

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 2310
TO BE ANSWERED ON 13.12.2021

Effectiveness of Smog Towers

2310. SHRI K. MURALEEDHARAN:
SHRIMATI HEMA MALINI:
SHRI RAMESH BIDHURI:
SHRI DUSHYANT SINGH:

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

- (a) whether the Government has any plan for the removal of penal provisions on farmers under the Commission for Air Quality Management in the National Capital Region and Adjoining Areas Act, 2021, if so, the details thereof;
- (b) the details of very poor and severe Air Quality Index recorded, State-wise in the country from January 2021 to November 2021; and
- (c) whether the Government is aware of installation of smog towers for purifying the air in Delhi, if so, the effectiveness of the smog tower to purify the air;
- (d) whether several steps for mitigation of air pollution in the National Capital Region and surrounding areas have been taken by the Commission on Air Quality Management, if so, the details thereof and whether the said steps have shown desired outcomes, if so, the details thereof;
- (e) whether the Government has issued any guidelines for utilisation of ash; and
- (f) the steps taken by the Government for review of eco friendly ways of ash utilization?

ANSWER

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

(a)

The “Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021” {No. 29 of 2021} stipulates as under:

.....
14(1) Any non-compliance or contravention of any provisions of this Act, rules thereunder or any order or direction issued by the Commission, shall be an offence punishable with imprisonment for a term which may extend upto five years or with fine which may extend upto one crore rupees or with both:

Provided that the provisions of this section shall not apply to any farmers for causing air pollution by stubble burning or mismanagement of agricultural residue.

.....
Therefore, the penal provisions of the Act does not apply to any farmer for causing air pollution by stubble burning or mismanagement of agricultural residue.

(b)

Ambient air quality monitoring network of country presently have 1193 locations (Manual + CAAQM Stations) covering 452 cities in 28 States and 7 UTs. Non-attainment cities have been identified based on ambient air quality levels exceeding National Ambient Air Quality Standards for 05 consecutive years.

Air Quality Index (AQI) data of most of the States in the country during January to November 2021 reveals that the number of Good, Moderate and Satisfactory days are more than Poor, Very Poor and Severe days. Moreover, out of 165 cities, 67 cities did not have any very poor or severe days during January to November 2021. Distribution on days in various categories of these cities is given at Annexure-I.

(c)

The Hon'ble Supreme Court vide its order dated 13.01.2020 in Writ Petition (Civil) 13029/1985 had directed for installation of two smog towers. In compliance to the orders of the Hon'ble Supreme Court, two experimental pilot projects of smog tower are operational. The smog tower is intended for localized reduction of PM2.5 and PM10.

(d)

The Commission on Air Quality Management in NCR and Adjoining Areas (CAQM) has taken up the following matters with all stakeholders including State Governments to improve air quality in NCR and adjoining areas:

1. Industrial Pollution
2. Vehicular Pollution
3. Dust from Construction and Demolition
4. Dust from Road and Open Areas
5. Biomass/Municipal Solid Waste burning/Fires in SLF sites and
6. Stubble Burning

The Commission on Air Quality Management in NCR and Adjoining Areas (CAQM) has developed a framework and action plan for effective prevention and control of air pollution in NCR Region and Adjoining Area. Several steps taken is given as Annexure-

The Commission have been taken various steps which *inter alia* include:

- (i) Directions to all the concerned agencies to strictly enforce the GRAP measures with immediate effect in Delhi – NCR,
- (ii) Constitution of specialized Enforcement Task Force for each of the States/ GNCTD for the respective jurisdiction in NCR to implement, enforce, monitor and report the compliance status of various statutory directions and orders issued by the Commission
- (iii) Constitution of inter-departmental inspection teams / flying squads to report to Enforcement Task Force for punitive actions including closure of units /activities which are found grossly violating the standards / norms
- (iv) Directions to the concerned States and agencies on steps for effective control of air pollution in the wake of prevailing air quality scenario in Delhi-NCR.

Several directions issued by CAQM is available at <https://caqm.nic.in/Index1.aspx?lid=1073&lsid=1070&pid=1062&lev=2&langid=1>.

(e)

Ministry of Environment, Forest and Climate Change (MoEF&CC) has issued guidelines for disposal and utilisation of fly ash for reclamation of low lying Areas and in stowing of abandoned mines/quarries on 28th August, 2019.

Ministry of Power issued guidelines for supply of fly ash to the end users by power plants to increase fly ash utilisation on 22nd September, 2021 and 8th November, 2021.

