

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**LOK SABHA**  
**STARRED QUESTION NO. 65**  
TO BE ANSWERED ON 07.02.2017

**Air Quality**

\*65. SHRI NALIN KUMAR KATEEL:

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

- (a) whether the Government is aware that air quality in the country including National Capital Territory of Delhi and NCR is deteriorating fast and has reached an alarming level and if so, the details thereof;
- (b) whether the Government has taken steps to tackle the air quality problems in coordination with the State Governments for reducing the pollution level; and
- (c) if so, the details thereof along with the action plan worked out/implemented to ensure air quality?

**ANSWER**

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI ANIL MADHAV DAVE)

(a) to (c): A statement is laid on the Table of the House.

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**Statement referred to in reply to Lok Sabha Starred Question No. 65 due for reply on 07.02.2017 regarding Air Quality' by Shri Nalin Kumar Kateel, Hon'ble Member of Parliament**

(a) Central Pollution Control Board monitors the ambient air quality at 680 monitoring stations located in 300 cities/towns covering 29 states and 6 union territories across the country under National Air Quality Monitoring Programme (NAMP). Under NAMP, three air pollutants viz., Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>) and Particulate Matter size equal to or less than 10 micron (PM<sub>10</sub>), have been identified for regular monitoring at all the locations. The ambient air quality data for metro cities including Delhi and NCR cities during 2014-2016 is given at Annexure-I.

The analysis of air quality data of 42 cities during 2016 with respect to SO<sub>2</sub> revealed that all 42 cities are within the NAAQS of 50 µg/m<sup>3</sup> (annual standard). As for NO<sub>2</sub>, out of 42 cities, 12 cities (namely Amritsar, Aurangabad, Delhi, Howrah, KalyanDombovali, Kolkata, Meerut, Navi Mumbai, Pimpri-Chinchwad, Pune, Thane and Vijaywada) exceed the National Ambient Air Quality Standards (NAAQS) of 40 µg/m<sup>3</sup> annual standard). With respect to PM<sub>10</sub>, out of 42 cities, 41 cities do not comply with the NAAQS of 60 µg/m<sup>3</sup> (annual standard). However, only Chennai is complying with the National Standard of 60 µg/m<sup>3</sup> (annual standard) with respect to PM<sub>10</sub>.

The air quality in the National Capital Territory of Delhi and NCR is above the national standards with respect to Particulate Matter, PM<sub>10</sub> & PM<sub>2.5</sub>. The values for SO<sub>2</sub> are within the NAAQS at all the locations while the values of NO<sub>x</sub> are within NAAQS at all locations except Faridabad and Delhi during 2015. The particulate matter concentration was high during November 2016 – January 2017 because of prevailing meteorological conditions like calm weather, low temperature, very low wind speed and reduced mixing height, thereby preventing dispersion of pollutants and leading to accumulation of pollutants. The ambient air quality data is given at Annexure-II.

(b) & (c) The Government has issued a set of directions under section 18(1)(b) of Air (Prevention and Control of Pollution) Act, 1981 for control of air pollution which include measures relating to control of vehicular emissions; road dust/re-suspension of dust and other fugitive emissions; bio-mass burning; industrial air pollution; construction and demolition activities etc. (Annexure-III). Implementation of these directions is being coordinated by Central Pollution Control Board with State Pollution Control Boards / Pollution Control Committees. The steps taken by Government to reduce the rising air pollution in cities of the country include notification of National Ambient Air Quality Standards; formulation of environmental regulations / statutes; setting up of monitoring network for assessment of ambient air quality; introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending; promotion of cleaner production processes; launching of National Air Quality index; universalization of BS-IV by 2017; leapfrogging from BS-IV to BS-VI fuel standards by 1<sup>st</sup> April, 2020; comprehensive amendments to various Waste Management Rules and notification of Construction and Demolition Waste Management Rules; banning of burning of leaves, biomass, municipal solid waste; promotion of public transport and network of metro, e-rickshaws, promotion of car pooling, Pollution Under Control Certificate, lane discipline, vehicle maintenance; regular co-ordination meetings at official and ministerial level; issuance of directions under Section 5 of Environment (Protection) Act, 1986; installation of on-line continuous (24x7) monitoring devices by major industries; collection of Environmental

Protection Charge on more than 2000 CC diesel vehicles in NCR; ban on bursting of sound emitting crackers between 10 PM to 6 AM; notification of Graded Response Action Plan for different levels of air pollution in NCR etc.

