(b) The Central Government has taken several measures for taking effective and stringent actions against people and agencies causing air pollution. These include-

- Directions have been given to initiate criminal prosecution against agencies not taking measures to curb air pollution.
- Power to file complaints to initiate criminal proceedings has been delegated to all scientists of the level ÂDÊ and above of Central Pollution Control Board.
- Notification regarding mandatory implementation of dust mitigation measures for construction and demolition activities has been issued in January 2018.
- Regulatory bodies and enforcement agencies have been directed to ensure strict compliance of dust mitigation measures related to the construction activities, etc. They are empowered to issue show cause, levy fines and even direct stopping of work in case of violations.
- Under Graded Response Action Plan, the Task Force constituted for implementation of various graded measures may decide to ban activities that may aggravate air pollution when Air Quality Index reaches in severe+ category.

Action plan to control toxic air

1632. SHRI RAJMANI PATEL: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether it is a fact that toxic air is fast increasing in India;

(b) whether it is a fact that toxic air contributes in a big way to cancer disease in India; and

(c) if so, the details thereof with an action plan to control this abuse?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI BABUL SUPRIYO): (a) The ambient air quality data for metropolitan cities / million plus urban agglomerations during 2016-2018 is given in the Statement (*See* below). Analysis of data revealed that SO_2 levels were within / the National Ambient Air Quality Standard (NAAQS) in all 50 cities during 2016-18. With respect to NO_2, 17 cities showed an increasing trend, 16 cities showed a decreasing concentration, 16 cities showed a fluctuating trend and 1 city revealed steady concentration. With respect to PM_{10}, 14 cities showed an increasing trend, 14 cities showed a decreasing concentration, 22 cities showed a fluctuating trend. With respect to $PM_{2.5}$, trends are available for 17 cities out of

which 08 cities showed an increasing trend, 04 cities showed a decreasing concentration and 05 cities showed a fluctuating trend.

(b) Though air pollution is one of the triggering factors for respiratory ailments and associated diseases, there are no conclusive data available in the country to establish direct correlation of death/ disease exclusively due to air pollution.

(c) The Central Government has taken a number of regulatory measures for prevention, control and abatement of air pollution in the country. These include-

Action Plans for Improvement of Air Quality in Delhi NCR:

(i) Graded Response Action Plan (GRAP) was notified on January 12, 2017, for prevention, control and abatement of air pollution in Delhi and NCR. It identifies graded measures and implementing agencies for response to four AQI categories, namely, Moderate to Poor, Very Poor, Severe and Severe + or Emergency.

(ii) The Central Government has notified a Comprehensive Action Plan (CAP) in 2018 identifying timelines and implementing agencies for actions identified for prevention, control and mitigation of air pollution in Delhi and NCR.

Action Plans for Improvement of Air Quality of Other Cities:

(i) Ministry of Environment, Forest and Climate Change has launched National Clean Air Programme (NCAP) in January 2019 to tackle the problem of air pollution in a comprehensive manner with targets to achieve 20 to 30 % reduction in PM_{10} and $PM_{2.5}$ concentrations by 2024 with 2017 as the base year. The overall objective is to augment and evolve effective ambient air quality monitoring network across the country besides ensuring comprehensive management plan for prevention, control and abatement of air pollution and enhancing public awareness and capacity building measures.

(ii) 102 non-attainment cities have been identified based on ambient air quality data for the period 2011 - 2015 and WHO report 2014/2018. A total of 86 city specific action plans have been approved for ground implementation.

The Central Government has taken several measures for prevention, control and abatement of air pollution across the country. These include-

Monitoring

- Setting up of monitoring network for assessment of ambient air quality. Presently, ambient air quality is being monitored at 779 locations covering 339 cities in 29

States and 6 Union Territories across the country under National Air Quality Monitoring Programme (NAMP). Further, real time monitoring is taking place at 170 locations in 102 cities in 18 States/UTs.

- Notification of National Ambient Air Quality Standards.
- Launch of National Air Quality Index.
- Implementation of Air Quality Early Warning System for Delhi in October, 2018 in association with Ministry of Earth Sciences (MoES).

