GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION N0. 913
TO BE ANSWERED ON 07.02.2022

Funds for Air Pollution

913. SHRIMATI MAHUA MOITRA:
SHRI HIBI EDEN:
SHRI DULAL CHAND GOSWAMI:
SHRIMATI RANJANBEN DHANANJAY BHATT:

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

(a) whether it is a fact that the level of air pollutionhas increased significantly in varous parts of the countryincluding Delhi in comparison to the last three years, ifso, the details thereof;
(b) the steps taken by the Government to ensurethat the issues of high pollution do not occur in theNCT again in the context of Supreme Court ban on industrial and contruction activities in the months ofNovember and December, 2021;
(c) whether the Ministry has been alloted funds under Union Budget 2020-21 for tackling of air pollutionin Delhi NCR, if so, the details thereof including theallocation for the last three financial years;
(d) whether it is a fact that the polluted air fromPakistan is affecting Delhi, if so, the details thereofincluding the findings/research/scientific experiments inthis regard; and
(e) whether the Government is considering to makeany changes in the current policy to monitor the pollutionin view of the increasing level of air pollution, if so, thedetails thereof?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) Air Quality Index (AQI) data of Delhi indicates an improvement in air quality from year 2019 to 2021, as number days in Good, Satisfactory, Moderate category have increased in the year 2021 as compared to 2019. Air Quality Index of major metropolitan cities for the last three years in India is given at Annexure I.

Analysis of ambient air quality data of Particulate Matter (Size less than 10µm) of 132 non-attainment / metropolitan cities indicated, 36 cities showed an increase of PM10 concentration in 2020-2021 as compared to 2019-2020 whereas96 cities showed a decrease of PM10 concentration (i.e. Improvement in air quality). Details are given at Annexure II.

(b) The Government has constituted a Commission on Air Quality Management in NCR and Adjoining Areas (CAQM)for better co-ordination, research, identification and resolution of problems surrounding the air quality index and for matters concerning air pollution in the National Capital Region. In compliance of the directions of the Hon'ble Supreme Courton industrial and construction activities in the months of November and December, 2021, Commission for Air Quality Management in National Capital Region and Adjoining Areas(CAQM) issued directions for taking more stringent steps to control air pollution due to construction activities, industries, transport, thermal power plant etc.

The steps taken by the Government to reduce the air in NCR & Adjoining Areas isgiven at Annexure-III.

(c)The allocation of fund under Union Budget for tackling of air pollution in Delhi NCR is Rs. 30 Crore, Rs. 5 Crore, Rs. 53.49 Crore for Financial Year 2019-20, 2020-21 and 2021-22 respectively.

(d) There is no study carried out to support that the polluted air from Pakistan is affecting air quality of Delhi.

(e) The ambient air quality monitoring in the country is conducted as per the methodology and measurement methods notified in the National Ambient Air Quality Standards.The Government has taken cognizance of air quality issues in the country. Non-attainment cities have been identified based on ambient air quality levels exceeding National Ambient Air Quality Standards for 05 consecutive years. City Specific Clean Air Action Plans have been prepared and rolled out for implementation in 132 non-attainments 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, actions for mitigation such as promoting of electric vehicles, establishment of C&D management facilities, shifting to PNG/CNG; knowledge and database augmentation such as strengthening of ambient air quality monitoring stations, emission inventory, source apportionment studies, review of standards and institutional strengthening such public awareness, constitution of national knowledge network and intuitional frameworks are being undertaken for air quality management.

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Annexure I

ANNEXURE REFERRED TO IN REPLY TO (a) OF THE LOK SABHA UN-STARRED QUESTION NO. 913 DUE FOR REPLY ON 07.02.2022 REGARDING 'FUNDS FOR AIR POLLUTION' BY SHRIMATI MAHUA MOITRA, SHRI HIBI EDEN, SHRI DULAL CHAND GOSWAMI AND SHRIMATI RANJANBEN DHANANJAY BHATT, HON'BLE MEMBERS OF PARLIAMENT

