

Magazine, Volume 1, 2025

FUTURE PERFECT



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LEADING WITH INNOVATION AND PURPOSE



Dear Partners,

At Praj, we're driven by the belief that progress is about both innovation and purpose. We're committed to your success by providing cutting-edge, sustainable solutions that boost efficiency and create new revenue, ensuring your profitability while contributing to a greener future. Your trust fuels our dedication to delivering reliable, future-ready technologies. Together, let's build a future where profitability and purpose are inseparable.

Sincerely,
Shishir Joshipura
CEO & MD, Praj

INDUSTRY HIGHLIGHTS

THE GLOBAL BIOFUELS ALLIANCE.



A Movement for a Greener Future

The Global Biofuels Alliance, spearheaded by India, Brazil, and the U.S., is a pivotal movement toward a sustainable future, and Praj is proud to be a driving force within it. This initiative unites nations and industries to accelerate biofuel adoption, offering a cleaner, more secure energy alternative that directly benefits you through a healthier planet, stronger economies, and innovative job creation. By fostering government-industry collaboration, we're scaling solutions, leveraging decades of Praj's expertise in advanced biofuels, and making clean energy a tangible reality. Your involvement, through understanding and supporting this shift, directly contributes to a world where powerful energy and environmental responsibility go hand-in-hand.



Praj – A Prime Driving Force



INDUSTRY HIGHLIGHTS



India & Brazil: Pioneering the Future of Biofuels Together

India and Brazil, leveraging their natural resources and technological innovation, are jointly leading the biofuel revolution, and Praj Industries is playing a pivotal role in this transformation, particularly in Latin America. With over 75 installations and a major project in Brazil, Praj is driving advancements in ethanol, bioplastics, and Sustainable Aviation Fuel (SAF), demonstrating that economically viable and scalable biofuel solutions are available now.

As highlighted by our MD & CEO, Shishir Joshipura during an insightful discussion with Felipe Machado, an economic analyst with CNBC Brazil; global trade policies, BRICS collaboration, and SAF development are crucial for widespread biofuel adoption.

By harnessing diverse resources like sugarcane, corn, and grains, nations can achieve climate goals while fostering economic growth, ensuring a sustainable and inclusive energy transition for all.

Expanding Feedstock Diversity:

The Case for Adding Grain Modules to Sugarcane-Based Distilleries

India's ethanol industry has made remarkable strides in recent years, driven by the government's commitment to the Ethanol Blending Program (EBP). As we progress towards achieving higher blending targets, one of the biggest challenges faced by distilleries is the seasonal nature of sugarcane availability. To overcome this constraint and ensure a steady supply of ethanol throughout the year, the addition of a grain module to existing sugarcane-based distilleries presents a viable and strategic solution.

Why Feedstock Diversification is Essential

The need for feedstock diversification has never been more urgent. Sugarcane, while a crucial feedstock for ethanol production, is inherently seasonal, leading to fluctuations in ethanol supply. By integrating grain-based feedstock such as maize, broken rice, and Damaged Food Grains (DFG), distilleries can achieve year-round operations, stabilizing ethanol production and improving plant utilization.



Technological Innovations Supporting the Transition

The integration of a grain module into existing sugarcane-based distilleries demands cutting-edge ethanol production technologies that maximize efficiency and sustainability. Advanced solutions and high-efficiency fermentation systems play a crucial role in reducing water and steam consumption while enhancing overall process performance. Additionally, bio-methanation technology enables the conversion of spent wash and press mud into compressed biogas (CBG), providing a sustainable waste management solution and contributing to a circular economy. These innovations not only improve resource utilization but also strengthen the long-term viability of ethanol production, ensuring a more resilient and future-ready biofuel industry.

The Road Ahead

With India's biofuel industry poised for exponential growth, the addition of grain modules to existing sugarcane-based distilleries is not just an option—it is a necessity. Companies that embrace feedstock diversification will be better positioned to capitalize on emerging market opportunities, ensure operational resilience, and contribute to India's ambitious ethanol blending targets.

