

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
STARRED QUESTION NO. 230
TO BE ANSWERED ON 10.08.2023

Air pollution

*230. SHRI VIVEK K. TANKHA:

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

- (a) the progress under National Clean Air Programme (NCAP) in achieving targets of 20 to 30 per cent reduction in PM10 and PM2.5 concentrations by 2024;
- (b) whether NCAP has managed to reduce pollution;
- (c) the number of machines delivered under the Turbo Happy Seeder (THS) machine initiative; and
- (d) the effectiveness of Graded Response Action Plan considering the present pollution levels in Delhi?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (d) A Statement is laid on the table of the House.

STATEMENT REFERRED TO IN REPLY OF PARA (a) TO (d) OF STARRED QUESTION NO. 230 TO BE ANSWERED ON 10.08.2023 IN RAJYA SABHA RAISED BY SHRI VIVEK K. TANKHA “AIR POLLUTION”

(a) & (b): Ministry of Environment Forest & Climate Change (MoEF&CC) launched National Clean Air Programme (NCAP) in January, 2019 which is a long-term, time-bound national level strategy for prevention, control and abatement of air pollution. Under NCAP, it has been envisaged to achieve targets of 20 to 30% reduction in Particulate Matter concentrations by 2024 in 131 cities of 24 States/UTs with respect to base year 2017. Subsequently, the target has been revised to achieve up to 40% reduction or achieve National Ambient Air Quality Standards (NAAQS) in terms PM concentrations by 2025-26. Cities are provided funds for implementing City Action Plans for taking measures to improve air quality as per the prescribed annual targets in respective cities.

90 cities out of 131 cities have shown improvement in air quality in terms of annual PM10 concentrations in FY 2022-23 with respect to the baseline of FY 2017-18. 15 cities have met National Ambient Air Quality Standards (NAAQS) for PM10 (60 µg/m³) in FY 2022-23. Details of air quality of 131 cities are enclosed at **Annexure-I**.

(c) & (d): To address air pollution due to stubble burning, Department of Agriculture & Farmers Welfare introduced a 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 in FY 2018-19 to subsidize machinery required for in-situ management of crop residue.

The Scheme promotes the usage of machines such as Happy Seeder, Super Seeder, Zero till seed cum fertilizer drill, Mulcher, Paddy Straw Chopper, Super Straw Management Systems, Hydraulically Reversible Mould Board plough, Crop reapers and Reaper binders for in-situ management of crop residue and Balers & Rakes which are used for straw collection in the form of bales for other ex-situ uses of straw. Smart Seeder machine has been newly added during the current year.

Details of State-wise number of machines supplied to individual farmers and Custom Hiring Centres (CHC) are provided at **Annexure-II**.

Graded Response Action Plan (GRAP) has been introduced in Delhi-NCR since 2017 to tackle the issue of sudden rise of air pollution levels and revised in October 2022.

Commission on Air Quality Management in National Capital Region and Adjoining areas (CAQM) has constituted a sub-committee for operationalization of GRAP to plan for advance actions and issue necessary orders for invoking various provisions of the GRAP, based on the prevalent air quality and the Air Quality Index (AQI) forecast to be provided by IMD from time to time.

Annexure-I

Air quality data of 131 cities covered under National Clean Air Programme (NCAP)

