

LOK SABHA
UNSTARRED QUESTION No.1987
TO BE ANSWERED ON 30th July, 2026

IMPACT OF E20 PETROL ON E10-COMPATIBLE VEHICLES

1987. SHRI CHAVAN RAVINDRA VASANTRAO
SHRI SELVAGANAPATHI T.M:

पेट्रोलियम और प्राकृतिक गैस मंत्री

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

- (a) whether the Government is aware of reports, including findings attributed to the Automotive Research Association of India (ARAI), indicating that the use of E20 petrol may adversely affect the engines, fuel systems, rubber components and certain plastic parts, including gaskets of vehicles designed for or compliant with E10 fuel;
- (b) if so, the details thereof along with the Government's assessment of the number and categories of vehicles that are likely to be affected;
- (c) whether it is also a fact that the use of E20 petrol may accelerate the deterioration of certain fuel system components in E10-compliant vehicles; and
- (d) whether the Government has examined the implications of the introduction of E20 petrol on matters relating to compensation warranty, insurance coverage etc. and, if so, the details thereof?

ANSWER

पेट्रोलियम और प्राकृतिक गैस मंत्रालय में राज्य मंत्री
(श्री सुरेश गोपी)

**MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS
(SHRI SURESH GOPI)**

(a) to (d) : 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.

The rollout of higher ethanol blends was undertaken only after extensive consultation with automobile manufacturers, SIAM, ARAI, component manufacturers, testing agencies and Oil Marketing Companies (OMCs).

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.

These studies also established that legacy vehicles do not exhibit any significant variation in performance or abnormal wear and tear due to E20. These extensive laboratory studies, field

validation and real-world operating experience have not established any widespread adverse impact on vehicle performance due to E20 fuel.

The Government's assessment is based not only on laboratory research but also on large-scale experience after nationwide implementation. India witnesses approximately 8 crore vehicles visiting retail outlets every day (around 80% petrol vehicles).

This is evident from the fact that 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.

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.

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 introduced only after successful validation of fuel systems, engine durability, drivability, material compatibility and emissions performance. These studies did not reveal any significant adverse impact on performance, durability or material compatibility in legacy vehicles under the prescribed operating conditions. Had automobile manufacturers not been fully satisfied with the results, they would neither have validated E20 fuel for older vehicles nor honoured warranty obligations.

According to SIAM and ARAI, E20 improves acceleration and ride quality while reducing carbon emissions. Ethanol's higher-octane number supports modern high-compression engines and its higher heat of vaporisation improves combustion efficiency.
