OIH

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 824
TO BE ANSWERED ON 12.12.2022

Measures to Tackle Air Pollution in Delhi/NCR

824. SHRI DEVENDRA SINGH BHOLE:
MS. RAMYA HARIDAS:

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

(a) whether it is a fact that India is one of the top polluted country in the world and if so, the response of the Government thereto;
(b) whether due to rising pollution level and bad air quality people are subjected to inhaling very hazardous levels of polluted air in many metropolitan cities especially in delhi and if so, the details thereof;
(c) whether keeping in view of public health any long term action plan has been proposed to be prepared in consultation with the concerned State Governments; and
(d) if so, the details thereof along with the extent to which pollution in likely to be controlled as a result thereof and if not, the reasons therefor?

ANSWER

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

(a) & (b)

Out of 131 identified cities in the Country, decrease in PM_{10} Concentration has been observed in 95 cities including Delhi during 2021-22 as compared to levels during FY 2017-18. The details is given as **Annexure I**.

Besides, various steps have been taken for control of air pollution in Delhi-NCR as a result of which, gradual improvement was noted in the year 2021 as CAAQMS data for Delhi reveals that annual concentration of PM has decreased gradually since 2016. Despite increased in number of vehicles, growing population, increased industries activities and adverse meteorology, 27% reduction in PM10 and 22% in PM2.5 in Year 2021 w.r.t 2016 in Delhi was observed. Similarly, in the year 2021, in comparison to 2016 the number of 'Good', 'Satisfactory' and 'Moderate' days increased to 197 against 108 in 2016, and number of 'Poor', 'Very Poor' and 'Severe' days decreased to 168 against 246 in 2016.

(c) & (d)

Government has launched National Clean Air Programme (NCAP) in 2019 as a national level strategy to reduce air pollution levels across the country. Taking into account the available international experiences and national studies, the tentative national level target under NCAP is 20%–30% reduction of PM2.5 and PM10 concentration by 2024.

Central Pollution Control Board (CPCB) has identified 131 cities (123 non-attainment cities exceeding National Ambient Air Quality Standards (NAAQS), which were notified to protect human health). City Specific Clean Air Action Plans have been prepared based on the inputs of state governments and rolled out for implementation in these 131 non-attainment/million plus cities to improve the air quality (List enclosed at **Annexure-II**).

The city specific clean air action plans target city specific air polluting sources like Soil & Road Dust, Vehicles, Domestic Fuel, MSW Burning, Construction Material and Industries with short-term priority action as well as those to be implemented in a medium to longer time frame along with the responsible agencies. The action plans are available on the website of CPCB.

The steps taken by the Government are placed at **Annexure III**.

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Annexure I

Ambient Air Quality status of Non-Attainment Cities (95) under NCAP (Integrated Annual Average Concentration of PM_{10})								
States	**Sl. No.**	**Cities**	**2017-2018**	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**	**% increase Decrease**
			Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)	**Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)**	**Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)**	**Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)**	**Average concentration (F.Y.) of PM_{10} ($\mu g/m^3$)**	**2017-2018 to 2021-22**
Andhra Pradesh	1.	Anantpur	78	68	60	58	52	-26
	2.	Chittur	70	63	51	41	49	-21
	3.	Eluru	72	68	64	58	65	-7
	4.	Guntur	66	49	58	56	58	-8
	5.	Kadapa	75	61	48	50	54	-21
	6.	Kurnool	79	64	56	52	61	-18
	7.	Nellore	64	64	67	56	55	-9
	8.	Ongole	65	64	59	49	52	-13
	9.	Rajamahendravaram	85	77	61	69	68	-17
	10.	Vijayawada	91	64	57	56	67	-24
	11.	Vizhianagaram	72	66	68	63	71	-1
	12.	Silchar	49	48	45	43	45	-4
	13.	Sivasagar	73	68	55	48	47	-26
Bihar	14.	Patna	172	211	170	143	145	-27
Chandigarh	15.	Chandigarh	114	98	92	90	97	-17
	16.	Durg Bhilainagar	86	78	75	56	58	-28
	17.	Raipur	70	68	63	55	61	-9
Delhi	18.	Delhi	241	226	192	193	196	-45
Gujarat	19.	Ahmedabad	164	233	116	120	113	-51
	20.	Rajkot	150	182	113	94	116	-34
	21.	Surat	130	175	109	93	100	-30
	22.	Vadodara	133	199	108	95	121	-12
Himachal Pradesh	23.	Baddi	174	179	133	123	132	-42
	24.	Kala Amb	118	102	95	64	114	-4
	25.	Nalagarh	146	78	113	90	84	-62
	26.	Parwanoo	66	61	60	44	35	-31
	27.	Sunder Nagar	78	82	69	63	47	-31
Jharkhand	28.	Dhanbad	315	252	211	198	235	-80
	29.	Jamshedpur	135	121	138	96	110	-25

