

# Conversations Today

Your journal about the world of NGOs and Social Enterprises

RNI No.TNENG/2013/52428 | Volume 13 | Issue 5 | May 2025 | 12 Pages | For Free Circulation Only | [www.msdsrtrust.org](http://www.msdsrtrust.org)



**PUBLISHED BY: P.N.SUBRAMANIAN**  
on behalf of Manava Seva Dharma Samvardhani,  
391/1, Venkatachalapathi Nagar, Alapakkam,  
Chennai - 600 116 and printed by him at  
Express Press, Express Gardens, No.29,  
Second Main Road, Ambattur Industrial Estate,  
Chennai - 600 058. Phone: 044-42805365  
**EDITOR: MARIE BANU**

## 6 COVER STORY WHEN FOREST MEETS AN ENTERPRISE

About Bastar se Bazaar Tak in Chhattisgarh

### Spot Light



## 3 Reclaiming Health Literacy

Dr. Gowthaman's efforts to redefine healthcare by focusing on sustainable, person-centered approaches that prioritize long-term well-being over short-term fixes.

### Profile



## 9 Mindful Consumption and Environmental Stewardship

About Nilayaan and their range of eco-friendly products designed to reduce reliance on single-use plastics

### Chit Chat



## 12 "If we equip rural youth and farmers with the right tools and access, rural India can transform into an economic powerhouse."

An exclusive interview with Dr Murugesan, Director of the National Institute of Rural Development and Panchayati Raj



# FROM THE EDITOR

Dear Reader,

In recent years, a noticeable shift has emerged in how the present generation perceives and engages with the environment. From student-led climate strikes to the rise of sustainable living movements, young people today are not just passively aware of environmental issues—they are actively demanding and creating change. Environmental consciousness among the youth has become a defining feature of this era, reflecting both a sense of urgency and a deep commitment to the planet's future.

Growing up in the shadow of climate change, this generation has directly witnessed the consequences of environmental degradation—rising sea levels, erratic weather patterns, loss of biodiversity, and health crises linked to pollution. Unlike previous generations, they have also had access to a wealth of information and global conversations through digital media, enabling them to understand the inter-connectedness of local actions and global impacts. Youth-led initiatives on plastic bans, clean energy, and wildlife conservation show how young people are stepping up where institutions have often lagged behind.

What sets this generation apart is its desire to integrate environmental responsibility into everyday life. Many young people are choosing plant-based diets, embracing second-hand fashion, reducing waste, and supporting eco-friendly brands. They are conscious consumers and responsible citizens who see sustainability as essential, not optional.

This growing consciousness is undoubtedly promising, but it must be nurtured and supported through systemic efforts. Schools and universities can play a key role by integrating environmental education into curricula—not just as theory, but as practical, action-oriented learning. Governments and institutions must create inclusive platforms where young people can participate in decision-making and policy development. Local communities and families can foster responsibility by encouraging eco-friendly habits and setting positive examples.

The youth may not be the architects of the climate crisis, but they are emerging as its most determined problem-solvers. Their energy, creativity, and moral clarity offer a powerful force for change.

Yet in a world where change is slow and resistance strong, we must ask: How can we ensure that this growing awareness is matched with a lasting sense of responsibility?

The answer lies in four key areas. First, by embedding environmental education in early learning, we shape values that endure. Second, by providing role models and encouraging community leadership, we inspire responsible behavior. Third, by involving youth in policy making, we empower them to take ownership. And fourth, by ensuring equitable access to sustainable alternatives, we enable responsible choices for all.

If we can collectively address these areas, the environmental consciousness of today's youth may very well become the foundation of a more sustainable and just world tomorrow.

Marie Banu Rodriguez

## EDITORIAL

Latha Suresh  
Marie Banu Rodriguez

# HOW OUR THOUGHTS DEFINE OUR BELIEFS AND LIVES

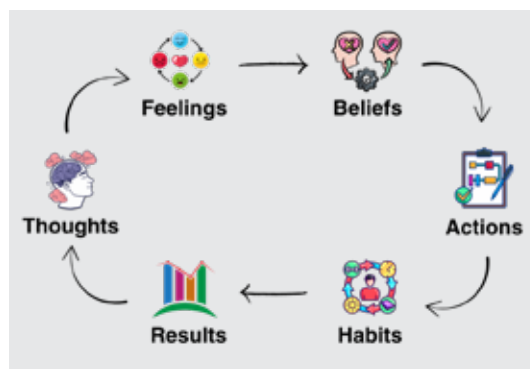
## Are We Our Thoughts?

“As a man thinketh, so is he.” said James Allen, a well-known British Philosopher and author. A person becomes what he thinks about. It also means that what we are today is because of the thoughts we had in the past. Indeed, thoughts are so powerful that one of the most-read books from the Self-Help category, “Think and Grow Rich” by Napoleon Hill, is all about thoughts and other significant attributes required for a successful, rich life. Such a powerful role our thoughts play in our lives.

Especially in this fast-paced information and AI age, controlling our thoughts will always be a major asset and skill for any individual. We are bombarded with so much information and situations every day, and each of these affects our thoughts.

## Thoughts to Results Cycle

So, how come thoughts actually impact our lives? For this to be understood, one needs to understand the thought results cycle, shown below.



The thoughts we have evoke the related feelings. The feelings that we keep repeating become our beliefs. Our beliefs drive our actions. The actions we take regularly build our habits. Ultimately, the habits we cultivate in every area of our lives determine the outcomes we achieve in life.

By the way, this is not a linear flow – it's a cycle. The kind of results we achieve in life again trigger new thoughts, and the cycle continues. Most of our life as adults is driven by the thought results cycles. Just like how the water cycle is important for Earth, thought results cycle is important for we humans. It is what makes us what we are. And just like the feedback loops, the more prominent and more times an existing thought cycle has been repeated by the person, the difficult it is to replace. If we repeat the empowering thought results cycles more than disempowering ones, our life feels enriching. If we do it the other way, life feels gloomy and disappointing.

## Growing into a better person

So when we want to or need to change some aspect of our life or life as a whole, too, it is these cycles that we need to interrupt. And how do we do that? We need to understand what kind of thoughts are going on in our mind on a specific aspect, and change our thought process, so that eventually everything changes, and our results also change. Although I stated it, it's not at all easy to replace existing thoughts with new ones, but it's pretty much doable and possible. The thought habits that we have are ingrained in our subconscious over many years we have lived so far. So changing it all of a sudden is not possible for normal human beings like you and me.

So, how do we do it? The typical approach is to identify our existing thoughts that are disempowering us and replace them with empowering thoughts. For example, let us say whenever someone asks us to give a public speech, we often have disempowering

thoughts like “I am not good for this.”, “I may not do well”, “I am not an expert in this.”, “What if I do something wrong?” etc. All of these thoughts evoke feelings of fear, embarrassment, guilt, and hesitation, which disempower us by forgoing the opportunity due to the negative feelings evoked. Now, instead of it, if we thought, “Wow, I will rock it.” “I will do it and it's going to be great.” etc., can you feel the difference even when reading these statements? That is the power of positive thought. So, how do we replace our old, disempowering thoughts with empowering ones?