States	S. No.	Cities	2017-2018	2022-2023	Percentage improvement in PM10 concentration with respect to base year 2017 – 18 (%)
			Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	
Andhra Pradesh	1	Anantpur	78	57	26.92
	2	Chittur	70	52	25.71
	3	Eluru	72	66	8.33
	4	Guntur	66	60	9.09
	5	Kadapa	75	57	24.00
	6	Kurnool	79	64	18.99
	7	Nellore	64	56	12.50
	8	Ongole	65	51	21.54
	9	Rajamahendravaram	85	68	20.00
	10	Srikakulam	69	71	-2.90
	11	Vijayawada	91	90	1.10
	12	Visakhapatnam	76	116	-52.63
	13	Vizhianagaram	72	75	-4.17
Assam	14	Guwahati	103	106	-2.91
	15	Nagaon	82	121	-47.56
	16	Nalbari	87	128	-47.13
	17	Silchar	49	49	0.00
	18	Sivasagar	73	42	42.47
Bihar	19	Patna	172	193	-12.21
	20	Gaya	79	150	-89.87
	21	Muzaffarpur	147	175	-19.05
Chandigarh	22	Chandigarh	114	116	-1.75
Chattisgarh	23	Korba	57	70	-22.81
	24	Durg Bhilainagar	86	70	18.60
	25	Raipur	70	78	-11.43
Delhi	26	Delhi	241	209	13.28
Gujarat	27	Ahmedabad	164	91	44.51
	28	Rajkot	150	92	38.67
	29	Surat	130	118	9.23
	30	Vadodara	133	104	21.80

States	S. No.	Cities	2017-2018	2022-2023	Percentage improvement in PM10 concentration with respect to base year 2017 – 18 (%)
			Average concentration (F.Y.) of PM10 (µg/m3)	Average concentration (F.Y.) of PM10 (µg/m3)	
Haryana	31	Faridabad*	229	212	7.42
Himachal Pradesh	32	Baddi	174	145	16.67
	33	Damtal	55	64	-16.36
	34	Kala Amb	118	93	21.19
	35	Nalagarh	146	78	46.58
	36	Paonta Sahib	84	103	-22.62
	37	Parwanoo	66	47	28.79
	38	Sunder Nagar	78	46	41.03
Jammu & Kashmir	39	Jammu	157	158	-0.64
	40	Srinagar*	132	88	33.33
Jharkhand	41	Dhanbad	315	203	35.56
	42	Jamshedpur	135	126	6.67
	43	Ranchi	141	107	24.11
Karnataka	44	Bengaluru	92	68	26.09
	45	Devangere	74	61	17.57
	46	Gulburga / Kalaburgi	55	74	-34.55
	47	Hubli-Dharwad	79	76	3.80
Madhya Pradesh	48	Bhopal	112	124	-10.71
	49	Dewas	83	105	-26.51
	50	Gwalior	126	145	-15.08
	51	Indore	82	109	-32.93
	52	Jabalpur	101	125	-23.76
	53	Sagar	73	83	-13.70
	54	Ujjain	93	111	-19.35
Maharashtra	55	Aurangabad	75	107	-42.67
	56	Akola	111	62	44.14
	57	Amravati	102	68	33.33
	58	Badlapur	160	146	8.75
	59	Chandrapur	118	121	-2.54
	60	Greater Mumbai	161	116	27.95
	61	Jalgaon	70	66	5.71
	62	Jalna	99	93	6.06

States	S. No.	Cities	2017-2018	2022-2023	Percentage improvement in PM10 concentration with respect to base year 2017 – 18 (%)
			Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	
	63	Kolhapur	89	80	10.11
	64	Latur	82	53	35.37
	65	Nagpur	100	97	3.00
	66	Nashik	82	62	24.39
	67	Navi Mumbai	88	102	-15.91
	68	Pune	102	96	5.88
	69	Sangli	87	69	20.69
	70	Solapur	81	76	6.17
	71	Thane	138	115	16.67
	72	Ulhasnagar	153	128	16.34
	73	Vasai virar*	99	155	-56.57
Meghalaya	74	Byrnihat	175	131	25.14
Nagaland	75	Dimapur	142	91	35.92
	76	Kohima	127	72	43.31
Odisha	77	Angul	97	98	-1.03
	78	Balasore	84	82	2.38
	79	Bhubneshwar	85	118	-38.82
	80	Cuttack	93	105	-12.90
	81	Kalinga Nagar	109	104	4.59
	82	Rourkela	99	126	-27.27
Punjab	83	Talcher	113	93	17.70
	84	Amritsar	189	120	36.51
	85	Dera Baba Nanak	79	58	26.58
	86	Dera Bassi	88	104	-18.18
	87	Jalandhar	178	126	29.21
	88	Khanna	142	103	27.46
	89	Ludhiana	168	163	2.98
	90	Mandi Gobindgarh	148	131	11.49
Rajasthan	91	Naya Nangal	87	63	27.59
	92	Patiala	106	103	2.83
	93	Jaipur	172	143	16.86
	94	Alwar	152	116	23.68
	95	Jodhpur	189	146	22.75

