



Adobe Study Finds 94% Indian Employees Make Workplace Sustainable

By SN Staff

It is good news that employees are increasingly engaged in their companies' sustainability mission.

As the future of work continues to change globally post-pandemic, businesses have begun modifying their approach towards sustainability through employee involvement and hybrid workplaces. To better understand Indian workers' stances on their businesses' sustainability practices, Adobe conducted its Sustainability at Work survey with over 1000 Indian employees and business managers.

In the survey announced in April 2023 respondents were asked about their company's sustainability initiatives, as well as their projections for the coming decade. Many employees believe their company wants to reduce its environmental impact, and they are individually involved in enforcing the company's sustainability initiatives. According to respondents,

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sustainable practices in the workplace lead to improvements in workplace culture, reduced negative environmental impact, and increased overall productivity rates.

The study also found that a majority of Indian employees (90%) think that hybrid working can make businesses more sustainable. The main reasons for this are increased focus on digital document storage and management (44%), generally encouraging the use of digital collaboration and workflow tools, and lower electricity consumption in commercial office spaces.

Employee participation in Sustainability Initiatives

According to the survey, a very high proportion of employees (94%) say they are directly involved in driving sustainability practices at their workplace. **This is even higher for Indian workers aged 25 to 34 (97%).** Additionally, 97% of executives believe it is important for them to achieve high sustainability at work, and 41% of executives ranked sustainability at workplace as one of their top three metrics for business success. They also revealed that a vast majority of Indian executives are assessed on sustainability in their performance scorecard.

As for employees, the survey revealed that 83% of respondents feel empowered to help improve their company's sustainability practices and 82% would like to be more involved in driving sustainability practices in their workplace. Around 70% of Indian employees feel their company is in line with or ahead of other companies in its sector when it comes to implementing sustainability practices, with over 84% of employees adding that their company has dedicated personnel responsible for implementing these practices.

However, the opinion of who should primarily drive sustainability initiatives in the workplace is split, with about 30% believing everyone should drive it equally, while the rest believe that either employees or executives and managers should be tasked to do so (35% and 29%, respectively). Indian employees also see sustainability as an opportunity for innovation, talent attraction and retention.

Sustainability for Business Success

The survey also showed that 77% of Indian employees believe their company prioritises sustainability and wants to reduce its environmental impact. A great majority of Indian executives (93%) also remarked that their company has boosted its sustainability efforts to attract more prospective employees, with about 71% of Indian employees stating that they would only work at a company that prioritises sustainability.

According to senior executives and business managers surveyed, Indian companies track sustainability initiatives in several ways, the top few being, publishing sustainability performance reports (56%), running internal auditing and reporting (51%), and including sustainability in management performance scorecards (50%).

Sustainability by 2030

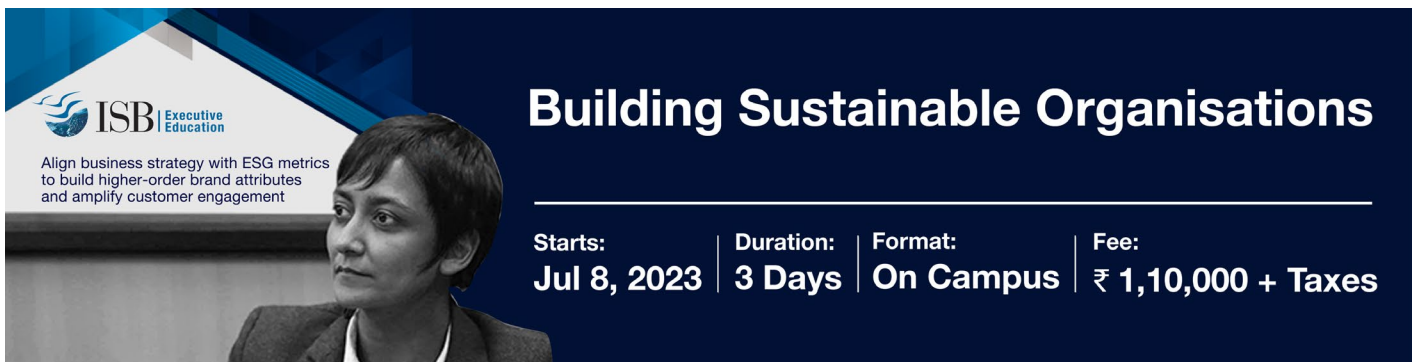
When asked about their projections for the end of the decade with regards to sustainability, 85% of respondents predicted that **sustainability initiatives will be viewed as opportunities for innovation by 2030.** About 82% even estimated that in the future, their companies will consider their entire supply chain, including vendors, when implementing sustainability initiatives and will have a dedicated sustainability department to help reduce their environmental footprint.

Respondents also believe that when it comes to sustainability in the workplace, their companies should be increasing their use of digital document storage and management (41%), prioritise renewable energy (41%), and work towards reducing or eliminating plastic in the workplace (40%). Furthermore, they hope to see more recycling programmes and reduced paper usage and printing in the office.

Research Methodology

Adobe Document Cloud Sustainability at Work Study is based on a 19-question online survey of 1,009 Indians, aged 18 and older, who are employed, either full or part-time to explore opinions and beliefs of Indian employees and executives about sustainable workplace practices in the present and their hope for the future of workplace sustainability.

www.adobe.com/in



ISB Executive Education
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Building Sustainable Organisations

Starts: Jul 8, 2023	Duration: 3 Days	Format: On Campus	Fee: ₹ 1,10,000 + Taxes
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ISB Offers Programme on Building Sustainable Organisations

ISB Executive Education is starting a programme on 'Building Sustainable Organisations', in July 2023. The objective of this programme is to help executives gain a deeper understanding of sustainable value creation for their employers.

The Programme covers lessons on best practices for implementing a sustainability strategy; identifying and explicating the challenges of managing multiple stakeholders in today's economy. It helps identify metrics that can be used to evaluate sustainable strategies. The key to successful executives is how they can influence management and other key stakeholders on the competitive advantage of sustainable strategies.

The programme aims to enable CSR executives, consultants, leaders, entrepreneurs, and purpose-driven professionals responsible for building "higher-

order" brand attributes that create customer engagement and competitive advantage for the organisation.

Such a programme is timely as Indian businesses face demanding **challenges in meeting their net-zero and corporate sustainability goals**. A study commissioned by **The Climate Change (Conducted by Forrester)** found that **24% of companies cited the complexity of the required transformation**, 25% highlighted a lack of talent with expertise in implementing net-zero initiatives and 23% of companies specified limited resources to support net-zero initiatives. 31% of Indian companies cited a lack of learning resources and partners as a significant hurdle in achieving their sustainability goals.

To know more about the programme, please read more.



(left to right) Rajagopal A, AI consulting partner for sustainability, Wipro; Jean-Philippe Courtois, Executive Vice President and President, National Transformation Partnerships, Microsoft; Sheeba, digital accessibility consultant, Wipro; and Anant Maheshwari, President, Microsoft India

Wipro Team Wins Microsoft's Sustainability Hackathon

By SN Staff

A four-member team from Wipro has won the 2023 Microsoft Pledge to Progress: Sustainability Hackathon for building climate change resilience for people with disabilities. The hackathon was meant to incubate ideas, build innovative solutions and shape India's sustainable future leveraging the power of technology.

The hackathon is a platform for organizations and individuals to develop solutions that can help reduce carbon emissions, save water, manage waste, create green software. The solutions are built on **Microsoft Cloud** for Sustainability platform.

The hackathon that kicked off in March 2023 received over 95 entries from companies including Infosys, Deloitte, UST Global, TCS, Wipro, Oracle, FIS Global, Tech M, Cast Software, Capgemini, ITC Infotech, across the two themes of "industry specific solutions" and "green software development."