## Power of Repetition

One of the most popular method of doing it is repeating the empowering thoughts often, daily if possible. The most popular method many across the globe prescribe is affirmations. These are positive statements that we keep repeating to ourselves every day. Some sample statements are listed below:

- I am a healthy person.
- I am capable of achieving anything I set myself on to.
- I see opportunity in every crisis.
- There is no failure, only feedback.
- I live peacefully. External issues and happenings do not affect my inner peace.

The more you keep repeating them, the better they ingrain within the subconscious mind and things start changing. We may say affirmations, we can write them, listen to them – whatever you do, the intent is to ingrain them within the subconscious mind. We can use positive statements for areas of our life where we are not faring well. Many have some up with additional concepts like incantations, affirmations, daily questions, lofty questions etc. But even sticking basic affirmations should get the needful results.

## Change Your Environment

My mentor Blair Singer, says “If we change the environment the results will change”. Which kind of environment you have? What kind of information you are allowing yourself to come across? – these have a significant impact on our lives. So it's essential that you have supporting empowering people, and whatever you see, watch, hear or scroll – should be something empowering your life. If there are instances where it's not so, get rid of those or minimise such disempowering situations or people. Sometimes these people might be our immediate family members or colleagues. Often at workplaces, especially, we see people discussing about all unnecessary things or gossiping about things. Avoid such trash, don't let such things disturb and corrupt your thoughts.

## Conclusion

All in all, in this article, this is what I can suggest: thoughts are the most powerful things in our lives. Change your thoughts by consciously replacing disempowering ones with empowering ones, and change your environment so that you are, for at least most part of the day, surrounded by positive people and positive things. This is also the reason why positive thinking is so powerful if implemented.

*I send out Positive Morning Quotes to all my network through WhatsApp so that the day starts with a positive, thought-provoking way. Visit [srkr.pro/quotes](https://srkr.pro/quotes) to subscribe. Do reach out to me if you have any queries in Productivity & Sustainability.*

**SRKR | S Ravi Kanth Reddy**  
Productivity & Sustainability Expert  
[connect@srkrvizag.com](mailto:connect@srkrvizag.com)  
[linktr.ee/SRKRvizag](https://linktr.ee/SRKRvizag)



# RECLAIMING HEALTH LITERACY



Understanding what's happening inside your body is essential for taking control of your health and overall well-being. In an age where misinformation is widespread—especially on social media—being informed about your body enables you to make smart, evidence-based decisions. Recognising how your body functions helps with early detection of potential health issues, increasing the chances of successful treatment and prevention of serious conditions. It empowers you to adopt healthier habits, such as proper nutrition and regular exercise, while avoiding harmful behaviours like excessive sugar intake or a sedentary lifestyle.

“This knowledge fosters health literacy, reducing fear and uncertainty around changes or minor symptoms and encourages confidence in making informed choices about medications, treatments or lifestyle adjustments. Furthermore, understanding the deep connection between physical and mental health can help you manage stress, anxiety and other emotional factors that impact your body. It also supports personalised health strategies—allowing you to tailor fitness, diet and self-care practices to your individual needs,” explains Dr K Gowthaman, Director and practicing Ayurveda Physician at Sri Varma Ayurveda Hospitals. He strongly believes that the resulting self-awareness and health literacy is not just about adding extra years to life, rather it enhances the quality of those years, making health a proactive, empowering journey. “Present trends and practices have reduced health understanding to a reactive journey with many procedural struggles,” he laments.

Gowthaman is from Chennai and was about to study Mechanical Engineering. However, his path took a different turn when his family's spiritual guru advised him to pursue a career in medicine, believing he was destined to become a healer. Trusting in this guidance, he shifted his focus and enrolled in Sri Jayendra Saraswathi Ayurveda College, where he went on to graduate with a degree in Ayurvedic Medicine and Surgery. This unexpected direction not only aligned with his family's spiritual beliefs but also opened the door to a fulfilling journey in traditional healing. After graduating, he interned with IIM Ahmedabad's National Innovation Foundation where diverse programs and studies are undertaken to validate traditional agriculture, veterinary and medical practices. This experience deepened his appreciation for indigenous knowledge systems and strengthened his commitment to promote health literacy.

He then worked with Bangalore's Foundation for



Revitalisation of Local Health Traditions (FRLHT), an organisation dedicated to preserving and promoting India's rich legacy of traditional healing. While continuing his clinical practice, he found himself increasingly drawn to the idea of Ayurveda as part of a larger ecosystem of traditional knowledge. What resonated deeply with him was Ayurveda's holistic approach—observing internal systems and natural cycles—which aligns closely with the principles of

preventive healthcare and integrated wellness. This perspective is especially vital in today's social media-driven world, where self-proclaimed health experts often promote unverified practices, making authentic, qualified guidance more important than ever.

Gowthaman also played a key role in the healthcare infrastructure space by executing the construction of a 100-bed hospital for the Lohia Group in Kanpur. Back to Chennai in 2010, he co-founded the R Vita Ayurveda Centres – which is a chain of 40 hospitals across Tamil Nadu that focussed on blending time-tested Ayurvedic wisdom with contemporary care delivery. It was very successful as it used Ayurveda, Yoga and integrated healing, forging principles of multiple specialities. After recovering from a major accident in 2015, he became a Consultant with Sri Varma Bio Naturals, now popularly known as Sri Varma Ayurveda Hospitals. Currently, also its Director, Gowthaman has a long list of interesting patients whose care and cure has reiterated many people's belief in integrated wellness.

But for him, it is not the number of patients or the severity of illnesses he has addressed. His driving force is the opportunity it all presents to educate his patients about health. It is this interest that also encouraged him to come on channels and other media to promote health literacy.

“I am deeply committed and driven to help people understand health,” says Gowthaman. “Illnesses are often the result of misaligned habits and practices. True well-being comes from synchronising our daily routines with the natural rhythms of the body and environment. That's why I focus on preventive healthcare—where food, air, water, body-mind-soul detox and good sleep form the foundational pillars of a healthy life. My goal is to empower individuals to take charge of their health before disease occurs, using the timeless principles of Ayurveda to restore balance and promote long-term wellness. Our treatment is not for the condition or patient, but for the holistic individual.”

Gowthaman continues to redefine healthcare by focusing on sustainable, person-centered approaches that prioritise long-term well-being over short-term fixes. His work bridges ancient healing systems with contemporary needs, offering meaningful alternatives to conventional care. With clarity and conviction, he advocates for a health journey rooted in awareness, balance and responsibility. “When you can be healthy naturally, why not follow it sincerely?” he asks with conviction.

*Shanmuga Priya.T*



# LEADERSHIP AND INNOVATION IN URBAN WASTE MANAGEMENT



Chennai is a city facing rising waste management issues. One man's journey from a successful IT career to environmental stewardship is a remarkable story of transformation. Mr. P. Natarajan, the founder of PUVI Earth Care Solutions, has become a pivotal figure in Chennai's quest for sustainability.

