

GREENFIELDS

Sustainability
through innovation



MAY 2025 | ISSUE No. 12

This issue of Greenfields is about innovation that drives sustainability. It chronicles the stories and experiences of remarkable individuals, and their organisations committed to driving change, fostering sustainability, and crafting a greener future.

Our journey begins with Sanjeev Joglekar, who brings a two-decade-long dedication to environmental policies, waste management, and renewable energy in the state of Goa. His proactive governance and initiatives are transforming Goa into a unique model of sustainable development. From pioneering waste-to-energy projects to empowering local communities through bioenergy entrepreneurship and making local agri-residue available to industries looking to decarbonise, Sanjeev's work epitomises the impact of dedicated leadership in environmental governance.

Vikas Upreti from Hindustan Unilever further exemplifies this spirit of innovation. As industries worldwide grapple with the need for greener solutions, Unilever's commitment to sustainability stands out. Vikas shares invaluable insights into their strategies, from pioneering eco-friendly products to revolutionising supply chains.

The company's comprehensive approach to sustainability—spanning climate, plastic, nature, and livelihoods—demonstrates the power of collective action in creating lasting impact.

Adding to this narrative is our own Manish Kapoor, whose transition from the manufacturing industry to biofuels offers a firsthand look at the complexities and opportunities within the sector.

His role at BiofuelCircle, particularly in scaling operations and fostering rural aggregation, showcases how innovative approaches can bridge the gap between intent and practical implementation. Manish's efforts highlight the critical role of biofuels in driving green energy goals and the transformative potential of digital platforms in promoting sustainable practices.

I am pleased to share that BiofuelCircle was recently ranked 8th among LinkedIn's Top 20 Startups in India. Starting with an idea to simplify the biofuel trade, we have along the way aimed to empower farmer communities. On that note, do watch the video Parali se Ujjwal Bhavishya on our YouTube channel! It tells the inspiring story of our farmer partners who joined our Biomass Banks, to overcome stubble burning. I am immensely proud of the impact our team has made in building a sustainable supply chain for bioenergy.

As you delve into these stories, I trust you will be reminded of the immense potential for positive change when individuals and organisations commit to sustainability. Each narrative underscores the importance of innovation, collaboration, and unwavering dedication to creating a greener, more resilient future. May these examples inspire others to join the journey towards sustainability and drive forward the vision of a cleaner, more self-sufficient world.

Ashwin Save

Co-founder and Chief Product Officer
BiofuelCircle

PLATFORM INSIGHTS



COVER STORY

Shaping a Sustainable Future

Mr. Sanjeev Joglekar on how he's shaping environmental policies, waste management strategies, and renewable energy in Goa, that can be blueprint for the future

For over two decades, Sanjeev Joglekar has been a driving force in shaping environmental policies, waste management strategies, and renewable energy advancements in Goa. His journey is a testament to his unwavering commitment to sustainability and climate resilience.

A policymaker and changemaker, he currently serves as a Member Secretary of the Goa Energy Development Agency (GEDA). His journey began at the Pollution Control Board (PCB) in 2003 on deputation, and by 2011, he formally joined the organization. He is a Civil Engineer with post-graduation in Environmental Engineering (MSc and MTech in Environmental Science), and has been actively working in the renewable energy sector since 2018. With the guidance and support of Hon. Chief Minister and Chairman of GEDA, Dr. Pramod Sawant, he has bridged the gap between policy and implementation, playing a pivotal role in promoting clean energy transitions, circular economy models, and regulatory reforms that have shaped Goa's environmental landscape.

His proactive governance has strengthened environmental regulations and facilitated collaborations between government bodies, industries, and local communities. From pioneering waste-to-energy projects to empowering farmers through biofuel initiatives, Mr. Joglekar is at the forefront of transforming Goa into a model for sustainable development. In this interview, he shares his insights, challenges, and vision for a cleaner, greener, and more self-sufficient Goa.

