

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
STARRED QUESTION NO. 70
ANSWERED ON 08.02.2024

Exposure of children to air pollution

70. SHRI VIJAY PAL SINGH TOMAR:

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

(a) whether children are more vulnerable to air pollution as exposure to polluted air with higher concentration of pollutants damages brain development and leads to cognitive and motor impairments; and

(b) if so, the details of the precautionary measures taken/being taken by Government keeping in view the fact that around thousands of children die prematurely every year because of polluted air?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) and (b): A Statement is laid on the table of the House.

STATEMENT REFERRED TO IN REPLY OF PARA (a) and (b) OF RAJYA SABHA STARRED QUESTION NO. 70 TO BE ANSWERED ON 08.02.2024 RAISED BY SHRI VIJAY PAL SINGH TOMAR TITLED “EXPOSURE OF CHILDREN TO AIR POLLUTION”

(a):

There are several studies conducted by different organizations on the impact of air pollution which is one of the many factors affecting respiratory ailments and associated diseases. Health is impacted by a number of factors which include food habits, occupational habits, socio-economic status, medical history, immunity, heredity, etc., of the individuals apart from the environment.

There is no specific study conducted in regard to the impact of air pollution on cognitive and motor impairment of children.

(b):

Several steps have been taken by the Government to address the issue of health impact due to air pollution. These, inter-alia, include:

- i. National Clean Air Programme (NCAP) was launched in January, 2019 by MoEF&CC which is a long-term, time-bound national level strategy for prevention, control and abatement of air pollution. The programme covers 131 cities in 24 States/UTs, wherein funds are provided to respective cities to implement City Action Plan (CAP) for improvement of air quality. Under NCAP, it has been envisaged to achieve target of upto 40% reduction or achieve National Ambient Air Quality Standards (NAAQS) in Particulate Matter concentrations by 2025-26 with respect to base year 2017-18.
- ii. National Programme on Climate Change and Human Health (NPCCHH) has been launched by Ministry of Health and Family Welfare to strengthen capacity of healthcare system to reduce illnesses/ diseases due to variability in climate and create awareness among general population (vulnerable community), health-care providers and policy makers regarding impacts of climate change on human health.
- iii. Comprehensive Health Adaptation Plan for Diseases due to Air Pollution was released on 30st August 2021 to guide the States/UTs to coordinate with non-health sectors while addressing health problems arising due to exposure to air pollution and poor air quality index.
- iv. Health Advisory on Air Pollution is regularly issued by Health authorities/agencies depending on the air pollution levels. These address the increasing health concerns as a consequence of air pollution across the country.
- v. 34 States have developed State Action Plan on Climate Change and Human Health.

- vi. A National Action Plan on Climate Change and Human Health has been developed, which outlines the key priority and actionable areas at various levels (national and state) in the health sector with identification of other key stakeholders for implementing the activities.
- vii. To generate community awareness, Community Training Manuals (Hindi/ English) for vulnerable population including children have been developed on air pollution related illnesses.
- viii. NPCCHH conducts awareness programmes specifically targeting air pollution and health impacts for engaging school children and youth. Special awareness campaigns are also conducted on important days on environment and health like World Environment Day (5th June), International Day of Clean Air for blue skies (7th September), National Pollution Control Day (2nd December).

Further details of steps taken by the Government to control air pollution are enclosed as **Annexure-I**.

