



# India's ethanol story: Challenges ahead

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# Recent Govt. policy initiatives and incentives

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- Fixed pricing policy for ethanol since 2014
- Premium price for sugar-rich feedstocks like B-molasses and cane juice since 2018
- GST on fuel ethanol reduced from 18% to 5% in July 2018
- New National Biofuel Policy in 2018
  - Allowed new feedstocks like cane juice, B-molasses, damaged grains, corn, surplus foodgrains etc.
- BIS standards fixed in June 2018 for 20% ethanol blending
- Subsidised loans with upto 6% interest subsidy from Govt.

# The pricing mechanism for ethanol

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- Since Dec. 2014, Government fixes ethanol procurement price (ex- distillery gate) each year for sugarcane based feedstocks
  - GST and transportation cost is reimbursed by Oil companies
- Since 2018-19, multiple ethanol prices fixed, as per feedstock
  - C-molasses: Based on price of sugar & fermentable sugar in molasses
  - B-molasses & cane juice: Based on price of sugar & conversion ratio of sugar & ethanol
  - Price for ethanol from damaged grains, incl. broken rice also fixed first time in 2018-19

# Pricing mechanism (contd.): Important to note ....

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- Ethanol prices are fixed by Government of India annually
- The prices are based on the sugar content in the feedstock
- Ethanol prices are not linked or subject to variations in crude oil or petrol prices
- Oil companies have announced prices for ethanol made from damaged foodgrains, unfit for human consumption
- Ethanol prices not yet fixed for corn or surplus foodgrains

# India's Biofuel Policy recognises the following

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- Domestic crude oil production meets only 18% of demand
  - The rest 82% is met from imported crude
- India's energy security will remain vulnerable until
  - Alternative fuels to substitute/supplement petro-based fuels are developed and which are
  - Based on indigenously produced renewable feedstock.
- Govt. has set itself a target:
  - To reduce net oil import dependency by 10% by 2022
  - To blend 20% ethanol with petrol by 2030

# Opportunities

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- Huge unmet demand for ethanol
  - At 10% blending levels, against a requirement of 3.3 bn litres for whole country for 2018-19, supplies expected to be less than 2 bn litres
  - Oil cos. have tendered for requirement of 5.11 bn litres for 2019-20
  - Demand of petrol increasing @ 10-11% p.a.
- Enormous availability of additional feedstocks
  - Generally, India expected to have 6-7 mn tons of surplus sugar annually
  - India also continuously producing surplus wheat, rice, coarse grains etc.
- Remunerative multiple prices fixed by Govt. for ethanol
- Sugar industry can use ethanol to balance surplus sugar

# Challenges

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- Lack of adequate ethanol production capacities
  - Current capacities are 3.55 bn litres (not enough for 10% blending)
- High reliance on ethanol from molasses or sugarcane
  - 80% ethanol from this route available in UP, Maharashtra & Karnataka
- Burn fuel to carry fuel across the country
- Interests of States in potable liquor
  - Controls on molasses & ethanol including their movement
  - State taxes & duties on fuel grade ethanol
- Public sector oil cos. v/s private sector: mandate on blending ?

# Over 80% sugarcane/molasses in 3 States

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# Policy roadmap: 20% blending levels

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- Govt. of India has already published standards for 20% blending in June, 2018
  - There is a target to achieve 20% blend levels by 2030
- Policy to move from current 10% to 15% & then 20% blend levels in surplus ethanol & neighbouring States
  - Will check long distance movement of ethanol
- Concerns of automobile manufacturers will need to be addressed
- Explore ways to monetise high levels of Octane in ethanol

# Policy roadmap: ethanol in non sugarcane States

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- National Biofuels Policy, 2018
  - Looks at other than sugarcane related raw materials/feedstocks
  - Damaged foodgrains like broken rice, surplus foodgrains, rotten potato, coarse grains like corn, sorghum, jowar etc.
- Non-sugarcane producing States are quite rich in paddy, wheat, corn etc.
  - Prices for ethanol from surplus foodgrains & coarse grains like corn
- Govt. interest subvention scheme to grain based distilleries
  - Can be used as a tool to guarantee MSP to these farmers too
  - Challenge of food v/s fuel or reservations of animal feed sector

# Concluding ....

- With massive investments in capacity building, 10% blending levels can be achieved by 2022
  - To ensure all India blend level of 10%, some States have to cross 10%
- To blend ethanol in non-sugarcane States, grain and corn based ethanol will have to be explored and encouraged
  - Pricing of ethanol and capacity building of grain based distilleries
- Automobile manufacturing for 20% ethanol blend fuel
  - Time to launch flex fuel cars and two wheelers

THANK YOU