Inspire, the winning team from Wipro, built a prototype that can help people with disabilities play a stronger role in building climate change resilience and adopt sustainable practices. By integrating accessibility features, the solution enables people who are blind or have low vision to not just read and interact with reports on Microsoft Sustainability Manager but also build apps on the extensible solution.

The solution offers a virtual advisor based on Azure OpenAI Service for Corporate Sustainability Reporting Directive and leverages the Microsoft Planetary Computer for satellite AI-based carbon credits and water sustainability. To address the tech challenges in Scope 3 value chain accountability, the solution employs Microsoft Fabric to bring in carbon footprint data and innovates with Pathfiner PACT, which is currently previewed in Microsoft Sustainability Manager.

Apart from Wipro, three other teams received special mention for their innovation:

- **Bring Life to Lakes** by Sharp Software Development: Centralized solution integrated with Microsoft Sustainability Manager for measuring the quality of water and monitoring garbage for apartment STPs and lakes.
- **Team Scintilla** by Pratishri IT Solutions: A mobile application platform that reduces food waste, feeds the needy, and promotes sustainability.
- **Mother Nature Earth** by Tata Consultancy Services: Solar energy prediction and management solution to estimate energy availability.

The winning team will gain access to expert mentorship from industry leaders, tap into Microsoft's extensive network of partners and customers, and receive resources to further refine and develop their solutions.





How Deep Tech, AI and Robot to Revolutionize Farming?

By Jaisimha Rao, CEO, Niqo Robotics

Agri-tech companies that prioritize a farmer-first approach will lead the way towards a new era of super-efficient and sustainable farming.

As the world's population continues to grow, the agriculture industry is facing an increasingly challenging task of meeting the growing demand for food. In order to address the global food crisis, there needs to be a significant increase in the global food supply by 2050. Despite a 50% increase in crop production rates over the last decade, there are still significant gaps between demand and supply. This is why sustainable food production is more important now than ever before, and it can only be achieved through the adoption of disruptive technologies, which historically have been slow to emerge, particularly in India.

However, the trend is changing, and agritech start-ups are leading the way in developing smarter and more sustainable farming practices. This is a critical step in achieving the 17 Sustainable Development Goals (SDGs) outlined in the 2030 Agenda. To achieve these goals, there must be sufficient investment in technology that can adapt to environmental and market factors, thereby increasing agricultural productivity sustainably. **Today,**

nearly 97% of disruptive, solution-based deep tech startups are aligned with one or more sustainable goals. The good news is that many agricultural processes can be mechanized to improve efficiency and sustainability, using deep-tech solutions.

A good example of cutting-edge technology in action is the implementation of **AI-powered robots** in sustainable agriculture. These AgRobots possess the remarkable ability to execute agricultural tasks with unparalleled efficiency, precision, and effectiveness. The application of this scientific accuracy in farming can have a substantial impact on fostering sustainability. For instance, consider the critical agricultural task of spraying. Traditionally, farmers depend on blanket spraying in which chemicals are indiscriminately sprayed on the entire farm. This leads to wastage of a significant amount of water and chemicals, in addition to the negative impact on the environment and groundwater due to unnecessary spraying.

However, an AI-powered smart spray robots equipped with computer vision, can selectively target spray only the plants with chemicals, sparing the soil from unwanted chemical exposure. This can reduce the amount of chemical input costs for farmers and preserving the nutritional value of their soil.



Jaisimha Rao – CEO and Founder, Niqo Robotics

Spot spraying is undeniably an excellent example of how deep tech is propelling sustainable agriculture forward. However, it is not the only case. **Weeding** is another critical yet laborious process in agriculture. AI-assisted technology can target and perform weeding on different terrains with real-time assistance, which can function independently and overnight, saving

farm workers time and effort. This level of plant care produces healthier crops with cost efficiency, lesser chemicals, and less water.

Other key areas where AI AgRobots have penetrated the market include **monitoring crop health, using predictive analytics** to customize crop fertility plans, automated harvesting, soil, and irrigation management, among others. These innovations can cover multiple pain points, including labour shortages, energy consumption concerns, unpredictable weather and soil conditions,

burdensome production costs, limited fertile land, resource insufficiency, growing demand for personalized niche products, and various other supply chain irregularities.

The potential for AI in agriculture is boundless, as the technology continues to store and improve upon data. Given the current state of the planet, a shift towards a non-destructive, dependable, and sustainable means of sourcing food is imperative **Deep-tech has the potential to transform the agriculture industry and usher in a long and sustainable growth era.**

Thanks to breakthrough innovations in AI, the computing power of robots has become more robust, allowing for the development of portable and dependable models. **As software intelligence continues to advance, hardware is becoming increasingly affordable, creating a winning combination for agritech to scale.**

In 2023, agritech is poised to make significant strides, as the sector has matured to a point where it is resolving issues faced by farmers on the ground level. **Farmers are beginning to trust and have realistic expectations about agritech,** seeking technology that can deliver reliable results, withstand the rigors of field operations, and is easily accessible.



Left to right - Rohit, Stuti, Savita, Sonu, Guruprakash and Benedict Paramanand (moderator)

What 2023 World Environment Day Meant for Bengaluru

By Apeksha Priya

With runaway climate crisis all around us, should we celebrate World Environment Day as it was proposed in 1973 by the United Nations Environment Program (UNEP), or should we 'deliberate' about how to save, protect, renew, rejuvenate our environment?

With a new government in Bengaluru, can we hope for a better future for the city and its ecology? Five leaders in different domains shared their views at a chat over coffee at Starbucks, Vittal Mallya Road on 4th June 2023. It was co-organized by MXR World, co-founded by Dr. Madanmohan Rao, and SustainabilityNext Editor, Benedict Paramanand.

Should be by Default, not by Choice

We have expectations from the new government, but taking this to a broader level,

what I feel is sustainability is still by choice. Most of us have made a very conscious decision to move towards sustainability. We must move towards a situation where sustainability becomes by default not always by choice.

Savita Hiremath, the author, *Endlessly Green*

Collective Vision Needed

We have seen cities in the world which created wonderful visions for themselves. I would love to see a collective vision by start-ups, corporates, government or different groups to see what the city will be about in 20- 30 years,

and what things we can change. Focus less on the grandeur part of smart city vision and more on little things and bring a change. Small changes can bring great results.

Stuthi Vijayaraghavan, founder, [Urban Venture Labs](#)

Data Driven Approach to City's Green Management

Whether it is Karnataka Government or whether it is the environment here in Bangalore, how Bert Labs can impact the context in the intersection of Data, AI and energy being consumed, how it can be reduced, has a direct impact on the CO2 emission. Bangalore and Karnataka Government can facilitate the flourishing of technology companies.

This will directly have an impact whether it is large company like Infosys or small company like us. Potential clients, real estate owners, or manufacturing plants can help us create digital transformation.

Rohit Kochar, founder and CEO, [Bert Labs](#)

Art and Recycle

As a curator I have seen artists who use recycled waste to make art and sculptures. I work with people who promote such kind of art and I hope changes like these are also seen in public spaces. Bangalore needs more art from all kinds of materials.

Sonu Mulchandani, founder, [eStudio International](#)

Give Data to Government

Government needs data and we should engage with the government continuously. The government today is also looking at innovative ideas and flagship programs. If you give them a larger vision then definitely, they will work with us.

Guruprakash Sastry, Head of Climate Action, [Infosys](#)

Everyone concurred that change should begin with each of us acting responsibly before we ask others to change to save our localities, cities, nation and the planet.



