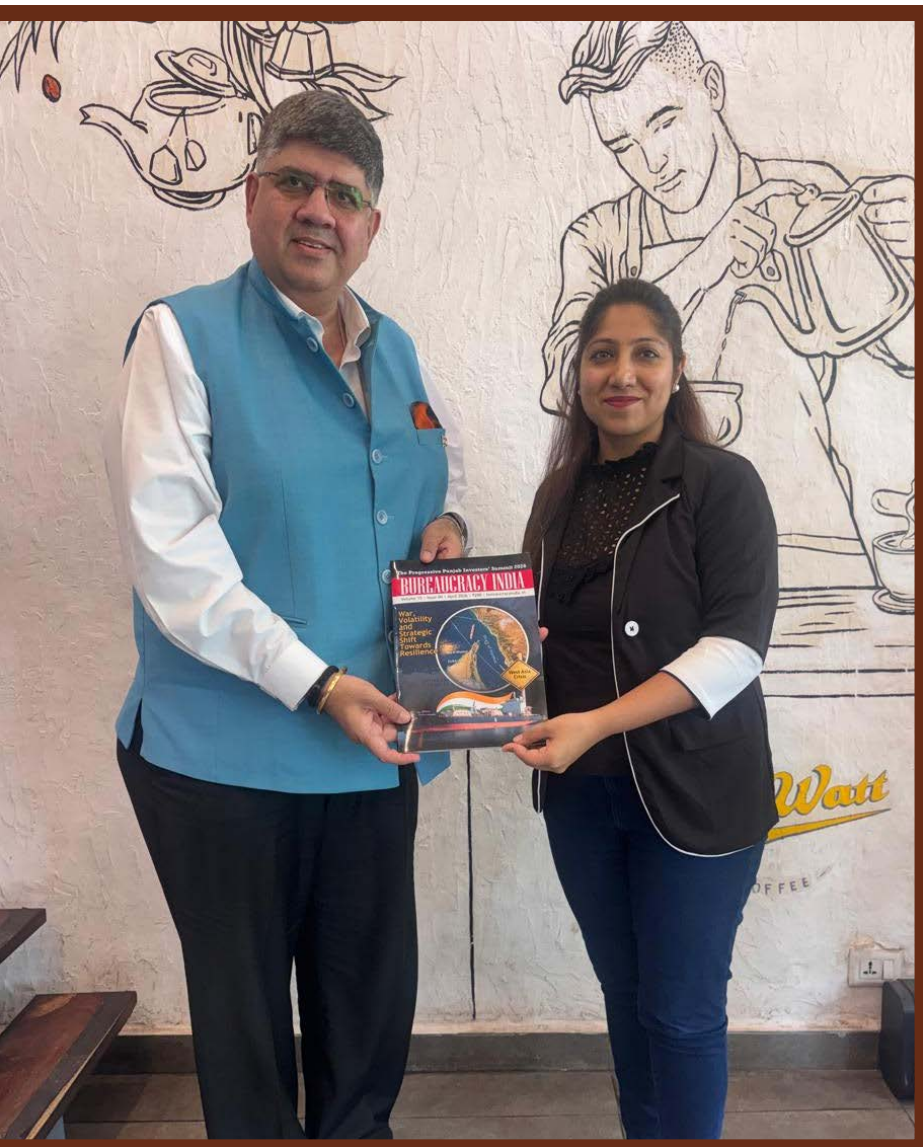


From the Battlefield to the Bio-economy

Building India's Biomass Revolution

by Suhani Nagpal, Editor - Bureaucracy India



At a time when India is searching for sustainable solutions to energy security, climate change and rural prosperity, Lt. Col. Monish Ahuja (Retd.) stands out as one of the country's most influential voices in the biomass revolution. A former Indian Army officer who transitioned from the battlefield to the boardroom, he has spent more than a decade building organized biomass supply chains through Punjab Renewable Energy Systems Private Limited (PRESPL). Today, he is widely regarded as the “Biomass Man of India,” advising policymakers, industry leaders and global institutions on the future of bioenergy and circular economy solutions.

In an exclusive Interview with our Editor-in-Chief, Suhani Nagpal, Lt. Col. Monish Ahuja (Retd.) shares his journey from the Indian Army to leading India's biomass revolution and his vision for the future of bioenergy. Here are the excerpts:

Suhani Nagpal: You had a distinguished career in the Indian Army before entering the renewable energy sector. What inspired you to make this transition?

