



Ethanol Blending

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ETHANOL AS A FUEL

About Ethanol

- One of the principal biofuels
- Also called ethyl alcohol (C₂H₅OH)

Produced

- Naturally by fermentation of sugar (or corn, rice etc)
- By petrochemical processes (ethylene hydration)

World Biofuel Day is celebrated on 10 August to raise awareness about the importance of non-fossil fuels.

Raw materials: Sugar, Starch, Cellulose

Process: Plant → Gas Station → Vehicle

Ethanol Blending

Blending ethanol with petrol to burn less fossil fuel while running vehicles.

Blending Target

- 20% ethanol blending in petrol (E20) by 2025

Currently, ethanol makes up 10% of the petrol used in vehicles.

Significance

- Reduce oil imports
- Equivalent efficiency at a lower cost than petrol
- Burns completely and cleaner than petrol
- Ethanol produced from farm residue to boost farmers' income

Challenges in Success

- High land requirement for sugarcane (+ consequent food prices issue)
- High water requirement of biofuel crops

Related Initiatives

- Roadmap for Ethanol Blending in India (Report by NITI Aayog) (2021)
- E100 Pilot Project (Network for production and distribution of ethanol) (2021)
- Pradhan Mantri **JI-VAN** Yojana (to boost 2G ethanol projects) (2019)
- The National Policy on Biofuels (2018)

Read More: [Ethanol Blending](#)

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