	30.	Ranchi	141	116	108	105	110	-31
Karnataka	31.	Bengaluru	92	92	73	62	67	-25
	32.	Devangere	74	50	66	72	57	-17
	33.	Hubli-Dharwad	79	85	78	69	68	-11
	34.	Dewas	83	107	91	93	81	-2
	35.	Gwalior	126	133	136	125	109	-17
	36.	Akola	111	71	66	54	64	-47
	37.	Amravati	102	106	89	58	66	-36
	38.	Badlapur	160	148	88	67	94	-66
	39.	Chandrapur	118	107	93	100	104	-14
	40.	Greater Mumbai	161	132	106	98	106	-55
	41.	Jalgaon	70	70	57	53	59	-11
	42.	Jalna	99	101	95	86	93	-6
	43.	Kolhapur	89	89	95	83	81	-8
	44.	Latur	82	90	84	54	57	-25
	45.	Nagpur	100	93	80	68	68	-32
	46.	Nashik	82	73	57	51	59	-23
	47.	Pune	102	103	81	69	85	-17
	48.	Sangli	87	80	70	71	60	-27
	49.	Solapur	81	65	90	79	60	-21
	50.	Thane	138	118	79	105	130	-8
	51.	Ulhasnagar	153	131	83	66	77	-76
Nagaland	52.	Dimapur	142	124	84	85	84	-58
	53.	Kohima	127	103	81	84	69	-58
	54.	Balasore	84	86	86	78	74	-10
	55.	Cuttack	93	116	104	86	90	-3
	56.	Talcher	113	113	122	98	81	-32
Punjab	57.	Amritsar	189	124	109	113	118	-71
	58.	Dera Baba Nanak	79	84	68	66	71	-8
	59.	Jalandhar	178	115	121	150	130	-48
	60.	Khanna	142	104	113	101	106	-36
	61.	Ludhiana	168	123	115	129	150	-18
	62.	MandiGobindgarh	148	131	130	131	122	-26
	63.	NayaNangal	87	94	98	95	70	-17
Rajasthan	64.	Jaipur	172	144	124	112	126	-46
	65.	Alwar	152	176	126	110	112	-40
	66.	Jodhpur	189	218	167	155	161	-28
	67.	Kota	139	144	102	100	112	-27
	68.	Udaipur	127	141	136	109	122	-5
Tamil Nadu	69.	Chennai	66	79	60	60	57	-9
	70.	Madurai	72	85	66	57	53	-19
	71.	Trichy	88	109	58	40	45	-43
	72.	Tuticorin	123	98	84	84	67	-56
Telangana	73.	Hyderabad	110	96	86	88	88	-22
	74.	Sangareddy	85	82	87	77	83	-2
Uttar	75.	Agra	202	196	163	188	146	-56