Lt. Col. Monish Ahuja: After nearly fifteen years in the Indian Army, I wanted to work on a challenge with long-term national impact. During my research, I realized that India's bioenergy sector was constrained not by technology but by the absence of organized biomass supply chains. Agricultural residues were available in abundance, yet projects struggled due to inconsistent feedstock availability. This insight led to the creation of PRESPL in 2011 with the objective of building a reliable biomass ecosystem.

Suhani Nagpal: What are the key leadership lessons from your Army career that continue to guide you today?

Lt. Col. Monish Ahuja: The Army instills discipline, resilience, mission focus and the ability to perform under pressure. These principles remain central to my approach as an entrepreneur. Building a biomass value chain across multiple states requires strategic planning, teamwork and adaptability—qualities that are deeply rooted in military leadership.

Suhani Nagpal: Was there a defining moment that convinced you biomass could become a game changer for India?

Lt. Col. Monish Ahuja: India generates enormous quantities of agricultural residue every year, much of which is either wasted or burnt in fields. I realized that if this residue could be converted into fuel, it would simultaneously address farmer income, energy security, climate change and rural employment. That realization became the foundation of PRESPL.

Suhani Nagpal: You are often referred to as the "Biomass Man of India." What does this recognition mean to you?

Lt. Col. Monish Ahuja: It is both an honour and a responsibility. The recognition reflects the collective efforts of farmers, industry partners, policymakers and the entire bioenergy ecosystem. It reinforces my commitment to advancing sustainable biomass solutions that create economic and environmental value.

Suhani Nagpal: When you founded PRESPL in 2011, biomass was still a niche sector. What were the biggest challenges?

Lt. Col. Monish Ahuja: The primary challenge was establishing a reliable and scalable supply chain. Biomass markets were fragmented,



awareness was limited and institutional support was still evolving. We focused on solving issues related to aggregation, transportation, storage, pricing and farmer engagement because supply-chain reliability is the backbone of any successful bioenergy project.

Suhani Nagpal: How has the perception of agricultural residue evolved over the past decade?

Lt. Col. Monish Ahuja: A decade ago, agricultural residue was largely viewed as waste. Today, it is increasingly recognized as a valuable resource for bioenergy, biofuels and industrial decarbonization. The conversation has shifted from waste management to resource optimization and sustainable energy generation.

Suhani Nagpal: What has been the core philosophy behind PRESPL's growth?

Lt. Col. Monish Ahuja: Our philosophy has always been to build an ecosystem rather than simply supply biomass. We create value for farmers, industries and the environment by organizing supply chains, improving logistics and ensuring dependable feedstock availability for clean-energy applications.



Suhani Nagpal: How does PRESPL create value for farmers?

Lt. Col. Monish Ahuja: Farmers gain an additional source of income from agricultural residue that would otherwise have little economic value. Beyond direct sales, biomass collection, aggregation and transportation activities create employment opportunities and strengthen rural economies.

Suhani Nagpal: Looking back, what have been the defining milestones in your journey?

Lt. Col. Monish Ahuja: Founding PRESPL in 2011 was the first major milestone. Demonstrating that agricultural residue could be transformed into a commercially viable energy resource was another. Contributing to policy discussions, expanding biomass-based solutions and promoting innovations such as eco-cremation have further strengthened the sector's role in India's energy transition.

Suhani Nagpal: What role do innovation and technology play in your business model?

Lt. Col. Monish Ahuja: Technology is critical for scaling biomass operations. From digital traceability and logistics planning to storage management and monitoring systems, innovation improves efficiency and reliability. PRESPL's integrated farm-to-fuel-to-steam model enables seamless movement of biomass from farms to industrial consumers.

Suhani Nagpal: You work closely with several ministries and policy-making bodies. What does your advisory role involve?

Lt. Col. Monish Ahuja: My role is to represent the opportunities and challenges of the biomass sector before government bodies, industry stakeholders and international institutions. The objective is to help shape policies that encourage sustainable biomass utilization and accelerate India's clean-energy transition.

Suhani Nagpal: Beyond your work in the bioenergy sector, you serve as Joint President of MSME Business Forum India. How has this role expanded your perspective on India's entrepreneurial ecosystem, and what opportunities do you believe lie ahead for MSMEs in shaping the country's economic future?