GoodWorks Angel Fund Launches AI-powered Upskilling Platform

By SN Staff

GoodWorks Angel Fund announced the launch of its ambitious ed-tech platform Netskill with a vision to deliver large-scale solutions to upskilling and educational issues in developing countries. A company note said the platform is both personalised and scalable.

Netskill, with a slew of angel investors, has been in stealth mode for the past two years. The startup aims to empower students and professionals from varied backgrounds to learn technical skills and get employed in high-growth sectors like IT, data science, and artificial intelligence. With its innovative approach, Netskill seeks to create the next million tech graduates in India and bridge the gap between industry demand and talent supply.

The AI-powered platform leverages the latest technologies to create a personalised learning experience for each student. It uses machine learning algorithms to understand each student's learning style, pace, and preferences and adapts the curriculum accordingly. The platform also offers a range of interactive

features like gamification, quizzes, and assessments to enhance student engagement and motivation.

Netskill has partnered with several leading universities and colleges to offer its courses. It has also roped in several enterprises and SMEs to train their employees and drive their talent transformation journey.

Companies today need to adopt AI, Big Data, Blockchain, Robotics, AR/VR, and other futuristic tech if they want to survive the near future. Netskill will become the core partner for companies of all sizes to ensure their employees are upskilled or reskilled to implement these newer technologies into their business model and growth.



How Green Governance can Increase Export Numbers

By N. Chandran, Chairman, Eastman Exports

We are living in the day and age, where all our ideas and efforts are focused on green – green initiatives, green energy, green growth and green future. And understandably so, because we will need to go green to ensure we have a planet that can support human life, with clean, breathable air, cultivable lands and portable water.

In this context, good green governance assumes high significance as it helps promote businesses while ensuring minimal harm to the planet. This term encompasses eco-friendly production methods, reducing carbon emissions, responsibly sourcing materials, complying with environmental regulations and promoting transparency and accountability in environmental reporting. All in all, this entails abiding by the United Nations' 2030 agenda for sustainability development.

How does good green governance work?

The clamour to transition to green economies is increasing as concerns for environmental protection and sustainable development intensifies. Recent research discussing this trend has used the term 'green governance' and introduced sustainability and environmental protection concepts as critical elements for economic development.

Green governance emphasises on striking a balance between economic growth and environmental protection. Key elements of good green governance include:

- Environmental compliance
- Sustainable supply chain management
- Reduction in carbon footprint
- Transparency and traceability reporting
- Innovation and research
- Corporate social responsibility
- Stakeholder engagement
- Waste management and recycling

Green governance and exports

As Western countries are increasingly focusing on sustainability in the products they import, it is important for countries like India to focus on green governance as it is critical to get increased access to international markets, receive competitive advantage and build reputation.

Abiding by good green governance is essentially a two-pronged requirement – by the government and by private players. The government can help achieve sustainable goals in exports by implementing regulations, promoting sustainable material sourcing, ensuring supply chain transparency, fostering collaboration, providing incentives and support and raising consumer awareness.

At the organisational level, businesses can ensure good practices such as proper treatment of pollutants, replenishing naturally-occurring raw materials such as wood through plantation drives and turning towards non-polluting energies to run factories, among others.

Adopting sustainable management

strategies that consider economic, social and environmental factors promote innovation and benefit both organisations and the society will greatly enhance export performance in manufacturing companies. These strategies provide valuable guidance to the organisation and its stakeholders.

Green governance in textile sector

While green governance has made significant progress in promoting sustainability in the textile sector, there are some core areas where it should play a role with the advent of new technologies. These include:

- Renewable/eco-friendly raw materials
- Circular economy
 - Increasing the lifespan of clothing or recycling of existing textiles
 - Proper treatment and disposal of by-products and ancillary wastage (threat from non-biodegradable materials and industrial wastes)
- Chemical management
- Consumer awareness and education
- Collaboration and industry-wide initiation

Long-term profitability in the textile sector depends on the alignment of sustainable practices with consumer demands, regulatory requirements and evolving industry trends. Adopting green technologies and upgrading to automation, innovation and digitalisation in these contexts, combined with guaranteed sales, bring sustainable growth as well as profitability through high return on investment.

Green governance, the way forward

Every business will, sooner rather than later, need to pay attention to sustainability in order

to stay relevant as the pressure to disclose environmental and social practices intensifies. Taking steps to become more sustainable will increase the resilience of the textile industry, have an impact on the long-term profitability of the firm, and increase profits through lower operating expenses.

Also, as buyer focus and demand for ESG increases, green governance is slated to impact export numbers, but reaching the Indian target of \$900 billion exports will depend much on global demand as exports are dependent on expansion of key overseas markets.

Countries are currently facing more and more problems related to climate change, which is forcing governments all around the world to come up with new solutions. In addition to receiving tax breaks, sustainable products support successful trade discussions with other nations. In light of this, encouraging similar environmental objectives and regulatory compliances can further improve international collaboration in trade negotiations.

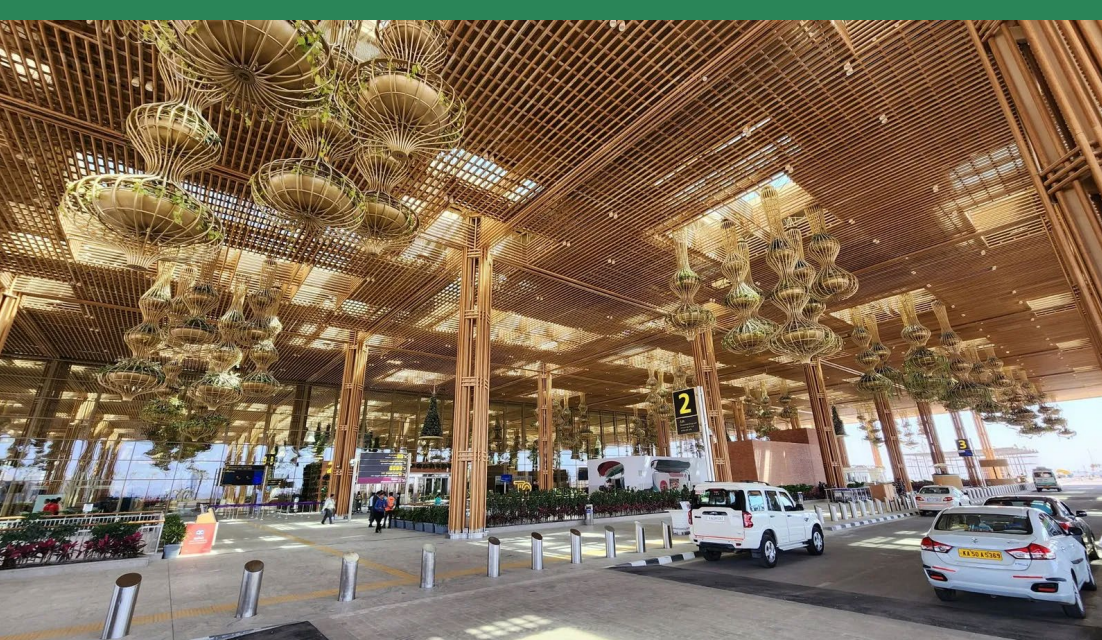
The benefits of trade agreements accrue to exporters as well as consumers in the form of lower price. Lower tariffs in international market increases competitiveness of domestic goods and pumps exports by providing better market access.



By N. Chandran, Chairman, Eastman Exports

India is in the early stages of a profound transformation, and the new order is gaining speed with time. Environmental governance is basically a dynamic system that adapts to new challenges which change rapidly. It is due to this dynamic nature, mastery over green norms can only be achieved over time.

By boosting technical capabilities in clean technology and circular economy, India can accelerate its transition towards a sustainable and low-carbon future, and foster economic growth at the same time.