(f)

Eco friendly use of Fly ash has been stipulated in the Fly ash notification, 1999. Vide Notification dated 22 April, 2021, MoEF&CC has reviewed the existing list and a draft notification including the followings has been issued:

- i. Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels ;
- ii. Cement manufacturing, ready mix concrete;
- iii. Construction of road and fly over embankment, Ash and Geo-polymer based construction material;
- iv. Construction of dam;
- v. Filling up of low lying area;
- vi. Filling of mine voids;
- vii. Manufacturing of sintered/ cold bonded ash aggregate;
- viii. Agriculture in a controlled manner based on soil testing;
- ix. Construction of shoreline protection structures in coastal districts;
- x. Export of ash to other countries;
- xi. Any other eco-friendly purpose as notified from time to time.

Annexure-I

ANNEXURE REFERRED TO IN REPLY TO (b) OF THE LOK SABHA UN-STARRED QUESTION NO. 2310 DUE FOR REPLY ON 13.12.2021 REGARDING 'EFFECTIVENESS OF SMOG TOWERS' BY SHRI K. MURALEEDHARAN, SHRIMATI HEMA MALINI, SHRI RAMESH BIDHURI AND SHRI DUSHYANT SINGH HON'BLE MEMBERS OF PARLIAMENT

Number of days in different categories of Air Quality Index from January to November 2021

S. No.	State	City	Good	Satisfactory	Moderate	Poor	Very Poor	Severe	Total no. of Days
			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>401)	
Number of Days									
1.	Andhra Pradesh	Amaravati	179	103	42	3	0	0	327
2.		Rajamahendravaram	137	106	71	6	0	0	320
3.		Tirupati	166	112	30	0	0	0	308
4.		Visakhapatnam	44	126	123	18	0	0	311
5.	Arunachal Pradesh	Naharlagun	54	26	13	1	0	0	94
6.	Assam	Guwahati	83	104	68	55	23	1	334
7.	Bihar	Bettiah	4	17	0	2	4	0	27
8.		Bhagalpur	0	0	0	6	2	0	8
9.		Bihar Sharif	1	10	2	0	0	1	14
10.		Chhapra	0	0	0	0	5	1	6
11.		Darbhanga	7	6	6	4	12	0	35
12.		Gaya	32	151	131	15	0	0	329
13.		Hajipur	9	86	116	70	9	0	290
14.		Katihar	0	0	0	2	3	1	6
15.		Kishanganj	0	0	1	4	1	0	6
16.		Motihari	14	5	0	2	12	2	35
17.		Munger	4	80	98	48	16	0	246
18.		Muzaffarpur	3	7	18	15	15	0	58
19.		Patna	14	122	85	92	20	0	333
20.		Purnia	0	0	1	2	5	0	8
21.		Rajgir	0	0	1	2	4	0	7
22.	Sasaram	0	0	5	7	3	1	16	
23.	Siwan	0	0	0	0	4	4	8	
24.	Chandigarh	Chandigarh	51	123	151	5	0	0	330
25.	Chhattisgarh	Bhilai	0	8	0	0	0	0	8
26.		Bilaspur	7	50	9	0	0	0	66
27.	Delhi	Delhi	1	72	124	70	50	17	334
28.	Gujarat	Ahmedabad	4	145	145	34	2	0	330
29.		Ankleshwar	3	92	90	68	11	0	264
30.		Gandhinagar	47	176	87	1	0	0	311
31.		Nandesari	15	97	78	12	5	0	207
32.		Vapi	52	108	112	19	7	0	298
33.		Vatva	2	94	145	64	13	0	318
34.	Haryana	Ambala	19	136	120	34	7	0	316
35.		Bahadurgarh	14	84	99	75	39	3	314
36.		Ballabgarh	9	94	108	66	24	7	308
37.		Bhiwani	11	94	154	28	10	2	299
38.		CharkhiDadri	21	62	143	41	27	3	297
39.		Dharuhera	3	65	103	81	28	1	281
40.		Faridabad	3	68	114	83	48	16	332
41.		Fatehabad	26	73	136	52	19	1	307
42.		Gurugram	6	90	118	66	49	5	334
43.		Hisar	17	66	111	71	38	7	310
44.		Jind	31	62	113	60	30	11	307
45.		Kaithal	16	106	134	37	11	3	307
46.	Karnal	27	112	111	48	6	0	304	

