

India

Overweight (no change)

Agribusiness

Ethanolopedia - May 2025

- India's clean energy game is evolving fast; ethanol may have opened the door, but biodiesel & green hydrogen are now kicking in (see Fig.2).
- Assam's ICEP 2025 is not just a policy but a roadmap for Green Industrialization, which other states will soon follow suit (see Fig.3).
- Grain ethanol's hidden asset—maize oil—is gearing up to disrupt the biofuel balance sheet and slash India's import dependence.

From ethanol-centric to broad-based biofuel strategies

[Ethanolopedia 2022](#) (dated 24th Jan 2022) had highlighted various state-level policies aimed at promoting ethanol usage. [Ethanolopedia 2023](#) (dated 12th Jan 2023) had emphasized the shift in focus towards the growing dominance of grain-based ethanol. **Ethanolopedia 2025** explores the evolution of policies extending beyond ethanol to encompass the broader spectrum of biofuels. Given that the Ethanol Supply Year (ESY is from Nov-Oct) 2022 achieved a 10% blending rate, ESY 2023 reached 12%, and ESY 2025 is on track to hit 20% blending rate, beginning from April, this shift in the narrative is both timely and relevant.

Assam ICEP 2025 – a template for integrated clean energy transition

State governments are moving from a standalone ethanol policy towards biofuel and clean energy policies. A shining example of this transition is Assam's ICEP (Integrated Clean Energy Policy) 2025, which marks a strategic expansion of the state's renewable energy ambition, going beyond electricity generation to support clean fuels, storage, green hydrogen, and industrial decarbonization. The policy positions Assam as an investment-ready destination for integrated clean energy development.

Biodiesel – the underperforming leg of India's biofuel ambition

India's biodiesel policy is primarily governed by the **National Policy on Biofuels, 2018**, which aims to achieve **5% biodiesel blending in diesel by 2030F**. The policy promotes the use of non-edible oilseeds, used cooking oil (UCO), animal tallow, and other waste biomass as feedstocks. It discourages the use of edible oils to avoid food-versus-fuel conflicts. While financial incentives such as viability gap funding and tax exemptions have been introduced, the progress in biodiesel blending has been limited. As of Mar FY25, the national biodiesel blending rate remains below 1%, far behind the ethanol blending program target, which is close to 20% (19.8% as of Mar FY25).

Maize oil from DDGS – a scalable feedstock for biodiesel blending

India's growing grain-based ethanol industry will contribute to **biodiesel feedstock supply** through the extraction of **maize oil from maize-based DDGS (distillers' dried grains with solubles)** — a co-product of dry milling in grain ethanol plants. As the number of grain ethanol plants rises, especially those processing maize, the recovery of **crude maize oil** from DDGS is becoming a significant opportunity. Maize oil, once extracted and refined, is suitable for biodiesel production due to its fatty acid profile and combustion properties. With targeted policy support, this byproduct could significantly reduce India's dependence on imported oils and improve the economics and scale of domestic biodiesel production.

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Figure 1: Mar 2025: A masterclass in almost hitting targets—missed our 20% blending estimate but at 19.8%, it's close enough to get counted and is significant

Particulars	13. Ethanol blending programme				
	Ethanol Supply Year *				
	2021-22	2022-23	2023-24	Mar'25	Nov'24-Mar'25
Ethanol received by PSU OMCs under EBP Program (in Cr. Litrs)	408.1	494.0	679.0	90.7	369.5
Ethanol blended under EBP Program (in Cr. Litrs)	433.6	508.8	707.4	88.6	391.0
Average Percentage of Blending Sales (EBP%)	10.0%	12.1%	14.6%	19.8%	18.4%

*Ethanol Supply Year : Ethanol supply year for 2022-23 taken for Dec'22-Oct'23 & thereafter changed to ethanol supplies between 1st November of current year to 31st October of the following year.

Note: With effect from 01.04.2019, EBP Programme has been extended to whole of India except UTs of Andaman and Nicobar Islands and Lakshadweep.