Air Quality Index ofmajor Metropolitan cities during 2019-2021

Delhi Comparative AQI Status 2019-2021							
Category		2019	2020	2021	2019	2020	2021
Good	(0–50)	2	5	1	182	227	197
Satisfactory	(51–100)	59	95	72			
Moderate	(101–200)	121	127	124			
Poor	(201–300)	103	75	80	183	139	168
Very Poor	(301–400)	56	49	64			
Severe	(>401)	24	15	24			
Total Number of Days		365	366	365	365	366	365

Kolkata Comparative AQI Status 2019-2021							
Category		2019	2020	2021	2019	2020	2021
Good	(0–50)	76	144	89	264	292	282
Satisfactory	(51–100)	114	72	103			
Moderate	(101–200)	74	76	90			
Poor	(201–300)	64	60	75	99	74	83
Very Poor	(301–400)	30	14	8			
Severe	(>401)	5	0	0			
Total Number of Days		363	366	365	363	366	365

Hyderabad Comparative AQI Status 2019-2021							
Category		2019	2020	2021	2019	2020	2021
Good	(0–50)	76	113	109	365	366	365
Satisfactory	(51–100)	135	158	101			
Moderate	(101–200)	154	95	155			
Poor	(201–300)	0	0	0	0	0	0
Very Poor	(301–400)	0	0	0			
Severe	(>401)	0	0	0			
Total Number of Days		365	366	365	365	366	365

Chennai		Comparative AQI Status 2019-2021					
Category		**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
Good	**(0–50)**	43	60	74	**352**	**365**	**365**
Satisfactory	**(51–100)**	230	275	266			
Moderate	**(101–200)**	79	30	25			
Poor	**(201–300)**	12	0	0	**12**	**0**	**0**
Very Poor	**(301–400)**	0	0	0			
Severe	**(>401)**	0	0	0			
Total Number of Days		**364**	**365**	**365**	**364**	**365**	**365**

Mumbai		Comparative AQI Status 2019-2021					
Category		**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
Good	**(0–50)**	58	119	37	**336**	**346**	**326**
Satisfactory	**(51–100)**	170	104	164			
Moderate	**(101–200)**	108	123	125			
Poor	**(201–300)**	26	20	39	**26**	**20**	**39**
Very Poor	**(301–400)**	0	0	0			
Severe	**(>401)**	0	0	0			
Total Number of Days		**362**	**366**	**365**	**362**	**366**	**365**

Annexure II

ANNEXURE REFERRED TO IN REPLY TO (a) OF THE LOK SABHA UN-STARRED QUESTION NO. 913 DUE FOR REPLY ON 07.02.2022 REGARDING 'FUNDS FOR AIR POLLUTION' BY SHRIMATI MAHUA MOITRA, SHRI HIBI EDEN, SHRI DULAL CHAND GOSWAMI AND SHRIMATI RANJANBEN DHANANJAYBHATT, HON'BLE MEMBERS OF PARLIAMENT

Cities showing decreased concentration (96 cities) of PM_{10} - 2019-2020 & 2020-2021

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)
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

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)
Madhya Pradesh	35.	Gwalior	136	125
Madhya Pradesh	36.	Jabalpur	111	106
Madhya Pradesh	37.	Sagar	71	64
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

States / UTs		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)
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
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 (36 cities) of PM_{10} - 2019-2020 & 2020-2021

States		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)
Andhra Pradesh	1.	Visakhapatnam	97	104
Andhra Pradesh	2.	Kadapa	48	50
Andhra Pradesh	3.	Rajamahendravaram	61	69
Andhra Pradesh	4.	Srikakulam	66	66
Assam	5.	Guwahati	113	114
Bihar	6.	Muzafarpur	138	180
Delhi	7.	Delhi	192	193
Gujarat	8.	Ahmedabad	116	120
Haryana	9.	Faridabad		229
Himachal Pradesh	10.	Damtal	52	65
Jammu&Kashmir	11.	Jammu	145	186
Jammu&Kashmir	12.	Srinagar	132	163
Karnataka	13.	Devanagere	66	72
Karnataka	14.	Gulburga / Kalaburgi	80	92
Madhya Pradesh	15.	Indore	91	96