Pradesh	76.	Allahabad	169	225	219	184	119	-50
	77.	Ghaziabad	285	256	218	218	216	-69
	78.	Kanpur	227	217	200	169	170	-57
	79.	Lucknow	253	210	216	209	148	-105
	80.	Varanasi	230	211	180	168	114	-116
	81.	Anpara	175	176	169	142	154	-21
	82.	Bareily	207	221	185	193	175	-32
	83.	Firozabad	247	211	213	186	137	-110
	84.	Gajraula	204	228	217	168	155	-49
	85.	Gorakpur	150	284	278	168	122	-28
	86.	Khurja	195	202	226	194	173	-22
	87.	Moradabad	222	218	243	206	155	-67
	88.	Noida	229	252	213	197	203	-26
	89.	Raebareli	145	140	161	98	112	-33
Uttarakh and	90.	Dehradun	250	192	166	144	146	-104
	91.	Rishikesh	129	133	136	77	117	-12
West Bengal	92.	Asansol	147	123	124	114	112	-35
	93.	Barrackpore	86	107	108	75	85	-1
	94.	Howrah	139	145	144	117	125	-14
	95.	Kolkata	147	128	101	99	105	-42

Annexure II

List of 131 Non-Attainment and Million Plus Cities

State	S.No.	City
Andhra Pradesh (13)	1.	Guntur
	2.	Kurnool
	3.	Nellore
	4.	Vijayawada
	5.	Vishakhapatnam
	6.	Anantapur
	7.	Chitoor
	8.	Eluru
	9.	Kadapa
	10.	Ongole
	11.	Rajahmundry
	12.	Srikakulam
	13.	Vizianagaram
Assam (05)	14.	Guwahati
	15.	Nagaon
	16.	Nalbari
	17.	Sibsagar
	18.	Silchar
Bihar (03)	19.	Patna
	20.	Gaya
	21.	Muzaffarpur
Chandigarh (01)	22.	Chandigarh
Chhattisgarh (03)	23.	Bhilai
	24.	Korba
	25.	Raipur
Delhi (01)	26.	Delhi
Gujarat (03)	27.	Surat
	28.	Ahmedabad
	29.	Vadodara
Himachal Pradesh (7)	30.	Baddi
	31.	Damtal
	32.	Kala Amb
	33.	Nalagarh
	34.	Paonta Sahib
	35.	Parwanoo
	36.	Sunder Nagar
Jammu & Kashmir (2)	37.	Jammu
	38.	Srinagar
Jharkhand (01)	39.	Dhanbad
Karnataka (04)	40.	Bangalore
	41.	Devanagere
	42.	Gulburga
	43.	Hubli-Dharwad
Madhya Pradesh (06)	44.	Bhopal
	45.	Dewas

State	S.No.	City
	46.	Indore
	47.	Sagar
	48.	Ujjain
	49.	Gwalior
Maharashtra (18)	50.	Akola
	51.	Amravati
	52.	Aurangabad
	53.	Badlapur
	54.	Chandrapur
	55.	Jalgaon
	56.	Jalna
	57.	Kolhapur
	58.	Latur
	59.	Mumbai
	60.	Nagpur
	61.	Nashik
	62.	Navi Mumbai
	63.	Pune
	64.	Sangli
	65.	Solapur
	66.	Ulhasnagar
	67.	Thane
Meghalaya (01)	68.	Byrnihat
Nagaland (02)	69.	Dimapur
	70.	Kohima
Orissa (07)	71.	Angul
	72.	Balasore
	73.	Bhubaneswar
	74.	Cuttack
	75.	Rourkela
	76.	Talcher
	77.	Kalinga Nagar
Punjab (09)	78.	DeraBassi
	79.	Gobindgarh
	80.	Jalandhar
	81.	Khanna
	82.	Ludhiana
	83.	NayaNangal
	84.	Pathankot/Dera Baba
	85.	Patiala
	86.	Amritsar
Rajasthan (05)	87.	Alwar
	88.	Jaipur
	89.	Jodhpur
	90.	Kota
	91.	Udaipur