His story begins like many others, a successful career, where stability and growth were all but assured. But beneath the surface of professional success lay a growing sense of unease about the world's environmental challenges. It was a feeling that only intensified when he returned to Chennai, witnessing firsthand the worsening waste management crisis.

"I saw heaps of uncollected waste, poor recycling practices, and a lack of awareness about sustainable waste management. I realised I couldn't just stand by," Natarajan recalls. "I knew I had to do something."

This conviction led to the birth of PUVI Earth Care Solutions, a social enterprise with a clear mission: to address solid waste management through education, practical solutions, and community engagement. What started as a small initiative quickly grew into a movement.

PUVI began with awareness campaigns, educating residents about the importance of waste segregation and sustainable practices. Natarajan's team worked tirelessly, organising workshops, collaborating with local communities, and promoting the concept of a circular economy. "We wanted to bring back the traditional values of reuse, recycle, and reduce. Chennai had a rich history of sustainable practices, and we aimed to revive that," Natarajan explains.

He launched the PUVI Academy, an educational platform dedicated to providing skill development in climate change awareness, waste management, and green

jobs. The academy has trained numerous students and professionals, empowering them to become sustainability advocates.

"Education is key. Change begins with awareness, but it thrives with knowledge and skills," Natarajan emphasises.

Beyond education, PUVI has actively engaged in large-scale waste management initiatives. From door-to-door waste collection to collaborating with local authorities, the organisation has become a trusted name in the sector.

Natarajan's efforts have not gone unnoticed. He has been recognised with multiple awards, including the "Inspiration of Chennai" and "Peace Builder Award," which highlight his dedication to environmental sustainability. But, for Natarajan, the journey is far from over. "Our mission is to make Chennai a model city for sustainable living. We have made progress, but there is much more to do," he says with determination.

As PUVI continues to grow, its impact is felt not just in Chennai but as a model for sustainable initiatives across India. And for Natarajan, what began as a personal mission has transformed into a lifelong commitment to making a difference.

Chennai's rising environmental consciousness mirrors a growing global awareness that sustainability is no longer optional but essential. PUVI Earth Care Solutions is emblematic of this shift, not merely as a waste management organisation but as a catalyst transforming how communities perceive and interact with their environment. The educational initiatives led by Natarajan underscore a vital truth: sustainable change begins with transforming mindsets. By making complex environmental issues accessible and actionable, PUVI fosters a culture where every individual feels empowered to contribute.

Innovation remains at the heart of PUVI's approach. Beyond traditional waste collection, the organisation integrates innovative techniques such as organic waste composting and promoting sustainable packaging alternatives. PUVI's focus on green jobs through its academy reflects a forward-thinking vision that sustainability and economic development can and must go hand in hand. This approach not only addresses environmental concerns but also creates livelihood opportunities, particularly for marginalised communities.

Natarajan's leadership exemplifies the power of collaboration. By forging strong partnerships with local government bodies, educational institutions, and other nonprofits, PUVI has expanded its reach and impact. This cooperative model serves as a blueprint for other cities wrestling with similar environmental crises, demonstrating that meaningful progress requires the collective effort of all stakeholders.

As Chennai strides toward becoming a model sustainable city, PUVI's journey offers a compelling call to action for urban centers across India. The challenges may be complex, but Natarajan's work proves that with determination, innovation, and community engagement, scalable and lasting solutions are within reach.

When asked whom he trusts most to safeguard the future of the environment, Natarajan does not hesitate: "Children." This answer encapsulates the heart of PUVI's mission. It is not only about managing waste today but also about nurturing a generation that inherently values sustainability. By focusing on education and awareness, especially among young minds, PUVI invests in long-term change. Children, free from entrenched habits, are more open to adopting sustainable practices, making them the most trustworthy stewards of the planet's future.



This perspective highlights a critical insight in environmental work: the importance of inter-generational responsibility. Natarajan's confidence in children reflects a broader understanding that true sustainability depends on embedding eco-consciousness in the fabric of society from the earliest stages of life.

Moreover, PUVI's approach recognises that environmental challenges cannot be solved through technology or policy alone; they require cultural transformation. Changing how communities relate to consumption, waste, and natural resources demands patience and persistent engagement, qualities reflected in PUVI's sustained grassroots campaigns.

***PUVI's approach recognises that environmental challenges cannot be solved through technology or policy alone; they require cultural transformation***

In an era when many cities face mounting environmental crises, Natarajan's journey offers a powerful lesson: leadership grounded in empathy, education, and collaboration can create scalable solutions that resonate across diverse communities. By trusting children and empowering communities, PUVI Earth Care Solutions charts a hopeful path forward, one where environmental stewardship becomes a shared and enduring commitment.

At its core, PUVI Earth Care Solutions is more than just an environmental organisation; it is a living experiment in redefining how urban communities coexist with nature. Under Natarajan's visionary leadership, PUVI embodies the philosophy that sustainability is not a constraint but a catalyst for creativity and empowerment.

PUVI's goals are ambitious yet deeply grounded in practicality. It strives to close the loop on waste through a circular economy model, where materials are reused, recycled, and reintegrated into the local economy, minimising landfill dependency. This goal reflects a fundamental shift from the linear "take-make-dispose" mentality to one where every waste item is seen as a resource. PUVI's commitment to this principle is evident in its work to revive Chennai's traditional values of reuse, reduce, and recycle, adapting them to modern urban challenges.

Innovation at PUVI extends beyond technology into



social innovation. The organisation cultivates green entrepreneurship by training youth and women in eco-friendly skills that open new economic avenues, thereby merging environmental sustainability with social upliftment. This dual focus is a hallmark of PUVI's holistic approach, addressing ecological health while promoting equitable economic development.

Natarajan's journey mirrors the mission of PUVI. Having stepped away from a lucrative career, he channels his problem-solving skills into environmental challenges, proving that passion coupled with expertise can redefine success. His hands-on involvement from organising grassroots workshops to advising policymakers reflects a leadership style that is inclusive, adaptive, and deeply connected to community needs.

As Chennai confronts the mounting pressures of urbanisation and environmental degradation, PUVI Earth

Care Solutions stands as a testament to the power of visionary leadership and community-driven action.

Natarajan's journey as an environmental crusader illustrates that meaningful change often begins with one person's resolve to make a difference. By blending innovation, education, and inclusive collaboration, PUVI is not only addressing immediate waste management challenges but also laying the foundation for a sustainable future. In doing so, it offers a replicable model of resilience and hope, reminding us that the path to environmental sustainability is paved by collective commitment, forward-thinking solutions, and the unwavering belief in the next generation.

**Bhavadharani K**



## Centre for Social Initiative and Management

**C**entre for Social Initiative and Management (CSIM) is a unit of Manava Seva Dharma Samvardhani (MSDS). It is a learning centre that promotes the concept of social entrepreneurship.

