GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 2032
TO BE ANSWERED ON 29.11.2019

Online Monitoring of Air Pollution

2032. SHRI RAVINDRA KUSHWAHA:

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

(a)   whether the Government has any policy for online monitoring of air pollution in various States and UTs including Delhi-NCR;
(b)   if so, the details thereof and if not, the reasons therefor;
(c)   whether the Government has taken initiatives to improve manual air quality monitoring system as the air quality of most of the cities of the country is continuously in a state of decline;
(d)   if so, the details thereof; and
(e) the concrete steps taken by the Government to deal with the said problem keeping in view the deteriorating environment in the country?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BABUL SUPRIYO)

(a)   **& (b)** The Central Government in association with State/UT Governmentshas installed 205 online Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in 114 cities including Delhi-NCR, across the country. Further, the Central Government has launched National Clean Air Programme (NCAP) in 102 non-attainment cities to tackle the air pollution problem across the country in a comprehensive manner. The objectivesinclude augmentation and evolving of effective ambient air quality monitoring network across the country (manual and real time stations).

(c)& (d) The Central Government in association with State/UT Governments has implemented National Air Quality Monitoring Programme (NAMP) for augmentation of manual air quality monitoring system in the country. Presently, ambient air quality is monitored at 793 locations covering 344 cities/towns in 28 States and 7 Union Territories across the country under NAMP. Also, a number of measures are taken to ensure the quality of the data of ambient air quality monitoring stations which include regular evaluation of ambient air quality monitoring stations and monitoring laboratories, organising of training programsetc.

(e) Central Government has taken a number of regulatory measures for prevention, control and abatement of air pollution in the country. A **Comprehensive Air Plan (CAP)** for Delhi

NCR has been developed identifying the timelines and implementing agencies for actions delineated. The Central Government has notified a **Graded Response Action Plan (GRAP)** for Delhi and NCR for actions during different levels of pollution. The nature, scope and rigor of measures to be taken are linked to levels of pollution viz. severe + or emergency, severe, very poor, moderate to poor and moderate, after due consideration by authorities concerned. Also, 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 PM10 and PM2.5 concentrations by 2024 keeping 2017 as base year. The plan includes 102 non-attainment cities, across 23 States and Union Territories, on the basis of their ambient air quality data between 2011 and 2015.

Several initiatives taken by the Government are annexed as **Annexure-I.**

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Initiatives taken by the Government for the abatement and control of air pollution are as follows.

<u>Vehicular Emissions</u>

- BS-IV standards adopted from 1st April, 2017. Leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi, in NCR since October 2019 and by 1st April, 2020 in the rest of the country for both fuel as well as vehicles. About Rs 60000 crore was spent on switching over to BS VI fuels.
- 80% reduction in particulate matter emissions in BS IV heavy duty diesel vehicles with respect to BS III and further 50 % reduction in PM due to BS VI standards with respect to BS IV.
- Operationalization of Eastern Peripheral Expressway & Western Peripheral Expressway in 2018 at a cost of about Rs 17000 crore to divert non-destined traffic from Delhi. About 60000 vehicles are diverted on these roads daily.
- Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending in petrol.
- In Delhi, about 500 new CNG stations have been opened during the last 5 years.
- Use of RFID tags have been made mandatory for commercial vehicles entering Delhi. This has resulted in decrease in traffic congestion at Toll collection/Environmental Compensation Charge collection centres.
- Network of metro has expanded in Delhi NCR with total length of 377 km and 274 stations at a cost of about Rs 70000 crore. It is used by over 30 lakh people every day and due to this about 4 lakh vehicles are avoided on roads, thereby reducing pollution considerably.
- To promote electric vehicles, Faster Adoption and Manufacturing of Electric Vehicles (FAME -2) scheme has been rolled out with an outlay of Rs 10000 crore for 3 years. DHI has sanctioned 300 buses for Delhi and 100 buses for DMRC under this scheme so far.
- Permit requirement for electric vehicles has been exempted.
- Promotion of public transport and improvements in roads and building of more bridges to ease congestion on roads.