State	S.No.	City
Tamilnadu(03)	92.	Thoothukudi
	93.	Trichy
	94.	Madurai
Telangana (04)	95.	Hyderabad
	96.	Nalgonda
	97.	Patancheruvu
	98.	Sangareddy
Uttar Pradesh (16)	99.	Agra
	100.	Allahabad
	101.	Anpara
	102.	Bareily
	103.	Firozabad
	104.	Gajraula
	105.	Ghaziabad
	106.	Jhansi
	107.	Kanpur
	108.	Khurja
	109.	Lucknow
	110.	Moradabad
	111.	Noida
	112.	Raebareli
	113.	Varanasi
	114.	Gorakhpur
Uttarakhand(03)	115.	Kashipur
	116.	Rishikesh
	117.	Dehradun
West Bengal (06)	118.	Kolkata
	119.	Asansol
	120.	Barrackpore
	121.	Durgapur
	122.	Haldia
	123.	Howrah
Million plus cities which is not non-attainment but funded under XV-Financial commission		
Gujarat (1)	124.	Rajkot
Haryana (1)	125.	Faridabad
Jharkhand (2)	126.	Jamshedpur
	127.	Ranchi
Madhya Pradesh (1)	128.	Jabalpur
Uttar Pradesh (1)	129.	Meerut
Maharashtra (1)	130.	Vasai-Virar
Tamilnadu (1)	131.	Chennai

Annexure III

List of Steps taken for improvement of air quality in Delhi-NCR

1.1.ACTIONS TAKEN BY CENTRAL POLLUTION CONTROL BOARD (CPCB)

1.1.1. Air Quality Monitoring and Network

1. **National Air Quality Index (AQI)** was launched in 2015. Information is being disseminated to public through daily air quality bulletins.
2. **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.
3. In addition, to supplement conventional ground level monitoring, satellite based $PM_{2.5}$ monitoring in collaboration IIT Delhi is being established using **aerosol optical depth (AOD)**.
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.
5. 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.

1.1.2. Measures for control of vehicular emissions:

1. Installation of Vapour Recovery System (VRS) in **3,600 petrol pumps**
2. New policy – VRS to be installed at new petrol pumps
    a. selling >100kl per month in million plus cities
    b. selling >300kl per month in cities with population between 1 lakh to 1 million
3. Directions issued to M/s IOCL, M/s BPCL, M/s HPCL, M/s RIL, M/s Shell, M/s Nayara for installation of VRS as per above mentioned criteria
4. Guidelines issued for setting up of new petrol pumps including siting criteria
5. Guidelines issued for siting criteria for new petrol pumps around water bodies

1.1.3. Measures for control of industrial emission:

1. MoEF&CC has notified emission standards for industrial boilers and five industrial sectors i.e. lime kiln, foundry, ceramic, glass and reheating furnaces, in the year 2018.
2. Installation of **OCEMS in red category industries** in Delhi-NCR is in progress.
3. Industrial units in Delhi have shifted to PNG/cleaner fuels whereas, units in NCR shall shift to PNG/Biomass latest by December 31, 2022.
4. Shifting of all operational **brick kilns to zig-zag technology** in Delhi and NCR.
5. CPCB has come out with System and Procedure for Emission Compliance Testing of Retro-fit Emission Control Devices (RECD) for Diesel Power Generating Set Engines up to Gross Mechanical Power 800 kW.

1.1.4. Measures for Control of Emissions from Stubble Burning

1. **Daily monitoring of Active Fire Events (AFEs)** is done during stubble burning period and reports are shared with Commission on Air Quality Management in National Capital Region and Adjoining areas for suitable action.
2. CPCB framed **guidelines for promoting setting up of paddy straw based pelletization and Torrefaction plants** which may help in addressing the supply chain issues. Scheme will address the issue of open burning of paddy straw in agriculture fields in Northern Region. A corpus of Rs. 50 crore has been sanctioned from EPC funds. Assuming complete utilization of the corpus, over 1 million metric tonnes of paddy straw based pellets are expected to be generated every year.