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## Annexure I

**ANNEXURE REFERRED TO IN REPLY TO PARA (a) OF THE LOK SABHA  
STARRED QUESTION NO. 65 DUE FOR REPLY ON 07.02.2017 REGARDING AIR  
QUALITY BY SHRI NALIN KUMAR KATEEL, HON'BLE MEMBER OF PARLIAMENT**

**Air quality status of million plus cities for 2014, 2015 and 2016  
(Annual average ( $\mu\text{g}/\text{m}^3$ ))**

State	Cities	No. of Stations	2014			2015			2016		
			SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>
Uttar Pradesh	Agra	6	5	19	178*	4	22	186*	4	26	227*
Gujarat	Ahmedabad	8	13	20	84*	13	21	89*	17	28	100*
Uttar Pradesh	Allahabad	5	4	28	250*	4	26	250*	2	39	276*
Punjab	Amritsar	2	11	31	145*	11	30	148*	18	49*	216*
Maharashtra	Aurangabad	4	12	39	85*	13	40	83*	22	52*	119*
Karnataka	Bangalore	9	13	30	139*	6	20	119*	3	32	103*
Madhya Pradesh	Bhopal	6	2	21	160*	3	23	158*	3	18	103*
Tamilnadu	Chennai	11	13	22	57	13	20	59	8	19	54
Tamilnadu	Coimbatore	3	5	25	49	4	25	47	4	24	67*
Delhi	Delhi	11	5	61*	217*	5	65*	220*	7	65*	260*
Jharkhand	Dhanbad	3	14	36	166*	12	37	168*	15	37	226*
Haryana	Faridabad	2	14	26	199*	15	74*	105*	-	-	-
Uttar Pradesh	Ghaziabad	2	27	39	242*	23	37	260*	14	28	239*
Madhya Pradesh	Gwalior	2	11	17	144*	10	14	125*	10	13	119*
West Bengal	Howrah	4	9	35	111*	15	43*	123*	10	57*	103*
Telangana	Hydrabad	10	5	24	95*	4	23	93*	4	23	102*
Madhya Pradesh	Indore	3	11	20	143*	11	20	97*	11	20	101*
Madhya Pradesh	Jabalpur	2	2	23	73*	9	28	90*	10	21	72*
Rajasthan	Jaipur	6	7	43*	150*	7	36	171*	9	37	224*
Rajasthan	Jodhpur	6	7	31	190*	6	24	152*	5	24	170*
Maharashtra	KalyanDombivali	2	40	77*	141*	20	53*	104*	25	74*	138*
Uttar Pradesh	Kanpur	9	6	34	199*	6	36	201*	7	36	220
West Bengal	Kolkata	10	9	70*	122*	7	56*	105*	4	50*	109*
Rajasthan	Kota	3	7	35	127*	6	34	134*	7	39	155*
Uttar Pradesh	Lucknow	8	8	28	174*	8	28	169*	8	35	262*
Punjab	Ludhiana	4	10	26	146*	11	27	139*	17	28	173*
Tamilnadu	Madurai	3	13	26	46	13	25	64*	15	24	80*
Uttar Pradesh	Meerut	2	8	48*	154*	-	-	-	7	56*	158*
Maharashtra	Mumbai	3	4	20	96*	4	25	107*	5	25	130*
Maharashtra	Nagpur	7	11	25	103*	10	25	90*	13	28	95*
Maharashtra	Nashik	4	25	26	72*	15	23	78*	31	21	162*
Maharashtra	Navi Mumbai	6	18	40	151*	18	42*	125*	20	48*	151*
Bihar	Patna	2	-	-	-	-	-	-	-	-	-
Maharashtra	PimpriChinchwad	1	22	41*	93*	23	52*	102*	40	82*	152*
Maharashtra	Pune	3	23	45*	92*	23	62*	99*	34	85*	132*
Chattisgarh	Raipur	3	16	41*	329*	13	36	188*	12	32	155*
Gujarat	Rajkot	2	13	19	82*	13	19	83*	14	21	114*
Jharkhand	Ranchi	1	18	34	197*	19	36	220*	22	37	206*
Jammu & Kashmir	Shrinagar	0	@	@	@	@	@	@	@	@	@
Gujarat	Surat	3	15	20	89*	14	20	89*	12	18	97*