**CSIM offers training and consultancy to social enterprises** – for-profits and non-profits to facilitate them to apply successful business practices and yet retain their social mission. It also offers training and hand holding support to prospective social entrepreneurs and enable them to launch their social initiatives. [www.csim.in](http://www.csim.in)

### Contact Persons:

**Ms. Marie Banu Rodrigues**  
Director, Chennai  
@ 9884700029

**Dr. Madhuri. R**  
Head, Coimbatore,  
@ 91-9840222559

**Dr. Agyeya Tripathi**  
Head - North & NE India  
@ 91-8058662444

**Mr. Sandeep Mehto,**  
Head – Hosangabad,  
@ 91-96696 77054

CSIM also facilitates **Social Accounting and Audit** for social enterprises, CSR projects, and NGOs through Social Audit Network, India (SAN India).

For further information, please contact: **Ms. Latha Suresh**  
Director, SAN, India  
@ 92822 05123.  
[www.san-india.org](http://www.san-india.org)



# WHEN FOREST MEETS AN ENTERPRISE



Social entrepreneurship holds immense promise for empowering tribal communities in India, where traditional livelihoods are often marginalised and access to mainstream economic systems remains limited. By combining innovative business models with social impact goals, social entrepreneurs can create sustainable solutions that respect indigenous knowledge, preserve local ecosystems and provide dignified employment. In the Indian context, where tribal populations face systemic disadvantages in education, healthcare, and market access, social enterprises can act as a bridge—connecting remote communities with wider markets, technology and capacity-building opportunities.

“This context has been understood for decades, but in recent years, funding channels have become more accessible and open to exploration. My experiences and my company have clearly demonstrated how localised, culturally rooted entrepreneurship can lead to inclusive growth and long-term community resilience. We are growing together,” says Mr Satendra Singh Lilhare, Founder of the social enterprise *Bastar se Bazaar Tak*, in Bastar, Chhattisgarh.

Satendra was raised by his mother and aunt who supported the family through farming and forest-based work. Witnessing the struggles of women who worked hard but earned very little inspired him to work for the upliftment of tribal communities. “Coming from a BPL family, I have lived the limitations of trying to break the inter-generational cycle of poverty,” he adds. After graduating with a degree in Science, Satendra spent nearly seven years working as a freelancer, closely observing rural development and agricultural practices. During this time, he gained valuable insights into citizen service delivery models. In these underdeveloped



regions, even obtaining basic documents—such as ration card, farmer entitlements or disability benefits—was a major challenge. Seeing these realities up close, he developed a deep understanding of the systemic issues and the aspirations of his community for meaningful development.

His Master Degree in Development from Azim Premji University, Bangalore gave him a wider exposure and he worked with farmers’ collectives under different projects. He travelled extensively, consulted many farmer groups and observed how companies worked and the principles that defined profits and social responsibility. Further he studied Development Management Degree from SPJIMR, Mumbai where he learn management principals in social enterprise. The recognition for his idea to reduce losses in forest produce and improve rural employment opportunities in 2019, at the National Institute of Agriculture Marketing in Jaipur, Rajasthan further defined his goals and the ensuing market research that was part of this residential program, allowed

him to grasp how markets operated at the procurement level. In spite of his idea winning the Tata Social Enterprise Challenge and seed funding from IIM Calcutta Innovation Park, further the Buddha institute, SIDBI and NSRCEL helping to scale and replicate Bastar model in different locations. It took time for the tribal farmer communities to understand what he was trying to achieve. Finally, the farmer community in Lakhnapuri village of Chhattisgarh came forward to work with him, on this model.

*Bastar se Bazaar Tak* was founded in 2020 as an acceleration program with Upaya Social Ventures and WRI India Land Accelerator. All the investment needed was pooled in from farmers, their families and SHG loans. All seasonal forest produce (like tamarind, mango, jamun, custard apple, etc) is procured directly from farmers at fair market prices, eliminating middlemen entirely. Under the brand name *Forest Naturals*, the produce is processed into pulps, purees and powders. This model ensures year-round livelihood opportunities for farmers and provides sustainable employment for women, who are actively involved in the processing operations. “From a point where farmers saw me as an outsider to now, where farmers in my company share all their resources – is a significant shift in their understanding of community as one whole, cohesive unit,” explains Satendra.

At first glance, *Bastar se Bazaar Tak* may appear to be just another food processing company, but what truly sets it apart is its innovative revenue model. Unlike conventional setups, the company does not invest in owning cold storage facilities—instead, it outsources this function. This strategic decision has not only made the business model more viable but has also encouraged farmers to share existing infrastructure and resources, fostering a sustainable working capital system. A

particularly striking aspect is that Satendra, his two co-founders Haresh and Ambika both the farmers who have invested in the company have chosen not to draw salaries from its revenue or profits. As part of their internal commitment, co-founders will not take a salary until the company completes five years of operations. This long-term vision is coupled with a conscious effort to minimise expenses and make efficient use of locally available resources.

Beyond finances, the real transformation lies in the flexibility and empowerment the farmers experience. Satendra believes that merely drawing a salary does not instill a true sense of ownership. What has shifted is the mindset: farmers now see themselves as co-owners of the business, a belief reinforced by their active role in financial decisions. This deep sense of ownership has not only strengthened internal cohesion but also serves as a powerful motivator for other farmers in the community, proving that inclusive, grassroots entrepreneurship can drive lasting change.

With over 1.5 crore rupees in revenue in the last three years, the company has sold over 182 tons of products and empowered over 1650 tribal women across 17 villages in Chhattisgarh. “They are essentially continuing the work they’ve always done—only now, with a bit of structured training on quality and processing, they’ve come this far. It’s a simple shift with powerful results. We dream big and believe that by our 15th year, we can reach a turnover of ₹100 crores,” says Satendra ambitiously, reflecting both his grounded perspective and bold vision for the future.

*Shanmuga Priya.T*





# ROOTS OF INSPIRATION

"दश कूप समा वापी, दशवापी समोहनद्रः।  
दशहूनद समः पुत्रः, दशपुत्रो समो द्रुमः।"

*"One stepwell equals ten wells; one pond equals ten stepwells; one son equals ten ponds; and one tree equals ten sons."*

This timeless Sanskrit verse encapsulates a profound truth — that a single tree can carry more value than entire generations of human endeavour. To me, planting a tree is not merely an ecological act, but a sacred one — a gesture of gratitude, devotion, and deep connection. Witnessing a slender sapling grow into a majestic tree, silently giving shade, sustenance, and shelter, is like watching hope take root in the earth.

A quote that has profoundly guided my life says: "The best time to plant a tree was 20 years ago. The second best time is now." These words redefined my purpose. What began as a childhood habit, inspired by my father's green thumb, gradually transformed into a lifelong mission — to leave behind a legacy of green.

Every tree I plant is a promise — to nature, to future generations, and to my own conscience. Trees are living testaments of patience and perseverance. They clean our air, cool our cities, prevent erosion, and support countless life forms. In Tagore's poetic words, "Trees are the earth's endless effort to speak to the listening heaven." When I plant trees, I feel I am communing with Bhoomi Matha, the Earth Mother, in the most honest and humble way possible.

