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GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 2435
TO BE ANSWERED ON 24.03.2022

Installation of air purifier systems

2435. MS. SAROJPANDEY:

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

(a) the steps taken by Government to improve air quality in metro cities of the country, the details thereof;
(b) whether air purifier systems have been installed in the said cities to reduce air pollution caused by vehicular emissions; and
(c) if so, the cities where the said systems have been installed and the effect these systems have had on the air quality?

ANSWER

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

(a)
Ministry of Environment, Forest and Climate Change (MoEF&CC) has launched National Clean Air Programme (NCAP) which is a performance based scheme for improvement in air quality across the country including 42 million plus cities which are being funded for air quality improvement as per recommendations of the Fifteenth Finance Commission.

In addition, Government has taken several other steps for mitigation of air pollution which include introduction of BS-VI norms for fuel and vehicles since April, 2020; promotion of E-vehicles; expansion of network of metro rails for public transport; promotion of cleaner fuel such as PNG; stringent emission norms for industries including coal based Thermal Power Plants (TPPs); zig-zag technology for brick kilns; Extended Producer Responsibility (EPR) for plastic and e-waste management; real time monitoring of major industrial sectors, etc. The details of the steps taken for improving Air Quality Management in identified metro cities in the country are enclosed at **Annexure-I**.

(b) & (c)
Pilot study on "Deployment and Evaluation of air purification units (WAYU Units) for traffic junction pollution abatement in Delhi" was awarded to National Environmental Engineering Research Institute (NEERI). 54 Air Purification units were installed and operated at 5 traffic intersections in Delhi i.e. ITO (14 units), Anand Vihar (10 units), Shadipur (11 units),

Wazirpur Chawk (06 units) and Bikaji Cama Place (13 units) for reduction in air pollution, caused due to heavy vehicular movement at these locations.

Efficiency of WAYU was observed as 32 - 49% for PM10 and 16 - 25% for PM2.5 at the outlet and only limited area air cleaning was observed.

Further, in compliance to the order of the Hon'ble Supreme Court of India in W.P. (C) 13029 of 1985: M.C. Mehta v/s Union of India &Ors., two pilot smog towers, one at AnandVihar by Central Government and another at Connaught Place by Delhi Government have been installed for reduction in ambient PM levels, caused due to various sources including vehicular pollution.

Annexure-I

Measures taken by the Government for Air Quality Management

Vehicular Emission

- Leapfrogging from BS-IV to BS-VI norms for fuel and vehicles since April, 2020.
- Network of metro rails for public transport are enhanced and more cities are covered.
- Development of Expressway and Highways are also reducing the fuel consumption and pollution.
- Eastern Peripheral Expressway & Western Peripheral Expressway have been operationalised to divert non destined traffic from Delhi.
- Ban on 10-year-old diesel vehicles and 15-year-old petrol vehicles in Delhi NCR.
- Environment protection charges (EPC) have been imposed on diesel vehicles with engine capacity of 2000cc and above in Delhi NCR.
- Introduction of cleaner/alternate fuels like CNG, LPG, ethanol blending in petrol.
- Faster Adoption and Manufacturing of Electric Vehicles (FAME) -2 Scheme has been rolled out.
- 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.

Industrial Emission

- Stringent emission norms for Coal based Thermal Power Plants (TPPs).
- Ban on use of pet coke and furnace oil in NCR with restricted use of pet coke in cement plants, lime kilns and calcium carbide manufacturing units.
- Shifting of industrial units to PNG.
- Installation of online continuous emission monitoring devices in highly polluting industries.
- Shifting of brick kilns to zig-zag technology for reduction of pollution

Air Pollution due to dust and burning of waste

- Notifications of 6 waste management rules covering solid waste, plastic waste, e-waste, bio-medical waste, C&D waste and hazardous waste.
- Setting up infrastructure such as waste processing plants.
- Extended Producer Responsibility (EPR) for plastic and e-waste management.
- Ban on burning of biomass/garbage.

Crop Residue/Parali Management

- Under 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', agricultural machines and equipment for in-situ crop residue management are promoted with 50% subsidy to the individual farmers and 80% subsidy for establishment of Custom Hiring Centres.
- Sustainable Alternative Towards Affordable Transportation (SATAT) has been launched as an initiative to set up Compressed Bio-Gas (CBG) production plants and make CBG available in the market for use in automotive fuels.

Monitoring of Ambient Air Quality and Public Outreach

- Expansion of air quality monitoring network of manual as well as continuous monitoring stations under programmes such as National Air Monitoring Programme (NAMP).

- Initiation of pilot projects to assess alternate ambient monitoring technologies such as low-cost sensors and satellite-based monitoring.
- Implementation of Air Quality Early Warning System for Delhi, Kanpur and Lucknow. The system provides alerts for taking timely actions.
- 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).

Monitoring implementation of NCAP

- Government has launched National Clean Air Programme (NCAP) as a national level strategy to reduce air pollution levels across the country. City Specific Clean Air Action Plans have been prepared and rolled out for implementation in132 non-attainment and million plus cities.
- ₹ 423.21 crores have been sanctioned to non-attainment cities under NCAP for initiating actions such as expansion of monitoring network, construction and demolition waste management facilities, non-motorised transport infrastructure, green buffers, mechanical street sweepers, composting units etc.
- As per the Fifteenth Finance commission recommendations ₹4400 crores have been released in the Budget of FY 2020-21 to tackle the problem of air pollution for 42 urban centres with a million-plus population. Further, an amount of ₹12,139 crores has been allocated for improvement of air quality for the award period FY 2021-22 to FY 2025-2026.
- City Specific Action Plans for improvement of air quality has been prepared and approved for implementation.
- Implementation of the city specific action plans are regularly monitored by Committees at Central and State level namely Steering Committee, Monitoring Committee and Implementation Committee.
- PRANA a portal for monitoring implementation of NCAP has been launched.

Steps taken to improve air quality in NCR and adjoining areas

- The Government has enacted The Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 for constituting the Commission for Air Quality Management (CAQM) in National Capital Region and Adjoining Areas for better co-ordination, research, identification, and resolution of problems related to air quality in the National Capital Region (NCR) and adjoining areas.
- The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) constituted a sub-committee for operationalization of GRAP and issuing necessary orders to the effect, under which regular meetings are held.

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