Steps taken by the Government to address air pollution

1.0 National Clean Air Programme:

- National Clean Air Programme (NCAP) has been launched by Ministry of Environment, Forest and Climate Change (MoEFCC) in January 2019 with an aim to improve air quality in 131 cities (non-attainment cities and Million Plus Cities) in 24 States by engaging all stakeholders.
- NCAP envisages reduction by 20-30% in PM concentration over baseline in year 2017 by 2024. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national standards ($60 \mu\text{g}/\text{m}^3$) by 2025-26.
- City Action Plans (CAPs) have been prepared by all 131 cities and being implemented by Urban Local Bodies.
- The 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.
- Performance based financial support is being provided to these 131 cities for implementation of activities of City Action Plan.
- Further, funding for implementation of CAPs is being mobilised through convergence of resources from various schemes of Central Government such as Swachh Bharat Mission SBM (Urban), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City Mission, Sustainable Alternative towards Affordable Transportation (SATAT), Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME-II), Nagar Van Yojna, etc. and resources from State/UT Governments and its agencies such as Municipal Corporation, Urban Development authorities and Industrial development authorities etc.
- Public Grievance Redressal Portal (PGRP)/helpline have been developed by all 131 cities to address public complaints of air pollution in timely manner.
- Emergency Response System (ERS/ GRAP) have been developed by all 131 cities for taking action in air emergencies
- 90 cities out of 131 cities have shown improvement in air quality in terms of annual PM10 concentrations in FY 2022-23 with respect to the baseline of FY 2017-18.

2.0 Measures for control of vehicular emissions:

- Leapfrogging from BS-IV to BS-VI fuel standards since 1st April, 2018 in NCT of Delhi and from 1st April, 2020 for the rest of the country.
- Introduction of BS VI compliant vehicles across the country since April, 2020.

- Department of Heavy Industry is providing subsidy on e-vehicles under Faster Adoption and Manufacture of (Hybrid &) Electric Vehicles in India (FAME -II India) scheme.
- 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.
- Installation of Vapour Recovery System (VRS) in new and existing petrol pumps selling gasoline >100kl per month in million plus cities and those selling >300kl per month in cities with population between 1 lakh to 1 million to control vehicular refuelling emissions.
- Environment Compensation Charges introduced for commercial vehicles entering Delhi in compliance of Hon'ble Supreme Court order
- Operationalization of Eastern and Western Peripheral Expressways to divert non-destined traffic from entering Delhi
- Directions issued by CAQM to Government of NCT of Delhi and State Governments of Haryana, Rajasthan and Uttar Pradesh for migration of public transport services, especially buses in NCR to cleaner modes. All state govt. bus services between Delhi and any city/town in the states of Haryana, Rajasthan and Uttar Pradesh to be operated only through EV /CNG/BS-VI diesel w.e.f. 01.11.2023.
- Ban on 15-year-old petrol and 10-year-old diesel vehicles as per Hon'ble Supreme Court and Hon'ble NGT orders.
- Installation of VRS system at 3256 petrol pumps in Delhi-NCR in compliance with orders of Hon'ble Supreme Court and Hon'ble NGT.

3.0 Measures for control of industrial emission:

- For strengthening monitoring mechanism and effective compliance through self-regulatory mechanism, CPCB directed all 17 categories of highly polluting industries to install OCEMS. There are 4,315 units under 17 categories of industries, out of which 3,734 units have installed OCEMS and closure directions are still in-force for 581 units.
- The Ministry of Environment Forest and Climate Change (MoEF&CC), Government of India notifies industry specific discharge standards under Schedule-I: 'Standards for Emission or Discharge of Environmental Pollutants from various Industries' of Environment Protection Act, 1986. So far, industry specific environmental standards, for 79 industrial sectors (including emission standards for 56 sectors) have been notified. Industrial sectors, for which specific standards are not available, general standards as notified under Schedule-VI of Environment Protection Rules, 1986 shall be applicable.
- Ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes.
- CPCB has come out with System and Procedure for Emission Compliance Testing of Retro-fit Emission Control Devices (RECD) for Diesel Power Generating Set Engines up to Gross Mechanical Power 800 kW.

- Installation of Online Continuous Emission Monitoring System (OCEMS) in red category air polluting industries in Delhi-NCR
- Industrial units in Delhi have shifted to PNG/cleaner fuels and, operational units in NCR have shifted to PNG/Biomass.
- Directions issued for conversion of brick kilns to zig-zag technology in Delhi and NCR. A total of 3003 out of 4608 brick kilns have converted to zig-zag technology including 1762 kilns in Haryana, 1024 kilns in U.P. and 217 kilns in Rajasthan. Brick kilns not converted to zig-zag technology are not permitted to operate.
- In order to control DG set emissions, CPCB is also funding retrofitment/ upgradation of DG sets in Govt. hospitals in Delhi-NCR and guidelines have been issued in this regard.
- Ban on use of pet coke and furnace oil as fuel in NCR States since October 24, 2017.
- An approved fuel list is in force in Delhi-NCR w.e.f. 01.01.2023. Industries operating on only PNG or biomass are permitted in NCR, except for specific requirement of other fuels by specific industries owing to technical, technological and process requirements. Out of 7759 fuel based industries in NCR, 7449 have been shifted to approved fuels, with the balance 310 industries under closure.
- Stringent PM emission norms for biomass based boilers have been prescribed for compliance in NCR.