## My Guiding Principles

Over time, I've evolved a few clear principles. I focus on native species, sourced from within a 50-kilometre radius. Seeds from nearby forests adapt better, flourish faster, and support local biodiversity. I learned this when I once planted tall saplings and 1-ft ones from Isha Nursery, Chengalpet. Surprisingly, the smaller saplings, though humble in size, rooted themselves deeper, survived storms, and outgrew their taller counterparts.

I also plant rare and culturally revered species like Thiruvodu, Nagalingam, and Mahavilvam. These are not just ecologically vital but hold deep spiritual meaning. I encourage people to plant their Divine Tree, based on their Nakshatra (birth star). For example, Magam Nakshatra is linked to the Ala Maram (Banyan tree) — a species revered for centuries.

Though I do plant timber and fruit trees, it has never been for profit. My intent has always been environmental and spiritual. Fruit trees, in particular, nourish soil, wildlife, and communities.

## Adopting Miyawaki Forests

A turning point in my journey was discovering the Miyawaki technique — a method of growing dense, native micro-forests even in small urban plots. My first Miyawaki forest was planted on just 100 square meters using 300 saplings and over 40 native species. Inspired by Shubhendu Sharma's Afforestt model, I adapted the methodology to suit local soil and climate, with simple tools and community support.



Six years on, those 1.5-foot saplings have now become 40-foot trees. The ambient temperature in these pockets is often 5 to 6°C cooler than the surroundings. I've recreated such forests in multiple locations, including a Chennai Corporation school in Perungudi. Some are themed — Maha Van for wisdom, Tapo Van for meditation, Kriya Van for action — creating spiritual and ecological sanctuaries.

## Introducing: Net Zero Carbon Citizenship

A concept that deeply resonates with me is Net Zero Carbon Citizenship. As climate change accelerates, individual action

becomes crucial. The average urban Indian emits nearly 4 tons of CO<sub>2</sub> annually. A fully grown tree absorbs about 20 kg of CO<sub>2</sub> per year, meaning each person would need to plant approximately 200 trees to offset their annual emissions.

While not everyone can plant 200 trees at once, the goal is achievable over time. NGOs now offer tree-planting services for ₹250–₹400 per tree, including maintenance. Over time, one can achieve personal Net Zero Carbon status by planting trees to mark birthdays, anniversaries, or even simply to honour the Earth.

I once gifted 65 saplings to a friend turning 70 — a gesture that carried more meaning than any material present. My family — 15 members in total — has already reached personal Net Zero through the 3,000+ trees I've planted. And this is just the beginning.

Creating a Culture of Tree Planting Corporates, too, can integrate this concept into their CSR goals. I initiated a global tree-planting campaign under the Utopia banner, planting 600 trees along the Ganges and issuing digital tree certificates to employees worldwide. Many carried the idea forward into new workplaces. Tree

planting can grow beyond action — it can become a culture.

For me, this is not a project with a deadline. It is a lifelong devotion. I don't plant trees for profit. I do it for love. I follow agroforestry practices that work with nature, not against it. I will never cut these trees. If a day ever comes when I must, I will surrender to divine will. Until then, I plant with reverence and hope.

I may not live long enough to sit under the shade of every tree I plant. But someone will. And that is reason enough.

## Net Zero Carbon Citizenship Starts with You

Every citizen has a role to play. Individual actions, when multiplied, lead to collective change. The Earth doesn't just need protection — it needs participation.

**Have you achieved Net Zero Carbon?  
If not — when do you intend to?  
Need help? Get in touch with me.  
Together, we can make a difference.**

P.N. Subramanian



# MINDFUL CONSUMPTION AND ENVIRONMENTAL STEWARDSHIP

For Deepesh Bhaskar, the journey toward sustainability was not born from a corporate mandate or a well-crafted business plan. Instead, it began with an image seared into his memory: a cow choking on plastic waste, helplessly struggling on a crowded street in Chennai. Despite the frantic efforts of bystanders trying to save the animal, it succumbed right there, surrounded by indifferent traffic. That haunting moment planted a seed in Deepesh's mind, one that would grow into a lifelong commitment to environmental stewardship.

At the time, Deepesh was thriving in a promising corporate career. Armed with a degree from the Madras School of Social Work, he had shifted gears from social work to marketing, eventually landing a comfortable, high-paying role at Byju's, a leading ed-tech company. Life was stable, predictable, and filled with promise, yet that vivid image of the cow stuck with him like a shadow. "It wasn't just about the cow," Deepesh later explained. "It was about how we so casually ignore the consequences of our waste and its impact on other living beings."

The advent of the COVID-19 lockdown offered an unexpected opportunity for reflection. Separated from the fast-paced corporate world, Deepesh found himself with time and space to delve into the pressing issue that had haunted him. He immersed himself in research on plastic pollution, waste management, and



do-it-yourself composting bucket, was rudimentary and imperfect; users reported issues with unpleasant odors and pests, but it was a crucial first step.

A chance encounter during a lockdown in Bangalore became a turning point. Deepesh connected with Daily Dump, a pioneering organisation in the DIY composting movement. Their expertise helped him refine his products and broaden his understanding of sustainable waste solutions. Becoming an authorised seller of Daily Dump's composting

memorable moment came during a school workshop when a child drew two images of the Earth, one with a happy face and the other sad. "That child didn't need to be taught what we were doing wrong," Deepesh recalls. "He already understood, intuitively."

Under Deepesh's stewardship, Nilayaan expanded organically, offering a range of eco-friendly products designed to reduce reliance on single-use plastics. Bamboo toothbrushes replaced their plastic counterparts, bio-enzyme cleaners

provided chemical-free alternatives for household cleaning, and reusable tableware fashioned from discarded coconut shells offered a beautiful and practical substitute for disposable plastics. These products resonated with environmentally conscious consumers, finding a place not just in individual homes but also at weddings, corporate events, and community gatherings. "The success of any event," Deepesh insists, "should be

measured not by what it celebrates, but by what it leaves behind or ideally, what it doesn't."

Still, challenges abound. Many consumers remain drawn to seemingly convenient solutions like electric composters, which promise quick results but come with hidden environmental costs, such as energy consumption and emissions. Deepesh champions natural, decentralised methods that are accessible and sustainable, even if they require more effort and patience. "Sustainability isn't always convenient," he says, "but it is necessary."

The tangible impact of Nilayaan's efforts is impressive. Over 300 families now actively compost their organic waste, collectively diverting more than 20,000 kilograms from landfills each month. This effort translates to an estimated reduction of 180,000 kilograms of carbon dioxide emissions, contributing meaningfully to climate change mitigation. Despite these successes, Deepesh remains humble and focused on the bigger picture. "It's not just about reducing waste," he says. "It's about cultivating a culture of mindful consumption, an ethos that respects nature and understands our inter-connectedness."

Nilayaan's influence extends beyond composting and product sales. Deepesh has cultivated partnerships with coconut farmers and artisans in Kanyakumari, repurposing discarded coconut shells into durable, reusable bowls and cutlery. This initiative embodies the principles of a circular economy, turning waste into value while supporting local livelihoods and preserving traditional crafts.

