

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
STARRED QUESTION No. 249
TO BE ANSWERED ON 21.03.2022

Increasing Air Pollution

249. SHRIMATI SUNITA DUGGAL:
SHRI CHANDRA SEKHAR SAHU:

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

- (a) whether the Government had monitored the factors and quantum of reduction of air pollution levels during the COVID lockdown;
- (b) if so, whether the Government had studied the same in depth to understand the various factors which contribute to pollution and the proportion of their contribution along with the steps taken by the Government to convert the findings of the study into evidence-based policy measure;
- (c) the names of the cities or regions in the country where air pollution reportedly has increased during the last two years along with the main reasons for deterioration in air quality therein;
- (d) whether the Environment Pollution Control and Prevention Authority has been implementing the graded action plan to tackle pollution level in various cities of the country and if so, the details in this regard; and
- (e) whether the Government proposes any action plan to maintain the air quality in the cities which have major public health concerns and if so, the details thereof along with the steps taken or proposed to be taken by the Government to implement the aforesaid action plan in the country?

ANSWER

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

(a) to (e): Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARAS (a) TO (e) OF THE LOK SABHA STARRED QUESTION NO. 249 DUE FOR REPLY ON 21.03.2022 REGRADING 'INCREASING AIR POLLUTION' RAISED BY SHRIMATI SUNITA DUGGAL AND SHRI CHANDRA SEKHAR SAHU, HON'BLE MEMBERS OF PARLIAMENT

(a)

It has been reported that COVID-19 related lockdown has resulted in temporary improvement of air quality in many cities due to closure of industries, reduction in number of vehicles plying and lack of construction activities etc. The comparative details of the Air Quality Index (AQI) for major cities in India is annexed as **Annexure-I**.

(b)

Major sources of pollution in Urban Settlement are vehicular emission, road dust, burning of biomass/ crop/ garbage/ Municipal Solid Waste, landfills, construction activities, industrial emission, etc.

Ministry under National Clean Air Programme (NCAP) has identified 132 Non-attainment cities (NACs). Source apportionment (SA) and Emission Inventory (EI) are part of the city specific action plan prepared for the improvement of air quality in these NACs. Such scientific field-based studies are carried out by Institutions of Repute and are at various stages of completion. The findings of these studies would assist in the formulation of evidence-based policy measures.

(c)

Analysis of ambient air quality data of Particulate Matter (Size less than 10µm) of 132 non-attainment / metropolitan cities indicated that PM10 concentration increased in 31 cities in 2020-2021 as compared to 2019-2020, whereas 96 cities showed a decrease of PM10 concentration (i.e. improvement in air quality) and 04 cities revealed no change in concentration. The afore-mentioned details are annexed at **Annexure-II**.

(d)

'The Commission for Air Quality Management (CAQM) in NCR and Adjoining Areas' has been constituted under "The Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021" {29 of 2021}. The Environment Pollution (Prevention and Control) Authority for the National Capital Region (EPCA) was constituted under section 3 of the Environment (Protection) Act, 1986 and Ministry vide notification dated the 29th January, 1998 had entrusted the mandate to implement the Graded Response Action (GRAP) to EPCA for NCR Delhi. EPCA has been dissolved after constitution of CAQM. Presently, GRAP in Delhi-NCR region is implemented by CAQM.

GRAP has been prepared in 117 cities and is implemented by City Level Committee.

(e) 6

The Government has launched National Clean Air Programme (NCAP) in 2019 as a national-level strategy to maintain air quality in the non-attainment cities i.e. cities where the air quality has been consistently worse than the National Ambient Air Quality Standards

(NAAQS) for the past 5 years i.e. below NAAQS for PM₁₀(Particulate matter that is 10 microns or less in diameter) or NO₂ (Nitrogen Dioxide) concentrations.