As the industry moves forward, stakeholders must collaborate to accelerate the adoption of multi-feedstock capabilities. By leveraging government support, investing in the right technologies, and prioritizing sustainability, India can strengthen its ethanol ecosystem and pave the way for a cleaner, more self-reliant energy future.



BUSINESS FOCUS

Liquid biofuels



Praj's Remote Bridge: The Invisible Engineer Improving the Uptime of Biofuel Operations

Imagine an "invisible engineer" constantly optimizing your biofuel plant – that's Praj's Remote Bridge™. This IoT-powered system provides real-time monitoring, AI-driven predictive maintenance, and cloud-based optimization, ensuring peak performance and preventing costly downtime. It proactively detects issues, tracks critical parameters, and suggests improvements, all accessible remotely. This translates to lower emissions, increased uptime, and data-driven decisions, maximizing biofuel yield and profitability. Praj's Remote Bridge empowers you to anticipate challenges, optimize operations, and lead the way towards a more efficient and sustainable biofuel future.



Co-product Valorization

In today's competitive ethanol landscape, co-product valorization presents a critical opportunity to enhance both profitability and sustainability. By efficiently transforming by-products, such as distillers grains, into valuable commodities like Distillers Corn Oil (DCO), you can unlock new revenue streams and improve resource utilization. This strategic approach not only bolsters your bottom line but also strengthens your operational resilience, ensuring long-term success in an evolving market. Exploring co-product valorization now allows you to maximize the value of your resources and secure a more sustainable future for your business.

Distillers Corn Oil (DCO), through Praj's advanced extraction technology, is a game-changer for ethanol producers. Imagine unlocking significant new revenue streams from what was once considered a waste product. Praj's DCO module enables efficient, reliable extraction, delivering a high-value co-product that directly boosts your bottom line and strengthens your market position.



BUSINESS FOCUS

Liquid biofuels



Keyaan Distilleries Inaugurates 300 KLPD Grain-Based Ethanol Plant Designed by Praj

Praj Industries is proud to announce the successful commissioning of a 300 KLPD grain based distillery for Keyaan Distilleries Pvt. Ltd. in Gorakhpur, Uttar Pradesh, which was inaugurated on 8th April 2025 by Hon'ble Chief Minister Shri Yogi Adityanath Ji.

Spread over 30 acres and scalable up to 500 KLPD, this advanced facility will produce fuel ethanol and rectified spirit using broken rice and corn as feedstock. It is set to generate over 1,200 direct and indirect jobs, while providing consistent demand for local grains—empowering farmers and advancing rural development.

The Chief Minister lauded the initiative for its role in enhancing energy security, saving foreign exchange by reducing crude oil imports, and setting the stage for future-ready green fuels like Sustainable Aviation Fuel (SAF). A token of appreciation was presented to the customer during the ceremony, marking the strength of this valuable partnership.

This milestone reinforces Praj's position as a leader in integrated, sustainable distillery solutions, contributing significantly to India's ethanol blending roadmap and clean energy goals.

Kudos to the entire Praj team for their commitment and excellence in bringing this world-class project to life!



Capovitez Distillery

A Testament to Praj's cutting-edge technology At Praj Industries, we take pride in delivering high-performance, reliable, and energy-efficient solutions that drive success for our customers. One such success story is Capovitez Private Limited, a state-of-the-art grain-based distillery built with Praj's advanced technology.

With high-quality fermentation, energy-efficient distillation, and co-product valorization, Capovitez is setting new benchmarks in ethanol production. Our cutting-edge fermentation technology ensures stable and consistent performance, while our multi-pressure distillation system optimizes energy usage without compromising on purity.

Additionally, our DDGS system ensures maximum resource efficiency, making the plant both sustainable and profitable. The team at Capovitez commends Praj's seamless technology, robust support, and commitment to excellence.