Terminal in a Garden

By SN Staff

The Bangalore International Airport Limited calls its newly constructed Terminal 2 (T2) as a “Terminal in a Garden.” A biodiversity hotspot, it features 600 plus one-year old trees, 180 rare and endangered species, and extensive bamboo cladding.

The new terminal’s design, a company note says, is inspired by the Garden City of Bengaluru. BIAL sourced six lakh plants from ten ecological habitats across the country for creating a garden-like environment. The terminal not only enhances indoor air quality but also achieves a 24.9% energy savings through the use of solar panels, sky lighting, and a rainwater harvesting system.

As a result of its sustainable practices, Terminal 2 became the largest airport terminal in the world to receive LEED Platinum Precertification by the US Green Building Council, even before its operations commenced. T2 was also awarded the prestigious IGBC Platinum certification under the IGBC Green New Building rating system.

The Kempegowda International Airport commenced operations in 2008. It has emerged as the third busiest airport in India. From early days this airport has been practicing Water Stewardship, Net Zero Carbon Emission, Community Aligned Noise Management, Circular Economy, Sustainable Procurement,

and Sustainable Mobility. All these contributes to 11 of the 17 United Nations’ Sustainable Development Goals (UNSDGs) and indirectly contributes to the other six.

KIA is a signatory of the United Nations Global Compact Initiative. – a voluntary leadership platform for the development, implementation, and disclosure of responsible business practices.

KIA aims to use 10% of its Sustainable Aviation Fuel infrastructure by 2030.

Support Schools

Through its KIAF wing, KIA has adopted and reconstructed five government schools through its Namma Sikshana program. Additionally, it has refurbished eleven schools and twenty-one preschools. In collaboration with the Forest Department and the Government of Karnataka, the airport has also initiated the conservation of India’s First Biodiversity Heritage Site. It supports local artisans and small-scale enterprises by providing dedicated retail spaces and organizes events for them.



Eat Less Fish, Save the Planet

By Ram Ramprasad

Most solutions on cleaner oceans address the supply side of the fishing industry such as defining fishing zones, sustainable fishing, offshore fish farming. But the real need is to curb demand. We need global campaign against eating too much fish similar to the campaign against eating too much meat.

The war in Ukraine, inflation, and other geopolitical concerns is making nations to back pedal on their climate actions. All hope is not lost as several simple solutions to tackle our climate problems still exist. However, exercise of collective will by individual citizens of all nations of the world is the key, these solutions require very minimal investment, but come with exponential positive returns.

Crowther Labs gave birth to the idea of the “Trillion Tree” campaign. Sadhguru, the mystic from Coimbatore, started “Save the Soil” campaign. Many such campaigns are sprouting up all across the world either by individual actors or organizations. They are slowly gaining momentum and even giving rise to a new generation of startups. We now urgently need a ‘Save the Fish’ campaign. By saving our oceans, fish, soil, and trees we will save ourselves from the ravages of climate change. Two thirds of our planet is water – but we humans tend to think like the classic “frog in the well,” the frog thinks his world is limited to the boundaries of the well. Similarly, we define our boundaries as the land we live on – the concept of saving our oceans to the layman

simply means not dumping plastic. While true, this is only one part of the problem – the bigger issue is that fifty percent of our coral reefs and ninety percent of our big fish have disappeared, mostly eaten according to Sylvia Earle, the world-famous marine biologist in a TED Talk.

Marine biologists agree that phytoplankton, the micro algae living on the surface of the oceans can produce fifty percent of the world’s oxygen, and absorb about forty percent of the world’s CO₂. The oceans like the vegetation on terrestrial land run on a symbiotic basis – the giant whales that we love watching spew their fecal plumes to provide rich nutrients on which phytoplankton feed. In fact, it is well known that where whales exist, phytoplankton growth is exponential. **A single whale is equal to about a thousand trees with regard to its CO₂ capture and carbon sequestration.** But sadly industrial whaling has decimated the whale population to less than one fourth of what it used to be. According to www.whales.org the pre-whaling number was 5 million. Chris Johnson of the World Wild Life Fund (WWF) believes protecting and growing whales is nature’s solution to climate change. Whales

depend on fish as their food source, the fish depend on the phytoplankton for their food source. An interesting and a circular symbiosis that we do not appreciate. Essentially, we are robbing the lunch of the big fish that are only meant to help us. Phytoplankton can become a friend or a foe; wastewater dumping with its effluents or excess nutrients can create algal blooms that are toxic.

Overfishing has decimated our fish population. The world has waged a war on the fish to appease a voracious fish-eating population – sonar, radar, helicopters, spotter planes, bottom trawling, flash freezing of fish on giant boats and several other modern technologies have ravaged the seas. Old fashioned sustainable fishing methods of catching fish close to the shore are now outmoded. Fishing is now a mega billion-dollar industry. Practices like bottom trawling involve throwing away several important marine species including the lovely dolphins that are known to circle around swimmers and warn them of sharks. Cruel practices of shaving off shark fins for soup has killed many sharks.

Curb Demand for Fish

To date, most solutions have focused on addressing the supply side of the fishing industry such as various acts to protect fish, defining fishing zones, sustainable fishing, off shore fish farming and so on. But the real need is to curb the demand side of the equation which is not being addressed.

Education in climate science and true biology in the context of saving our planet is urgently needed both for children and adults all over the world. Conference of Parties (COP) has to take the leadership. Oceans and protection of all forms of marine life must rank in the top three priority areas. Also, we must continue



our innovations in non-sewered toilet waste water systems such as the Omni processor type or other novel systems including marked investments in innovations in the treatment capacities of waste water treatment plants all across the world. All these measures will alleviate the amount of waste water that enters our rivers and oceans.

Most studies now indicate that animal protein is not the ideal food for human health. Chemical toxicity in fish due to waste water dumping is also of a major concern. In fact, all scientific evidence gravitates to the fact that human digestive anatomy as it relates to the tooth structure, jaw structure, length of intestinal tract, pH acid in the stomach and so on resemble that of herbivores. We suppress the facts of true science because no one wants to give up their meat.

If the slaughter industry did not exist, I surmise almost all people in the world would switch to a plant-based diet – instinctively we don't like blood; as long as someone else does the dirty job of slaughtering, it is out of sight and out of mind. Understandably. It is hard to change habits, radical changes are not practical and should not be expected – but one can minimize fish and meat consumption. One can switch to plant-based type meat or lab grown meat alternatives.

Startups have an immense opportunity to grow fish meat in the lab and protect our planet. Lab grown fish meat will be free of toxic chemicals and would be biologically similar to the real stuff. Plus, it allows customization of fat content. Governments have to step up and subsidize such industries. **Ironically, a report by the OECD states that global subsidies to the current fishing industry of USD 35 billion has also contributed to overfishing** – why not shift these subsidies to the startups? Such market-based initiatives will naturally be acceptable to all stakeholders.

Smart Campaigns Simple Metrics

The most important thing the world can do is to start a campaign to save our marine life. Campaigns sometimes fail if we don't test market the messaging properly. NGOs and individual actors can learn a lot by employing business skills used by the private sector or the advertising firms. Campaigns propel businesses to act and capitalize on new opportunities, they educate people on the importance of fish, coral reefs, reasons for ocean acidification, etc. Oceans like soil and trees are a great carbon sink, but biology lessons in schools don't teach



Ram Ramprasad worked as a Global Marketing Director for a Fortune 100 company. He has a graduate degree from Yale University, USA, and Madras University, India.

us why they are considered carbon sinks. **Whole systems thinking is absent in almost all subjects – a case study type approach needs experimentation.**

We need to dismantle archaic concepts such as GDP. We only manage what we measure – let us measure our ocean quality by the number of diverse small and big fish per square mile, our soil by its soil organic carbon, our air by its CO2 parts per million, and our energy by its share of carbon free emission technologies. Having such simple metrics will definitely influence behavior at the individual level – this is the essence of economics. Climate scientists and economists have to come to some compromise, kicking the can down the road is no longer an option.