Maharashtra	Thane	3	18	60*	109*	28	58*	117*	23	68*	173*
Gujarat	Vadodara	5	15	21	87*	14	20	87*	15	20	119*
Uttar Pradesh	Varanasi	5	19	32	139*	19	33	145*	14	34	265*
Maharashtra	Vasai-virar	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	Vijaywada	3	5	24	100*	6	37	110*	6	44*	102*
Andhra Pradesh	Vishakhapatnam	8	13	20	64*	9	19	61*	8	18	77*
<b>16 states 1UT</b>	<b>46 cities</b>	<b>206</b>									

NB. NA- no monitoring station in the city, @ -monitoring station sanctioned but not yet operational, -/- data not received, \*Concentration exceeding NAAQS of 50 µg/m<sup>3</sup> for SO<sub>2</sub>, 40 µg/m<sup>3</sup> for NO<sub>2</sub> and 60 µg/m<sup>3</sup> for PM<sub>10</sub> for Residential/ industrial / other area & 20 µg/m<sup>3</sup> for SO<sub>2</sub>, 30 µg/m<sup>3</sup> for NO<sub>2</sub>, and 60 µg/m<sup>3</sup> for PM<sub>10</sub> Ecologically sensitive area. The data furnished in the table for year 2016 is as available on date.

## Annexure II

ANNEXURE REFERRED TO IN REPLY TO PARA (a) OF THE LOK SABHA STARRED QUESTION NO. 65 DUE FOR REPLY ON 07.02.2017 REGARDING AIR QUALITY BY SHRI NALIN KUMAR KATEEL, HON'BLE MEMBER OF PARLIAMENT

**AMBIENT AIR QUALITY DATA OF DELHI**  
(Concentration in  $\mu\text{g}/\text{m}^3$ )

Year → Location ↓	2012				2013				2014				2015				2016			
	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Pitampura	5	44	206	67	4	45	206	63	4	40	195	89	5	37	241	119	6	40	262	145
Sirifort	5	48	291	51	4	43	181	78	4	39	209	84	4	49	189	94	5	52	320	102
Janakpuri	4	44	246	49	4	46	202	57	4	43	197	79	4	50	199	94	6	52	296	118
Nizamuddin	4	42	187	44	4	42	165	66	4	40	188	74	4	44	225	83	5	46	253	109
Shahzadabagh	5	53	243	62	4	61	265	88	4	59	234	69	4	56	261	99	6	56	348	120
Shahdara	5	56	253	106	4	62	246	86	4	57	272	85	4	54	252	113	7	53	327	119
<b>NAAQS (Annual)</b>	<b>50</b>	<b>40</b>	<b>60</b>	<b>40</b>	<b>50</b>	<b>40</b>	<b>60</b>	<b>40</b>	<b>50</b>	<b>40</b>	<b>60</b>	<b>40</b>	<b>50</b>	<b>40</b>	<b>60</b>	<b>40</b>	<b>50</b>	<b>40</b>	<b>60</b>	<b>40</b>

Location →	DMS, SHADIPUR					NSIT, DWARKA					IHBAS, DILSHAD GARDEN					NAAQS (Annual)
Year →	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	
SO <sub>2</sub>	12	12	12	10		8	13	10	9		16	14	11	10		<b>50</b>
NO <sub>2</sub>	53	55	43	57		53	37	44	42		47	36	21	46		<b>40</b>
CO	1317	1265	750	772		1142	1086	709	786		1060	901	673	546		-
O <sub>3</sub>	32	27	31	38		28	32	33	39		-	-	-	-		-
PM <sub>10</sub>	216	205	202	-		185	166	214	-		243	222	193	-		<b>60</b>
PM <sub>2.5</sub>	-	-	-	88		-	-	-	90		-	-	-	93		
NH <sub>3</sub>	-	-	-			-	-	-			28	36	30	46		<b>100</b>
Benzene	12	9	4.5	2.7		10	8.4	4.4	2.7		-	-	-	-		<b>5</b>

**Annexure III**

**ANNEXURE REFERRED TO IN REPLY TO PARA (b) OF THE LOK SABHA  
STARRED QUESTION NO. 65 DUE FOR REPLY ON 07.02.2017 REGARDING AIR  
QUALITY BY SHRI NALIN KUMAR KATEEL, HON'BLE MEMBER OF PARLIAMENT**

