GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

LOK SABHA
UNSTARRED QUESTION NO. 5365
ANSWERED ON 3RD APRIL, 2025

IMPACT OF ROAD TRANSPORT ON ENVIRONMENT

5365. SMT. RACHNA BANERJEE

Will the Minister of ROAD TRANSPORT AND HIGHWAYS

सड़क परिवहन और राजमार्ग मंत्री

be pleased to state:

(a) the steps being taken by the Government to reduce the environmental impact of road transport especially in terms of carbon emissions and air pollution from vehicles;
(b) the policies that are being implemented to reduce the noise pollution caused by road traffic, particularly in residential and sensitive areas;
(c) the manner in which the Government plan to integrate green corridors and eco-friendly materials in highway and road construction projects; and
(d) the measures being taken to preserve natural habitats and ecosystems during the construction of highways, especially in ecologically sensitive areas?

ANSWER

THE MINISTER OF ROAD TRANSPORT AND HIGHWAYS
(SHRI NITIN JAIRAM GADKARI)

(a) 1. Government in the Ministry of Road Transport and Highways has taken the following key initiatives :

(i) Notified Bharat Stage (BS) VI Emission limits including use of alternative fuels vide G.S.R 889 dated 16.09.2016 to reduce pollutants from motor vehicles.

(ii) Notified E20 as a Mono fuel vide G.S.R 27 (E), dated 5th January, 2024 for all category of vehicles.

(iii) Notified Hydrogen as a fuel vide GSR 885(E) dated 16th December 2022 for ICE BS-IV vehicles.

(iv) Notified the Vehicle Scrapping Policy vide G.S.R 720 dated 5th October 2021 to phase out older, unfit polluting vehicles under the framework of the Motor Vehicles Act, 1988 and Central Motor Vehicle Rules, 1989.

(v) Mandated the fitment of FASTAG to all M and N category vehicles vide G.S.R 1361 dated 2nd November 2017 to reduce idling time at toll plazas, cutting fuel consumption and emissions.

2. Government has taken following initiatives to promote adoption of Electric Vehicles (EVs) in the country:

(i) Notification issued vide S.O. 5333(E) dated the 18th October, 2018 to grant exemption from the requirements of the permit to the battery operated transport vehicles.

(ii) Notification issued vide G.S.R. 525(E) dated the 2nd August, 2021 to grant exemption of Battery Operated Vehicles from payment of fees for the purpose of issue or renewal of registration certificate and assignment of new registration mark.

(iii) Notification issued vide G.S.R. 302(E) dated the 18th April, 2023 to grant All India Tourist Permit for battery-operated vehicles without payment of permit fee.

(iv) Notification issued vide G.S.R. 167(E) dated the 1st March, 2019 to facilitate retro-fitment of hybrid electric system or electric kit to vehicles.

(v) Notification issued vide G.S.R. 749(E) dated the 7th August 2018 enabling registration mark of Battery Operated Vehicles in Yellow colour on Green background for the transport vehicles and for all other cases, in White colour on Green background.

(vi) Further, an advisory dated 12th August 2020 has been issued to all States and UTs regarding sale and registration of two-wheeled Electric Vehicles without batteries.

3.The Government in the Ministry of Heavy Industries has formulated the following Schemes to incentivise and promote adaptation of Electric Vehicles:

(i) PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme: PM E-DRIVE Scheme has been notified on 29th September 2024 for promotion of electric mobility and to reduce dependence of fossil fuels in the country. The scheme has an outlay of ₹10,900 Crore over a period of two years from 01.04.2024 to 31.03.2026. The Electric Mobility Promotion Scheme (EMPS) 2024 implemented for the period of 06 months, from 01.04.2024 to 30.09.2024, is subsumed in the PM E-DRIVE scheme. This scheme aims to incentivise sale of e-2W, e-3W, e-Trucks, e-Ambulances, and e-buses. The scheme also supports development of charging infrastructure and upgradation of vehicle testing agencies.

(ii) Production Linked Incentive Scheme for Automobile and Auto Component Industry (PLI-Auto): Government on 15th September 2021 approved PLI-Auto Scheme, for enhancing manufacturing capabilities for Advanced Automotive Technology (AAT) products with a budgetary outlay of ₹25,938 Crore.

(iii) Production Linked Incentive (PLI) Scheme for manufacturing Advanced Chemistry Cells (ACC): Government on 12th May, 2021 approved PLI-ACC in order to promote manufacturing of ACC in the country with a budgetary outlay of ₹18,100 Crore. The scheme envisages to establish a cumulative ACC battery manufacturing capacity of 50 GWh.

(iv) Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme Phase-II (FAME-II): FAME-II was implemented for a period of 5 years with effect from 01st April, 2019 with a total budgetary support of ₹11,500 Crore. Under FAME-II, Phased Manufacturing Programme (PMP) was introduced with the objective of domestic manufacturing of electric vehicles, its assemblies/ sub-assemblies and parts/sub-parts thereby increasing the domestic value addition.