4.0 Measures for control of emissions from Stubble Burning in Delhi-NCR:

- 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 Centers. In 2022, the Scheme has been merged with Sub-Mission on Agricultural Mechanization (SMAM) and SMAM has been merged with Rashtriya Krishi Vikas Yojana (RKVY).
- The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) on 17.09.2021 directed the coal-based Thermal Power plants situated up to a radius of 300 Km of Delhi to co-fire biomass based Pellets, Torrefied Pellets/Briquettes (with focus on paddy straw) with Coal (up to 5-10%).
- Coal based captive Thermal Power Plants in NCR and adjoining areas directed to co-fire at least 5% biomass pellets by 30.09.2023 and at least 10% biomass pellets by 31.12.2023.
- Directions issued by CAQM to State governments of Punjab, Haryana and Uttar Pradesh to strictly and effectively implement framework and revised action plan to eliminate and control stubble burning.
- CPCB has framed guidelines for providing one-time financial assistance for setting up of paddy straw based pelletization and Torrefaction plants. A total of 09 plants have been

sanctioned (7 in Punjab, 1 in Haryana and 1 in UP) and also one proposal approved in-principle.

- From 10.11.2023 onwards, 33 scientists of CPCB were deployed as flying squads for assisting the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) for intensifying monitoring and enforcement actions towards prevention of paddy stubble burning incidents in 22 districts of Punjab and 11 districts of Haryana. The flying squads coordinated with the state Government/ nodal officers/ officers from respective Pollution Control Boards towards prevention and control of stubble burning in their respective districts and sending their daily reports to CAQM. All teams were recalled in view of paddy harvesting season coming to an end.
- CPCB on 30.01.2024 has issued directions under Section 18 (b) of the Air (P&CP) Act, 1981 to all SPCBs/PCCs for comprehensive management of paddy straw and other agro residues.

5.0 Air Quality Monitoring and Network

- National Air Quality Index (AQI) was launched in 2015. Information is disseminated to public through daily air quality bulletins.
- Ambient Air Quality Network: The country has a network of 1447 ambient air quality monitoring stations (516 continuous and 931 manual) covering 516 cities in 28 states and 7 UTs.
- A centralized air quality monitoring portal is operated by Central Pollution Control Board wherein, tracking of various information such as hourly PM concentrations, Live Air Quality Data of Monitoring stations and Live Air Quality Index is being carried out.
- Daily AQI Bulletin is published on CPCB website giving AQI information for cities across India.

6.0 C&D Waste

- CPCB published guidelines on:
 1. Environmental Management of Construction & Demolition (C & D) Wastes' in March, 2017
 2. 'Guidelines on DUST Mitigation Measures in Handling Construction Material & C&D Wastes' in November 2017.
 3. Disposal of legacy waste by bio-mining and bio-remediation to address open burning and landfill fires
- CPCB has issued direction to all SPCBs/ PCCs for deployment of Anti-Smog Gun and implementation of adequate dust mitigation measures at construction projects/ sites having area more than 20,000 sq. meters. CPCB has issued guidelines/ mechanism for use of anti-smog guns in Construction and Demolition projects.
- Directions issued to DPCC and NCR SPCBs to enforce installation of anti-smog guns and other dust control measures at C&D sites.

- Directions issued for setting up of a “Dust Control and Management Cell” by road owning/ maintaining/ construction agencies for monitoring and effective implementation of dust control measures in the NCR.
- Online monitoring mechanism (through web portal) introduced for monitoring compliance of dust mitigation measures for construction sites.