States		Cities	2019-2020	2020-2021
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)
Madhya Pradesh	16.	Dewas	91	93
Madhya Pradesh	17.	Ujjain	90	104
Maharashtra	18.	Chandrapur	93	100
Maharashtra	19.	Sangli	70	71
Maharashtra	20.	Thane	79	105
Meghalaya	21.	Byrnihat	97	127
Nagaland	22.	Dimapur	84	85
Nagaland	23.	Kohima	81	84
Punjab	24.	Amritsar	109	113
Punjab	25.	Ludhiana	115	129
Punjab	26.	DeraBassi	100	105
Punjab	27.	MandiGobindgarh	130	131
Punjab	28.	Jalandhar	121	150
Tamil Nadu	29.	Chennai	60	60
Tamil Nadu	30.	Tuticorin	84	84
Telangana	31.	Hyderabad	86	88
Telangana	32.	Nalgonda	59	60
Uttar Pradesh	33.	Agra	163	188
Uttar Pradesh	34.	Ghaziabad	218	218
Uttar Pradesh	35.	Bareily	185	193
West Bengal	36.	Haldia	69	93

ANNEXURE-III

ANNEXURE REFERRED TO IN REPLY TO (b) OF THE LOK SABHA UN-STARRED QUESTION NO. 913 DUE FOR REPLY ON 07.02.2022 REGARDING 'FUNDS FOR AIR POLLUTION' BY SHRIMATI MAHUA MOITRA, SHRI HIBI EDEN, SHRI DULAL CHAND GOSWAMI AND SHRIMATI RANJANBEN DHANANJAYBHATT, HON'BLE MEMBERS OF PARLIAMENT

Steps taken by the Central Government to control air pollution in Delhi-NCR

Steps taken to improve air quality in NCR and adjoining areas

Various steps have been taken for monitoring and management of air quality for reducing air pollution in Delhi including NCR. They are as follows:

1. **A Commission on Air Quality Management in NCR and Adjoining Areas (CAQM)** was promulgated vide ordinance dated 13 July, 2021 in exercise of the powers conferred by sub-sections (1), (2) and (3) of section 3 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2021 (4 of 2021) for better co-ordination, research, identification and resolution of problems surrounding the air quality index and for matters connected therewith or incidental thereto.
2. The Commission for Air Quality Management in NCR and Adjoining Areas(CAQM) constituted**a sub-committee for operationalization of GRAP and issuing necessary orders to the effect**, under which regular meetings are held, and Orders are issued under GRAP for mitigation of air pollution in Delhi-NCR. As on date (24.11.2021), 8 meetings have been convened and 5 Orders issues (Copy of the Orders as well as minutes is available at www.cpcb.nic.in/winter-action-2021-22/).
3. **Air Quality Index**: Hon'ble Prime Minister launched Air Quality Index in 2015, which led to greater public awareness and actions to control air pollution.
4. **Ambient Air Quality Network**: Ambient air quality monitoring network in Delhi NCR strengthened and presently comprises 143 stations (81 continuous and 62 manual systems). Larger coverage and better representative data is now available.

State	Installed		
	Manual	CAAQM	Total
Delhi	10	40	50
Haryana	23	22	45
U.P.	20	17	37
Rajasthan	9	2	11
Total	62	81	143

5. **Air Quality Forecast:** Air Quality Early Warning System for Delhi is being implemented since October, 2018 in association with Ministry of Earth Sciences (MoES) which includes information on real time air quality, active fire contribution, and 3-day forecast along with satellite-based monitoring of Air Quality through Aerosol Optical Depth (AOD) etc.

6. **Measures for control of vehicular emissions**:

i. Leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi and from 1st April, 2020 for the rest of the country.
ii. RFID (radio-frequency identity) system implemented by South Delhi Municipal Corporation (SDMC) for collection of toll and Environment Compensation Charges from commercial vehicles entering Delhi.
iii. Ban on all diesel vehicles older than 10 years and all petrol vehicles older than 15 years, in Delhi and NCR. (Hon'ble SC order dated 29.10.2018)
iv. Introduction of BS VI compliant vehicles across the country since April, 2020.
v. Department of Heavy Industry is providing subsidy on e-vehicles under Faster Adoption and Manufacture of (Hybrid &) Electric Vehicles in India (FAME -II India) scheme.
vi. Operationalization of Expressways & Highways to divert non-destined traffic.