TESTIMONIAL

With Praj's technology, we are confident in our investment. The fermentation process is stable, distillation is highly energy-efficient, and by-product management is seamless. Their outstanding technical support ensures smooth operations, making our plant both reliable and cost-effective. We look forward to future collaborations with Praj.

Mr Daulat Kadam,
VP - Operations
Capovitez Private Limited

BUSINESS FOCUS

Gaseous Biofuels



Leading the Future of Green Energy with Compressed Biogas (CBG)

Praj is at the forefront of the green energy revolution, championing Compressed Biogas (CBG) as a sustainable and cost-effective alternative to fossil fuels. Our proven technology, demonstrated by India's first integrated CBG demo plant and the HPCL Badaun mega-project, efficiently converts agricultural waste into high-purity CBG, reducing emissions and supporting a circular economy. With five new CBG projects secured, we're expanding India's renewable fuel capacity and reinforcing our industry leadership. Our solutions help businesses meet sustainability mandates, enhance ESG performance, and align with global decarbonization goals. Partner with Praj to embrace the fuel of the future and contribute to a cleaner, energy-secure world.

Renewable Chemicals and Materials (RCM)



India's First Biobitumen Road

We are thrilled to share a landmark achievement that reinforces Praj's commitment to sustainable innovation! In December 2024 Hon'ble Union Minister Shri Nitin Gadkari inaugurated India's first biobitumen road, a groundbreaking step towards eco-friendly infrastructure. This milestone highlights Praj's unwavering commitment to developing bio-based innovations that align with the national vision for sustainability. Our relentless R&D efforts have been instrumental in making biobitumen a viable, scalable, and impactful solution for the industry.



AROUND THE WORLD



Illovo Distillers Partners with Praj Again – Expanding Africa’s Alcohol Industry

Illovo Distillers has partnered with Praj once more, entrusting us with their new 50,000-liter per day sugarcane molasses-based distillery in Tanzania, set to boost East Africa’s beverage-grade alcohol production by 2026. This repeat collaboration, following Praj’s successful 2013 project, signifies Illovo’s confidence in our expertise and reliability. With a growing footprint across Africa, including projects in Uganda, Sierra Leone, and Swaziland, and the establishment of Praj Projects Tanzania Ltd., we’re solidifying our leadership in sustainable distillery solutions. This project reinforces our commitment to delivering cutting-edge technology and shaping the future of Africa’s industrial biotech sector, meeting the rising ENA demand and driving local economic growth.

Stock Polska’s Integrated Distillery – A Game Changer for Premium Alcohol Production

Praj’s successful commissioning of Stock Polska’s integrated distillery in Lublin, Poland, marks a significant advancement in premium alcohol production. This state-of-the-art facility sets new standards for efficiency and sustainability, featuring advanced energy integration and multiple feedstock flexibility, resulting in exceptionally low steam consumption and reduced operating costs. Producing premium-quality ENA for Stock Polska’s high-end spirits, the distillery guarantees consistent purity and neutral taste. This project reinforces Praj’s leadership in Europe’s distillery landscape, where we’ve delivered over 40 successful projects and contribute substantially to the EU’s fuel ethanol output. For ENA customers, this translates to a reliable supply of high-purity alcohol, cost-efficient operations, and the scalability needed to meet growing consumer demand for premium spirits.



PRAJ'S POWER MOVES

A Roundup of Events, Awards, and Initiatives

Praj at India Energy Week 2025: Leading the Biofuel Revolution

At India Energy Week 2025, Praj demonstrated its commitment to sustainable energy by showcasing cutting-edge biofuel technologies, including ethanol, CBG, and SAF, designed to accelerate the industry's shift to cleaner fuels. The event facilitated strategic partnerships with global energy leaders and policymakers, reinforcing the critical role of biofuels in achieving sustainability and energy security. Praj's experts contributed to key discussions, highlighting how biofuels are transforming industries and promoting a circular economy. With proven waste-to-energy solutions, Praj continues to lead in delivering sustainable, high-performance technologies, empowering businesses to reduce their environmental impact and achieve long-term energy sustainability.

