

GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM AND NATURAL GAS
RAJYA SABHA
UNSTARRED QUESTION No.945
ANSWERED ON 27/07/2026

**VEHICLE COMPATIBILITY AND PROTECTION OF CONSUMER INTERESTS WITH
THE USE OF E20 PETROL**

945#. SHRI NEERAJ DANGI:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) whether Government has an assessment of the percentage of vehicles in the country that are currently fully compatible with E20 fuel;
- (b) whether Government has conducted any study regarding the potential impact on the engines or mileage of vehicles not designed for E20 and if so, the findings thereof; and
- (c) in such a case whether the authority responsible are the vehicle manufacturer, the oil marketing company or Government—in case a consumer's vehicle develops a technical issue due to the use of E20 petrol?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS

(SHRI SURESH GOPI)

(a): Ministry of Heavy Industries (MHI) have informed that no such assessment has been done by them.

(b) & (c): The Ethanol Blended Petrol (EBP) Programme has been implemented through a phased, scientifically validated and consultative process involving NITI Aayog, automobile manufacturers, Oil Marketing Companies (OMCs), Automotive Research Association of India (ARAI), Society of Indian Automobile Manufacturers (SIAM), Indian Institute of Petroleum (IIP) and other technical institutions.

Ethanol is not a new fuel. 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.

Extensive laboratory studies and field trials conducted by ARAI, SIAM, IOCL, IIP and automobile manufacturers covering parameters such as engine durability, drivability, startability, corrosion resistance, material compatibility, emissions and fuel efficiency have confirmed that E20 is safe for use under prescribed standards.

Automobile manufacturers, component suppliers, SIAM, ARAI, testing agencies and Oil Marketing Companies were associated with every stage of the scientific evaluation and phased rollout of E20. E20 was rolled out only after successful validation of fuel systems, engine

durability, drivability, reasonable material compatibility and emissions performance. These studies also established that legacy vehicles do not exhibit any significant variation in performance or abnormal wear and tear due to E20.

E15+ blended petrol has been in widespread use for over three-and-a-half years and E19-E20 fuel for over two-and-a-half years. More than 20 crore two-wheelers and over 3 crore petrol cars have been operating on these blends without any verified evidence of widespread engine failure or vehicle breakdown attributable to ethanol blending. Manufacturer service data confirm that there is no abnormal corrosion, wear or reduction in vehicle life due to E20 fuel. Manufacturers continue to honour warranty obligations for vehicles using E20 fuel, providing further confidence in its safety and reliability.

With regard to mileage, studies by Government agencies and automobile manufacturers indicate that fuel efficiency is influenced by several factors, including driving conditions, driving habits and vehicle maintenance. Any reduction in fuel economy in certain E10-designed vehicles is generally limited to about 3-5%, while E20 offers a higher-octane rating, superior anti-knock characteristics, cleaner combustion and smoother engine performance.

E20 fuel provides better acceleration, improved ride quality and approximately 30% lower carbon emissions compared to E10 fuel. Higher ethanol blends also enable cleaner and more complete combustion, resulting in near-zero particulate matter emissions and improved urban air quality.

A leading OEM serviced 2.84 crore vehicles during FY 2025-26, including approximately 1.5 crore vehicles that were not originally certified as E20-compatible, and reported no E20-linked corrosion, abnormal wear or reduction in component life. A leading 2-wheeler company has reported similar field experience. One OEM recently stated that data from 1.4 crore E20-operated vehicles tracked over an extended period showed no evidence of ethanol-induced corrosion. ARAI reaffirmed that vehicles undergo rigorous international-standard validation before reaching consumers.