7. **Measures for control of industrial emission**:
   i. Ban on use of pet coke and furnace oil as fuel in NCR States since October 24, 2017 and ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes.
   ii. Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending.
   iii. Shifting of industries to clean fuel and installation of OCEMS in red category industries in Delhi-NCR is in progress.
   iv. Notification regarding SO2 and NOx emission standards have been issued for Thermal Power Plants.
   v. Promotion of policies such as 5-10% use of biomass pellets with coal for power generation in thermal power plants and 10% ethanol blending in transport fuels by 2022.
   vi. Development of low carbon strategies across sectors such as phasing out older coal based power plants, compliance of standards, City Gas Distribution (CGD) network, emphasis on improved power reliability in urban areas, etc.
   vii. Shifting of all operational brick kilns to zig-zag technology in Delhi and NCR.

8. **Measure for control of Emissions from Construction and Demolition Waste, Solid Waste, Plastic Waste, E- Waste, Biomedical Waste and Hazardous Waste**:
   i. Notifications of 6 Waste Management Rules covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous wastes issued in 2016.
   ii. Bio-mining of three dumpsites at Bhalswa, Okhla and Ghazipur is being carried out and is under progress.
   iii. Notifications regarding dust mitigation measures for construction and demolition activities have been issued.
   iv. Increased capacity of Construction & Demolition (C&D) waste processing units along with notification of C & D Waste Management Rules.
   v. Extended Producer Responsibility (EPR) for plastic and e-waste management.

9. **Measures for control of emissions from Firecrackers**: Introduction of green crackers with low emission and noise levels. Green Crackers has 30% potential reduction of PM and gaseous emissions compared to conventional firework.

10. **Measures for control of emissions from Stubble Burning**:
    i. 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.
    ii. Central Government had launched a Scheme 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the State of Punjab, Haryana, and Uttar Pradesh & NCT of Delhi'.
    iii. 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.

11. Comprehensive Action Plan (CAP) - CAP for air pollution control in Delhi & NCR, with identified timelines for various action points to abate air pollution, has been developed and is being implemented.
12. Ministry is promoting people's participation and awareness building among citizens for environmental conservation through Green Good Deeds that focus on promotion of cycling, saving water and electricity, growing trees, proper maintenance of vehicles, following of lane discipline and reducing congestion on roads by car-pooling etc.
13. Extension of UjawalaYojana to ensure shifting to cleaner fuel.
14. Swatcch Bharat Mission and Waste Management initiatives.

Actions taken for effective air quality management in Delhi – NCR by Central Pollution Control Board

1. Monitoring network has been strengthened in NCR towns as well as India.
2. Installation of Vapour Recovery Systems in more than 3000 petrol pumps in NCR
3. Smog tower at AnandVihar, ISBT is being operated from October 01, 2021 onwards and its performance will be evaluated by IIT Bombay in association with IIT Delhi. Sensors for particulate matter monitoring have been installed at different locations around the smog tower so as to get an idea of impact/influence of smog tower operation. Monitoring data generated with help of reference/research grade instruments will be used for giving final report on performance of the tower.
4. A Central Control Room is operated by Central Pollution Control Board wherein, hour to hour tracking of various information such as PM concentrations, Live Air Quality Data of Monitoring stations, Live Air Quality Index, Air Quality Forecast in Delhi-NCR (Source: SAFAR, IITM, Pune) is available. AQI is monitored along with other parameters and is published on the website in the form of AQI Bulletin after analysis. The links for the same have been made available to CAQM for consideration and deciding on urgent actions for control of pollution in Delhi-NCR
5. Deployment ofCPCB teams in the field for strict vigilance and for evaluation of actions taken by various concerned agencies for mitigation of air pollutionduring October 20, 2021to

February 28, 2022 in Delhi-NCR towns, with special focus on hotspots and industrial areas. The teams will be visiting the areas through a randomized process throughout the winter season.