MAJOR CONTRIBUTIONS TO RENEWABLE ENERGY & SUSTAINABILITY

You have worked across multiple domains, including renewable energy. How has that shaped your work?



Mr. Sanjeev Joglekar

Member Secretary of the Goa Energy Development Agency (GEDA).

My experience integrating Science, Technology, and Environment has been invaluable. As the Member Secretary of the Goa Energy Development Agency (GEDA) for over six years, I have worked to promote cleaner fuels, emissions reduction, and renewable energy adoption.

My background in pollution control has been particularly useful in reviewing industrial and residential project clearances, ensuring that sustainability is embedded in infrastructure planning. This interdisciplinary approach has allowed me to contribute to Goa's net-zero vision with a holistic strategy.

BIOMASS & CIRCULAR ECONOMY INITIATIVES

Can you elaborate on Goa's 100% Renewable Energy Plan and its significance?

In collaboration with GIZ, we launched Goa's 100% Renewable Energy Plan during the G20 Summit in July 2022. Recognizing the alignment between climate action and renewable energy, we proposed an integrated approach that combines the 100% RE Plan from GEDA with the Climate Action Plan from the Environment Department.

This initiative is expected to play a transformative role in shaping Goa's sustainability landscape



What role does the circular economy play in your sustainability initiatives?

The circular economy is at the heart of our strategy. By converting agricultural waste into biomass briquettes, we are reducing dependency on fossil fuels and addressing pollution caused by stubble burning. Expanding biomass ecosystems in rural areas can create jobs and stimulate economic growth. Department. This initiative is expected to play a transformative role in shaping Goa's sustainability landscape.

GOA'S DIGITAL BIOMASS & BIOFUELS MARKETPLACE

What motivated you to establish this digital biomass and biofuels marketplace in Goa?

The marketplace was created in response to the furnace oil ban, which forced industries to transition to biomass briquettes. Despite Goa requiring 350-400 tons of briquettes daily, supply largely depends on neighbouring states, even though a significant amount of biomass waste remains untapped within Goa.

To bridge this gap, GEDA launched an EOI, leading to a briquetting plant in Saligao. However, production is currently below capacity due to insufficient biomass supply. The digital marketplace was introduced to streamline waste aggregation, connect farmers with manufacturers, and reduce reliance on external sources.

By maximizing the use of local biomass, this initiative not only strengthens the circular economy but also plays a crucial role in achieving Goa's net-zero 2050 goal by reducing dependence on fossil fuels and accelerating the waste-to-energy transition.



SWAYAMPURNA GOA & CLEAN ENERGY TRANSITION

How does the Swayampurna Goa programme contribute to waste management and the reduction of carbon emissions?

Swayampurna Goa is not just about sustainability - it's about self-reliance,"

Swayampurna Goa is a self-reliance initiative focused on sustainable development, waste management, and clean energy transitions to make Goa greener and more independent. The initiative is focusing on turning organic waste into valuable briquettes and pellets. This shift significantly reduces methane emissions from landfills while cutting down reliance on imported biofuels.

By harnessing locally available biomass, we are also lowering transportation-related carbon footprints and ensuring that Goa moves toward a circular economy. Every ton of waste converted into energy is a step closer to achieving a greener, self-sufficient state.

Can you share insights into the role of biofuels in achieving Goa's clean energy goals?

Biofuels will play a crucial role in Goa's clean energy transition. Our ongoing efforts focus on converting waste to biogas, generating compressed biogas (CBG), and producing ethanol from sugarcane and other feedstocks.

By focusing on ethanol production and increased biofuel adoption, Goa is moving toward a reduced dependence on fossil fuels, supporting cleaner industrial practices.

STAKEHOLDER ENGAGEMENT & FUTURE PLANS

How is GEDA engaging and educating farmers, producers, and industries about the digital biomass platform?

"The greatest threat to our planet is the belief that someone else will save it." – Robert Swan

In collaboration with the Agriculture Department, we are conducting targeted awareness campaigns that directly engage farmers, industrial stakeholders, and local governing bodies.