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			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>401)	
Number of Days									
47.		Kurukshetra	37	81	117	64	17	0	316
48.		Mandikhera	40	127	95	23	7	0	292
49.		Manesar	7	60	96	81	31	3	278
50.		Narnaul	23	55	111	69	23	0	281
51.		Palwal	16	111	139	19	2	0	287
52.		Panchkula	53	157	77	17	0	0	304
53.		Panipat	14	70	125	42	21	5	277
54.		Rohtak	0	89	124	52	41	5	311
55.		Sirsa	23	110	140	37	7	0	317
56.		Sonipat	9	39	147	75	23	4	297
57.		Yamunanagar	5	55	149	81	20	0	310
58.	Jammu and Kashmir	Srinagar	57	133	79	6	0	0	275
59.	Jharkhand	Jorapokhar	13	23	50	2	0	0	88
60.		Bagalkot	223	63	2	0	0	0	288
61.		Bengaluru	73	227	34	0	0	0	334
62.		Bidar	48	61	46	0	0	0	155
63.		Chamarajanagar	174	92	6	0	0	0	272
64.		Chikkaballapur	165	102	37	0	0	0	304
65.		Chikkamagaluru	182	100	7	0	0	0	289
66.		Davanagere	128	56	18	0	0	0	202
67.		Gadag	122	53	3	0	1	0	179
68.		Hassan	87	106	22	0	0	0	215
69.		Hubballi	125	113	68	1	0	0	307
70.		Kalaburgi	82	66	63	3	0	0	214
71.		Kolar	67	121	6	0	0	0	194
72.		Koppal	76	188	24	0	0	0	288
73.		Mangalore	44	137	29	0	0	0	210
74.		Madikeri	212	101	7	0	0	0	320
75.		Mysuru	143	123	8	0	0	0	274
76.		Raichur	90	81	90	2	0	0	263
77.		Ramanagara	150	73	23	2	0	0	248
78.		Shivamogga	170	100	5	1	0	0	276
79.		Udupi	6	60	47	22	0	2	137
80.		Vijayapura	100	143	1	0	0	0	244
81.		Yadgir	144	113	47	1	0	0	305
82.		Eloor	101	155	7	0	0	0	263
83.		Ernakulam	131	113	19	0	0	0	263
84.		Kannur	92	140	67	1	0	0	300
85.		Kochi	136	78	14	0	0	0	228
86.		Kollam	26	213	66	2	0	0	307
87.		Kozhikode	108	196	1	0	1	1	307
88.		Thiruvananthapuram	168	154	8	1	0	0	331
89.		Thrissur	45	171	27	0	0	0	243
90.		Bhopal	45	104	147	28	5	0	329
91.		Damoh	141	72	38	16	0	0	267
92.		Dewas	69	139	87	15	0	0	310
93.		Gwalior	34	110	131	34	20	0	329
94.		Indore	32	130	129	34	0	0	325
95.		Jabalpur	45	123	119	37	4	0	328
96.		Katni	43	101	97	78	11	0	330
97.		Maihar	65	52	8	1	0	0	126
98.		Mandideep	102	95	85	18	0	0	300
99.		Pithampur	18	172	124	18	0	0	332
100.		Ratlam	55	91	131	9	0	0	286
101.		Sagar	159	100	35	8	1	0	303
102.		Satna	42	235	30	0	0	0	307
103.		Singrauli	42	84	65	84	44	0	319