In conclusion, if the world could eradicate polio, small pox, contain a deadly pandemic such as COVID, we certainly can save our oceans, our soil, and our trees – the simplest natural solutions that require the will of a collective global humanity. Preventive solutions will save us from the next big calamity, we only reap what we sow.

Africa's Great Blue Wall Initiative

<https://bit.ly/42uVRHM>

Restoring Seabird Populations Can Help Repair the Climate

The number of ocean-going birds has declined 70 percent since the 1950s. New research shows how projects bringing them back can also bolster ocean ecosystems that sequester carbon.

<https://bit.ly/42vh2t8>



India Needs to Define Ecotourism Destination Capacity

By Shreya Ghodawat

India's hot eco-sensitive tourist destinations are beginning to pose a major threat to local population and to the ecosystem. It is a good time India starts earmarking destination capacities keeping the long-term tourism potential and ecosystem preservation in mind.

Doug Lansky, a travel writer turned tour organizer, discusses in his recent TED talk emphasised the concept of "Destination Capacity" as a key factor in to manage eco-sensitive tourist destinations better. Drawing a comparison to theme parks, Lansky highlights how they efficiently manage capacity by adding more experiences when footfall decreases. Lansky suggests implementing limits and setting a cap on tourism capitalization, thereby aiding organizations in adopting eco-tourism practices.

Some destinations around the world have

already adopted visitor limits as a means of sustainable management. For instance, "The Wave" in Utah permits only 64 visitors per day, allocated through a lottery system. By restricting tourist footfall, these places can grow organically while preserving their natural and cultural heritage.

It is high time India makes a beginning in setting destination limits in a few eco-sensitive destinations such as backwaters in Kerala, Ladakh, Himalayan foothills, tiger reserves and a few more.

The backwaters of Kerala, India, form a labyrinth of interconnected lakes, meandering streams, and serene lagoons, harbouring a truly unique and captivating ecosystem. In 2017, Kerala witnessed a staggering influx of over 15 million tourists, drawn to the allure of its backwater cruises in the iconic houseboats known as Kettuvallams. This surge in popularity has had a profound impact on the region, particularly along the Alleppey backwaters, where approximately 70% of households are engaged in providing tourist services in various capacities.

Direct Impact on our Ecosystem

However, the rapid growth of the houseboat industry has brought forth a range of pressing concerns. The number of houseboats operating on the backwaters has exceeded sustainable capacity, with more than 1,000 boats currently in operation, many of them are unregistered. The environmental implications are dire: a single houseboat can generate up to 1,000 litres of waste per day.

Unfortunately, lax regulations have enabled the majority of these houseboats to discharge sewage directly into the water, compounding the contamination of the backwaters. Moreover, emissions and oil leakages from these vessels, coupled with the improper disposal of plastics and other inorganic waste, have further deteriorated the ecological health of this cherished natural resource.

This not only affects the ecosystem but also affects the quality of life of the locals. Pollution from sewage dumping, salinization, sand dredging, and other disruptive activities have deeply impacted the lives of the local communities residing along Kerala's backwaters. These communities have a strong connection to the waterways, with their

traditions and cultural practices intertwined with these aquatic resources. However, the deteriorating conditions have led to significant challenges.

The backwaters are contaminated, leaving a glossy residue and an oily taste that poses health risks. The pollution also affects the adjacent paddy fields, leading to illnesses such as skin diseases. Furthermore, the invasion of privacy by tourist houseboats has further compounded the difficulties faced by the residents. Kerala's tourism case study is just one of many.

Way Forward

It is important to define the word success of tourism, especially eco-tourism. First and foremost, the quality of life of locals must be protected at any cost. As seen in the case of Kerala, tourism is not sustainable if it brings health threats to the locals.

Secondly, organizers must work along with the locals, to help boost local economic impact. One such travel company called **Kabani Tours** is working with the local farmers in a small town called Thekkumthara in Wayanad, to help recover farmlands destroyed by floods in Kerala.

This place was the most affected by the floods, and many farmers lost their livelihoods.

Sumesh, the founder of Kabani, created travel experiences, to bring travellers, Adivasis and farmers together. This activity engaged 100 travellers who wished to experience farming first-hand and contributed to recovering the lost lands, thus providing investment to farmers without any interest.

Spiti Ecosphere is an eco-travel organizer that works with locals to uplift the resident communities and protect the destination. Besides responsible tourism, they also offer

opportunities to volunteer in exchange for food and stay. Volunteers can help build greenhouses for the locals to grow food in the harsh winters, engage in farming activities and live like a local.

In response to a growing trend, travellers today are increasingly seeking more intimate and authentic experiences while visiting destinations. They yearn for connections with local cultures, personalized activities tailored to their interests, and off-beat adventures that provide a genuine and exclusive experience. This shift also aligns with the rising demand for sustainable and responsible tourism

practices, where travellers prefer destinations that prioritize environmental conservation and support local communities.

Additionally, travellers seek opportunities for personal growth and learning, aiming to engage in activities that enhance their skills or well-being. India, by default, tends to have a well-balanced ecosystem to cater to this demand – with both-cultural influence and modern infrastructure co-existing in the Indian travel ecosystem. With the potential to become a multi-billion-dollar revenue stream, economic growth and eco-tourism done right, India will benefit in more ways than one.



Shreya Ghodawat is a sustainability strategist. She is driven by a passion for promoting climate solutions and ethical living.



Pernod Ricard India to Fund Training of Transgenders in Mumbai

By SN Staff

National Skill Development Corporation (NSDC), under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE), has signed an MoU with Pernod Ricard India, multinational alcohol beverage company to provide skill training to 240 transpersons on market-driven courses in Mumbai. The aim is to make transgenders

According to the Census 2011 report, only 65% of transgenders were able to find work for more than six months in a year, compared to 75% of the general population. This disparity highlights that limited livelihood options are adversely affecting their socioeconomic well-being, restricting employment opportunities, and increasing their vulnerability to HIV.

The project will provide an inclusive learning environment that is conducive to the training and certification of the candidates and enhance their standard of living. It will be a placement-linked skill training programme where candidates will get skill training across job roles, such as retail sales and front office.

NSDC is a unique Public Private Partnership (PPP) that aims to catalyse the creation of a large and quality vocational training ecosystem in India. Since inception in 2010, NSDC has

trained over three crore people through its collaboration with training partners pan India. NSDC has established 37 Sector Skill Councils (SSCs) and implements the Government's flagship skill development schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Apprenticeship Promotion Scheme (NAPS), among others.

NSDC also funds enterprises, companies and organisations that provide skill training. The organisation enables private-sector capacity building in skill development by offering concessional loans, other innovative financial products, and strategic partnerships.

Pernod Ricard India Private Limited (PRI) has been operating in India for more than 25 years. It runs its operations through two distilleries in Nashik (Maharashtra) and Behror (Rajasthan) apart from 29 bottling sites across the country.



The Legacy of the Blue Mountains

By Monisha Raman

On the 200th Year of Ooty's formation, SustainabilityNext brings to you a conversation between two indigenous women on the meaning of conservation and preservation in the Nilgiris.

I met Vasamalli, a Toda scholar and activist on a cold October morning, shortly before the advent of monsoon. The moisture-laden northern wind blew with an intense force in her mund, a Toda hamlet in Ooty or Ootacamund surrounded by tall peaks and pristine meadows. Not many people know Ootacamund is derived from *Hotteikalmund*, the mund here denoting the Toda hamlet that it was.

