

Report Summary

Report of NITI Aayog on Roadmap for Ethanol Blending in India 2020-25

- The NITI Aayog released a report on ‘Roadmap for Ethanol Blending in India 2020-25’ in June 2021. The report suggests: (i) an annual roadmap for production and supply of ethanol till 2025-26, and (ii) systems for country wide marketing of ethanol. Note that the National Policy on Biofuels, 2018 was notified in June 2018, which aimed at achieving 20% blending of ethanol in petrol by 2030. In December 2020, the deadline to achieve the ethanol blending target was revised to 2025. Key observations and recommendations include:
 - **Fuel ethanol demand projection:** The report estimates that India’s requirement of ethanol for petrol blending will increase from 173 crore litres in 2019-20 to 1,016 crore litres in 2025-26. To meet this demand, the ethanol production capacity will have to be increased from 684 crore litres in 2019-20 to 1,500 crore litres in 2025-26. This includes production capacity of: (i) 740 crore litres of grain-based ethanol, and (ii) 760 crore sugar-based ethanol. The report recommended that to enable roll out across India, ethanol may be supplied from surplus to deficit states based on the requirements. This will ensure uniform availability of ethanol blends in the country.
 - **Ethanol blending roadmap:** The report recommends that the Ministry of Petroleum and Natural Gas should notify a plan for availability of E10 fuel (blend of 10% ethanol and 90% petrol) by April 2022. Further, the Ministry should notify a plan for continued availability of the fuel for older vehicles. Fuel blended with 20% ethanol (E20) should be launched in phased manner from April 2023 to ensure availability of E20 by 2025. The roll out of higher ethanol blends may be done in phased manner, starting with the states with surplus production of ethanol.
 - **Expediting regulatory clearances:** Ethanol production plants need environmental clearances for new projects and expansion of existing projects. The report recommends certain measures to expedite regulatory clearances for ethanol production such as expediting the issuing of consent to establish distilleries by state governments. Further, a single window system may be formulated by the Department for Promotion of Industry and Internal Trade to accord speedy clearances. This would facilitate speedy clearances for new projects and expansion of current projects for ethanol production.
- **Ethanol pricing and environmental impact:** In 2018-19, the government introduced a differential pricing policy wherein higher rates were offered to sugar mills for ethanol production from B-heavy molasses (an intermediate product) and sugarcane juice. This incentivizes sugarcane-based ethanol production. One litre of ethanol from sugar requires about 2,860 litres of water. In view of the need for water conservation, the report recommended that suitable incentives should be used to (i) source ethanol from less water intensive crops, and (ii) promote production from maize and second-generation sources.
- **Ethanol compatible vehicles:** The Committee highlights that in order to use higher ethanol blends, vehicles need to be designed holistically to prevent engine failure and low fuel economy. Flex Fuel vehicles, though proven, would cost more than normal petrol vehicles. To ensure production of ethanol blended petrol compatible vehicles in the future, the Committee recommended that: (i) E20 material compliant and E10 engine tuned vehicles may be rolled out across the country from April 2023, and (ii) vehicles with E20 tuned engines can be rolled out from April 2025.
- **Unrestricted movement of denatured ethanol:** The report noted that ethanol used for blending purpose is denatured ethanol (unfit for human consumption). It further noted that state governments are empowered to legislate, control, and levy taxes and duties on liquor meant for human consumption. The report recommended that movement of denatured ethanol across India should not be under control of states. It may be controlled only by the central government to ensure unrestricted movement across India.

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