Through interactive sessions, we highlight how waste, often seen as a burden, can be a profitable resource. Many farmers didn't realize that their agricultural byproducts could generate income while supporting clean energy.waste-to-energy transition.

By bridging the gap between waste producers and biomass consumers, we're not just creating a supply chain: we're building an ecosystem where sustainability and economic benefits go hand in hand. GEDA will also launch structured training programs at the Village Panchayat level and industrial estates to educate stakeholders on biomass collection, processing, and utilization. Hands-on sessions and demonstration projects will ensure practical understanding, fostering long-term success in Goa's renewable energy ecosystem.



Awareness creation among panchayat and local villages

What is your vision for Goa's sustainability future?

Goa's long-term sustainability vision focuses on a multi-pronged approach to renewable energy. By integrating rooftop solar, floating solar, biodiesel, ethanol, compressed biogas, and biomass energy, we aim to achieve energy independence and environmental responsibility.

Through innovation, policy support, and active stakeholder participation, Goa is well-positioned to meet its net-zero emissions target by 2050 while maintaining its ecological balance.

Awareness about launch of GEDA's marketplace for biomass and biofuel



Through a blend of policy, innovation, and stakeholder collaboration, Sanjeev Joglekar continues to lead Goa's transition toward a cleaner and more resilient future. His efforts not only set a precedent for sustainable development but also position Goa as a model for renewable energy-driven economic growth.

GLIMPSE OF THE FUTURE

Innovating for a Sustainable Future:

A Conversation with Vikas Upreti from Hindustan Unilever



Mr. Vikas Upreti shows us the world of Biofuels through the lens of Unilever, a corporate leading from the front to drive change.

Sustainability is no longer an option—it's a necessity. As industries worldwide grapple with the urgent need for greener solutions, innovation has emerged as the driving force behind a more sustainable future. In this conversation, we delve into how Hindustan Unilever, a leader in consumer goods, is spearheading this transformation.

Vikas Upreti, an expert in sustainable innovation, shares valuable insights into Unilever's unwavering commitment to environmental responsibility. But sustainability isn't a solo endeavour—it requires collective action. This discussion explores the broader industry shift towards sustainable practices and how companies can collaborate to create lasting impact.

Join us as we uncover the strategies, challenges, and opportunities in building a greener future through innovation.

Can you share how Unilever defines sustainability and how it aligns with its corporate vision?

We have divided our sustainability vision and goals across 4 pillars - Climate, Plastic, Nature, and Livelihoods.

When you're working towards achieving something you need to have goals. Under the climate pillar, we want to reach Net Zero Emissions across our value chain by 2039.

Similarly, for nature, pillar we have a goal to create a resilient and regenerative, natural and agricultural ecosystem. In plastics, we are aiming to end plastic pollution through reduction, circulation, and collaboration.

And last is livelihoods. Our long-term ambition is to create a decent livelihood for people in our value chain. And that's not only for us, but we see this vision for our suppliers, our customers, and our entire ecosystem.



How do you balance environmental sustainability with operational efficiency in your manufacturing sites?

At Unilever, we recognize that sustainability isn't an add-on; it's an integral part of how we operate. Driving sustainable programs requires additional effort, and we are fully committed to embedding these efforts into every aspect of our business. To achieve this, we have established a value chain with clear sustainability targets, ensuring that our goals are not just long-term aspirations but part of our daily operations. For example, we are continuously optimizing our processes to minimize carbon emissions and reduce our overall environmental footprint. Additionally, when it comes to sourcing raw materials, we prioritize working with local business groups and farmers, tapping into native supply chains that benefit both the environment, and the communities involved. By doing so, we not only ensure sustainable sourcing but also provide farmers with healthier soil, better yields, and improved earnings. Another key area of transformation is packaging and waste reduction. We are actively working to reduce our dependence on plastics by investing in better materials, minimizing multilayer plastic components, and enhancing the reusability of our packaging across the supply chain. Our commitment to sustainability extends beyond compliance—it is about driving innovation and building a business model that benefits both people and the planet.