I confess to Vasamalli that despite being born in a Baduga community and raised in The Nilgiris, I have never entered a Toda mund. She

laughs and tells me that our connection dates back millennia, probably more.

Our conversation touched upon history, indigenous belief systems, conservation, folklore and the mountains our ancestors revered.

Excerpts

Can you tell me more about your journey before we begin

After completing my SSLC here in Ooty, I went to college in Coimbatore with the

aid of Dr Narashiman, a general physician and philanthropist who was practising in The Nilgiris. His family looked after me and attended to my many needs during that period. After that, I returned to Ooty, took up employment in a public sector enterprise, met a kind man and married him.

My husband was a brave man who had dreamt of reforms for our community. Together we realised that we need to bring in change both internally within our community and externally to aid our advancement in the world. It has been a few years since I lost him, but I still follow his path and represent our community where I can.

Let us go back in time. There are many opinions about the origins of the Baduga community and on our time here in The Nilgiris. This is a drawback of having no documentation. How long have The Todas inhabited this mountain district?

The practices of both our communities certainly predate the Anthropocene period. The rituals that are prevalent until today, our way of life that prioritises the environment and the messages hidden in our prayers and stories are all markers of an ancient society. There is no definite number, but an old storyteller I was acquainted with told me that the Toda community may have lived here for over 35,000 years.

That is fascinating. Strangely, we know the sites of dolmen and other megalithic structures. The people in our communities even consider them divine. That brings to my mind the notion of sacred to an indigenous person. For us, it is the peaks, the valleys, the trees and the rocks.

Yes. Among the Todas, we have a name for every peak, hill and valley. These hills have a gender too and we name our infants after them. This implies the reverence that is accorded to them. We have a folklore associated with many peaks and lakes. We recollect some of them during rituals and prayers. Every aspect of living is intimately connected to the land we live in.

Interestingly, you mentioned folklore. I am fascinated by these stories that are connected to landscapes. There is so much information in them and for indigenous communities worldwide relying on oral traditions, these tales carry nuggets of age-old wisdom. Can you tell me some that you know?

Sure. To the west of Ooty, on the road connecting Gudalur, there is a viewpoint. The chain of mountains that you see from there is sacred to us. You can spot a small conical-shaped hill named Ottarsh (by our ancestors) amidst the tall peaks. We believe that our holy group of buffaloes Thee Eer originated from this mountain's sweat. The entire chain of mountains in that locality is considered sacred. (This is picked from the several folk tales that Vasamalli was kind enough to share).

In your journey, have you encountered any kind of threat to these ecosystems. I am not talking about natural events but interference from people. Have you handled any?

There have been many. We can start from the origins of this town to what it is today. As you know before Ootacamund was developed as a town, it was just grasslands with a few munds. It is said that John Sullivan, the then collector who developed Ooty negotiated with our people. Every time, there is development

in living conditions, the land is ravaged and along with it the people closely connected to it are affected.

In the recent past, there was a drive by the local administration to plant eucalyptus trees on the peaks adjoining Ottarsh. Some peaks already have this water-intensive crop that was planted decades ago. I wanted to save the few peaks that had grasslands. I gave a petition to the collector and the plan was cancelled.

With climate change there is a growing fear of apocalypse. There is more emphasis on conservation now. For communities like ours it has been a way of life. We have preserved several groves and peaks. Is there anything we can contribute to this global fight against climate change?

For us, preservation is conservation. Around our munds and hattis (Baduga settlements), we have what you call sacred forests and peaks and sometimes, the whole hill is worshipped. We have conserved by not extending our villages there and preventing economic activities. What else can we contribute other than the intrinsic knowledge of our ecosystems handed by our ancestors and our practice of minimalistic living?

Let us talk about the present. We know that any change or advancement in a society has perks and drawbacks. This generation of Badugas has moved to cities across the world in different professions. The people living here are dependent on tea plantations and agriculture and some are employed. Plantations are not sustainable anymore. We lost touch with the part of us that were pastoralists. I

know the scenario is similar to an extent in your community. The generation after yours is employed, some in the vicinity of their residence. People depend on livestock partially and women generate income through their artistic legacies.

Yes. Our *Pukhoor* (Toda embroidery) has a GI tag. This embroidery, as you said, is a legacy given to us. We use a specific darning needle and the end-product has an impeccable finish. Traditionally our ancestors wove what they observed around them. So, the motifs of the design vary from the moon to buffalo horns or reptiles. Today we work with foundations that display our products in their retail outlets in the district and even private retail outlets and individuals who travel to source them in bulk. We make products like wallets, purses, mobile pouches, totes, jackets and shawls. This vocation garners buyers throughout the year.

Our buffalo numbers have dwindled over the years. It is not sustainable anymore. Our people residing here in the district are employed locally. There has not been a large-scale transition in our living conditions as your community has seen, but we are still connected to our roots.

Can we talk about our future that is connected to the future of the mountains.

It worries me that our youngsters do not attempt to learn in-depth about our culture and the richness of our traditions. However, I'm glad that they participate in the community events. What can we do apart from hope that our people and our traditions live so that the mountains are safeguarded.

Monisha Raman is a freelance writer and editor.

Raising Awareness of Chemical Pollutants in Everyday Products



About Me

My name is **Tejas Kannan**. I'm a 16-year-old, Grade 11 student from Texas, USA. I am passionate about raising awareness among young people about **protecting the environment, particularly from harmful chemicals found in everyday products.**

What Are You Doing?

I've established **website called Product Insight** that is dedicated to shedding light on the harmful effects of chemicals in everyday products. It includes **articles, blogs and podcasts that delve into the eco-friendly strategies we can adopt in our daily lives.** I also **curate online activity booklets and worksheets on environmental protection.**

Why Are You Doing This?

My grandfather, who is a paramedic, shared heart-breaking stories of people losing their lives due to severe allergies caused by various

known and unknown triggers and alerted us about the need to read product labels and understand their composition before purchasing.

Not only do such chemicals claim lives, they also pollute ecosystems. The Bellandur Lake in Bangalore, a once vibrant ecosystem, has also succumbed to severe pollution thanks to the disposal of harmful chemicals found in many everyday products. However, people continue carelessly tossing products into their shopping carts without a second thought. This realisation saddened me and I decided to take action.

When did you begin?

I began my work in 2020, at the age of 13

How did you begin?

I started my journey by delving into the world of product toxicity. **I collected information about various products, meticulously examining their ingredients and researching their potential effects using multiple resources like websites and books.** After that, I set up my website and also began curating and distributing activity booklets and worksheets to students.

What has been the impact?

My website carries information on over 200 chemicals, including substances like carrageenan and lead, and my activity booklets and worksheets can also be accessed online. I also use social media – Instagram, YouTube videos and podcasts – to amplify the reach of my work.

Today my worksheets on the '3 Rs' (Reduce, Reuse, Recycle) reach about 3000 students in government schools across India and I have more than 3500 followers on Instagram.

Where can one know more about your work?

<https://productinsight.org/>

@creatingyouthawareness on Instagram

Activity Sheet

Can you share a list of green books on your shelf for young readers interested in environmentalism?