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			Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	
	96	Kota	139	128	7.91
	97	Udaipur	127	128	-0.79
Tamil Nadu	98	Chennai	66	66	0.00
	99	Madurai	72	68	5.56
	100	Trichy	88	47	46.59
	101	Tuticorin	123	54	56.10
Telangana	102	Hyderabad	110	83	24.55
	103	Nalgonda	59	55	6.78
	104	Patencheru	74	80	-8.11
	105	Sangareddy	85	86	-1.18
Uttar Pradesh	106	Agra	202	118	41.58
	107	Allahabad	169	125	26.04
	108	Ghaziabad	285	198	30.53
	109	Kanpur	227	143	37.00
	110	Lucknow	253	149	41.11
	111	Meerut	159	177	-11.32
	112	Varanasi	230	94	59.13
	113	Anpara	175	166	5.14
	114	Bareilly	207	110	46.86
	115	Firozabad	247	106	57.09
	116	Gajraula	204	194	4.90
	117	Gorakpur	150	102	32.00
	118	Jhansi	109	118	-8.26
	119	Khurja	195	150	23.08
	120	Moradabad	222	116	47.75
	121	Noida	229	202	11.79
	122	Raebareli	145	102	29.66
Uttarakhand	123	Dehradun	250	117	53.20
	124	Kashipur	99	112	-13.13
	125	Rishikesh	129	103	20.16
West Bengal	126	Asansol	147	147	0.00
	127	Barrackpore	86	84	2.33
	128	Durgapur	150	139	7.33

States	S. No.	Cities	2017-2018	2022-2023	Percentage improvement in PM10 concentration with respect to base year 2017 – 18 (%)
			Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	Average concentration (F.Y.) of PM10 ($\mu\text{g}/\text{m}^3$)	
	129	Haldia	92	91	1.09
	130	Howrah	139	125	10.07
	131	Kolkata	147	97	34.01

Note: * For air quality data of Faridabad, baseline data of FY 2020-21 was considered as baseline data for FY 2017-18 was not collected.

*For air quality data of Srinagar, baseline data of FY 2018-19 was considered as baseline data for FY 2017-18 was not collected

* For air quality data of Vasai-verar, baseline is FY 2019-20 was considered as baseline data for FY 2017-18 was not collected.

Annexure-II

State-wise details of crop residue management machines supplied to individual farmers and Custom Hiring Centres

S. No.	Parameters	Punjab	Haryana	Uttar Pradesh	NCT of Delhi	Total
1	Number of machines supplied to individual farmers	34044	27661	36370	247	98322
2	Number of machines supplied to Custom Hiring Centres	55107	31446	22338	0	108891
3	Number of Custom Hiring Centres Established	24201	6775	7446	0	38422
4	Grand total of machines supplied to individual farmers and Custom Hiring Centres	89151	59107	58708	247	207213

State/ Agency	Number of Machines delivered to the individual farmers and Custom Hiring Centres					No. of Custom Hiring Centres Established				
	2018-19	2019-20	2020-21	2021-22	Total	2018-19	2019-20	2020-21	2021-22	Total
Punjab	27747	23068	24540	13796	89151	3888	5140	12100	3073	24201
Haryana	10627	14078	15350	19052	59107	1194	1685	1345	2551	6775
Uttar Pradesh	23306	7054	13651	14697	58708	2300	1650	1652	1844	7446
NCT of Delhi	0	111	51	85	247	0	0	0	0	0
Total	61680	44311	53592	47630	207213	7382	8475	15097	7468	38422