



# India's Ethanol Plan and Food Security

## Why in News

India's ambitious plan to cut the use of fossil fuels by promoting **ethanol** derived from rice, corn and sugar could **undermine** its [food security](#).

## Key Points

### ▪ About:

- **Ethanol:** It is an agro-based product, mainly produced from a by-product of the sugar industry, namely molasses.
  - It is one of the principal [biofuels](#), which is naturally produced by the fermentation of sugars by yeasts or via petrochemical processes such as **ethylene hydration**.
- **Ethanol Blending Programme (EBP):** It [aims](#) at **blending ethanol with petrol**, thereby bringing it under the category of biofuels and saving millions of dollars by cutting fuel imports and decreasing carbon emissions.
- **Blending Target:** The Government of India has advanced the target for **20% ethanol blending in petrol** (also called E20) to 2025 from 2030.
  - Currently, 8.5% of ethanol is blended with petrol in India.

### ▪ Associated Issues:

- **National Policy on Biofuel:** The new ethanol blending target primarily focuses on food-based feedstocks, in light of grain surpluses and wide availability of technologies.
  - The blueprint is a departure from the [2018 National Policy on Biofuels](#), which prioritized grasses and algae; cellulosic material such as bagasse, farm and forestry residue; and, items like straw from rice, wheat and corn.
- **Risk of Hunger:** The food grains meant for the impoverished are being **sold to distilleries at prices cheaper** than what states pay for their public distribution networks.
  - **Competition** between the **distilleries and the [public distribution system](#)** for subsidized food grains could have adverse consequences for the rural poor and expose them to enhanced risk of hunger.
  - India still ranks **94<sup>th</sup> on the [Global Hunger Index 2020](#)** comprising 107 nations.
  - The [Food and Agriculture Organization \(FAO\)](#) estimates that about 209 million Indians, or about 15% of its population, were undernourished between 2018 and 2020.
  - The [Covid-19 pandemic](#) is also pushing more people into poverty, dealing a blow to decades of progress.
- **Cost:** Production of biofuels requires land, this impacts the cost of biofuels as well as that of food crops.
- **Water use:** Massive quantities of water are required for proper irrigation of biofuel crops as well as to manufacture the fuel, which could strain local and regional water resources.
- **Efficiency:** Fossil Fuels produce more energy than some of the biofuels. E.g. 1 gallon of

ethanol produces less energy as compared to 1 gallon of gasoline (a fossil fuel).

▪ **Government's Arguments:**

- **Enough Stockpiles of Grains:** The push for ethanol poses no threat to India's food security because the government has enough stockpiles of grains at warehouses of the state-run [Food Corporation of India \(FCI\)](#).
  - State reserves stood at 21.8 million tons of rice, against a requirement of 13.54 million tons.
- **Capacity Creation:** The **long-term planning** of the government involves the **creation of sufficient capacities** so that half of the requirement of 20% blending is catered by grains, predominantly maize and the rest by sugar cane.
- **Benefit of Farmers:** The blending plan would benefit corn and rice farmers, while addressing the issue of surplus.

## Way Forward

- **Ethanol From Wastes:** India has a real opportunity here to become a global leader in sustainable biofuels policy if it chooses to refocus on ethanol made from wastes.
  - This would bring both strong climate and air quality benefits, since these wastes are currently often burned, contributing to smog.
- **Water Crisis:** The new ethanol policy should ensure that it doesn't drive farmers toward water-intensive crops and create a water crisis in a country where its shortage is already acute.
  - Rice and sugarcane, along with wheat, consume about 80% of India's irrigation water.
- **Prioritize Crop Production:** With our depleting groundwater resources, arable land constraints, erratic monsoons, and dropping crop yields due to climate change, food production must be prioritized over crops for fuel.

[Source: IE](#)

PDF Reference URL: <https://www.drishtiias.com/printpdf/india-s-ethanol-plan-and-food-security>