6. Closure of Badarpur Thermal Plant
7. Implementation and revision of emission standards for industrial sectors from time to time.
8. Implementation of new emission norms in thermal power plants.
9. Ban on use of pet coke and furnace oil as fuel in NCR states since October 24, 2017 and ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes.
10. Shifting of industrial units to PNG.
11. Application of dust suppressant was explored and advisory has been issued to SPCBs for using dust suppressants in high emission zones.
12. Research projects are being carried out by CPCB in collaboration with premier institutions like IIT, NEERI, etc. under Environment Protection Charge (EPC) funds which provide scientific inputs for taking focused action towards improvement in air quality of Delhi NCR.
13. Implementation of Graded Response Action Plan along with development of Comprehensive Action Plan (CAP) identifying timelines and implementing agency for actions identified for prevention, control and mitigation of air pollution in Delhi and NCR has been notified.
14. Deployment of CPCB teams in the field for strict vigilance and for evaluation of actions taken by various concerned agencies for mitigation of air pollution during winters since 2017 in Delhi-NCR towns.
15. Public Complaints regarding air pollution issues in Delhi NCR (Noida, Gurugram, Greater Noida, Faridabad and Ghaziabad) are taken through ‘Sameer App’, ‘Emails’(aircomplaints.cpcb@gov.in) and ‘Social Media Networks’ (Facebook and Twitter) and are being forwarded to enforcement agencies for redressal.

MEASURES BEING TAKEN BY GNCTD TOWARDS AIR POLLUTION CONTROL

A. WINTER ACTION PLAN 2021-2022

Data analysis of particulate matter in air during the last 5 years was done to categorise the pollution potential of every fortnight during winter 2021-22 in Delhi, and accordingly this year, the Delhi Government has made preparations to fight pollution with the help of all departments and agencies.

Two days online round table conference was organized on 12th & 13th April 2021 on "Steps to be taken to reduce Air Pollution in Delhi before onset of winter 2021"with participation of leading academic institutes, researchers, NGOs, civil society, private and government stakeholders to suggest the strategies on improvement of Air Pollution during oncoming winter season.

A panel discussion was organized on 07.09.2021with expert organizations to discuss and receive feedback on the draft Winter Action Plan prepared for the winter season of 2021 on International Day of Clean Air for Blue Skies.
The Winter Action Plan 2021-22 was launched by the Government of NCT of Delhi and is a Comprehensive Action Plan prepared in consultation with all stakeholder departments with targeted interventions incorporating learnings from past years and combining the essence of previous years' measures, directions of Hon'ble Courts, directions of CAQM, and round table conferences with civil society groups, NGOs, research organizational and educational institutions.

Actions were translated into dynamic monitorable parameters. These parameters are monitored on a daily basis to take effective action and review meetings were held by Addl. Chief Secretary, Environment on 21.10.2021, 15.11.2021, 19.11.2021 and by Chief Secretary on design and implementation of Winter Action Plan 2021 on 05.10.2021 and 02.11.2021 and by Hon'ble Minister (Environment), on 14.09.2021, 17.09.2021, 30.09.2021, 22.10.2021, 25.10.2021, 09.11.2021, 15.11.2021 and by Hon'ble Chief Minister, Delhi on 13.11.2021 with all government departments and agencies in Delhi.

The Winter Action Plan 2021-22 focusses on the main pillars of air pollution control i.e., road dust management, C&D site dust control, open burning, vehicular pollution control etc. which needs to be undertaken by government departments / municipal corporations and daily action taken reports were mandated to be submitted to Department of Environment.

The Government of Delhi also launched a **10-point Winter Action Plan** from 1st October 2021 till 28th February 2022, which encapsulates the targeted actions, as reproduced below, that government will undertake during this winter season.