The Government has taken several steps for mitigation of air pollution which include the introduction of BS-VI norms for fuel and vehicles since April, 2020, promotion of E-vehicles, expansion of network of Metro rails for public transport, cleaner fuel such as PNG, stringent emission norms for industries including coal based Thermal Power Plants (TPPs), zig-zag technology for brick kilns, Extended Producer Responsibility (EPR) for plastic and e-waste management, real-time monitoring of major industrial sectors, etc. Measures taken for Air Quality Management is annexed as **Annexure-III**.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF THE LOK SABHA STARRED QUESTION NO. 249 DUE FOR ANSWER ON 21.03.2022 REGARDING 'INCREASING AIR POLLUTION' RAISED BY SHRIMATI SUNITA DUGGAL AND SHRI CHANDRA SEKHAR SAHU, HON'BLE MEMBERS OF PARLIAMENT

**Comparative AQI during 25th March to 3rd May of 2019& 2020
(first two phases of lockdown during 2020) for major cities in India**

City name	No. of days in Good- Satisfactory AQI	
	2019	2020
Delhi	1	22
Faridabad	0	13
Ghaziabad	0	16
Gurugram	2	19
Noida	2	25
Mumbai	34	40
Kolkata	30	31
Bengaluru	5	40
Patna	5	17
Chennai	35	40

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF THE LOK SABHA STARRED QUESTION NO. 249 DUE FOR ANSWER ON 21.03.2022 REGARDING 'INCREASING AIR POLLUTION' RAISED BY SHRIMATI SUNITA DUGGAL AND SHRI CHANDRA SEKHAR SAHU, HON'BLE MEMBERS OF PARLIAMENT

Cities showing decreased concentration (96 cities) of PM₁₀ - 2019-2020 & 2020-2021

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Andhra Pradesh	1.	Vijayawada	57	56
Andhra Pradesh	2.	Anantpur	60	58
Andhra Pradesh	3.	Chittur	51	41
Andhra Pradesh	4.	Eluru	64	58
Andhra Pradesh	5.	Guntur	58	56
Andhra Pradesh	6.	Kurnool	56	52
Andhra Pradesh	7.	Nellore	67	56
Andhra Pradesh	8.	Ongole	59	49
Andhra Pradesh	9.	Vizhianagaram	68	63
Assam	10.	Nagaon	92	90
Assam	11.	Nalbari	75	57
Assam	12.	Silchar	45	43
Assam	13.	Sivasagar	55	48
Bihar	14.	Patna	170	143
Bihar	15.	Gaya	76	71
Chandigarh	16.	Chandigarh	92	90
Chhattisgarh	17.	Korba	54	46
Chhattisgarh	18.	Durg Bhilainagar	75	56
Chhattisgarh	19.	Raipur	63	55
Gujarat	20.	Rajkot	113	94
Gujarat	21.	Surat	109	93
Gujarat	22.	Vadodara	108	95
Himachal Pradesh	23.	Baddi	133	123
Himachal Pradesh	24.	Kala Amb	95	64
Himachal Pradesh	25.	Nalagarh	113	90
Himachal Pradesh	26.	Paonta Sahib	98	78
Himachal Pradesh	27.	Parwanoo	60	44
Himachal Pradesh	28.	Sunder Nagar	69	63
Jharkhand	29.	Dhanbad	211	198
Jharkhand	30.	Jamshedpur	138	96
Jharkhand	31.	Ranchi	108	105
Karnataka	32.	Bengaluru	73	62
Karnataka	33.	Hubli-Dharwad	78	69
Madhya Pradesh	34.	Bhopal	141	114
Madhya Pradesh	35.	Gwalior	136	125
Madhya Pradesh	36.	Jabalpur	111	106
Madhya Pradesh	37.	Sagar	71	64