Shaping the Future with Bioeconomy: Insights from Shishir Joshipura's TEDx Talk

At TEDx, Praj's CEO & MD, Shishir Joshipura, shared a powerful vision of how the bioeconomy is redefining energy, sustainability, and industry growth. His talk explored the transformative potential of biofuels, compressed biogas (CBG), and Sustainable Aviation Fuel (SAF) in building a cleaner and more resilient future.

Key Takeaways

- **The Power of Bioeconomy**

How renewable fuels create sustainable business opportunities while reducing environmental impact.

- **Turning Waste into Value**

How advanced technologies can convert agricultural and industrial waste into high-quality biofuels.

- **A Roadmap for Change**

The role of businesses in adopting sustainable energy solutions and staying ahead in a rapidly evolving landscape.

His insights reinforce Praj's leadership in biofuels and the opportunities for industries to integrate cost-effective, sustainable energy solutions into their operations. The shift towards renewable fuels is happening now—be a part of the transformation.



Dr Pramod Chaudhari at Rasina Dialogue, New Delhi



We are proud to share that Dr Pramod Chaudhari, Founder Chairman, Praj Industries, represented Praj in critical discussions on energy security, biofuels, and the future of renewable energy. With global focus shifting towards decarbonization and clean energy, Dr Chaudhari highlighted India's leadership in bioeconomy solutions and its role in shaping a sustainable energy future.

Atul Muley sharing his insights at the CII Latin America Conclave



At the Latin America Conclave (CII< New Delhi | March 19-20, 2025), Atul Muley, President Bioenergy shared insights on:

- **Biofuels & Energy Security** - With Latin America's progressive biofuel industry and India's expertise, both are shaping policies under the Global Biofuel Alliance.
- **Agriculture & Sustainability** - Shared challenges in climate resilience and agri-tech offer great collaboration potential.
- **Trade & Growth** - Expanding partnerships in biofuels, manufacturing and many other areas are opening new opportunities.

Praj Recognized Among India's Top Companies for Women in STEM!



Praj is honored to be recognized by the CII as one of India's Top Companies Excelling in Women in STEM 2024, a testament to our dedication to fostering an inclusive and diverse workplace. We believe diversity drives innovation, and women in STEM at Praj are integral to shaping the future of bioeconomy and sustainable advancements. Through talent development, leadership programs, and mentorship, we empower women to lead and drive transformative change. Recognizing the critical role of women in STEM for a sustainable future, Praj is committed to breaking barriers and creating opportunities. This achievement celebrates the hard work and dedication of our women professionals, reaffirming our commitment to building a brighter, more sustainable future together.

Praj Wins 'Best Innovative Technology Supplier' Award at SEIC 2025!

Praj is thrilled to announce our recognition as the 'Best Innovative Technology Supplier' at SEIC 2025, validating our dedication to innovation and sustainability in the sugar and ethanol industry. This award highlights our leadership in developing cutting-edge solutions that enhance efficiency and environmental responsibility. Our focus on bioenergy, process optimization, and advanced engineering enables us to deliver innovations that drive long-term growth and reflect the trust our customers place in us. Moving forward, we remain committed to advancing sustainable ethanol production, enhancing process integration, and supporting the global shift to renewable biofuels. We thank our customers, partners, and stakeholders for their continued support in shaping a resilient and innovative future.





Uchit: Championing Fairness and Safety in the Workplace

At Praj, we are committed to fostering a workplace where everyone feels safe, respected, and valued. With this vision, we have introduced Uchit—our gender-neutral Prevention of Sexual Harassment (PoSH) policy.

What Sets Uchit Apart?

- **Inclusive Protection**

A policy that safeguards all individuals, regardless of gender identity.

- **Fair & Transparent Approach**

A clear framework for addressing concerns with integrity and accountability.

- **Zero Tolerance for Harassment**

A firm commitment to ensuring a respectful and secure work environment.