Transport

- Leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi and from by 1st April, 2020 in the rest of the country.
- Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending.
- Promotion of public transport and improvements in roads and building of more bridges to ease congestion on roads.
- Operationalisation of Eastern Peripheral Expressway and Western Peripheral Expressway to divert non-destined traffic from Delhi.
- Streamlining the issuance of Pollution Under Control Certificate.
- Environment Protection Charges (EPC) have been imposed on diesel vehicles with engine capacity of 2000cc and above in Delhi NCR.

Industry

- Badarpur thermal power plant has been closed from 15th October, 2018.
- Notification of stricter emission norms for power plants.
- All brick kilns have been shifted to zig-zag technology in Delhi and NCR.
- Installation of on-line continuous (24x7) monitoring devices all red category industries in Delhi and NCR.
- Revision of emission standards for industrial sectors from time to time.
- Ban on pet coke and furnace oil - monitoring of use of pet coke in Lime Kilns/ Cement Kilns and Calcium Carbide Industry in Delhi and NCR States.

Biomass and Solid Waste

- A new Central Sector Scheme on ÂPromotion of Agricultural Mechanization for in-situ management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of DelhiÊ for the period from 2018-19 and 2019-20 has been launched.
- Banning of burning of biomass/garbage.
- 3 Waste-to-Energy (W-t-E) plants are currently operational in Delhi with atotal capacity of 5100 Tonnes Per Day (TPD).
- 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.

Dust

- Notifications regarding dust mitigation measures for construction and demolition activities.
- Number of mechanised road sweeping machines has been increased significantiy and presently 60 machines are deployed for cleaning of roads in Delhi.

Public Outreach

- Ministry of Environment, Forest & Climate Change and Uttar Pradesh, Punjab, Haryana, Rajasthan and Delhi Governments launched Clean Air for Delhi Campaign from 10th - 23rd Feb 2018 and to check air polluting activities pre and post Diwali, a special campaign called „Clean Air Campaign‰ during November 01, 2018 to November 10, 2018.
- Ministry is promoting peoples participation and awareness building among citizens for environmental conservation through Green Goods 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.
- Development of mechanism for redressal of public complaints regarding air pollution issues in Delhi and NCR (through ÂSameer AppÊ, ÂEmailsÊ *(aircomplaints.cpcb@gov.in)* and Social Media NetworksÊ (Facebook and Twitter) etc.

Statement

Air quality status of million plus/ urban agglomerations cities for 2016, 2017 and 2018 under NAMP (Manual)(Annual average in µg/m3)

Sl. No.	State	Sl. No.	City	2016				2017				2018			
				SO_2	NO_2	PM_{10}	$PM_{2.5}$	SO_2	NO_2	PM_{10}	$PM_{2.5}$	SO_2	NO_2	PM_{10}	$PM_{2.5}$
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	Andhra Pradesh	1.	Vijaywada	6	44	102	-	6	29	99	-	5	21	77	29
		2.	Vishakhapatnam	8	18	77		9	17	73		10	20	77	49
2.	Bihar	3.	Patna	4	32	212	-	5	39	156	-	5	51	207	-
3.	Chandigarh	4.	Chandigarh	2	21	105	123	2	16	109	64	2	17	102	50
4.	Chhattisgarh	5.	Durg-Bhillainagar	9	23	108	-	8	21	97	-	8	19	84	-
		6.	Raipur	12	31	148		10	27	103		14	20	65	
5.	Delhi	7.	Delhi	7	66	278	118	7	68	241	106	6	73	223	121
6.	Gujarat	8.	Ahmedabad	14	27	108	34	14	29	120	38	16	29	236	73
		9.	Rajkot	13	21	92	32	16	22	106	37	19	23	203	64
		10.	Surat	13	22	92	31	16	26	106	36	22	29	176	57
		11.	Vadodara	14	23	92	30	16	23	108	36	20	25	188	60
7.	Haryana	12.	Faridabad												
8.	Jammu and Kashmir	13.	Srinagar											153	-
9.	Jharkhand	14.	Dhanbad	15	37	226	-	15	37	238	-	14	37	264	-