More than books, I follow magazines and people to learn more about environmentalism:

<https://www.youtube.com/@vanipolis>

<https://kids.mongabay.com/>

<https://kids.nationalgeographic.com/>

<https://greenteacher.com/resource-hub/>

<https://www.yesmagazine.org/tag/climate-crisis>

BOOK REVIEW

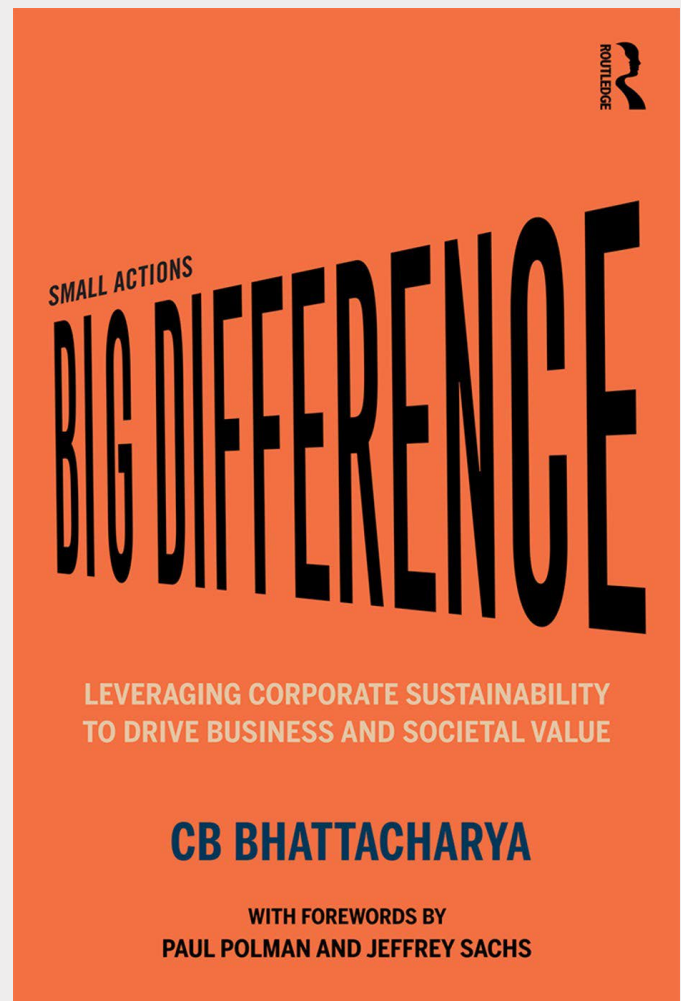
Corporate Sustainability – Why and What to How to

By Benedict Paramanand

Often, the converted too need handholding so that they can practice what they are passionate about or convinced about better. They need someone to break seemingly difficult processes down to manageable levels. They definitely need a guide during their transition phase from knowledge to action on the ground.

That's exactly what Prof. C B Bhattacharya has done with his book **Small Actions Big Difference – Leveraging Corporate Sustainability to Drive Business and Societal Value**. It was published by Routledge in 2019. The book's distribution suffered due to the pandemic. He has co-authored *Leveraging Corporate Responsibility: The Stakeholder Route to Maximizing Business and Social Value* and co-edited *Global Challenges in Responsible Business*.

With endorsement from Paul Polman, former CEO of Unilever and Jeffrey Sachs, famous Professor at Columbia University and author of *The End of Poverty – How We Can Make it Happen Within Our Lifetime*, CB, as he is popularly known, needs less effort to hard sell the promise of the book. The title of the book makes it clear that it is a call-to-action book. Leaders today can see what the result of inaction can be.



The book is based on interviews with 25 global multinational corporations as well as employees, middle managers, and senior leaders across multiple sectors. CB claims that this is the first book that connects sustainability to the theory and principles of psychological ownership and proposes a succinct, easy-to-digest model for managerial use.

Incisive in both breadth and depth, CB's model for action, even if they are small, needneeds



the leadership team to have an immersive approach first to visualize the contours of their impending action. Without that, a process-driven top-down process driven top down approach to sustainability will receive minimal results. Today, a sustainable organization – large, medium or small – needs to have a 360-degree 360 degree approach.

‘How to make sustainable change stick’ is a big challenge. It is easy to roll out excellent plans but staying at it and improvising it needs stamina and commitment to long-term goals. This too needs tools that can seamlessly drive action. Otherwise, the drain on leadership’s energy could be counterproductive.

Co-create for Society

There are several books today on sustainability that are more about why organizations need to adopt and the cost of not doing so soon. However, there are very few that show ‘how to’. Jeffrey Sachs in his foreword says this book is “a clearly written guidebook to sustainability leaders.”

Conceptually leaders believe and want employees with a sense of ownership. But that does not come ready-made. How to first build and nurture a sense of ownership itself needs a manual and this book attempts to provide that. After creating a sense of ownership, how it is harnessed is a challenge in itself.

Whether the guidebook is working well is too early to say. But saying this book is only

a guidebook would be doing a disservice to the larger outcomes he expects to drive. CB expects business leaders to think beyond their companies and ask what they can do to reverse global warming and prevent a potential runaway climate crisis. It can begin with proactively engaging with all stakeholders and getting them to ‘own’ the problem and the solutions.

The author takes the co-creation model late Professor C K Prahalad propagated and applies it to building a culture where leaders and employees actively participate in working towards goals that are beyond themselves. As Paul Polman says, “Business must redouble its efforts in support of driving sustainable and equitable growth (of societies) through new thinking.”

Clearly, there’s a lot that needs to be done. Changing a current corporate sustainable movement that is, in CB’s words, ‘unsustainable’ and moving away from those pursuing the right goals the wrong way, will be daunting. *Small Actions Big Difference* may be a go-to manual for those with the right intent.

Watch the author talking about the themes in the book at the TedX:

<https://www.youtube.com/watch?v=7XpmsD2b76U>



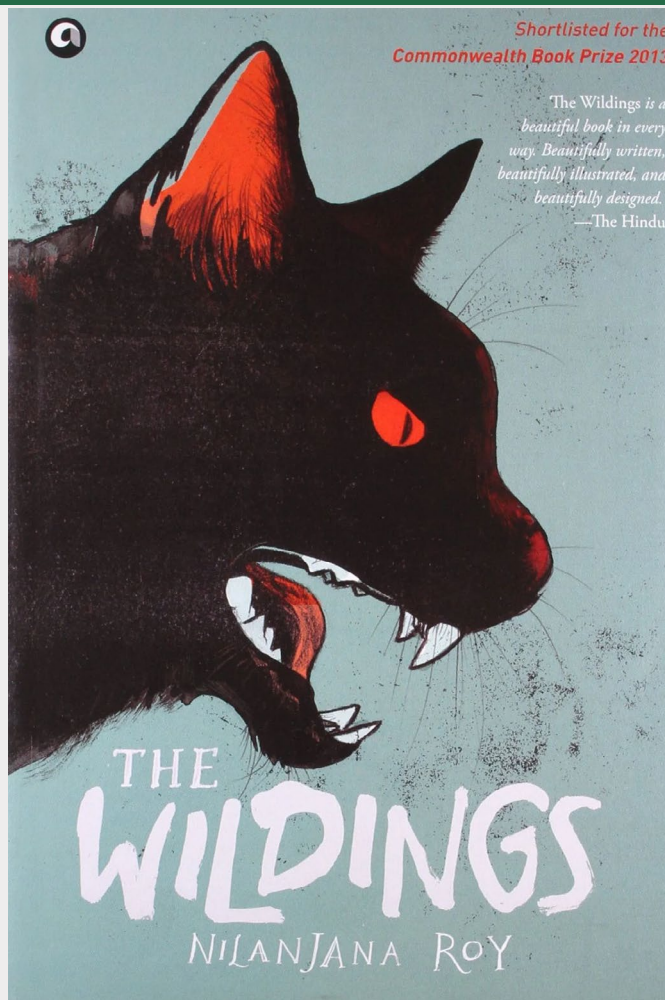
Cat-calls of The Best Kind!