1. **Controlling stubble burning**
2. **Anti-dust campaign**
3. **Preventing Garbage burning**
4. **Banning firecrackers**
5. **Smog Tower**
6. **Identification and monitoring hotspots**
7. **Strengthening Green War Room**
8. **Upgrading Green Delhi App**

9. E-waste Park
10. Controlling pollution from vehicles

B. ACTION TAKEN TO IMPLEMENT WINTER ACTION PLAN (WAP) 2021-2022

i. Road Dust Management

Road dust is one of the major factors leading to air pollution in Delhi. Hence for the effective control and management of road dust, and our action was focused on measures for controlling dust emission. Some of the key highlights of action taken on road dust management are:

a) 69 Mechanical Road Sweeper (MRS) machines have been deployed across Delhi by road owning agencies. Number of MRS machines increased during the present year is 9.

b) 372 water sprinklers have been deployed across Delhi for suppressing dust particles on roads and more than 39071kms of road length have been sprinkled during October 2021 till 24th November, 2021. Average road length covered with water sprinkler per day is 25Km.

c) Consultations have been held with RWAs for planning route and timing of MRS. Advanced monthly calendar for MRS operations will be shared on website of agencies and through Whatsapp groups.

d) Online real time GPS dashboard for monitoring live operations of MRS.

e) Regular training sessions for sanitation staff, on measures are conducted for controlling road dust.

f) Regular site visits and monitoring of MRS operations are being done by concerned engineers and supervisors.

g) Identification and repair of roads by road owning agencies to ensure pothole free roads in Delhi are ensured. Area of road patched during October 2021 till 24th November, 2021 is 17502.79 sq. metres while the area paved is 11513.61sq. metres during the same period.

h) Greening of central verges and road shoulders has been undertaken. Area greened during October 2021 till 24th November, 2021 is 15537.73sq.m.

i) Directions have been issued to different local bodies to use dust suppressants on construction sites and dusty patches of the road.

ii. Construction & Demolition Site Dust Control

Dust emissions from construction and demolition sites (C&D) is another major contributing factor leading to poor air quality in Delhi. The WAP 2021-22 is focused on enforcement of dust control norms of all C&D activities in Delhi. Some of the major highlights are:

a) The Delhi Pollution Control Committee (DPCC) has recently launched an advanced state of the art web portal for periodic self-assessment by project proponent and site in charges of C&D sites on 01.10.2021.

b) GNCTD has deployed 585 enforcement teams to ensure strict compliance of dust control norms as well as to stop illegal C&D waste dumping, for day and night patrolling**.**

c) At large C&D sites, anti-smog guns have been installed for dust mitigation measures.

d) 192 vehicles have been pressed into used for transporting C&D waste to recycling plants, and 83410metric tonnes C&D waste has been lifted during October 2021 till 24th November, 2021

iii. **Anti-Dust Drive for C& D sites (07.10.2021 – 30.10.2021 and re-launched on 11.11.2021):** C&D waste is considerably a major source of Air pollution in Delhi NCR. The Anti-dust campaign had been organized in the month of October 2021. Under this dust drive campaign, a total of 2508 inspections were carried out. Out of which 406 sites were found non-complying and accordingly Show Cause notices were issued and Environmental Damage Compensation of Rs 123.5 Lakhs has been imposed. This Anti-dust campaign has been again implemented from 11.11.2021 keeping in view the worsening AQI during the present month. A total of 13659 inspections were carried out. Out of which 1702 sites were found non-complying and accordingly Show Cause notices were issued and Environmental Damage Compensation of Rs 385.66 Lakhs has been imposed.

Efforts are being made to control dust pollution due to C& D waste / malba dumping. Approximate total C&D waste generation in Delhi – 3711 TPD. 04 Construction and Demolition Waste Processing / Recycling plants are functioning at present (as on 31.10.2021) with installed capacity of 4150 TPD (Burari-2000 TPD, Shastri Park-1000TPD, Rani Khera-150 TPD and Bakkarwakla- 1000 TPD). Additional 2500 TPD facilities proposed at, TehkhandOkhla (1000 TPD), Ranikhera (1000 TPD), Libaspur (500 TPD).

iv. **Open Burning Prohibition**

Open burning of biomass and solid waste is another significant contributor to air pollution especially during winters. Key highlights of WAP 2021-22 in controlling open burning are:

a) 550 enforcement teams have been deployed for identification and challaning of biomass and solid waste burning incidences. The amount of garbage lifted is 5,00942.46 metric tons during October 2021 till 22th November, 2021. In November, 5531number of inspections of garbage burning sites were conducted. 1154 open burning incidents were addressed and fires were doused. 1957 notices/ challans for garbage burning were issued.
b) Plan is in place for controlling fire at landfill sites.24*7 personnel have been deployed and CCTVs have been installed. Fire tenders have been deployed at landfill sites. No landfill fire incident has been reported this year.
c) 65 trommel machines have been deployed for processing more than 10000 MT waste per day.

v. **Controlling stubble burning**

After successful demonstration over 2000 acres last year, PUSA Bio-Decomposer is being sprinkled free of cost by Delhi Government in more than 4200 acres of Basmati and non-Basmati fields harvested using combined harvester during this year.