Lt. Col. Monish Ahuja: MSME Business Forum of India (MBFI) is a vibrant ecosystem platform where multiple companies and businesses are together working for the India First development.

MSME sector is the backbone of the economy and sustainability has to be adopted across all sectors and industries.

My participation as Joint President MBFI is thanks to Mr Ravi Nandan Sinha Ji, President MBFI and his excellent leadership along with his team wherein I am able to contribute towards our collective work for furtherance of clean - green energy, technologies and mutual benefit for business in an equitable environment.

I am actually enjoying working with the team and I am sanguine of MSMEs contributions towards #ViksitBharat.

Suhani Nagpal: How receptive has the Government of India been towards biomass and bioenergy?

Lt. Col. Monish Ahuja: Government support has increased significantly in recent years. Initiatives such as the National Bioenergy Programme, SATAT, SAMARTH and biomass co-firing policies have created strong momentum. However, there is still scope to improve implementation and policy alignment.

Suhani Nagpal: What policy interventions are required to unlock the sector's full potential?

Lt. Col. Monish Ahuja: India would benefit from a more integrated bioenergy policy framework, improved access to long-term financing, stronger regulatory support and a dedicated focus on biomass supply-chain development. State-specific policies can also play an important role.

Suhani Nagpal: How would you assess the current state of India's biomass sector?

Lt. Col. Monish Ahuja: The sector is at an inflection point. Demand is growing rapidly due to industrial decarbonization, Bio-CNG, ethanol blending and renewable energy targets. While the opportunity is immense, supply-chain development and project financing remain critical areas of focus.

Suhani Nagpal: How can biomass contribute to India's Net Zero ambitions?

Lt. Col. Monish Ahuja: Biomass offers a unique opportunity to reduce dependence on fossil fuels while creating a circular economy around agricultural residues. It supports carbon reduction, cleaner energy generation, rural development and sustainable economic growth.

Suhani Nagpal: Why have you championed eco-cremation initiatives?

Lt. Col. Monish Ahuja: Eco-cremation uses biomass briquettes instead of traditional firewood, reducing deforestation and lowering emissions while remaining culturally acceptable. It is a practical example of how sustainable solutions can deliver environmental benefits without compromising tradition.

Suhani Nagpal: What opportunities do you see for India's biomass sector by 2030?

Lt. Col. Monish Ahuja: I see tremendous opportunities in second-generation biofuels, Bio-CNG, biomass-based thermal energy, sustainable aviation fuel and industrial decarbonization. India has the resources, market demand and entrepreneurial talent to emerge as a global leader.

Suhani Nagpal: Can biomass become a mainstream renewable energy source alongside solar, wind and green hydrogen?

Lt. Col. Monish Ahuja: Absolutely. Biomass is unique because it simultaneously addresses waste management, energy generation, rural livelihoods and carbon reduction. It should be viewed as a strategic pillar of India's renewable energy mix.

Suhani Nagpal: What is your roadmap for positioning India as a global biomass leader?

Lt. Col. Monish Ahuja: India must focus on biomass security, robust supply chains, digital traceability and integrated biomass hubs that connect farmers, industries and bioenergy projects. Accelerating Bio-CNG, 2G ethanol, biochar and carbon-market initiatives can unlock significant value.

Suhani Nagpal: What message would you like to share with young entrepreneurs?

Lt. Col. Monish Ahuja: Choose a mission larger than yourself. Sustainable businesses are built by solving real-world problems. When purpose is combined with perseverance, integrity and innovation, meaningful impact and long-term success naturally follow. Awareness was limited and institutional support was still evolving. We focused on solving issues related to aggregation, transportation, storage, pricing and farmer engagement because supply-chain reliability is the backbone of any successful bioenergy project.

Lt. Col. Monish Ahuja's journey is a compelling example of how disciplined leadership and entrepreneurial vision can converge to solve some of India's most pressing challenges. From organizing fragmented biomass markets to shaping policy conversations on clean energy, his work demonstrates that agricultural residue is not merely waste—it is a strategic national resource. As India accelerates toward its renewable energy and Net Zero goals, voices like his will play a crucial role in ensuring that the transition is not only greener, but also more inclusive and farmer-centric **BI**

