m ³) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
1	Andhra Pradesh	Vijayawada	91	61	33
2		Vishakhapatnam	76	120	-58
3	Bihar	Patna	172	178	-3
4	Chhattisgarh	Bhilai	86	68	21
5		Raipur	70	76	-9
6	Gujarat	Ahmedabad	164	98	40
7		Rajkot	150	92	39
8		Vadodara	133	95	29
9		Surat	130	103	21
10	Haryana	Faridabad	229**	190	17
11	Jharkhand	Dhanbad	315	138	56
12		Ranchi	141	107	24
13		Jamshedpur	135	130	4
14	Karnataka	Bangalore	92	70	24
15	Madhya Pradesh	Jabalpur	101	91	10
16		Bhopal	112	113	-1
17		Gwalior	126	136	-8
18		Indore	82	99	-21
19	Maharashtra	Mumbai	161	94	42
20		Thane	138	111	20
21		Nashik	82	72	12
22		Nagpur	100	94	6

S.No.	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
23		Badlapur	160	152	5
24		Pune	102	98	4
25		Ulhasnagar	153	149	3
26		Navi Mumbai	88	98	-11
27		Vasai-Virar	99	125	-26
28		Aurangabad	75	98	-31
29	Punjab	Amritsar	189	119	37
30		Ludhiana	168	161	4
31	Rajasthan	Jodhpur	189	124	34
32		Jaipur	172	148	14
33		Kota	139	124	11
34	Tamil Nadu	Trichy	88	47	47
35		Madurai	72	68	6
36		Chennai	66	63	5
37	Telangana	Hyderabad	110	81	26
38	Uttar Pradesh	Varanasi	230	73	68
39		Lucknow	253	137	46
40		Kanpur	227	125	45
41		Agra	202	116	43
42		Ghaziabad	285	172	40
43		Allahabad	169	124	27
44		Meerut	159	149	6
45	West Bengal	Kolkata	147	94	36
46		Asansol	147	108	27

S.No.	State	City	PM10 concentrations in 2017-18 (µg/m3) (Annual Avg.)	PM10 concentrations in 2023-24 (µg/m3) (Annual Avg.)	Percentage reduction in PM10 concentrations in 2023-24 with respect to the year 2017-18 (%)
47		Howrah	139	111	20
48		Barrackpore	86	99	-15

** PM10 levels in the FY 2017-18 for Faridabad and Srinagar are not available. PM10 levels of FY 2020-21 for Faridabad and PM10 levels of FY 2018-19 for Srinagar have been considered as a baseline

Annexure II

State and year-wise details of Crop Residue Management machines including Happy Seeders provide during 2018-19 til 2024-25 (as on 1st December)

State/ Agency	Crop Residue Management Scheme								
	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Punjab	Total nos. of Machines distributed	27747	23068	25811	13796	27250	19735	11285	148692
	Total nos. of Happy Seeders in total machines distributed	9552	3223	541	224	124	20	35	13719
Haryana	Total nos. of Machines distributed	10627	14078	29020	19052	7294	9699	9844	99614
	Total nos. of Happy Seeders in total machines distributed	2364	2495	141	109	20	11	0	5140
Uttar Pradesh	Total nos. of Machines distributed	23306	7054	13651	14697	5274	4808	1760	70550
	Total nos. of Happy Seeders in total machines distributed	12	45	1038	437	0	0	0	1532