- Spray of Bio-Decomposer solution is being conducted at 59 villages for 844 farmers of Delhi. Till 24/11/2021, Bio-Decomposer Spraying has been completed for 3935.5 acres Paddy.
- During 2021-22, two incidences of crop residue/ stubble burning have been reported in NCT of Delhi on 09/10/2021 and 25/10/2021 at *Bankner&BajitpurThakran* villages. Penal action has been taken by concerned SDM.

- During the CFY 2021-22, 86 applications have been considered for distribution of implements and machineries.50,000 Pamphlets were distributed for awareness among farmers and general public. 45 training programs were conducted and 1725 Posters/ Banner were displayed at prominent places in NCT of Delhi for awareness.
- Daily reports on prevention and control of stubble burning (as per format) are being sent regularly to CAQM.

vi. Vehicular Pollution Control

Vehicular pollution is one of the most significant contributors to air pollution. The WAP 2021-22 provides special focus on targeted enforcement against polluting vehicles. Some of the key highlights are:

a) More than 6000 vehicles have been checked daily for Pollution Under Control (PUC) certificate as part of campaign.
b) 183 enforcement teams have been deployed for checking of vehicles, and 85057 challans have been issued during October 2021 till 24th November, 2021.
c) Targeted action for impounding more than 10-year-old Diesel and 15-year-old Petrol vehicles is being taken and 982 vehicles have been impounded from 01.10.2021 to 24.11.2021.
d) 64 traffic congestion points to be resolved using engineering, regulation, and enforcement-based strategies.
e) Traffic alerts are being broadcasted through 44 Variable message signboards functional with 3G connectivity and through social media platforms – Facebook and Twitter. Action has been taken to ensure that traffic signals are functional and on time repair takes place in case of faults.
f) Other actions taken:
    i. Publication of Public Notices in leading newspapers regarding carrying of valid PUCC while driving vehicle from 19.09.2021 till now every fortnightly to educate general public.
    ii. Around 30 lakhs SMSs were sent to vehicle owners to get their vehicle checked for PUCC whose PUCC had expired or was going to be expired within one week.
    iii. From 07.10.2021, 56 enforcement teams were deployed to check and challan the vehicles not having valid PUCC or visibly polluting.
    iv. A drive to check functioning of PUCC centers situated in NCT region and strict action initiated against defaulting centers.
    v. As a special drive, enforcement teams have been deployed at 92 Petrol Pumps. Since 15/11/2021360 teams have been deployed at every petrol pump/PUCC centers for checking PUCC of vehicles coming at these petrol pumps for filling fuel and persuading the vehicle owner/ driver to get the PUCC issued atattached PUCC centers on these petrol pumps.

V. Ban on Sale and Bursting of Fire Crackers:

GNCTD banned sale and bursting of all kind of fire crackers in Delhi. Directions were issued on 28.09.2021 under section 31 (A) of Air (Prevention and Control of Pollution) Act, 1981 for complete ban on sale and bursting of all kind of fire crackers up to 01.01.2022 in NCT of Delhi.

2154 teams have been constituted for the enforcement of direction. Since 29.09.2021 till 24.11.2021,469 cases have been registered and 320 persons have been arrested for

bursting of firecrackers and 919.2 kg of firecrackers has been seized. For selling/ supplying of firecrackers, about 20794.94 kg of firecrackers have been seized while 130 cases have been registered with arrest of 143 persons during the same period. 2557 meetings were conducted with RWAs/NGOs regarding the complete Ban on Sale & Bursting of all kinds of firecracker and 1231 schools have been contacted to educate the children on the same.