How does Unilever view the role of biofuels in the global clean energy transition?

This is an essential step, not only for Unilever, but also for the industry, to go for non-fossil fuel sources, to consume our energy requirement in biofuel. It will involve solid biofuels, liquid biofuels, bio CNG and biomethane.

We have been 100% coal-free in India since 2020 and in most places in South Asia as well, and we buy 100% biomass biofuel for our heat and thermal requirements.

We hope this inspires other industries in the country too to follow suit, eventually making this industry more organised, which was not the case a few years back.

We need entities like BiofuelCircle, who not only digitise to scale, but touch the ground and connect with farmers to build robust sourcing.



What are some of the key opportunities and challenges Unilever foresees in scaling biofuel use while addressing issues like deforestation or food security?

We follow strict guidelines to ensure responsible procurement that aligns with environmental and social priorities.

Our first key principle is zero deforestation—we actively reduce dependency on wood-based biomass and ensure full traceability in compliance with regulations. This helps protect forests, biodiversity, and combat climate change.

The second principle is no conflict with food and feed supply chains—we ensure that the biomass or biofuels we use do not interfere with human food resources or animal feed. Sustainability extends beyond the environment; it's also about protecting communities and agricultural ecosystems.

Beyond these, we integrate additional sustainability measures globally. We focus on reducing CO₂ emissions by prioritizing low-carbon bio-based materials. We also work to minimize logistics impact, sourcing as locally as possible to cut transportation-related emissions.

By embedding these principles into our operations, Unilever is building a responsible, efficient, and future-ready supply chain that drives meaningful industry-wide change.

Is Unilever already encouraging other industries as well to procure or use biofuels?

A few years ago, we launched the Supplier Climate Pledge, a program designed to drive sustainability beyond our own operations by engaging our key suppliers in the journey toward net zero emissions. Under the climate pillar, we break our CO₂ emissions into three. We are looking for a 100% GAG emission reduction in scopes one and two by 2030. At the same time, we are looking for 100% GAG emission reduction from our Scope 3 as well by 2039. These are ambitious targets because they involve our extended value chain - our suppliers, customers, warehousing & transportation partners and so on. We are helping them to navigate in their decarbonization journey by supporting them with our learning.

What specific role do biofuels play in bridging the gap until zero-carbon technologies are widely viable?

As industries worldwide shift towards zero-carbon technologies, the transition phase plays a crucial role in bridging the gap between conventional fossil fuels and fully sustainable energy solutions. Biogenic fuels, such as biomass, currently serve as a key support system in managing and reducing carbon footprints. Their ability to harness organic materials for energy helps lower reliance on fossil fuels and contributes to decarbonization efforts. However, the journey toward a truly sustainable future requires continuous innovation and exploration of more advanced, long-term solutions.

This means investing in research, adopting breakthrough technologies, and rethinking how we harness renewable resources to build a low-carbon, circular economy. The transition is underway, but the work is far from over—true sustainability lies in our ability to innovate and evolve toward net zero emissions.

How does Unilever collaborate with suppliers or external partners to drive innovation in biofuel technologies or applications?

We keep inviting our suppliers with their innovative ideas, if any. It's amazing to see their enthusiasm. In the last two years, we've had a good journey in our biomass sourcing, discovering many areas. We are working with supportive partnerships such as BiofuelCircle to work on apt solutions.

What systems or tools are in place to ensure supply chain transparency for biofuels?

We are a listed company, and we don't just share our results, but also share our progress on sustainability continuously with shareholders and our suppliers. We internally publish our newsletter and communicate with them.

There are a couple of tools as well, to track our footprint, right at the source where we emit carbon. It's a reporting system within the company through which we find out our current footprint and how the journey is. Then there are a few other transparent tools that work like a reporting mechanism, which indicates the stage of the different programs we are working on.



