Ministry of Petroleum & Natural Gas

# GOVERNMENT HIGHLIGHTS SAFETY, PERFORMANCE AND NATIONAL BENEFITS OF ETHANOL-BLENDED PETROL

Posted On: 23 JUL 2026 3:06PM by PIB Delhi

So far, no decision has been taken by the Government for increasing ethanol blending with petrol beyond 20%. Any future decision regarding higher ethanol blends will be taken only after detailed scientific and technical studies and consultations with all relevant stakeholders, including automobile manufacturers, Oil Marketing Companies and research institutions. However, E85 fuel (containing 85% ethanol and 15% petrol) has been introduced exclusively for use in Flex Fuel Vehicles (FFVs) designed and certified for such fuel (E85) and does not constitute an increase in the nationwide base ethanol blending level of petrol.

The details of the current prescribed ethanol blending percentage and the average blending achieved during the last three years, year-wise is as below

| Ethanol Supply Year | Average Blending(%) |
|---|---|
| 2022-23 | ~12 |
| 2023-24 | ~14.6 |
| 2024-25 | ~19.2 |
| 2025-26 (Nov-June) | 20 |

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 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.

The scientific studies, field validation and extensive real-world operating experience have shown that E20 is a safe, cleaner and technologically superior fuel when used in accordance with the prescribed specifications and manufacturer recommendations. The Government's assessment is based not only on laboratory research but also on large-scale experience after nationwide implementation.

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. This is further validated through large-scale real-world experience. 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.

One of the country's largest passenger vehicle manufacturers serviced 2.84 crore vehicles during FY 2025–26, including approximately 1.5 crore older, non-E20-certified vehicles, without reporting any E20-related engine damage or abnormal component wear. Similarly, one of the leading two-wheeler manufacturers has reported, based on extensive service records, no higher incidence of damage in vehicles operating on E20 compared with earlier fuel blends.

The Government has not received any widespread or substantiated complaints from vehicle manufacturers, automobile associations or consumer organisations regarding drastic reduction in mileage, slow pick-up and rusting of petrol tanks, attributable to E20 fuel. The Government has, however, taken note of certain concerns raised in media and social media, which have been scientifically examined.

Extensive laboratory testing and field validation by the Inter-Ministerial Committee under NITI Aayog, IOCL, ARAI, IIP and SIAM confirmed that E20 fuel does not cause abnormal wear and tear or compatibility issues.

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.

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.

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.

The transition to E20 has also delivered significant national benefits. The Ethanol Blended Petrol Programme has saved over ₹1.97 lakh crore in foreign exchange, substituted nearly 316 lakh metric tonnes of crude oil, reduced around 952 lakh metric tonnes of $CO_2$ emissions and transferred over ₹1.66 lakh crore to farmers.

The Government's policy is to progressively transition towards cleaner, more efficient and environmentally sustainable fuels in line with the National Policy on Biofuels and India's energy security and emission reduction objectives.

The transition to E20 has been phased, consultative and scientifically validated, following extensive consultations with automobile manufacturers, ARAI, SIAM, Oil Marketing Companies and other stakeholders. Material compatibility, engine durability, fuel systems, drivability, emissions and performance were comprehensively evaluated before rollout.

Having been scientifically validated and accepted by the automobile industry after extensive testing, there is no proposal to revert to E0/E10 petrol. The objective of public policy is to move forward with a superior fuel, not return to an inferior standard.

Maintaining parallel nationwide supply chains for E0, E10 and E20 petrol across more than one lakh retail outlets would significantly increase logistics complexity, inventory and handling costs. Public policy must balance consumer convenience with energy security, environmental sustainability and farmer welfare.

Once a cleaner and scientifically validated fuel has been adopted, the objective is to move forward with better technology, not revert to an inferior standard**.**

Public Sector Oil Marketing Companies (OMCs) have established robust consumer grievance redressal mechanisms to receive, investigate and resolve customer complaints and suggestions, including those relating to E20 fuel. Customers can register their grievances through multiple offline and online channels such as complaint/suggestion registers available at all retail outlets, dedicated toll-free customer care numbers, company websites and mobile applications, Customer Relationship Management (CRM) systems, social media platforms, e-mail, and the Centralized Public Grievance Redress and Monitoring System (CPGRAMS). The contact details of dealers and concerned field officers are prominently displayed at retail outlets to facilitate prompt grievance redressal. All complaints received through these channels are duly investigated and resolved within the stipulated timeframe in accordance with the established procedures of the OMCs.

Public awareness initiatives are also undertaken to educate consumers about the technical compatibility of E20 fuel with all petrol vehicles without any performance issue and the environmental and energy security benefits of ethanol blending. Consumer feedback received through the grievance redressal mechanisms is regularly monitored by the OMCs, and appropriate corrective measures are taken wherever required to ensure consumer confidence while advancing the Ethanol Blended Petrol (EBP) Programme.

This information was given by the MINISTER OF STATE IN THE MINISTRY OF PETROLEUM AND NATURAL GAS SHRI SURESH GOPI, in a written reply in Lok Sabha today.

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