Deepesh's vision for Nilayaan is expansive. He aims to deepen collaborations with educational institutions to embed sustainability into the curriculum and daily practices of young learners. He plans to diversify the product range further and to pioneer innovative solutions that marry traditional wisdom with modern needs. Yet despite these ambitious plans, his philosophy remains simple and steadfast: "Sustainability isn't about being perfect; it's about making better choices every day."

The story of Deepesh Bhaskar and Nilayaan is more than a business success. It is a powerful narrative of personal transformation and social impact, a testament to how one individual's conscience and courage can spark a wider movement. It reminds us all that the road to sustainability is neither short nor easy. It is a journey made up of countless small decisions and incremental changes, a series of "baby steps" that, collectively, can steer the world toward a healthier future.

In a world grappling with mounting environmental challenges, Deepesh's story offers hope and inspiration. It calls on each of us to recognise our role in shaping the planet's destiny. "The zero-waste lifestyle," he says, "is not an overnight transformation. It's about persistence, patience, and the belief that every small action counts."

As Deepesh Bhaskar continues to build Nilayaan, he exemplifies the power of combining education, innovation, and community engagement. His work stands as a beacon for sustainable entrepreneurship, showing that true change begins not with grand gestures but with awareness, commitment, and the courage to act.

*Bhavadharani K*



sustainability. His discovery was both unsettling and enlightening: much of what society discards as waste actually holds untapped value; it is a resource waiting to be reclaimed.

Inspired by this revelation, Deepesh resolved to take action. His first mentor in this new chapter was Indrakumar, president of Home Exnora Yoga, who introduced him to natural composting methods. With guidance and hands-on experience, Deepesh experimented with creating compost using coco peat, dried leaves, and curd to accelerate decomposition. His initial product, a

systems in Chennai gave Nilayaan credibility, yet Deepesh quickly realised that Chennai's waste management landscape was dominated by a handful of large companies, leaving little room for new entrants like his.

Rather than trying to compete directly, Deepesh pivoted to a grassroots approach centered on education and community empowerment. He began conducting workshops in schools, neighborhoods, and small communities, spreading awareness about the importance of waste segregation, composting, and mindful consumption. One particularly



# JOIN THE FIGHT AGAINST CLIMATE CHANGE AT VIDACITY

While serving National Service, Varden Toh was troubled by the sight of trays of discarded food. Enough had to be catered for the hordes of hungry soldiers at camp, but it was difficult to avoid preparing excessive amounts.

“There was so much food wasted,” says Varden. “But what could I do?”

Jodie Monteiro had a similar notion. A hobbyist potter who experimented with waste material, she was perturbed by the mounds of eggshells and coffee grounds thrown out by homes across Singapore, and felt more could be done to reduce household waste.

“Not only does our throwaway culture make the waste situation even harder to tackle by dampening our waste disposal and sorting systems, it also endangers our natural habitats and biodiversity,” shares Jodie.

The two Singaporeans’ sentiments were triggered by a trend that has persisted over decades.

As much as the growth of cities such as the island state has brought innovation and prosperity, it has also given rise to modern urban lifestyles marked by overconsumption. Producing — and subsequently, discarding — food, clothing, electronics and other creature comforts to which we’ve grown accustomed generates greenhouse emissions such as CO<sub>2</sub>.

This in turn causes the planet to heat up, and the effects of climate change are clearly palpable: extreme weather events that threaten our safety and livelihoods, natural habitat loss that impacts biodiversity and increases our risk of disease outbreaks, and disrupted agricultural ecosystems that affect our food supply.

Global warming is, to varying degrees, felt by us all, and the urgent need for a solution to counter this existential problem is indisputable. Yet, many inevitably wonder: What difference can one person make?

The question nagged at Varden and Jodie, spurring them to start their own sustainability-led social enterprises. The former joined two friends to start Moonbeam, which turns food waste such as coffee grounds and spent grains (a by-product of beer production) into edible products including granola and cookies.

“We want to challenge people to rethink what is food waste,” says Varden.

Food valourisation, which is the process of turning food waste into useful products, is also Jodie’s focus. Her start-up, Ferticlay upcycles eggshells, coffee grounds, peanut shells and newspapers into clay, which is then transformed into handicrafts.

“Not only does it make the waste situation even harder to tackle by dampening our waste disposal and sorting systems, it also endangers our natural habitats and biodiversity,” says Jodie of the discarding of food waste.

In an ideal scenario, entrepreneurs such as Varden and Jodie — who have reimagined a more sustainable lifestyle through innovative ideas — would be able to instantly set the wheels in motion.

In reality, however, challenges such as a lack of resources hindered their first steps, thereby limiting their environmental impact. Jodie, for instance, initially couldn’t find a space for her venture, even though she had funding.

“Most venues prefer software start-ups because they can scale up quickly. But we can’t because it takes longer to do our research,” explains Jodie.

Varden, on the other hand, needed to bolster his expertise. He sought partners to expand his supply network, but wasn’t sure how to seek connections.

Then, the entrepreneurs caught wind of Vidacity, a new agritech and sustainability hub located in a former primary school in the heartlands that welcomes start-ups working towards a more sustainable future. It offers subsidised rental as well as a slate of programmes connecting start-ups with the public.



They leapt at the opportunity to join the fledgling community of like-minded Singaporean changemakers.

## A Test-bed for Sustainable Ideas

Launched in May 2024 by President Tharman Shanmugaratnam, Vidacity is building an ecosystem where stakeholders including education and research agencies, as well as start-ups can come together to create collective impact, while also introducing the public to solutions for a more sustainable way of life. It supports ground-up initiatives in the circular economy, decarbonisation and biodiversity spaces, helping them build partnerships to scale their work. Being surrounded by HDB flats in Pasir Ris lends well to the development’s purpose as a community hub for residents to learn and engage their neighbours.

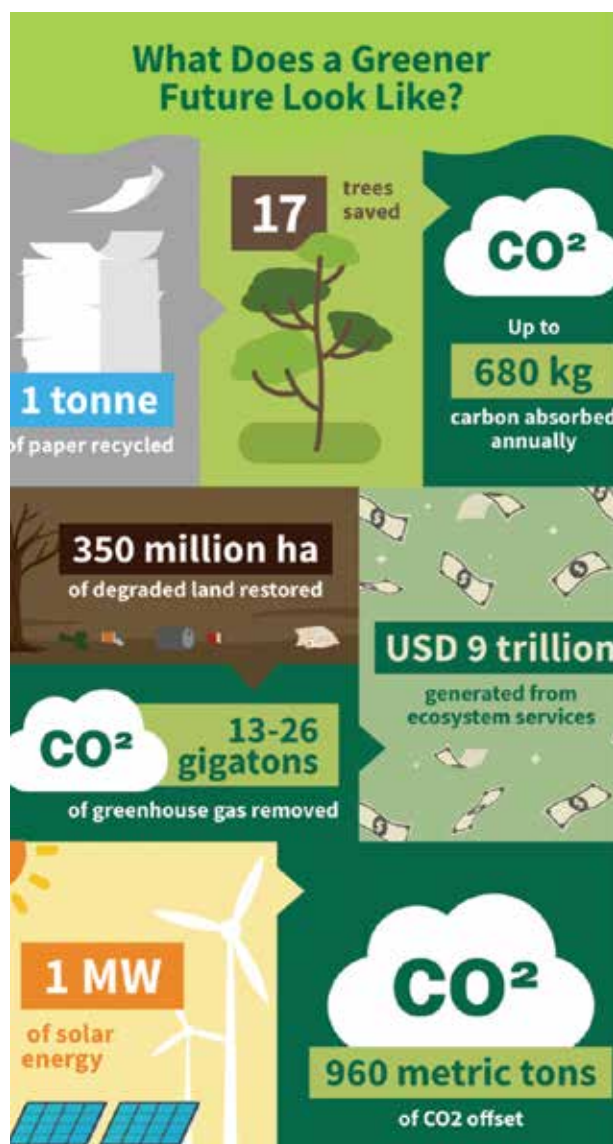
The development is the brainchild of Zac Toh, who is behind urban farming social enterprise City Sprouts. He came up with the idea after attending the United Nations Climate Change Conference in 2022 (COP 27), which left him wondering why SMEs, start-ups and the community were often left on the sidelines in global efforts to address the planet’s most pressing challenges.