(v) PM e-Bus Sewa-Payment Security Mechanism (PSM) Scheme: This Scheme notified on 28th October 2024, has an outlay of ₹3,435.33 Crore and aims to support deployment of more than 38,000 electric buses. The objective of scheme is to provide payment security to ebus operators in case of default by Public Transport Authorities (PTAs).

(vi) Scheme for Promotion of Manufacturing of Electric Passenger Cars in India (SPMEPCI): This scheme was notified on 15th March 2024 to promote the manufacturing of electric cars in the country. This scheme requires applicants to invest a minimum of ₹4150 Crore and to achieve a minimum Domestic Value Addition (DVA) of 25% at the end of the third year and DVA of 50% at the end of the fifth year.

4. Government in the Ministry of Petroleum & Natural Gas has been promoting the blending of ethanol in petrol under the Ethanol Blended Petrol (EBP) Programme with multiple objectives.As a green fuel,ethanol supports the environmental sustainability efforts of the government. It reduces import dependence on crude oil, saves foreign exchange and promotes the domestic agriculture sector.

Interventions by the Government have led to an increase in ethanol blending with petrol from 38 crore litres in Ethanol Supply Year (ESY) 2013-14 to 707 crore litres in ESY 2023-24,with a corresponding increase in blending percentage from 1.53 % to 14.60 %.The EBP programme has resulted in a net CO2 reduction of about 626 lakh metric tonnes from ESY 2014-15 upto January 2025.

5. Government through Central Pollution Control Board (CPCB) has taken the following measures:

i. **Government has launched National Clean Air Programme (NCAP) in 2019 as a national level strategy to reduce air pollution levels across the country. NCAP targets to achieve reduction in Particulate Matter level up to 40% or achievement of national standards (60 µg/m^3) by 2025-26.**

ii. **Central Pollution Control Board (CPCB) has identified 130 million plus and 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 these 130 non-attainment/million plus cities to improve the air quality.**

iii. **These city specific clean air action plans target city specific air polluting sources like Soil & Road Dust, Vehicles, Domestic Fuel, Municipal Solid Waste (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.

(b) The policies that are implemented to reduce the noise pollution caused by road traffic, particularly in residential and sensitive areas are as follows:

(i)The Government is installing noise barrier for the stretches passing through residential, educational, hospitals and sensitive areas as per IRC:SP:130-2022 - Guidelines on Design and Installation of Noise Barriers for roads and also provide vegetative barrier wherever land available for avenue plantation as per IRC SP 21 2009.

Further, there is provision of noise barrier on underpasses, elevated corridor, viaduct,etc and their slopes for the stretches passing through National Park, Sanctuary and Conservation Reserve,Animal Corridor,etc.

Further the Government has mandated noise limits for all categories of motor vehicles under Rule 120 of the Central Motor Vehicles Rules, 1989.

(ii) Government in Ministry of Environment,Forest and Climate Change has notified Noise Pollution (Regulation and Control) Rules, 2000.

As per rule 3(3) of Noise Pollution (Regulation and Control) Rules, 2000, the State Government shall take measures for abatement of noise including noise emanating from vehicular movements, [blowing of horns, bursting of sound emitting fire crackers, use of loud speakers or public address system and sound producing instruments] and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules.

As per rule 3(4) of Noise Pollution (Regulation and Control) Rules, 2000, all development authorities, local bodies and other concerned authorities while planning developmental activity or carrying out functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter of quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise.

(c) Based on international best practices and outcome of indigenous research, new standards/guidelines are framed by Indian Roads Congress (IRC) and existing standards/guidelines of IRC are amended from time to time to facilitate use of such materials and technology. Government in Ministry of Road Transport & Highways have also issued policy guidelines on use of such eco-friendly materials/processes. National Highway (NH) Projects are generally implemented on EPC/HAM/BOT mode where contractor/concessionaire prepare their own design in accordance with applicable standards/guidelines/codes, etc.,which are reviewed/ approved by Authority's Engineer/Independent Engineer (AE/IE) before its actual use in a NH project.

Various kinds of eco-friendly green and sustainable materials such as fly ash, slag, construction & demolition waste, waste plastic, crumb rubber modified bitumen, geosynthetics including jute & coir, ground granulated blast furnace slag, etc. are used in different NH projects depending upon availability and feasibility of use.

(d) The Government aims for adherence to sustainable principles for projects that are located in or around the protected areas. The site and species specific mitigation measures are adopted for the safe passage of animals and for conservation of habitat & ecology.The Government builds structures like underpasses, eco-duct, viaduct, elevated corridor, tunnel, cut-&-cover, guard wall, noise &light barrier, fencing,etc in consultation with State Government within Right of Way (RoW). Further, funds are provided for implementation of site mitigation measures like building of watch tower, rescue van, solar pump, ponds, soil & water conservation measures (away from RoW) in various corridors passing through protected areas or its Eco-Sensitive Zone as per topography, landscape, species, population etc.

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