Looking ahead, how does Unilever envision the role of biofuels evolving within its broader sustainability strategy?

Yes, absolutely! While solid biofuels are used majorly for boilers or heat requirement, but sometimes we need liquid biofuel too.

For diesel generators and mobile energy needs, liquid biofuels, including biodiesel, are crucial. They provide a renewable alternative where solid biomass isn't viable, helping industries transition from traditional diesel.

We're working on the same to nurture capabilities of suppliers in this field of liquid biofuels as well. By strengthening the supply chain, we ensure greater accessibility and long-term sustainability.

What message would you like to share with other organizations and industries regarding the adoption of biofuels as a transition fuel?

Though often termed a transition fuel, biofuels are not just a short-term fix—they mark the beginning of a long-term shift toward sustainability. Immediate action is essential. Businesses must integrate biofuels into their operations now to build the foundation for better, more scalable, and commercially viable solutions in the future.

At Unilever, sustainability is a business imperative, not just a responsibility. Our commitment extends beyond profit, focusing on reducing environmental impact while unlocking new opportunities for innovation and growth. As industries evolve, those who take proactive steps today will lead the future of clean energy solutions.

The path to net zero starts with action. By embracing biofuels and continuously improving our approach, we can drive meaningful change—for businesses, communities, and the planet. The time to act is now.

In closing, Mr. Vikas Upreti, expressed how fortunate he finds himself to be working on a sustainability program that's making a difference, in a company that's always focused not only on shareholders, employees, or consumers, but beyond that as well.

He believes business is truly about growth but powered by sustainability.

THE INSIDE SCOOP

Stories And Lessons From Our Growing Team Of Passionate Professionals



A FIRST-HAND CLOSE-UP OF THE INDUSTRY'S WORKINGS

Meet Mr. Manish Kapoor, the driving force behind developing BiofuelCircle's business and scaling its operations in North India. He has been instrumental in crafting supply chains for industry giants like Reliance, Adani, and IOCL for their CBG plants. From securing new business to overseeing project execution, his role spans the entire sales lifecycle. Join us as we dive into his dynamic journey—one filled with challenges, strategic wins, and game-changing growth.

Can you share your journey in the biofuel industry and BiofuelCircle?

This journey involves navigating complexity—adapting to multiple stakeholders, scaling operations, and working within a rapidly evolving sector. At BiofuelCircle, my role has been to strengthen rural aggregation and industrial partnerships. Here are some diverse perspectives I would like to share.

Dynamic Growth: What started with small-scale inquiries has expanded to managing large-scale demands, particularly with compressed biogas units. **Consumer vs. Rural Engagement:** Working with corporate industrial customers requires professionalism, while engaging farmers calls for patience and a personal, relationship-driven approach.

Diverse Regions and Cultures: Different regions, languages, and cultures require tailored strategies, adding complexity to the work.

Government and Policy Landscape: Interacting with local authorities and engaging ministries for policy-making is both essential and challenging.

Early-Stage Sector: The sector is still unorganized, resembling a startup phase, but with significant growth potential as processes become more streamlined.



Mr. Manish Kapoor, dives deep into the multiple perspectives of biofuel adoption by the industry, with his diverse experience

How has your experience with BiofuelCircle shaped your perspective on the role of biofuels in driving green energy goals?



Policies and initiatives come from multiple perspectives, each shaped by different stakeholders. The ministry sets overarching goals and policies, which are then circulated among stakeholders who align them with their internal objectives. However, one crucial perspective is often missing—the rural communities at the execution level. Including representation from this side could significantly enhance policy-making, allowing for more practical and impactful implementation.

For corporates, objectives vary between short-term and long-term goals. Previously, sustainability efforts were largely driven by CSR obligations, but the landscape is evolving. Beyond compliance, companies are now embracing sustainability as a core responsibility. BioFuelCircle is at the forefront of this shift, driving conversations that create real opportunities for corporates to achieve their green goals.