<u>Industrial Emissions</u>

- Stringent emission norms for Coal based Thermal Power Plants(TPPs).
- Badarpur thermal power plant has been closed from 15th October, 2018.
- Pet coke and furnace oil have been banned as fuel in Delhi and NCR States. Import of pet coke to be done by industries using it as a feedstock/in process across the country.
- Out of about 4700 industrial units in Delhi – NCR, about 2600 units have shifted to PNG.
- Installation of on-line continuous (24x7) monitoring devices in all red category industries in Delhi and NCR. 503 industrial units in Delhi- NCR have installed it out of about 599 units.
- Revision of emission standards for industrial sectors from time to time. SOx and NOx standards for boilers have been introduced.
- About 2800 brick kilns have been shifted to zig-zag technology in Delhi and NCR.Only brick kilns with zig zag technology can operate in Delhi and NCR.

<u>Crop Residue Management</u>

- In order to prevent stubble burning, a new 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' for the period from 2018-19 to

2019-20 is being implemented by Ministry of Agriculture and Farmers' Welfare with the total outgo from the Central funds of Rs. 1151.80 crore (Rs. 591.65 crore in 2018-19 and Rs. 560.15 crore in 2019-20).

- The State Governments during 2018-19 have supplied more than 56290 machines to the individual farmers and Custom Hiring Centres on subsidy for in-situ management of crop residue. During 2019-20, it has been targeted to supply more than 46578 machines.
- With the efforts of the Government, overall, about 15% and 41% reduction in burning events were observed in 2018 as compared to that in 2017 and 2016, respectively. During 2019-20 season, the total burning events recorded in the three States are 19.2% less than in 2018 till 18th November. UP has recorded 36.8% reduction, Haryana recorded 25.1% reduction, and Punjab recorded 16.8% reduction, respectively, in the current season than in 2018.

Solid Waste

- 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.
- Ban on burning of biomass/garbage.
- 3 Waste-to-Energy (W-t-E) plants are currently operational in Delhi with a total capacity of 5100 Tonnes Per Day (TPD) generating 52 MW.
- A 200 TPD waste to compost plant is also operational in Delhi.
- Bioremediation and biomining of landfill sites have also been undertaken in Delhi.
- Number of mechanised road sweeping machines has been increased significantly and presently 60 machines are deployed for cleaning of roads in Delhi.

Construction and Demolition (C&D) Activities

- SoPs and notification regarding dust mitigation measures for construction and demolition activities have been issued.
- Three C&D waste processing plants with 2650 TPD capacity are operational in Delhi. About 2 lakh ton of end products have been used this year till August.

Monitoring

- Notification of National Ambient Air Quality Standards in 2009 and launch of National Air Quality Index in 2015.
- Ambient air quality is monitored at 793 locations covering 344 cities in 28 States & 7 Union Territories (UTs) across the country under National Air Quality Monitoring Programme (NAMP). Under NAMP, PM2.5 is monitored at 274 locations covering 132 cities.
- Implementation of Air Quality Early Warning System for Delhi in October, 2018 in association with Ministry of Earth Sciences (MoES). The system provides timely alerts to implementing agencies for facilitating proactive actions.

Technical Interventions

- Pilot projects were deployed in Delhi for evaluation of air pollution mitigation technologies:
- ✓ Ambient air purification through Wind Augmentation and Purification Units (WAYUs) for pollution abatement at traffic intersections and Pariyayantra filtration units on 30 buses was evaluated. Though minimal improvement in ambient air quality was observed, however, WAYU may be explored for providing improved air quality at localised levels.
- ✓ Application of dust suppressant -The effectiveness of the dust suppressant lasted up to 6 hours after which it had to be reapplied. About 30% reduction in dust concentrations

was observed up to 6 hours. Advisory has been issued to State Boards to use dust suppressant.

- Research projects are being carried out by CPCB in collaboration with premier institutions like IIT, NEERI, etc. under Environment Protection Charge (EPC) funds.
- Lack of certification system of ambient air quality monitoring instruments in India was identified. A certification scheme has been established in collaboration with National Physical Laboratory (NPL).
- Regular engagements with technical bodies and experts have been undertaken for knowledge sharing.

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