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			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>401)	
Number of Days									
104.		Ujjain	5	116	166	39	0	0	326
105.	Maharashtra	Aurangabad	5	186	20	0	2	0	213
106.		Chandrapur	108	93	118	13	0	0	332
107.		Kalyan	60	52	84	52	8	0	256
108.		Mumbai	37	161	109	27	0	0	334
109.		Nagpur	13	137	3	0	0	0	153
110.		Nashik	107	119	59	3	0	0	288
111.		Navi Mumbai	47	112	112	44	11	0	326
112.		Pune	4	226	102	2	0	0	334
113.		Solapur	70	29	67	1	0	0	167
114.		Thane	8	59	106	69	9	0	251
115.	Meghalaya	Shillong	121	19	4	0	0	0	144
116.	Mizoram	Aizawl	191	72	23	1	0	0	287
117.	Nagaland	Kohima	116	97	68	7	0	0	288
118.	Odisha	Brajrajnagar	43	108	56	9	1	0	217
119.		Talcher	34	137	128	8	0	0	307
120.	Puducherry	Puducherry	168	129	7	0	0	0	304
121.	Punjab	Amritsar	37	137	116	23	1	0	314
122.		Bathinda	68	78	88	20	0	0	254
123.		Jalandhar	28	142	127	28	1	0	326
124.		Khanna	37	154	120	14	1	0	326
125.		Ludhiana	21	147	121	29	1	0	319
126.		MandiGobindgarh	55	76	129	44	1	0	305
127.		Patiala	61	102	136	22	4	0	325
128.		Rupnagar	24	143	83	11	1	1	263
129.		Rajasthan	Ajmer	15	191	106	4	1	0
130.	Alwar		21	226	80	4	0	0	331
131.	Bhiwadi		1	47	89	108	73	6	324
132.	Jaipur		22	121	164	22	4	0	333
133.	Jodhpur		0	69	184	69	7	0	329
134.	Kota		25	138	124	31	8	0	326
135.	Pali		2	138	167	20	2	0	329
136.	Udaipur		15	126	166	15	4	0	326
137.	Tamil Nadu	Chennai	69	250	15	0	0	0	334
138.		Coimbatore	6	31	10	0	0	0	47
139.		Gummidipoondi	17	102	73	5	0	0	197
140.		Thoothukudi	126	164	8	0	0	0	298
141.	Telangana	Hyderabad	109	98	127	0	0	0	334
142.	Tripura	Agartala	119	66	77	31	4	0	297
143.	Uttar Pradesh	Agra	44	83	78	77	23	6	311
144.		Baghpat	22	53	85	80	58	11	309
145.		Bulandshahr	43	56	90	74	53	12	328
146.		Firozabad	57	23	18	23	3	5	129
147.		Ghaziabad	9	59	95	77	74	20	334
148.		Gorakhpur	89	5	23	15	10	0	142
149.		Greater Noida	10	68	100	72	69	14	333
150.		Hapur	37	98	105	33	15	8	296
151.		Kanpur	67	122	60	52	31	2	334
152.		Lucknow	20	116	90	77	28	2	333
153.		Meerut	27	70	91	84	55	7	334
154.		Moradabad	17	50	84	72	43	4	270
155.		Muzaffarnagar	40	103	68	73	40	2	326
156.		Noida	4	70	129	53	59	17	332
157.		Prayagraj	68	53	25	24	8	0	178
158.		Varanasi	73	74	73	94	12	0	326
159.		Vrindavan	38	23	20	23	4	7	115
160.	West Bengal	Asansol	50	101	102	45	6	0	304

S. No.	State	City	Good	Satisfactory	Moderate	Poor	Very Poor	Severe	Total no. of Days
			(0-50)	(51-100)	(101-200)	(201-300)	(301-400)	(>401)	
			Number of Days						
161.		Durgapur	19	46	108	63	33	0	269
162.		Haldia	124	78	72	16	1	0	291
163.		Howrah	92	101	64	64	12	0	333
164.		Kolkata	87	101	83	56	7	0	334
165.		Siliguri	96	86	45	45	30	0	302

Annexure-II

ANNEXURE REFERRED TO IN REPLY TO (d) OF THE LOK SABHA UN-STARRED QUESTION NO. 2310 DUE FOR REPLY ON 13.12.2021 REGARDING 'EFFECTIVENESS OF SMOG TOWERS' BY SHRI K. MURALEEDHARAN, SHRIMATI HEMA MALINI, SHRI RAMESH BIDHURI AND SHRI DUSHYANT SINGH HON'BLE MEMBERS OF PARLIAMENT

Steps taken Commission on Air Quality Management in NCR and Adjoining Areas to improve air quality in NCR and adjoining areas

The major sources of air pollution in Delhi-NCR and adjoining areas which aggravate during the winter due to unfavourable meteorological conditions include, industrial pollution, vehicular pollution, dust from construction and demolition activities, road and open areas dust, biomass burning, stubble burning, municipal solid waste burning, fires in sanitary landfills etc. The Commission has been continuously taking up the matters with various stake holders concerned including the governments of NCR States namely Governments, Haryana, Uttar Pradesh and Rajasthan and NCTD as well as Government of Punjab.