1.1.5. MSW, C&D Waste, E- Waste, Biomedical Waste and Hazardous Waste:

1. CPCB published guidelines on
   - Environmental Management of Construction & Demolition (C & D) Wastes' in March, 2017
   - 'Guidelines on DUST Mitigation Measures in Handling Construction Material & C&D Wastes' in November 2017.
   - Disposal of legacy waste by bio-mining and bio-remediation to address open burning and landfill fires
   - **Deployment of Anti-Smog Gun at large construction projects sites i**n all construction projects in Delhi-NCR having more than 20,000 sq. meters' built-up area
2. Extended Producer Responsibility (EPR) for plastic, waste tyre, batteries and e-waste management.
3. Ban on use of Single Use Plastic (SUP) w.e.f. July 01, 2022.

1.1.6. Technical Interventions

1. Advisory have been issued to State Boards to use **dust suppressant** as about 30% reduction in dust concentration was observed up to 6 hours after application of dust suppressant.
2. A pilot Smog tower has been commissioned at AnandVihar, ISBT and is being operated since October 01, 2021. Localized pollution reduction performance being evaluated by IIT Bombay in association with IIT Delhi.
3. 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.
4. CPCB has initiated issuance of a daily report comprising of AQI of Delhi and NCR towns, comparative AQI status, year-wise trends of PM concentration, hotspots for the day, AFE counts, contribution of stubble burning and meteorological forecast. This report is prepared based on the inputs available from various sources such as IMD, SAFAR, IARI, etc., and disseminated through CPCB website.

1.1.7. Close Monitoring & Ground level implementation

1. Central Pollution Control Board has been continuously deploying d**edicated CPCB's teams on the field during the winter season** from 2017 onwards to check on-ground scenario of air pollution related activities and refer these to implementing agencies for necessary action.
2. 03.12.2021 onwards **40 officers of CPCB have been deployed as flying squads**, for conducting incognito inspection of units/sites in various areas of Delhi, NCR regions of Uttar Pradesh, Haryana, and Rajasthan. Reports are submitted to Commission on Air Quality Management in National Capital Region and Adjoining areas for further action.

1.1.8. Regular Stakeholder Consultation, Public & Media Outreach

1. Continuous interactions and coordination with government bodies, public agencies, urban local bodies for assessment of mitigation measures and to combat air pollution through review meetings for air quality management in Delhi-NCR. 41 review meetings convened as on date.
2. Twitter and Facebook accounts for public outreach and complaint redressal are closely monitored and complaints resolved through concerned enforcement agencies.
3. Dedicated media corner on CPCB website informs latest developments and actions taken. Media briefings are also organized.

1.1.9. Regulatory Actions

1. **Graded Response Action Plan (GRAP) was prepared for implementation under different Air Quality Index (AQI) categories** in pursuant to the Hon'ble Supreme Court's Order dated December 02, 2016. A Task Force, headed by CPCB and comprising of members from Delhi Pollution Control Committee (DPCC), State Pollution Control Boards (SPCBs) of Haryana, Uttar Pradesh & Rajasthan, India Meteorology Department (IMD) and Health Expert was constituted for recommending measures under GRAP to EPCA. **68 meetings of the Task Force were held until EPCA was dissolved on promulgation of Commission for Air Quality Management in NCR and Adjoining Areas (CAQM)**.
2. Subsequently, Commission on Air Quality Management in National Capital Region and Adjoining areas (CAQM) entrusted the task of operationalizing and monitoring the GRAP measures to CPCB till a mechanism is set up. **CPCB reviewed air quality and meteorological scenario and issued the orders on 11.11.2020, 23.12.2020 and 15.01.2021** to all the concerned states.
3. CPCB had requested MoEF&CC for **revision of GRAP** and further, CPCB has prepared revised action plan which was forwarded to the Commission for Air Quality Management in NCR and Adjoining Areas for taking it further. Subsequently, based on the inputs of CPCB and detailed deliberations, a revised GRAP has been published by CAQM on 05.08.2022, which came into effect from 01.10.2022.
4. The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) constituted a **sub-committee for operationalization of GRAP under chairmanship of Member Secretary, CPCB 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. The sub-committee has since then been reconstituted, under the chairmanship of Member-Technical, CAQM vide order dated 06.09.2022.
5. **Comprehensive Action Plan (CAP)** for air pollution control in Delhi & NCR is developed by MOEF&CC which identified timelines and implementing agency for actions identified. CPCB issues directions to all the concerned agencies under Section 3 and 5 of Environmental (Protection) Act, 1986 for implementation of Comprehensive action plan. Now, CAQM is looking after implementation of CAP.

