GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION No. 2293
TO BE ANSWERED ON 09.08.2021

Causes of air pollution in North India

2293. SHRI NEERAJ DANGI:
DR. AMEE YAJNIK:

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

(a) whether any Government sponsored study has been carried out to assess the causes of severe air pollution in North India, including the National Capital Region (NCR);
(b) if so, the findings and details thereof including the amount spent and persons involved;
(c) whether Government has taken any direct steps to improve the air quality in the aforementioned region;
(d) if so, the details thereof; and
(e) the details of support given, including finance, to State Governments of Delhi, Uttar Pradesh, Haryana and Punjab for mitigating air pollution?

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

(a) & (b):
A study "Source Apportionment of PM2.5 & PM10 of Delhi NCR for Identification of Major Sources" conducted by The Automotive Research Association of India (ARAI), Pune, India; and The Energy and Resources Institute (TERI), New Delhi funded by Department of Heavy Industries, Ministry of Heavy Industries and Public Enterprises in the year 2018. The study reveals that average sectoral contributions in PM2.5 and PM10 concentration in Delhi estimated during winters and summers are as follows:

$PM_{2.5}$		
Sectors	**Winter**	**Summer**
Residential	10%	8%
Agri. Burning	4%	7%
Industry	30%	22%
Dust (Soil , road and cont.)	17%	38%
Transport	28%	17%
Others	11%	8%
PM_{10}		
Sectors	**Winter**	**Summer**
Residential	9%	8%
Agri. Burning	4%	7%

Industry	27%	22%
Dust (Soil , road and cont.)	25%	42%
Transport	24%	15%
Others	10%	7%

System of Air Quality and Weather Forecasting and Research (SAFAR), Indian Institute of Tropical Meteorology (IITM), Ministry of Earth Sciences, Govt. of India, provides estimated contribution of external biomass burning to $PM_{2.5}$ levels in Delhi during winter season. The average and maximum contribution reported during 2018-2020 is given below:

States	2020	2019	2018
Average Contribution of external biomass burning to PM2.5 in Delhi (SAFAR)	13% (Oct 10-03 Dec)	10% (Oct 11-10 Dec)	12% (Oct 5- 29 Nov)
Maximum Contribution (SAFAR)	42%	44%	58%

(c) to (e) :

Following steps have been taken by the Government to improve the air quality in Delhi, UP, Haryana and Punjab:

i. Leapfrogging from BS-IV to BS-VI norms for fuel and vehicles since April, 2020.
ii. Faster Adoption and Manufacturing of Electric Vehicles (FAME) -2 scheme has been rolled out
iii. Environment protection charges (EPC) have been imposed on diesel vehicles with engine capacity of 2000cc and above in Delhi NCR.
iv. Pet coke and furnace oil have been banned as fuel in Delhi and NCR States.
v. Shifting of industrial units to PNG.
vi. Installation of online continuous emission monitoring devices in highly polluting industries.
vii. Shifting of Brick kilns to zig-zag technology for reduction of pollution
viii. Notifications of 6 waste management rules covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous waste.
ix. Ban on burning of biomass/garbage
x. Expansion of air quality monitoring network of manual as well as continuous monitoring stations under programmes such as National Air Monitoring Programme (NAMP).
xi. Implementing agencies and State boards are advised to use dust suppressants to control dust emissions from vulnerable sectors in Delhi-NCR.
xii. Public Complaints regarding air pollution issues in Delhi NCR are taken through 'Sameer App', 'Emails'(Aircomplaints.cpcb@gov.in) and 'Social Media Networks' (Facebook and Twitter).
xiii. As per the directions of Hon' ble Supreme Court, a Comprehensive Action Plan (CAP for air pollution control in Delhi & NCR,) has been developed and implemented with identified timelines for various action points to abate air pollution.
xiv. To prevent and deal with air pollution emergencies a Graded Response Action Plan (GRAP) has been prepared and implemented as per the directions of Hon'ble Supreme Court.

xv. To manage the problem of stubble burning, Central Government in 2018 launched a 2-year Scheme 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the State of Punjab, Haryana, Uttar Pradesh & NCT of Delhi', with following three major components (100% central share).

- Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery.
- Procurement of Agriculture Machinery and Equipment for in-situ crop residue management.
- Information, Education and Communication for awareness onin-situ crop residue management.

Under the said scheme, 50% subsidy was provided in case of procurement on farm Machinery and Equipment to individual farmers. Further, 80% subsidy provided on the project cost to co-operative societies of farmers, farmers producers organization, registered farmers societies and gram panchayats for establishment of farm machinery banks for Custom Hiring of crop residue management machinery.

The above scheme is continued by Central Government since 2018 andRs. 1726.67 crores have been released during 2018-21. Out of 1726.67 crores, Rs. 793.18 crore was released to Punjab, Rs 499.90 crores was released to Haryana, Rs. 374.08 crore was released to Uttar Pradesh, Rs. 4.52 Crores was released to NCT of Delhi, and Rs. 54.99 crore was released to ICAR and other Central Agencies.

xvi. National Clean Air Programme (NCAP) has been also launched as a comprehensive plan to tackle air pollution problem across the country in a focussed manner to achieve 20 % to 30 % reduction in PM10 and PM2.5 levels by 2024 from 2017 levels. Further, 42 million plus population cities have been identified for focused air quality management under 15th Finance Commission grants and out of these 34 are million plus non-attainment cities and 08 are other million plus population cities. City Specific Clean Air Action Plans have been prepared is under implementation in 9 cities of Punjab, 1 city of Haryana, NCT-Delhi and 17 cities in Uttar Pradesh.

xvii. Under NCAP, Rs.60.63 crore has been released to Uttar Pradesh and Rs 27.52 crore has been released to Punjab. Further, Rs 714 crore, Rs 48 crore and Rs 90 crore has been released to Uttar Pradesh, Haryana and Punjab respectively under recommendation of fifteenth finance commission for air quality improvement. City wise details are enclosed as **Annexure I**.

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Annexure I

Details of Grants received under NCAP during the F.Y 2019-20 &2020-21 (in Crore)

State	S.No.	City	FY:2019-20			FY:20-21			Total Cumulative Fund Released	UC received
			1st Inst	2nd Inst.	Total	3rd Inst	4th Inst	Total		
Uttar Pradesh	1.	Agra	6.00	3.45	48.47			12.16	60.63	10.04
	2.	Allahabad	6.00	3.45						
	3.	Kanpur	6.00	3.45						
	4.	Lucknow	6.00	3.45						
	5.	Varanasi	6.00	3.47						
	6.	Moradabad	0.12	0.08			1.90			
	7.	Bareily	0.12	0.08			1.90			
	8.	Firozabad	0.12	0.08			1.90			
	9.	Jhansi	0.12	0.08			1.14			
	10.	Khurja	0.06	0.04			1.90			
	11.	Anpara	0.06	0.04			1.14			
	12.	Gajraula	0.06	0.04			1.14			
	13.	Raebareli	0.06	0.04			1.14			
Punjab	14.	Ludhiana	6.00		12.48			15.04	27.52	4.70
	15.	Amritsar	6.00							
	16.	Jalandhar	0.12			4.00				
	17.	Khanna	0.06				1.90			
	18.	Gobindgarh	0.06			3.00				
	19.	NayaNangal	0.06			1.00				
	20.	Pathankot/Dera Baba	0.06				0.76			
	21.	Patiala	0.06			4.00				
	22.	DeraBassi	0.06				0.38			

Amount sanctioned as per recommendations of XV Finance Commission 2020-21

State	S.No.	U.A	Amount Sanctioned	State wise Amount Sanctioned in Cr.
Uttar Pradesh	1.	Agra U.A.	90	714
	2.	Allahabad U.A.	62	
	3.	Ghaziabad U.A.	121	
	4.	Kanpur U.A.	148	
	5.	Lucknow U.A.	148	
	6.	Meerut U.A.	72	

	7.	Varanasi U.A.	73	
Haryana	10	Faridabad	48	48
Punjab	25	Amritsar U.A.	38	90
	26	Ludhiana	52	

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