		15.	Jamshedpur	36	45	136		36	45	131		37	46	128	-
		16.	Ranchi	20	37	196	-	19	37	142	-	18	36	122	-
10.	Karnataka	17.	Bangalore	3	31	103	51	2	31	92	46	2	30	90	47
11.	Kerala	18.	Kochi	2	20	48	-	2	19	51	-	3	16	57	-
		19.	Kollam	4	8	46	-	3	6	43	-	3	5	47	-
		20.	Kozhikode	2	18	51		2	18	47		2	10	54	6
		21.	Malapuram	2	17	37		2	21	32		2	26	31	
		22.	Thiruvananthapuram	10	25	53		10	26	49		9	24	49	
		23.	Thissur	2	5	54	-	2	5	56	-	3	9	41	-
12.	Madhya Pradesh	24.	Bhopal	3	15	89	27	4	15	93	41	7	14	135	59
		25.	Gwalior	10	14	96	52	10	17	110	47	13	21	134	62
		26.	Indore	11	20	95	54	11	21	80	43	10	19	88	41
		27.	Jabalpur	10	23	71	32	10	21	74	23	7	17	119	43
13.	Maharashtra	28.	Aurangabad	14	39	92	-	10	33	83	-	13	35	70	-
		29.	Mumbai	6	30	119	-	3	18	151	40	2	21	166	46
		30.	Nagpur	16	26	118	-	9	27	102	-	10	28	103	44
		31.	Nashik	13	27	85	-	12	22	81	-	12	21	85	-
		32.	Pune	28	78	107	-	21	65	102	-	37	75	106	-
		33.	Thane	18	60	122	-	18	47	125	-	17	44	108	-
		34.	Vasai-virar	N A	N A	NA	NA	NA	N A	NA	NA	N A	N A	NA	NA
14.	Punjab	35.	Amritsar	12	29	194	-	11	27	168	-	13	34	177	-
		36.	Ludhiana	11	25	139	-	10	28	162	-	9	32	162	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
15.	Rajasthan	37.	Jaipur	8	33	199	-	8	30	177	-	8	32	165	-
		38.	Jodhpur	6	23	168	-	6	21	180	-	7	24	223	-
		39.	Kota	7	30	109	-	8	28	130	-	7	28	152	-
16.	Tamil Nadu	40.	Chennai	10	18	65	25	9	17	62	32	9	16	78	34
		41.	Coimbatore	6	24	59	35	5	26	49	34	6	23	54	32
		42.	Madurai	15	24	76	38	14	23	67	30	12	20	84	34
		43.	Trichy	12	20	95	27	12	20	86	-	17	23	110	53
17.	Telangana	44.	Hyderabad	5	27	101	49	6	28	108	54	5	30	105	55
18.	Uttar Pradesh	45.	Agra	5	22	198	-	4	19	185	124	4	22	209	106
		46.	Allahabad	4	37	196	-	4	40	140	-	4	45	231	-
		47.	Ghaziabad	15	28	235	-	22	34	280	-	21	43	245	103
		48.	Kanpur	7	39	217	-	7	45	224	-	7	47	218	-
		49.	Lucknow	8	27	214	-	8	26	246	102	7	30	217	108
		50.	Meerut	7	55	157	-	7	52	153	-	7	58	177	-
		51.	Varanasi	11	32	256	-	10	38	244	-	9	34	189	-
19.	West Bengal	52.	Asansol	13	42	211	88	12	37	163	67	13	35	146	58
		53.	Kolkata	4	49	113	70	6	41	120	71	6	44	148	86

NB. NA- no monitoring station in the city, Â-Ê data not available, National Ambient Air Quality Standard (NAAQS) for Residential, Industrial, Rural and others Areas (Annual average) for SO_2 = 50 øg/m^3, NO_2 = 40 øg/m^3, PM_{10} = 60 øg/m^3 & $PM_{2.5}$ = 40 øg/m^3 and SO_2 = 20 øg/m^3, NO_2 = 30 øg/m^3, PM_{10} = 60 øg/m^3 and $PM_{2.5}$ = 40 øg/m for Ecologically sensitive area. The data furnished in the table for year 2018 is as available on date.