What do you see as the key drivers pushing the industry toward sustainability?

Assurance of supplies, Technology Availability and Policy Level support are key drivers of Progress. Many companies, once focused solely on CSR, are now setting ambitious net-zero targets and shifting toward green energy. This marks a significant transition from past practices.

We are engaging with farmers and working in tandem with the rural community to ensure availability of Feed Stock/Raw Material throughout the year. Our platform offers base to set-up and scale the rural ecosystem.

We are introducing more process-oriented solutions, streamlining operations and making them more accessible through unified channels. This approach not only standardizes processes but also simplifies

their implementation.

Additionally, we've launched our own brand of briquettes and pellets, ensuring a product with consistent quality. This standardization guarantees that customers receive biomass supplies with reliable results as per standard operating procedures, as the technical specifications remain uniform across supplies.

In essence, Innovation leads to measurable improvements, Technology enhancing supply chain efficiency and driving sustainable practices forward.

Could you elaborate on the role of innovations in technology and infrastructure as drivers for sustainable transitions?

What was central to our implementation was compensating farmers, a group often overlooked in policy-making but crucial to biomass production. When farmers are compensated, their participation increases significantly, which has led to higher adoption rates.

BiofuelCircle's digital platform consolidates the entire aggregation process, allowing us to reach and scale up with a large group of farmers. This enables us to generate more power by empowering rural communities—providing raw materials, hiring tractors, and engaging rural entrepreneurs as partners. The impact has been significant. Companies like Maschio, CNH and others are now innovating Post Harvest Crop residue management machines that were previously unavailable in India. Increased machine procurement has driven more innovation, with solutions that were once imported now being developed locally.

Additionally, officials of Agriculture department are

now engaging more confidently with farmers about alternatives to stubble burning, encouraging soil enrichment instead. The combination of software, hardware, and innovative methods for educating rural communities is at the heart of this progress.



PARALI SE UJJWAL BHAVISHYA

Parali makes way for a bright future!

Stubble burning. A challenge that not just farmers grapple with, but so does the society, the environment and the entire ecosystem. But a solution that brings relief to all, not just in one but in many ways.

This Gaon Connection Video brings out beautifully how the rural community is embracing change brought by BioFuelCircle's Biomass Bank. Be it a student who wants to work part-time in his own village while pursuing studies, a person who wants a job in this system, be it a tractor owner, or be it a rural entrepreneur, Biomass Bank is making sure everyone in the rural ecosystem has an opportunity to participate in this changing landscape.

A few years back, no one could imagine the future they are living today. Farmers are doing more than farming and becoming entrepreneurs carrying change on their strong shoulders. In turn, strengthening the economy and the environment. Each one of them is not just changing their own lives but also becoming an inspiration for many such villages.

Watch this inspiring film on the BioFuelCircle Youtube Channel:

Parali se Ujjwal Bhavishya: Empowering Farmers Against Stubble Burning



BiofuelCircle ranked 8th in LinkedIn's Top 20 Startups!

Being ranked 8th among LinkedIn's Top 20 Startups marks a proud milestone in BiofuelCircle's journey. From simplifying the biofuel ecosystem to empowering trade and building a sustainable supply chain, our journey has been about driving real impact—for the industries and farmer communities.

LinkedIn identifies top startups based on these key pillars: employment growth, employee engagement and attraction of top talent.

This milestone is a testament to our commitment to innovation, collaboration, and sustainability. We thank everyone - our incredible team, partners, and stakeholders for being part of this journey and making this possible!

We are now a team of 150 changemakers

"A journey of a thousand miles begins with a single step!" A vision can come alive only when like-minded individuals add to the purpose and start making a difference. At BiofuelCircle we are delighted to witness this journey.

Step-by-step we've been joined by teammates, believers in our vision, and changemakers who are ready to make a difference to the environment, the country, and the grassroots of our country - the farmers. Here's the making change happen by the 150-and-counting team of BiofuelCircle.