

GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

RAJYA SABHA
STARRED QUESTION NO- 45
ANSWERED ON-22/07/2026

IMPACT OF E20 PETROL ON VEHICLE PERFORMANCE AND CONSUMERS

*45 SHRI RAVI CHANDRA VADDIRAJU:

Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether the Government has received complaints from vehicle owners regarding reduced fuel efficiency, engine performance, increased maintenance costs or other operational issues after the introduction of E20 petrol;
- (b) if so, the number of complaints received during the last three years, State-wise and vehicle category-wise;
- (c) whether Government has conducted or commissioned any scientific or technical study to assess the impact of E20 fuel on vehicles of different age groups and engine technologies; and
- (d) the corrective measures proposed to protect consumers and ensure that the transition to E20 fuel does not impose an undue financial burden on middle-class families?

ANSWER

THE MINISTER OF ROAD TRANSPORT AND HIGHWAYS

(SHRI NITIN JAIRAM GADKARI)

(a) to (d) A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF THE RAJYA SABHA STARRED QUESTION NO. *45 FOR ANSWER ON 22nd JULY, 2026 ASKED BY SHRI RAVI CHANDRA VADDIRAJU REGARDING IMPACT OF E20 PETROL ON VEHICLE PERFORMANCE AND CONSUMERS.

(a) & (b) E15+ blended petrol has been in widespread use across the country for over three-and-a-half years and E19–E20 fuel for over two-and-a-half years. As per information received from Society of Indian Automobile Manufacturers (SIAM), no widespread issues of engine failure or vehicle breakdown attributable to ethanol blending have been reported. Certain concerns relating to engine performance, mileage and vehicle wear have been arising largely through public commentary and social media discourse.

(c) & (d) Yes, Government in the Ministry of Petroleum and Natural Gas has introduced the Ethanol Blended Petrol (EBP) Programme by consultation with stakeholders, field trials and validation by expert agencies at each stage of blending escalation:

- i. Ethanol Blending Program is administered by the Government in Ministry of Petroleum and Natural Gas. A Study for the evaluation of effects of E20 on BS-III, BS-IV and BS-VI E10 (Gasoline) two-wheelers and four-wheelers was carried out jointly by Indian Oil Corporation Limited (IOCL), Indian Institute of Petroleum (IIP) Dehradun, Society of Indian Automobile Manufacturers (SIAM) and Automotive Research Association of India (ARAI). The exhaust emissions meet the respective norms (ie BS VI vehicles meet the BS VI emission norms when tested with E20). The studies have not shown any need to modify the car and two-wheeler engines. These studies confirmed that even legacy vehicles did not exhibit any significant variations in performance, nor do they show abnormal wear-and-tear when operated with E20 fuel. No issues were reported in parameters such as drivability, startability, metal compatibility, and plastic compatibility. Only in case of testing done on BS-III vehicles introduced from 1st April, 2005 and manufactured prior to 2016, some rubber parts and gaskets may require replacement, which can be easily managed during routine servicing regime of the vehicle. With regard to the concern of vehicle mileage due to the use of E20 fuel, Government, automobile manufacturers and vehicle/engine testing agencies have clarified that vehicle mileage is influenced by a host of factors beyond just fuel type. These include driving habits, maintenance practices such as oil changes and air filter cleanliness, tyre pressure and alignment, and even air conditioning load. A leading four-wheeler OEM serviced 2.84 Crore Vehicles during FY 2025-26, including approximately 1.5 Crore Vehicles that were not originally certified as E-20 Compatible, and reported no E-20 linked corrosion, abnormal wear or reduction in component life. A leading two-wheeler OEM has reported similar field experience.
- ii. An Inter-Ministerial Committee (IMC), constituted on 26 December 2020 under NITI Aayog, comprehensively examined vehicle compatibility and mileage/efficiency aspects of ethanol blending. This assessment was supported by research conducted by Indian Oil

Corporation Ltd. (IOCL), the Automotive Research Association of India (ARAI) and the Society of Indian Automobile Manufacturers (SIAM).

- iii. The Committee's "Roadmap for Ethanol Blending in India 2020-25", released in June 2021, was prepared after extensive consultation with automobile manufacturers, oil companies and agricultural experts, and examined material compatibility, engine calibration, fuel systems, drivability, durability, emissions and fuel efficiency. The Committee's report preceded the introduction of E-20 fuel.

The Ethanol Blended Petrol (EBP) Programme has been implemented through a phased, calibrated, scientifically validated and consultative approach.

It has been used globally for over a century, with countries such as Brazil operating higher ethanol blends for decades. In India, the Ethanol Blended Petrol (EBP) Programme commenced with a pilot in 2001, E5 was introduced in 2006, and although blending remained around 1.53% in 2013-14, it has since been increased progressively in a calibrated manner after creating the necessary production capacity, infrastructure and regulatory framework. Before the introduction of E20, extensive laboratory studies, durability trials and field validation were undertaken covering engine durability, material compatibility, fuel systems, corrosion resistance, drivability, emissions, fuel economy and overall vehicle performance.

As seen from the table, the progression has been gradual:

Ethanol Supply Year	Average Blending(%)
2013-14	~1.53
2020-21	~8.1
2021-22	~10
2022-23	~12
2023-24	~14.6
2024-25	~19.2
2025-26 (Nov-June)	20