**List of directions under Section 18(1)(b) of Air (Prevention and Control of  
Pollution) Act, 1981**

**A.) Control of Vehicular Emissions:**

Sl.	Action Points	Time Frame
i)	Launch extensive awareness drive against polluting vehicles;	Immediate
ii)	Ensure Strict action against visibly polluting vehicles;	Immediate
iii)	Install weigh in motion bridges at Delhi borders to prevent overloading;	Immediate
iv)	Take steps to prevent parking of vehicles in the non-designated areas;	Immediate
v)	Introduce early alarm system for benefit of commuters related to traffic congestion on major routes for route diversion ;	Immediate
vi)	Consider introducing plan for Flexi/staggered timings to minimize peak movement of vehicles on the road;	Immediate
vii)	Take steps for retrofitting of diesel vehicles with Particulate Filters;	Immediate
viii)	De-congest pathways;	Immediate
ix)	Synchronize traffic movements / Introduce intelligent traffic systems for lane-driving;	30 days
x)	Install vapor recovery system in fueling stations	30 days
xi)	Take steps for installation of remote sensor based PUC system etc.;	90 days
xii)	Formulate action plan for controlling decongestion of fuel stations including increasing number of dispensing machines;	90 days
xiii)	Prepare action plan to check fuel adulteration and random monitoring of fuel quality data;	90 days
xiv)	Prepare action plan for public transport on CNG mode;	90 days
xv)	Undertake road widening and improvement of infrastructure for decongestion of road;	90 days
xvi)	Promote battery operated vehicles;	90 days
xvii)	Take steps to expedite early completion of Western and Eastern Peripheral expressway and submit completion schedule	60 days

**(B) Control of Road Dust/Re-suspension of dust and other fugitive emission:**

Sl.	Action Points	Time Frame
i)	Formulate action plan for creation of green buffers along the traffic corridors;	Immediate
ii)	Introduce wet/ mechanized vacuum sweeping of roads;	30 days
iii)	Maintain pot holes free roads for free-flow of traffic to reduce emissions and dust;	60 days
iv)	Introduce water fountains at major traffic intersection, wherever feasible;	90 days
v)	Undertake greening of open areas, gardens, community places, schools and housing societies.	90 days
vi)	Take steps for blacktopping / pavement of road shoulders to avoid road dust;	180 days

**(C) Control of Air Pollution from Bio-Mass Burning:**

Sl.	Action Points	Time Frame
i)	Take stringent action against open burning of bio-mass/leaves/tyresetc to control such activities and submit periodic status reports;	Immediate

ii)	Ensure proper collection of horticulture waste (bio-mass) and composting–cum-gardening approach;	Immediate
iii)	Ensure strict enforcement of ban on burning of agriculture waste and crop residues	Immediate
iv)	Prohibit use of coal in hotels and restaurants and eliminate use of kerosene for cooking in Delhi;	60 days

**(D) Control of Industrial Air Pollution;**

Sl.	Action Points	Time Frame
i)	Ensure strict action against unauthorized brick kilns	30 days
ii)	Ensure strict action against industrial units not complying with standards;	60 days
iii)	Enforce strict compliance of conversion of Natural draft brick kilns to induced-draft;	90 days
iv)	Launch action plan for switching over to natural gas by industries, wherever feasible.	120 days

**(E) Control of Air Pollution from Construction and Demolition Activities:**

Sl.	Action Points	Time Frame
i)	Control dust pollution at construction sites through appropriate cover	Immediate
ii)	Undertake control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units;	30 days
iii)	Ensure carriage of construction material in closed/covered vessels;	30 days

**(F) Other Steps to control Air Pollution**

Sl.	Action Points	Time Frame
i)	Set-up helpline in States/UT for taking action against reported non-compliance;	Immediate
ii)	Evolve a system of reporting of garbage /municipal solid waste burning through mobile based applications and other social media platform linked with Central and State Level Control Rooms;	30 days
iii)	Establish Standard Operating Procedure to provide quick and effective response to complaints	30 days
iv)	Take steps for maximizing coverage of LPG / PNG for domestic cooking purposes with intention of achieving 100%;	90 days
v)	Ensure DG sets meeting the standards only be allowed to operate	30 days
vi)	Promote use of LPG instead of coal in restaurants/ dhabas/ road side eateries;	90 days
vii)	Undertake Satellite based monitoring for tracking and enforcing agriculture waste burning;	90 days
viii)	Take steps for setting up of bio-mass based power generation units to avoid bio-mass burning.	One year

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