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 2: State-wise ethanol/biofuel policies

State/Union Territory	Policy Name / Type	Launch Date	Key Highlights
Uttar Pradesh	Ethanol Policy 2022	Apr-22	Incentives for ethanol units; focus on B-heavy molasses, grains.
Maharashtra	Ethanol Production Promotion Policy	2021	Focus on sugarcane, damaged foodgrains; viability gap funding.
Bihar	Ethanol Production Promotion Policy	Mar-21	First state to allow standalone ethanol plants using grains.
Odisha	Bioenergy Policy 2022	Dec-22	Focus on ethanol from rice, maize, biomass; MSME participation encouraged.
Punjab	New Ethanol Policy	2022	Promote grain-based ethanol plants (especially maize, rice).
Haryana	Haryana Bioenergy Policy 2023	Aug-23	Ethanol from agricultural waste; incentives for CBG (compressed biogas).
Madhya Pradesh	Ethanol Policy	Aug-22	Grain-based and sugarcane-based ethanol; private sector focus.
Chhattisgarh	Biofuel Policy 2019	Aug-19	Focus on forest produce (e.g., mahua) and waste-to-biofuel.
Rajasthan	Bio-Energy Policy 2023	Jun-23	Ethanol, CBG, biomass power; attractive capital subsidies.
Gujarat	Bio-Energy Policy 2023	Jul-23	Grain-based ethanol, CBG; viability gap funding offered.
Karnataka	Ethanol Policy (part of industrial policy)	2020-25	Sugarcane, maize-based ethanol; incentives linked to industries.
Telangana	Bio-Energy Policy 2022	Feb-22	Ethanol, biogas, waste-to-energy focus; fiscal benefits.
Andhra Pradesh	Bio-Energy Policy 2018	Dec-18	Emphasis on setting up ethanol plants using agricultural residue.
Tamil Nadu	Ethanol Policy under bio energy push	2022-2023	Focus on grain-based ethanol, especially maize.
Assam	Assam Ethanol Promotion Policy	Aug-21	Maize, rice grain ethanol plants encouraged.
Jharkhand	Biofuel Policy 2018	Aug-18	Promote ethanol from forest produce, biomass.
West Bengal	Bioenergy Push (no policy yet)	-	Encouraging bioenergy under the industrial policy.

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 3: Comparison: Assam ICEP 2025 vs. Assam Renewable Energy Policy 2022 (specific to ethanol, biodiesel, biofuels)

Feature	Old Policy (2022)	New Policy (ICEP 2025)
Focus on Biofuels	Minor focus, mainly biomass-to-electricity projects.	Major focus: ethanol, biodiesel, bio-CNG, waste-to-energy.
Ethanol Target	No specific ethanol production target.	Clear target: 1,500klpd ethanol production by 2030F.
Biodiesel Target	Not mentioned specifically.	Biodiesel and CBG promoted via waste biomass and dedicated biofuel units.
Feedstock Flexibility	Not detailed.	Feedstock includes agricultural residue, non-edible oils (for biodiesel), and waste biomass.
Land Support	General land support for RE projects.	Priority land allotment for biofuel units, including ethanol & biodiesel plants.
Electricity Duty Waiver	Only for solar and wind RE generators.	100% duty waiver for ethanol and biodiesel plants' captive consumption.
Open Access Policy	Open access mainly for large RE generators.	Open access allowed for ethanol/biodiesel projects sourcing renewable energy.
Stamp Duty Rebate	No provision.	Full reimbursement of stamp duty and land reclassification charges.
Cross Subsidy Exemption	No clarity.	Full exemption for captive ethanol and biodiesel plants (up to 20 years).
Energy Banking	Allowed, but no special support for biofuel projects.	Energy banking allowed ; 50% discount on banking charges for biofuel projects (ethanol + biodiesel).
Renewable Economic Zones (REZ)	Not mentioned.	Ethanol and biodiesel projects can be set up inside new Renewable Economic Zones (REZ) .
Environmental Clearances	As per normal procedures.	Bio-CNG and similar bioenergy projects categorized under the White Category for fast approvals (likely to be applicable for biodiesel plants as well).

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

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Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

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Definition:

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- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
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