By implementing Uchit, we reinforce our dedication to creating an equitable workplace where talent thrives without fear or bias. This initiative reflects our core values and our belief that respect should be at the heart of every professional interaction.

Together, we are shaping a workplace culture built on fairness, dignity, and trust.

Praj Foundation Accredited by UNEP – A Proud Milestone!



We're excited to share that Praj Foundation has been accredited by the United Nations Environment Programme (UNEP)! This global recognition highlights our commitment to sustainability and strengthens our role in shaping environmental solutions.

This achievement is a testament to the dedication of our team. Let's celebrate this milestone and continue building a greener future together!

Praj Hosts Technical Workshop on Grain-Based Add-On Modules for Ethanol Distilleries

On 28th March 2025, we hosted an insightful technical workshop in Pune, bringing together industry experts, cooperative leaders, and key stakeholders to discuss the evolving ethanol landscape and emerging opportunities in biofuels. The workshop highlighted our role in driving India's Ethanol Blending Program forward, with a focus on expanding production through innovative technologies and addition of grain-based modules to the existing sugary feedstock based distilleries.

With India aiming to achieve higher ethanol blending targets, the Government of India has introduced significant policy measures, including financial assistance for cooperative sugar mills to transition into multi-feedstock-based ethanol plants. Our solutions are well-aligned with these initiatives, enabling distilleries to optimize existing assets, ensure year round production, and boost revenue potential.

Addressing the gathering, our Founder Chairman, Dr Pramod Chaudhari, emphasized the need to look beyond E20 and explore global opportunities in biofuels. "As we transition beyond E20 in India, the focus must be on expanding feedstock options, enhancing production efficiency, and tapping into global markets. With the Global Biofuel Alliance opening new avenues, Indian distilleries have the potential to become key players in the international biofuel trade.

At Praj, we remain committed to pioneering sustainable solutions that drive India's energy security while creating economic opportunities for farmers and industries alike." Mr. Atul Mulay, President – Bioenergy, reiterated Praj's commitment to accelerating India's ethanol expansion. "With our proven expertise and leadership in bioenergy solutions, Praj is playing a pivotal role in strengthening India's ethanol ecosystem.

By supporting the adoption of grain-based ethanol production, we are enabling year-round production, reinforcing our dedication to sustainability, and paving the way for a more self-reliant and greener future."



The workshop also featured discussions on critical industry concerns such as water-saving and steam-saving technologies. Solutions like air-cooled condensers, showcased at the event, demonstrated how innovation can enhance efficiency while ensuring sustainability. Additionally, the potential of Compressed Bio-Gas (CBG) from spent wash and press mud was highlighted as an effective approach to hazardous waste management, aligning with the waste-to-energy principle.

Shri. Rajesh Tope, a veteran cooperative leader and Former Minister for Public Health and Family Welfare of Maharashtra, praised the workshop for its industry relevance and the actionable insights it provided. He acknowledged the impact of Praj's innovations in helping sugar mills boost profitability by ₹300-₹400 per tonne of cane crushed, making it a game changer for the sector.

This workshop was yet another testament to Praj's relentless drive for excellence and its mission to deliver cutting-edge bioenergy solutions. The event reinforced our position as thought leaders in the biofuel industry, showcasing the technological prowess, commitment, and expertise of Team Praj. Together, we continue to set new benchmarks in sustainable energy, making a lasting impact on India's biofuel future.

Kudos to all Prajites for making this possible!



TESTIMONIAL

Praj's workshop was exceptionally insightful and timely for the industry, offering in-depth knowledge on advanced ethanol production technologies. By leveraging existing machinery and adopting grain-based modules, mills can ensure year-round operations, significantly enhancing efficiency and profitability. This addition can boost revenue margins by ₹300-₹400 per tonne of cane crushed, making it a transformative step for the sector. Availability of feedstock at right price will also be important for success of this program.

Shri. Rajesh Tope,
A veteran cooperative leader and Former Minister
for Public Health and Family Welfare of Maharashtra

Praj Industries Limited

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