Other Actions

1. **Dedicated media corner, twitter and Facebook accounts have been created for public outreach and complaint redressal** is closely monitoring the complaints on SAMEER app and social media platforms (Twitter & Facebook). Sameer and social media complaints are resolved through enforcement agencies and redressal status are being shared with respective agencies.

1.2.ACTIONS TAKEN BY THE CENTRAL GOVERNMENT

1.2.1. Measures for control of vehicular emissions:

1. **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.
2. **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.
3. **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)
4. Introduction of **BS VI compliant vehicles** across the country since April, 2020.
5. 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.
6. **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.
7. Operationalization of Expressways & Highways to divert non-destined traffic

1.2.2. Measures for control of industrial emission:

1. **Notification regarding SO_2 and NOx emission standards** have been issued for Thermal Power Plants.
2. Closure of Badarpur Thermal Plant
3. **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.
4. **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.

1.2.3. Measures for control of emissions from Stubble Burning:

1. 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 Centers. In 2022, the Scheme has been merged with Sub-Mission on Agricultural Mechanization (SMAM) and SMAM has been merged with RashtriyaKrishiVikasYojana (RKVY).
2. The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) on 17.09.2021 directed the coal-based Thermal Power plants situated up to a radius of 300 Km of Delhi to co-fire biomass based Pellets, Torrefied Pellets/Briquettes (with focus on paddy straw) with Coal (up to 5-10%).

1.2.4. MSW, C&D Waste, E- Waste, Biomedical Waste and Hazardous Waste

1. **Notifications of 7 Waste Management Rules** covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous wastes issued in 2016.
2. **Increased capacity of Construction & Demolition (C&D) waste processing** units along with notification of C & D Waste Management Rules.
3. **Bio-mining of three dumpsites at Bhalswa, Okhla and Ghazipur** is being carried out.

1.2.5. Measures for control of emissions from Firecrackers

1. Introduction of green crackers with low emission and noise levels. Green Crackers have 30% potential reduction of PM and gaseous emissions compared to conventional firework.

1.2.6. National Clean Air Programme:

1. PRANA a portal for monitoring implementation of NCAP has been launched.
2. With the prime objective of abating Air Pollution, the Ministry, in 2019 launched a National Clean Air Programme (NCAP) as a National-level Strategy outlining the actions for reducing the levels of air pollution at city and regional scales in India.
3. NCAP targets to achieve 20 to 30 % reduction in Particulate Matter less than 10 and 2.5 microns (PM_{10} and $PM_{2.5}$) concentrations by 2024 across the country.
4. Activities in these cities include strengthening of ambient air quality network, source apportionment studies, dust mitigation equipment, composting units, infrastructure for non-motorized transport, shifting to clean energy in unorganized sectors, etc.
5. The NCAP focuses on multi-sectoral sources of pollution including power plants, industries, vehicles, open burning of waste, construction & demolition activities, etc.; inter-Ministerial coordination for convergence of actions and interventions; and partnership with Institutes of National repute and International Agencies as Knowledge Partners

Other Actions

1. 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.
2. Extension of UjawalaYojana to ensure shifting to cleaner fuel.
3. Swatcch Bharat Mission and Waste Management initiatives.
4. The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) has come out with a policy to curb air pollution in NCR, along with a standard list of approved fuels for NCR for industrial and other applications.