

LOK SABHA
UNSTARRED QUESTION No. 2041
TO BE ANSWERED ON 30th July, 2026

ETHANOL BLENDING AND ITS PRODUCTION COST

2041. DR. T SUMATHY *ALIAS* THAMIZHACHI THANGAPANDIAN:

पेट्रोलियम और प्राकृतिक गैस मंत्री

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

- (a) whether the Union Government has taken serious note of the adverse effects of ethanol blending and the escalation in its cost, if so, the details thereof; and
- (b) whether it is true that the cost of production of one litre of petrol is lower than the cost of production of one litre of ethanol, if so, the details thereof along with the valid reasons for the Government to promote ethanol-blended petrol for vehicles and to adhere to the Ethanol Blended Petrol Programme?

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) & (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.

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.

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 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.

At the same time, E20 provides higher octane, better anti-knock performance, improved combustion characteristics, smoother acceleration and lower emissions, contributing to cleaner and more efficient engine operations. Emissions, fuel systems and material compatibility have confirmed that E20 fuel does not cause abnormal wear and tear or compatibility issues.

Public Sector OMCs procure ethanol from distilleries across the country under the EBP Programme. The procurement framework is designed to ensure adequate ethanol availability, provide remunerative prices to producers and support the agriculture sector; it is not intended to maximise OMC profits.

The ex-mill price of ethanol for ESY 2025-26 is as given below:

Ethanol Feedstock	Ex-Mill Price in Rs. Per litre(excluding GST and Transportation)
Sugarcane Juice/ Sugar Syrup / Sugar	65.61
B Heavy Molasses	60.73
C Heavy Molasses	57.97
Damaged Food Grains	64.00
Surplus FCI rice	60.32

Maize	71.86
Weighted Average (as per Cycle-1 allocation for ESY 2025-26)	66.61

OMCs wise estimated procurement cost of ethanol per litre for the current Ethanol Supply Year 2025-26 (1st November 2025 to 31st October 2026) is tabulated below:

OMC	IOCL	HPCL	BPCL
Procurement Cost (Rs. Per litre) (incl. GST 5% and Transportation)	71.18	71.10	71.21

The retail selling price of E20 petrol is market-determined, and Public Sector OMCs determine petrol prices after considering international crude oil prices, exchange rates, freight, taxes, ethanol procurement costs and other operational expenses. (For e.g.-the average depot price of petrol during March–June 2026 was about Rs.85.8 per litre. Since the retail selling price remained below the market-determined level, Public Sector OMCs incurred an average under-recovery of about Rs.11 per litre on petrol, amounting to approximately Rs 21,300 crore during this period.

India is the world's third-largest importer of crude oil, meeting nearly 85 per cent of its crude oil requirement through imports. During the recent West Asian crisis (starting from 28th February 2026 and still ongoing), the closure of the Strait simultaneously posed two major challenges such as security of supply and escalation in global prices.

During the recent West Asian crisis, despite sharp increases in global crude prices, India was able to shield consumers through calibrated Government interventions, diversified sourcing and the increasing contribution of domestically produced biofuels. Since February 2026, even though global crude prices rose by around 70–80%, domestic fuel prices increased only by about 7–8%.

During the peak of West Asia crisis when Indian crude basket touched nearly \$135 per barrel, the market price of petrol could have been around Rs.125 per litre, however Indian consumers continued to pay only Rs.94.77 per litre (ex Delhi) also because OMCs could procure ethanol at ~Rs.70/litre. By replacing a part of imported petrol with domestically produced ethanol, India has reduced its exposure to international crude oil price volatility and exchange-rate fluctuations.

This demonstrates that ethanol blending is a strategic investment in energy security, price stability, farmer welfare and foreign exchange savings, rather than a revenue-generating exercise for OMCs.
