Ethanol Blended Petrol Program

Why in news?

Recently the Ministry of Consumer Affairs, Food and Public Distribution directed all mills and distilleries not to use sugarcane juice/syrup for making any ethanol "with immediate effect".

Status of Ethanol Production in India
• India is the *world's 3rd largest energy consuming nation* and a significant part of India's energy requirement is met through oil imports. • Ethanol production capacity increased more than 2.5 times and no. of distilleries increased by 66% in 8 years. • Most of the ethanol production in India comes from *B Heavy Molasses.* • Ethanol Industry is expected to grow by 500%. • India has doubled ethanol blending with petrol to ***10%** in the last two years.* • Ethanol blending will reach 12% in 2023 and meet the target of ***25% by 2025.***

What is Ethanol Blended Petrol Program (EBP)?

- **Launch year**- 2003
- **Aim**- To promote the use of renewable fuels.
- **Ethanol-** It is an *agro-based product*, mainly produced from a by-product of the sugar industry, namely molasses. It is 99.9% pure alcohol that can be blended with petrol.
- **Guidelines-** National Policy on Biofuels.
- **Nodal department**- *Department of Food and Public Distribution (DFPD)* is the nodal department for promotion of fuel grade ethanol producing distilleries in the country.
- **Target-**
  - **E10-**It has achieved the target of 10% ethanol blending in 2022.
  - **E20**- It has set a target of 20% blending (E20) by 2030 which was now shifted to 2025-26.
- **Price fixation**-The procurement price of ethanol is fixed by the *government*, and oil companies can purchase it from domestic sources.
- **C-heavy molasses**- Ethanol is typically made from "C-heavy" molasses, a by-product of sugarcane processing.
- **Alternative feedstocks**- It include "B-heavy" molasses, concentrated sugarcane juice, and other substrates like rice and maize.
- **Increase in ethanol production**- It happened largely after 2017-18, when mills started making it from B-heavy molasses and concentrated sugarcane juice/syrup.

To know about ethanol blending in India click here

What is the significance of EBP?

- **Differential pricing**-The success of the Ethanol Blended Petrol (EBP) program is attributed to differential pricing for ethanol produced from various feedstocks.
- **Diversified production**-Government support and alternative feedstocks have diversified ethanol production.
- **Sustainable production**- The government raised the procurement price of ethanol produced from damaged grain and maize, this would lead to food security as it reduces the reliance on the food sources.
- **Fuel India**- Uttar Pradesh and Bihar would "fuel India" in future as Punjab, Haryana, Maharashtra feeds India.

> *Uttar Pradesh is a major sugarcane producer, Bihar is the major producer of maize.*

- **Vehicle efficiency**- Ethanol blending offers increase in Research Octane Number (RON) of the blend, fuel embedded oxygen and higher flame speed.
- **Climate resilient**- It helps in complete combustion and reduce vehicular emissions such as hydrocarbon, carbon monoxide and particulate matter.
- **Energy security**-Domestic biofuels provide a strategic opportunity to the country, as they reduce the nation's dependence on imported fossil fuels.
- **Waste to wealth**- Ethanol produced from damaged food grain and vegetable waste would promote *circular economy*.

Why the government announced restrictions on ethanol production?

> *The Government directed the sugar mills and distillers "not to use sugarcane juice /sugar syrup" for ethanol production under Sugar (Control) Order 1966.*

- **Low stock**- As per National National Federation of Cooperative Sugar Factories the sugar production for the year 2022-23 is lowest since 2016-17.
- **Uncertain production-** Maharashtra and Karnataka are expected to record particularly sharp declines, on the back of subpar rains and low reservoir water levels in their major cane-growing areas.
- **Domestic availability**- The sugar production is low coupled with uncertain production, hence the government prefers domestic supply for exports.
- **Consumerism**- The primacy has been given to consumers over ethanol production which is the need of the hour and the government gives high preference for food rather than fuel.
- **Check food inflation**- The restrictions by the government is to regulate the price mechanism for ethanol.

References

1. Indian Express- Food vs Fuel
2. The Hindu- Government directs sugar mill