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Maharashtra	38.	Aurangabad	76	65
Maharashtra	39.	Greater Mumbai	106	98
Maharashtra	40.	Nagpur	80	68
Maharashtra	41.	Nashik	57	51
Maharashtra	42.	Pune	81	69
Maharashtra	43.	Vasai virar	99	43
Maharashtra	44.	Akola	66	54
Maharashtra	45.	Amravati	89	58
Maharashtra	46.	Badlapur	88	67
Maharashtra	47.	Jalgaon	57	53
Maharashtra	48.	Jalna	95	86
Maharashtra	49.	Kolhapur	95	83
Maharashtra	50.	Latur	84	54
Maharashtra	51.	Navi Mumbai	54	52
Maharashtra	52.	Solapur	90	79
Maharashtra	53.	Ulhasnagar	83	66
Odisha	54.	Angul	95	88
Odisha	55.	Balasore	86	78
Odisha	56.	Bhubneshwar	103	78
Odisha	57.	Cuttack	104	86
Odisha	58.	Kalinga Nagar	113	104
Odisha	59.	Rourkela	112	96
Odisha	60.	Talcher	122	98
Punjab	61.	Dera Baba Nanak	68	66
Punjab	62.	Khanna	113	101
Punjab	63.	NayaNangal	98	95
Punjab	64.	Patiala	107	102
Rajasthan	65.	Jaipur	124	112
Rajasthan	66.	Jodhpur	167	155
Rajasthan	67.	Kota	102	100
Rajasthan	68.	Alwar	126	110
Rajasthan	69.	Udaipur	136	109
Tamilnadu	70.	Madurai	66	57
Tamilnadu	71.	Trichy	58	40
Tamilnadu	72.	Patencheru	87	77
Tamilnadu	73.	Sangareddy	87	77
Uttar Pradesh	74.	Allahabad	219	184
Uttar Pradesh	75.	Kanpur	200	169
Uttar Pradesh	76.	Lucknow	216	209
Uttar Pradesh	77.	Meerut	203	200
Uttar Pradesh	78.	Varanasi	180	168
Uttar Pradesh	79.	Anpara	169	142
Uttar Pradesh	80.	Firozabad	213	186
Uttar Pradesh	81.	Gajraula	217	168

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Uttar Pradesh	82.	Gorakpur	278	168
Uttar Pradesh	83.	Jhansi	102	99
Uttar Pradesh	84.	Khurja	226	194
Uttar Pradesh	85.	Moradabad	243	206
Uttar Pradesh	86.	Noida	213	197
Uttar Pradesh	87.	Raebareli	161	98
Uttarakhand	88.	Dehradun	166	144
Uttarakhand	89.	Kashipur	130	129
Uttarakhand	90.	Rishikesh	136	77
West Bengal	91.	Asansol	124	114
West Bengal	92.	Kolkata	101	99
West Bengal	93.	Barrackpore	108	75
West Bengal	94.	Durgapur	125	103
West Bengal	95.	Howrah	144	117
West Bengal	96.	Rani Ganj	177	107

Cities showing increased concentration (31 cities) of PM₁₀ - 2019-2020 & 2020-2021

States		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Andhra Pradesh	1.	Visakhapatnam	97	104
Andhra Pradesh	2.	Kadapa	48	50
Andhra Pradesh	3.	Rajamahendravaram	61	69
Assam	4.	Guwahati	113	114
Bihar	5.	Muzafarpur	138	180
Delhi	6.	Delhi	192	193
Gujarat	7.	Ahmedabad	116	120
Himachal Pradesh	8.	DamtaI	52	65
Jammu&Kashmir	9.	Jammu	145	186
Jammu&Kashmir	10.	Srinagar	132	163
Karnataka	11.	Devanagere	66	72
Karnataka	12.	Gulburga / Kalaburgi	80	92
Madhya Pradesh	13.	Indore	91	96
Madhya Pradesh	14.	Dewas	91	93
Madhya Pradesh	15.	Ujjain	90	104
Maharashtra	16.	Chandrapur	93	100
Maharashtra	17.	Sangli	70	71
Maharashtra	18.	Thane	79	105
Meghalaya	19.	Byrnihat	97	127

States		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Nagaland	20.	Dimapur	84	85
Nagaland	21.	Kohima	81	84
Punjab	22.	Amritsar	109	113
Punjab	23.	Ludhiana	115	129
Punjab	24.	DeraBassi	100	105
Punjab	25.	MandiGobindgarh	130	131
Punjab	26.	Jalandhar	121	150
Telangana	27.	Hyderabad	86	88
Telangana	28.	Nalgonda	59	60
Uttar Pradesh	29.	Agra	163	188
Uttar Pradesh	30.	Bareilly	185	193
West Bengal	31.	Haldia	69	93

Cities showing no change in concentration (04 cities) of PM₁₀ - 2019-2020 & 2020-2021

States		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM ₁₀ (µg/m ³)	Average concentration (F.Y.) of PM ₁₀ (µg/m ³)
Andhra Pradesh	1.	Srikakulam	66	66
Tamil Nadu	2.	Chennai	60	60
Tamil Nadu	3.	Tuticorin	84	84
Uttar Pradesh	4.	Ghaziabad	218	218

