

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2152
TO BE ANSWERED ON 05.08.2024

Technologies to address Air Pollution

2152. SHRI KAMAKHYA PRASAD TASA:

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

- (a) whether it is a fact that air pollution is one of the biggest issues of the country, if so, the details thereof;
- (b) whether the Government has taken any steps to explore and leverage the potential of other frontier country technologies to address air pollution issues;
- (c) if so, the details thereof and if not, whether there are any plans to execute any such agreement;
- (d) whether there are any signed Memorandum of Understanding (MoUs) with neighbouring countries to install air pollution monitors to tackle the issue of air pollution based on airshed approach; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (e):

Air pollution in the country is a collective result of multiple factors including high levels of anthropogenic activities in the high-density populated areas, arising from various sectors viz. Vehicular Pollution, Industrial Pollution, Dust from Construction and Demolition activities, Road and Open Areas Dust, Biomass Burning, Municipal Solid Waste burning, Fires in Landfills and air pollution from dispersed sources etc. To reduce the air pollution in the country, government has launched National Clean Air Programme (NCAP) in 2019. Taking into account the available international experiences and national studies, the tentative national level target under NCAP is 20%–30% reduction of particulate matter concentration by 2024. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national ambient air quality standards (60 µg/m³) by 2025-26.

Central Pollution Control Board (CPCB) has identified 131 million plus/non-attainment cities (cities exceeding National Ambient Air Quality Standards (NAAQS), consecutively for five years). City Specific Clean Air Action Plans have been prepared and rolled out for implementation in all these 131 non-attainment/million plus cities to improve the air quality. These city specific clean air action plans target city specific air polluting sources like Soil & Road Dust, Vehicles, Domestic Fuel, MSW Burning, Construction Material and Industries with

short-term priority action as well as those to be implemented in a medium to longer time frame along with the responsible agencies.

Trial of various new technologies for air pollution mitigation have been conducted under Environment Protection Charge (EPC) by CPCB such as Air purification units developed by National Environmental Engineering Research Institute (NEERI), for traffic junction pollution, dust suppressant for construction sites and road dust control developed by Enviro Policy Research India Pvt Ltd. (EPRI), bus roof filtration system developed by Manav Rachna International Institute of Research and Studies (MRIIRS), medium scale air purification unit (Smog Tower) developed by IIT Bombay and Tata Projects Ltd and ionisation technology developed by S&TP Pune. Out of these technologies, Smog Tower have also been tried in China. Further, out of these technologies, results of dust suppressant were found encouraging and accordingly advisory issued for its use in Delhi-NCR. Details of the projects are enclosed as **Annexure-I**.

Annexure-I

S. No.	Project title	Institute/ organisation
1.	Deployment and Evaluation of air purification units for traffic junction pollution abatement in Delhi	CSIR-NEERI
2.	Pilot project to demonstrate the effectiveness of air pollution mitigation by Pariyayantra filtration-MRIIRS	Manav Rachna International Institute of Research and Studies (MRIIRS)
3.	Control of Dust Emissions using dust Suppressant	Enviro Policy Research India Pvt Ltd. (EPRI)
4.	Pilot study for assessment of reducing air pollution in urban areas by using outdoor cleaning system (sometimes called as Smog Tower)	IIT Bombay & Tata Projects Ltd.
5.	Multiple antenna high density ion generator for pollution control in New Delhi	Science and Technology Park, Pune
6.	Monitoring and Evaluation of Ionization based Air Purifying Technology	IIT Delhi