Crop Residue Management:

- Deliberations and discussions held in series of meetings with all stakeholders including State Governments of NCR and GNCTD and a framework for effective prevention and control of Stubble Burning has been developed.
- Directions were issued to the Governments of NCR States and GNCTD on 10.06.2021 to prepare state specific detailed and monitorable action plans, based on following six components of the framework i.e. In-situ Crop Residue Management, Ex-situ Crop Residue Management, Prohibition of Stubble/Crop Residue Burning, Effective monitoring/enforcement, Plans / Schemes to reduce the generation of paddy straw and IEC activities for the Plan of Action. Based on the framework, detailed state specific action plans have been developed by Government of NCR States and NCTD.
- Statutory directions to the Chief Secretaries of Governments of NCR states and GNCTD on 16.09.2021 for "Implementation, Monitoring and periodic review of the respective plan of action for prevention and control of stubble burning".
- Directions were also issued by the Commission to the Government of NCR States and GNCTD on 16.08.2021 to ensure adoption and application of the standard protocol for estimation of Crop Residue Burning Fire Events using Satellite Data. The Commission has been closely monitoring the daily fire counts and taking up with the State Governments concerned, on a daily basis for enforcement actions.
- Ex-situ Crop Residue Management the Commission issued advisories to the State Governments of Punjab, Haryana and Uttar Pradesh on 28.07.2021. The Commission has also advised State Governments to establish an ecosystem and robust supply chain mechanism to boost ex-situ utilisation of straw.
- Directions were also issued on 17.09.2021 to all the 11 Thermal Power Plants in NCR and adjoining areas within 300km of Delhi for "Ex-Situ Paddy Straw Management through co-firing of biomass pellets/torrefied pellets (with focus on paddy straw) in coal based thermal power plants".

Industrial Pollution:

- Commission has convened several meetings with the concerned stakeholders (NCR States, GNCT of Delhi, CPCB, SPCBs of NCR States and Delhi Pollution Control Committee) with respect to the shifting of industries to PNG/Cleaner fuels and ensuring strict vigil on the use of unapproved fuels in NCR by various enforcement agencies. With the persistent efforts of the Commission, all the identified industries in Delhi have completely shifted to the Cleaner fuels. The Commission in this regard has issued directions to the State Governments of Uttar Pradesh, Haryana and Rajasthan on 12.08.2021 for Shifting of industries operating in NCR districts to PNG/cleaner fuels. The industries which have gas supply but are still using other polluting fuels may be monitored for switching over to gas at the earliest.

Abatement of pollution from vehicles:

- Commission has advised the concerned states and GNCTD for ensuring the seamless Traffic Management in their jurisdiction. State Governments / Govt. of NCT of Delhi have been advised to constitute a dedicated task force with representatives of Departments concerned to continuously monitor and take steps regularly to ensure smooth traffic management, including developing an "intelligent Traffic Management System" (ITMS). The Commission has also issued advisory for "Mandating procurement of zero emission and e-vehicles" to give a further push to clean technologies in transport sector and a gradual shift towards zero emission vehicles/ e-mobility and is regularly monitoring its progress. The Commission has asked the concerned states and GNCTD to strictly ensure that Petrol/Diesel vehicles more than 15 years old do not ply in NCR. The Concerned States and GNCTD have been asked by the Commission for effective implementation of the new Pollution Under Control Certificate (PUC) regime in compliance of the central Motor Vehicles Rules (Amendment) Rules, 2021 dated 14.06.2021.

Construction and Demolition

- Activities the Commission has issued directions for "Control/Prevention of Air Pollution from Construction and Demolition activities" with illustrative dust control / mitigative measures like Monitoring through a dedicated Web- portal , Video fencing of projects, installation of Anti-smog guns and screens at construction sites, Use of Dust-suppressants and water mist, Transportation of C&D materials in covered vehicles, installation of air quality monitoring sensors in project sites and Self-audit and certification mechanism by the agencies concerned.

Dust from Roads and Open areas

- Commission issued Advisories and Directions to concerned States/UT, NHAI, DDA and municipal corporations/ council of GNCTD for setting-up of "Dust Control and Management Cell" tasked with monitoring and implementation of various dust control measures in all such road projects/activities including mechanized sweeping of roads, Scientific disposal of dust collected in designated sites and landfills., Sprinkling of dust suppressants and water on roads and open areas, proper maintenance of roads, Non-paved road sides to be paved or converted into green areas, Greening of central verges, Preference to cemented roads over bituminous roads especially in industrial Areas,

Monitoring and Compliance of dust control measures and plantation of Trees/Greening on a large scale.

Bio-mass/Municipal Solid Waste Burning and fires in Landfill Sites:

- Commission has sought State- wise action plan for control of Bio-mass/Municipal Solid Waste Burning and fires in Landfill Sites, focusing on deployment of enforcement teams, quick complaint redressals and corrective actions through IT enabled platforms and for strict compliance of the plan of action.