Data for Faridabad not available for FY 2019-20

ANNEXURE REFERRED TO IN REPLY TO PART (e) OF THE LOK SABHA STARRED QUESTION NO. 249 DUE FOR ANSWER ON 21.03.2022 REGARDING 'INCREASING AIR POLLUTION' RAISED BY SHRIMATI SUNITA DUGGAL AND SHRI CHANDRA SEKHAR SAHU, HON'BLE MEMBERS OF PARLIAMENT

Measures taken by the Government for Air Quality Management

Vehicular Pollution Control

- Leapfrogging from BS-IV to BS-VI norms for fuel and vehicles since April, 2020.
- Network of Metro rails for public transport are enhanced and more cities are covered.
- Development of Expressway and Highways are also reducing the fuel consumption and pollution.
- Introduction of cleaner/alternate fuels like CNG, LPG, ethanol blending in petrol.
- Faster Adoption and Manufacturing of Electric Vehicles (FAME) -2 scheme has been rolled out.
- Permit requirement for electric vehicles has been exempted.
- Promotion of public transport and improvements in roads and building of more bridges to ease congestion on roads.

Industrial Pollution Control

- Stringent emission norms for Coal based Thermal Power Plants (TPPs).
- Pet coke and furnace oil have been banned as fuel in Delhi and NCR States.
- Shifting of industrial units to PNG.
- Installation of online continuous emission monitoring devices in highly polluting industries.
- Shifting of Brick kilns to zig-zag technology for reduction of pollution

Waste Management

- Notifications of 6 waste management rules covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous waste.
- Setting up infrastructure such as waste processing plants.
- Extended Producer Responsibility (EPR) for plastic and e-waste management.
- Ban on burning of biomass/garbage.

Crop Residue Management

- Under 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', agricultural machines and equipment for in-situ crop residue management are promoted with 50% subsidy to the individual farmers and 80% subsidy for establishment of Custom Hiring Centres.
- Sustainable Alternative Towards Affordable Transportation (SATAT) has been launched as an initiative to set up Compressed Bio-Gas (CBG) production plants and make CBG available in the market for use in automotive fuels.

Monitoring of Ambient Air Quality

- Expansion of air quality monitoring network of manual as well as continuous monitoring stations under programmes such as National Air Monitoring Programme (NAMP).
- Initiation of pilot projects to assess alternate ambient monitoring technologies such as low-cost sensors and satellite-based monitoring.
- Implementation of Air Quality Early Warning System for Delhi, Kanpur and Lucknow. The system provides alerts for taking timely actions.

Several steps for implementation of NCAP

- City Specific Clean Air Action Plans have been prepared and rolled out for implementation in 132 non-attainment and million-plus cities. These action plans focus on city specific short/ medium/ long term actions to control air pollution from sources such as vehicular emission, road dust, burning of biomass/ crop/ garbage/ Municipal Solid Waste, landfills, construction activities, industrial emission, etc.
- Under NCAP, Centre level Steering Committee, Monitoring Committee and Implementation Committee has been constituted and periodic review of the implementation progress is conducted. Also a State Level Steering Committee and Monitoring Committee Chaired by Chief Secretary and Principal Secretary, Environment Department respectively. City/ District level Implementation Committee chaired by Municipal Commissioner/ District Magistrate is constituted and periodically review the status of progress of implementation of actions under NCAP.
- Rs. 418.60 crore have been sanctioned to non-attainment cities under NCAP for initiating actions such as expansion of monitoring network, construction and demolition waste management facilities, non-motorised transport infrastructure, green buffers, mechanical street sweepers, composting units etc.
- 15th Finance Commission (XV-FC) has identified 42 Urban Agglomerations (UA) with million plus population for performance based grants based on improvement in air quality for period FY 2020-21 to 2025-26 under Million-Plus Cities Challenge Fund (MPCCF). Funds to the tune of Rs. 12,139 crore has been allocated for the said purpose. For 2021-22 funds to the tune of Rs. 2217 crore have been allocated. Rs. 4400 crore were disbursed during 2020-21 to these cities.
- PRANA a portal for monitoring implementation of NCAP has been launched.