7.0 Technical Interventions in Delhi-NCR

- Trial study of various new technologies for control of air pollution have been got conducted by CPCB out of which encouraging results were observed in case of Dust Suppressant for control of emissions at construction sites and road dust. Advisory have been issued for use of dust suppressant by road owning and construction agencies in Delhi-NCR.

8.0 Close Monitoring & Ground level implementation in Delhi-NCR

- 40 teams have been deputed by CPCB since December 2021, to assist CAQM, for conducting incognito inspections of air polluting industries, C&D sites, DG sets in Delhi-NCR to check implementation status of pollution control measures and compliance of other provisions of the Air (P&CP) Act,1981. A total of 16200 units/ entities/ projects have been inspected as on December 08, 2023. Based on these inspections, CAQM has issued Closure Directions in 899 cases and out of these resumption orders have been issued in 722 cases while 118 cases are still under closure and cases of 59 balance units have been transferred to SPCBs / DPCC for final decision.
- Another 15 teams (other than the 33 teams for Punjab and Haryana) were provided to CAQM as Flying Squads for carrying out incognito inspections of units/activities in various sectors contributing to air pollution such as Industrial activities, Construction and Demolition projects, Unpaved roads, DG Sets etc. These have also been recalled and the original 40 teams are conducting inspections.

9.0 Regular Stakeholder Consultation, Public & Media Outreach

- CPCB has developed a mobile app i.e. SAMEER, where Real-time Ambient air quality data of various parameters including AQI is also given. Sameer app also facilitates the public in lodging of air pollution related complaints in NCR region and such complaints are assigned to various local agencies.
- Dedicated media corner, Twitter and Facebook accounts have also been created for public outreach.
- Complaint redressal on SAMEER app and social media platforms is monitored and redressal status is shared with respective agencies.
- Daily AQI status is shared on social media platforms. Various campaigns as well as informative posts related to air pollution, firecrackers, vehicular pollution, stubble burning, sustainable lifestyle, etc. are also posted regularly on social media platforms.

- CPCB issues a daily report comprising of AQI of Delhi and NCR towns, comparative AQI status, year-wise trends of PM concentration, hotspots for the day, AFE counts, contribution of stubble burning and meteorological forecast. This report is prepared based on the inputs available from various sources such as IMD, SAFAR, IARI, etc., and disseminated through CPCB website.

10.0 Regulatory Actions in Delhi-NCR

- Graded Response Action Plan (GRAP) was formulated for Delhi-NCR to tackle the issue of sudden rise in air pollution levels which was notified by MoEF&CC in January 2017 on recommendation of CPCB for implementation. A comprehensive review of actions listed under GRAP was carried out by CPCB in 2020 based on actions taken and improvement observed in air quality in recent years. Based on the inputs given by CPCB, the revised GRAP was published by Commission for Air Quality Management in NCR and adjoining areas (CAQM) and further directions were issued for its implementation. Actions listed for different AQI levels under GRAP are invoked from time to time by a sub-committee constituted by CAQM, having CPCB as a member.
- For air pollution abatement and control in Delhi / NCR, the Commission for Air Quality Management in NCR and Adjoining Areas has devised a comprehensive policy for air pollution abatement in NCR in July 2022, stipulating sector-specific action points quantifying targets along with timelines and implementation plan by various agencies in NCR States. The policy framework details sector-wise interventions, quantified targets and timelines for various sectors contributing to air pollution.
- Directions prescribing measures for control of pollution from various sources such as implementation of RECD system/ dual fuel kits in DG sets, use of cleaner fuels in industries, shift to EV/ CNG/ BS VI diesel fuel in transport sector, implementation of dust control measures at C&D sites etc., have been issued by CAQM, wherein CPCB is also a member and provided technical inputs to CAQM. Further, policy to curb air pollution in NCR has also been formulated.
- CPCB on November 03, 2023 issued Directions under Section 5 of the Environment (Protection) Act, 1986 to Delhi-NCR SPCBs/ PCCs for strict implementation of actions prescribed under stages of GRAP invoked from time to time, in view of the deteriorated air quality situation in Delhi-NCR.