“After COP-27, it became clear that global sustainability challenges require collaborative solutions,” he explains. Recognising the limited number of sustainability start-ups in Singapore, and given the traction he saw at City Sprouts, he decided to take a stand.

According to Zac, who himself is a young entrepreneur, Singapore start-ups in the sustainability sphere struggle to find their place in a developing market that may not be ready for their innovations.

Zac believes that Vidacity can equip innovators to drive meaningful impact for the environment. “It’s about taking a leap of faith — recognising when the time is right to pursue that calling, to turn a dream into reality.”

Vidacity’s efforts to save the planet are aligned with the Singapore Green Plan 2030, a nationwide push for sustainability that includes concrete goals such as planting more trees; increasing the use of solar energy; reducing waste sent to landfills and reducing water consumption.





Just like the national initiative, it aims to rally ordinary Singaporeans as well as stakeholders from various sectors around solutions that address climate change. What if we could reimagine a more sustainable future — one where people live more consciously, and communities thrive in ecosystems that are rich in biodiversity without harming them?

### Engaging the Community

While many Singaporeans harbour a desire to effect positive change for the environment, they may lack the knowledge to take meaningful action.

Vidacity equips individuals with practical tools to live more sustainably, through its slate of educational workshops, urban farming initiatives and farmers markets. Among these initiatives are regular electrical repair workshops hosted by tenant EDR2, a community group focused on electronic waste (e-waste) reduction.

E-waste can contain valuable materials which may not be fully extracted by recyclers. The improper processing of e-waste also adds to carbon emissions, and in some cases, produces hazardous substances that damage the environment and affect public health.

Participants for one such workshop were new to the idea of changing a three-pin plug and using a soldering kit, but found it immensely useful. One of them, who wanted to be known as Ming, discovered that fixing household items was easier than he had imagined — opening the possibility to a more eco-friendly and economical lifestyle.

This is music to EDR2's founders' ears. As part of their overarching aim to battle over consumerism, they are seeking to build a community of tinkerers. Home appliances and computer equipment are discarded — often unnecessarily — adding to the 60 million kg of electrical and electronic waste that Singapore generates each year. This is why Danny Lim, EDR2's co-founder, looks forward to organising more workshops, with Vidacity as its first permanent space.

For EDR2 volunteer Tang Swee Seng, tinkering is not just a hobby, but also a passion with purpose. “We hope to give people the basic skills to do their own repairs. We don't have to change the world, we just have to do our part.”

Being sited in the heartlands is beneficial to Vidacity's stable of start-ups, as it is to the wider community.

For instance, Soil Social — which produces premium microbiologically diverse compost — collects a variety of food scraps from neighbouring fruit and vegetable stall owners and residents.

Composting helps to turn food waste into fertilisers, effectively returning it to the earth. Besides helping farms in Singapore and the region to improve their farming practices and yields, Soil Social has a mission: To get the public to turn food waste into compost, which they can then supply to local farmers. This will, in turn, boost Singapore's national ambition to produce 30 per cent of its nutritional needs by 2030, one of the important features of the nation's Green Plan 2030.

### Collaboration for the Win

Vidacity has been a game-changer for the ground-up sustainability scene, not least for its accessibility. As a start-up hub, it allows young entrepreneurs such as Jodie and Varden to form fruitful partnerships within a supportive ecosystem.

In July, she co-organised a workshop with Soil Social for university students, showing them how food waste can be transformed into clay and compost. Such collaboration can expand her repertoire of food waste to experiment with, giving her a deeper understanding of the science behind food valorisation. Looking ahead, she hopes to tap on EDR2's expertise in 3D printing to scale up her production of clay artworks.

Varden, meanwhile, attended a workshop jointly organised by Republic Polytechnic's agri-food incubation programme at Vidacity. This helped him break out of his silo to network with experts and counterparts in gaining insights on how to maximise his impact on the sustainability front.

“As an individual, you feel helpless. But when you get



Jodie Monterio of Fertilay works with food waste to craft clay products.



Varden Toh with one of Moonbeam's edible products made from food waste.

### Moving the Needle Together

In its drive to power a sustainability movement, Vidacity has welcomed 10 start-ups to its fold, with more gearing up to move in. It also hopes to galvanise more Singaporeans to start their own environmentally-skewed initiatives.

To that end, it offers a lively roster of events for the public, including the Forest Festival that drew curious participants in August. Here, individuals learnt about environmental threats and how to tackle them, as well as got acquainted with sustainable start-ups and ideas like Fertilay, which ran workshops on re-purposing food waste into clay.

One participant could be heard remarking to her husband: “Very interesting! I didn't know food waste could be turned into clay, next time we shouldn't discard food so quickly!”

Vidacity's founder and tenants continue to beaver away at their goals, united by their vision of engendering positive change for the environment. They're convinced that events such as the Forest Festival, which brought in over 800 people, can help to shift societal mindsets and spark a groundswell of support in saving the planet.

The success of such events, thanks in part to the fact that Vidacity is embedded within the community as a heartland hub, can drive greater momentum in the green movement, where anyone off the street, can walk in with curiosity, and leave with knowledge and empowerment.

Jodie believes that everyone needs to play their part for Singapore to advance the goals under its Green Plan — whether by recycling waste or reducing their consumption.

“The changes must come from our own interests and value of the environment. Then we will be more willing to change our lifestyle.”

Zac echoes her sentiments. “We need people from the community to drive change, because ultimately, a fundamental behavioural change is needed. Sustainability is an issue that requires everyone's efforts.”

*A story by Our Better World – the digital storytelling initiative of the Singapore International Foundation*



## “If we equip rural youth and farmers with the right tools and access, rural India can transform into an economic powerhouse.”

