

GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM AND NATURAL GAS
RAJYA SABHA
UNSTARRED QUESTION No. 131
ANSWERED ON 20/07/2026

IMPACT OF ETHANOL-BLENDED PETROL ON VEHICLE PERFORMANCE

131. DR JOHN BRITTAS:

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

- (a) whether Government received complaints from vehicle manufacturers, automobile associations, consumer organisations, etc., regarding engine failure, fuel pump issues, reduced fuel efficiency, corrosion, water contamination or other performance issues allegedly associated with E20 ethanol-blended petrol;
- (b) number of such complaints received during the last three years, year-wise and State-Wise;
- (c) whether Oil Companies have issued advisories cautioning motorists regarding water contamination in ethanol-blended petrol and its possible effects on vehicles; and;
- (d) the basis and criteria on which Government concluded, in its PIB release dated 23rd June 2026, that 'no widespread issues' of engine failure or vehicle breakdown attributable to ethanol blending have been reported?

ANSWER

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

(a) to (b): 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.

India has achieved 20% ethanol blending five years ahead of the original target after more than two decades of phased policy development, stakeholder consultations, scientific evaluation and capacity creation.

Since ESY 2014–15, the programme has generated foreign exchange savings of over ₹1.97 lakh crore, substituted nearly 316 lakh metric tonnes of crude oil, avoided approximately 952 lakh metric tonnes of CO₂ emissions and generated more than ₹1.66 lakh crore in additional income for Indian farmers.

Government has not received any widespread or substantiated complaints from vehicle manufacturers, automobile associations or consumer organisations regarding engine failure, fuel pump issues, corrosion, water contamination or other performance issues attributable to E20 fuel. Government has, however, taken note of certain concerns raised in media and social media, which have been scientifically examined.

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.

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. 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 abnormal wear attributable to E20 fuel.

Accordingly, year-wise and State-wise details of such complaints are Nil.

(c) Oil Marketing Companies have informed that no advisory has been issued cautioning motorists regarding water contamination specifically due to ethanol-blended petrol, as ethanol blended petrol supplied by OMCs conforms to the relevant Bureau of Indian Standards (BIS) specifications.

OMCs follow stringent Standard Operating Procedures (SOPs) covering procurement, blending, storage, transportation and retail dispensing.

Fuel quality is tested at the distillery, depot and retail outlet. Based on complaints received OMCs have also carried out over 30,000 quality checks(in the last 10-20 days) at retail outlets to detect adulteration and ensure that only specification-compliant fuel reaches consumers.

State Governments have also been requested to adopt zero tolerance against any instance of fuel adulteration

(d): The conclusion in the Press Information Bureau (PIB) release dated 23 June 2026 that "no widespread issues" of engine failure or vehicle breakdown attributable to ethanol blending have been reported is based on cumulative technical validation, phased implementation over more than two decades, extensive real-world operating experience, manufacturer field data, scientific testing, and continuous monitoring by the Government

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.

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

The Government has also considered the large-scale real-world operating experience. India witnesses approximately 8 crore vehicles visiting retail outlets every day (around 80% petrol vehicles),

E15-plus fuel has been in widespread use for over three and a half years, while E19-E20 fuel has been in use for over two and a half years.

During this period, no verified news of widespread engine failure or vehicle breakdown attributable to ethanol blending has emerged. Had ethanol blending been causing systemic damage to engines or fuel systems, such failures would have resulted in large-scale warranty claims, service campaigns and widespread consumer complaints, none of which have been reported.

The Government's assessment is also based on manufacturer service data. 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.

Further, 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).

Material compatibility, engine calibration, drivability, durability, emissions, fuel systems and performance were scientifically evaluated before implementation. Manufacturers have continued to honour vehicle warranties, reflecting their confidence in the compatibility of the fuel.

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, while ARAI reaffirmed that E20-compatible vehicles undergo rigorous international-standard validation before reaching consumers.

In addition, Oil Marketing Companies maintain strict fuel quality assurance through over 30,000 retail outlet inspections for adulteration and fuel quality verification, supported by directions to States to maintain zero tolerance towards fuel adulteration. Ethanol-blended petrol conforms to BIS specifications and undergoes quality checks throughout the supply chain.

Accordingly, the Government's statement that "no widespread issues" have been reported is based not on isolated instances but on the cumulative evidence of over 25 years of phased implementation, extensive scientific validation, continuous field experience across crores of vehicles, manufacturer service records, stakeholder consultations, and ongoing quality monitoring.

The Government examines claims circulated on social media in consultation with manufacturers and technical agencies. Many such claims have been found to be exaggerated, misleading or unsupported by technical evidence and no verified evidence of widespread engine damage due to ethanol blending has emerged.