### *Dr. Murugesan shares with Marie Banu his passion for Sustainable Agriculture*

**D**r. Murugesan is a distinguished expert in rural development and entrepreneurship, currently serving as the Director of the National Institute of Rural Development and Panchayati Raj (NIRDPR) at Guwahati. With over three decades of experience, he has dedicated his career to advancing sustainable agricultural practices, skill development, and community empowerment through panchayati raj system across rural India.

Born and raised in a remote village in Tamil Nadu, Dr. Murugesan's early life experiences deeply shaped his commitment to rural upliftment. Holding degrees in Economics and a PhD focused on energy use efficiency in dryland agriculture, he combines academic rigor with practical insights into rural livelihoods, agri-preneurship, and climate-resilient farming.

Under his leadership, NIRDPR Guwahati emphasizes innovation in business development models to promote agri-enterprises, strengthening Farmer Producer Organizations, and renewable energy adoption. Dr. Murugesan is widely recognized for his contributions to inclusive rural development, border area village development plans, policy formulation for various line ministries / departments and capacity-building organisations that foster inclusive and sustainable rural economies.

*In an exclusive interview Dr. Murugesan shares with Marie Banu his passion for Sustainable Agriculture*

#### **How did your early life and educational journey shape your interest in rural development and economics?**

I hailed and grew up in Pappaiyapuram, a small grama panchayat of T.Kallupatti block in Madurai district, Tamil Nadu. Our village was remote—we had to walk about 2.5 km just to reach the main road. I studied up to 5th class in our village primary school, which eventually closed due to low enrollment now. There was midday meal scheme, introduced by Thiru K. Kamaraj Nadar, the then Chief Minister of Tamil Nadu that initially drew me to school, not the promise of education but for getting one noon-meal. CARE (USA) also supporting us during periods of food scarcity and malnutrition. These experiences instilled in me the value of education and the determination to uplift others too similar.

To continue my studies, I was admitted in a government-run Adi Dravidar Welfare hostel in Gopinayakanpatti that 7 km away from my native village upto 10th class, and then migrated to government higher secondary school at Peraiyur, again walk to 7 km daily for intermediate education because I could not avail hostel facility there. Later, I earned my bachelor's degree in Economics from ANJA College in Sivakasi, masters degree from Madurai Kamaraj University and M.Phil and Ph.D from Central universities of Pondicherry and Hyderabad respectively.

After masters, I worked as a Research Investigator at Pondicherry Central University, then joined as Assistant Director with the National Institute of Rural Development (NIRD) in 1993, where I've devoted my career to rural transformation, skill-building, and community development. Also, my father's petty business majorly collecting senna leaves for the exporters along millets and cereals sparked my early interest in rural enterprise, especially in processing and value addition. Formal studies in economics and many



hours in the library further deepened my focus on rural upliftment.

#### **Why is agriculture and agri-entrepreneurship so critical in India today, and what gaps remain in the system?**

Agriculture is the foundation of food security and livelihood for the millions. Yet, most Indian farms are highly fragmented, over half of them are micro-peasants with less than half acre land. We need to move from traditional subsistence farming to agri-preneurship, and promote both agri-enterprises (primary production) and agro-enterprises (processing and value addition). For example, Dabur relies on large-scale gooseberry (Amla) sourcing, but without collective models like Farmer Producer Organizations (FPOs) the fragmented smallholders can't meet such demand.

Moreover, India experiences seasonal surplus of agri-products and shortages too during lean season — such as fruits, onions and tomatoes etc. Due to lack of coordinated planning and storage infrastructure, farmers could not get reasonable prices. Climate change—with unpredictable floods and droughts also exacerbates these issues. We need climate-resilient infrastructure, built through public-private partnerships, and even can learn from ancient check dams constructed by the Kings for water management harvesting innovations. The Corporates' Social Responsibility (CSR) initiatives can be a boon to uplift rural poor by shouldering through their innovative approaches at large.

#### **What are the environmental and technological challenges facing agriculture today?**

Deep mechanized ploughing disturbs the micronutrient-rich topsoil, degrading soil fertility and increasing dependence on chemical inputs. Ironically, while we campaign to avoid plastics, we ignore to stop mass production of the same. We continue farming methods that harm our environment too. We must evaluate the ecological costs of all agricultural practices while expecting growth oriented tendencies.

Obviously, technology has transformed the livelihoods through communication, market access, and inputs, but it's a double-edged sword. If over-dependency upon, it can displace traditional values and disrupt ecosystems. A cautionary anecdote is, even the creator of Artificial Intelligence can be replaced by same AI which often reminding us that technology should

empower people, not to replace them.

#### **How has modernization impacted traditional rural livelihoods?**

It is obvious that Mechanization brought efficiency but erodes traditional skills at the cost of it, village tiny enterprises like pottery, basket weaving, black-smithy, gold-smithy, carpentry, etc. become extinct. These vocations were inter-locking pillars of community cooperation in the villages. Losing them means losing not only jobs but also the mutual-support networks that once bound villages together.

#### **What are the main challenges in microenterprise development and market linkage?**

Skill mismatch remains a persistent issue—people trained in one trade being placed in unrelated roles. Schemes like MSME and Skill India need sharper focus. Additionally, while regions like the Northeast produce high-quality turmeric, ginger, and oranges etc., but less than 5 % is value-added. We urgently need to establish processing units, micro / mini cold storages at every gram panchayat levels, and create a robust market linkages to enhance farmers' incomes and reduce post-harvest losses.

#### **How do different regions of India compare in rural development?**

Example, Tamil Nadu's concerted efforts in awareness generation and support have uplifted many rural communities. The Northeast India, despite transport and communication challenges in past decades, has preserved their unique indigenous practices and biodiversity—such as bamboo crafts, rare fruit and medicinal varieties. What it requires now is value-chain development clusters and market access to transform these strengths into sustainable livelihoods.

#### **What happened to the spirit of collective development in rural areas?**

A shift toward individualism has weakened collective efforts, but cooperative models remain vital. Federations of Women's Self-Help Groups (SHGs) and FPOs have demonstrated that, with support, grassroots collectives can flourish vegetable sellers, fish vendors, and greens traders those now are thriving as micro-entrepreneurs. I believe, the power of collective action will deliver results when man-made barriers to the organization are removed.

#### **What recommendations do you have for making agriculture more sustainable and future-ready?**

My PhD work on energy use efficiency in dryland agriculture led me to two key recommendations viz.,

1. Promote agri-preneurship, so farmers escalate them beyond raw production into processing and market-driven activities.
2. Adopt agri-photovoltaics, leveraging solar energy for irrigation, storage, and processing initiatives.

India's solar potential is vast but underutilized. We also need decentralized micro-processing and storage units for the crops like mangoes, oranges, and millets to reduce waste and boost profits to all stakeholders.

#### **What is your vision for the future of rural India?**

If we equip rural youth, women and farmers with the right tools and access, rural India can transform into an economic powerhouse. With convergence approach, we need a unified, inclusive, and technology-embedded rural economy, where policies must universal and non-discriminatory. By integrating basic entrepreneurship, value addition, and targeted skilling at the grassroots, we can empower rural masses and farmers to build a self-reliant, resilient, and economically vibrant India.