By Meghaa Gupta

The wildings (stray cats) of Nizamuddin are in a frenzy. An unknown cat is invading their minds with its thoughts... *Mara is scared, put me down! Where did my mother go? Where are you taking me? Don't want to leave the drainpipe! You're frightening Mara...* It needs to be silenced, once and for all. Except, this intruder a.k.a 'the sender', is but a tiny, terrified kitten and Beraal, the cat sent to kill it, can't bring herself to do this. Instead, Beraal fights her clan and chooses to train Mara to control her sending – a power that is as rare as its precious, for it allows Mara a free pass into the minds of all cats, including the big ones in zoos!

Soon, the wildings find themselves developing a grudging respect for the orange kitten with monsoon green eyes. But there is one big difference between Mara and the wildings – Mara is an 'inside cat'. She lives in 'bigfeet' (human) territory and finds no reason to leave it. After all it's a comfortable existence. Rich, warm meals without hunting, digging through garbage and suffering the vagaries of weather. Besides, her bigfeet are nice. And therein lies an essential tension that the novel explores: the place of human beings in the natural order.

In a world dominated by humans, what happens to non-human species? From Rudyard Kipling's *The Jungle Book* to Dr Suess' *The Lorax*, this is a premise explored in some of the finest literature. Sometimes it's seen through animal eyes and at other times, through human. Nilanjana Roy is very clearly a cat person and



so, **The Wildings** explores the human-animal relationship through a richly-detailed cat-perspective with nary a false beat.

Stray animals make me nervous. But the novel made me set aside my fears and view the world from the eyes of animals negotiating their way through urban landscapes, where the rules of the jungle lie on thin ice. The strays abide by these as do the cheels, the mice and various other animal inhabitants of the neighbourhood. But the same cannot be said of animals bred in captivity – especially the feral cats closeted in the Shuttered House.

They think food comes from Bigfeet, and they only ever hunt old, lame rats or diseased beetles... living inside, shut up all the time, something warps in them. Their minds scurry in circles, like the grubs you've seen living under



tree bark – here and there, here and there, never going anywhere. So, if their Bigfoot dies, they won't have any food left after a while. And perhaps other Bigfeet won't let them stay inside the Shuttered House... Then they'll either break out and try to kill us, or turn on each other in a killing frenzy... says Miao, the oldest and wisest of the wildings.

The world may be divided into prey and predators, but even so, there are rules in this game and bloodlust is not one of them. However, deprived of their freedom by human patrons, the cats in the Shuttered House are outlaws. Yet, this is not a simple plot of villainous humans imprisoning animals and turning them into beasts. The aged Bigfoot in the Shuttered House is not a wicked old man, even though his dwelling is appallingly unhygienic and suffocating. The fakir at the dargah is trusted by all cats in Nizamuddin. As for Mara, she thinks her Bigfeet are 'slow learners... resisting most of her efforts to train them'! If Bigfeet are not the villains, then who is? What is responsible for the deviousness of the ferals in the Shuttered House? Roy does not offer any easy answers. Instead, **she invites readers to introspect – on ideas of freedom, deprivation and choice.**

Her narrative has no human voices, yet the allegory is hard to miss. **Clans, cat communities, the fear of 'outsiders', defining allies and**

enemies in the quest for self-preservation... it's all there, moulded into beguiling prose. I doubt any reader of this text will be able to see the tabby cat in the same way again – and that's a hallmark of great writing. It shifts our gaze and opens our eyes to possibilities arising from new ways of looking at the world. Humans may dominate the planet, but the world is a shared space.

Published by Aleph in 2012, the book is a fine addition to the body of literary fiction with anthropomorphised protagonists, such as Richard Adam's *Watership Down*, Robert C. O'Brien's *Mrs. Frisby and the Rats of NIMH* and S.F. Said's *Varjak Paw*, that effectively use adventure and fantasy to comment upon the world. Comparisons, especially between *Varjak Paw* and *The Wildings* are inevitable, given their uncannily similar cat protagonists.

Although *The Wildings* has not been classified as juvenile fiction in India – quite honestly, I'm not a big fan of classifying books into juvenile and adult categories – it makes a wonderful read for all ages. I can well imagine it being narrated to little children in engrossing storytelling sessions spread over a few days. The fact that it has pictures by the adroit Prabha Mallya, known for her animal illustrations, only adds to its charms. So go ahead and fall headlong into this immersive world of cats in urban jungles as also in zoos!

Meghaa curates SN Youth and heads the Children and Youth programme at the [Greenlitfest](#). She is currently completing MA in Environmental Humanities in the UK.

Columns & Features

Delving Beneath the Surface: Mining in Indian Children's Books



India is the world's second-largest coal producer and a major producer of bauxite, iron, and zinc ore. Extracting these ores offers significant economic benefits, but it comes at a cost – land-use change, deforestation, erosion, contamination of wetlands and carbon emission that affect the environment, the livelihood and social fabric of local communities.

By Archana Natraj

The coal and lignite mines in India remain clustered within a few states (Jharkhand, Chhattisgarh, Odisha, Madhya Pradesh, Maharashtra, West Bengal, Andhra Pradesh, Telangana, Rajasthan, Tamil Nadu, and Bihar). **Unfortunately, the story of abuse of power and reckless greed in these areas – usually populated by tribal communities – often remains hidden from the rest of India.**

In recent years, a handful of award-winning children's books have focused on these untold tales. Each book brings out a strong and significant message for young readers, echoing the UN Sustainable Development Goals on Affordable and Clean Energy, Responsible Consumption and Production and Peace, Justice and Strong Institutions.

I Will Save My Land by author-activist Rinchin tackles the large-scale land dispossession among tribes in Chhattisgarh. A young Mati pesters her father and grandmother for her own plot of land and works hard on it. Soon, there is news of a company that wants to make a coal mine in their village – an enormous black pit that will eat up all their land, just like it has in the next village. The little girl's heightened anxiety about losing her precious piece of land to "a monster machine" cuts close to the heart. **This tale of marginalization and the cost of development is particularly remarkable for using the picture book format to tell an extremely nuanced and complicated story without oversimplifying it.**

Goa usually evokes a holiday postcard image

of golden beaches and pristine skies. Yet, the state has about 90 working mines that yield over 45 million tons of iron ore. Nandita Da Cunha reveals the devastating effects of mining in Goa in **Pedru and the Big Boom**. As a child who visited Goa every vacation, the author has witnessed the destruction caused by development projects on the green cover and the lives of the local people of the state. She wonders, *"Development is inevitable, but when it comes at the cost of nature, wildlife, local communities, we have to stop and ask ourselves – at what cost?"* Through the eyes of young Pedru, we see the boom of the diggers, the red dust that covers the cashew crops, making everything taste like dust. We see water sources reduced to a trickle and a thirsty crocodile abandoning its habitat. And finally, we see the dramatic climax, with the failure of the tailings dam, revealing emphatically the cumulative impact of mining operations in Goa.

The story also uncovers a more insidious impact of mining on the local community, when Babu's family chooses to abandon traditional clam fishing to manage six trucks for the miners. Their sudden prosperity captures the profound inequality, which fractures the social fabric and chisels away at solidarity.

Siddhartha Sarma's **Year of Weeds** is a fictional tale based on the true story of the agitation of the Dongria Konds against bauxite mining in Odisha's Niyamgiri hills. The book lays bare the hard realities of corporate greed, the indifference of those with power, and the red tape that makes the justice system an unviable resort in our democracy. Through the gentle Korok, a young Gond boy who works as a gardener, we see the struggle of a simple community to retain their homes, ancestral lands and culture that they revere. As we walk

with Korok, we see how he treasures the hill on which his dead mother is memorialized in a *hanal kot*, a stone. We find ourselves staring at the ugly face of injustice, when we see him grappling with his father's unlawful detainment. As Korak fights the relentless weeds in the garden, his realization that "nobody cared about the Gonds" leaves you with a lump in your throat as you witness the inexorable struggle of those who want nothing more than to stay in a place, they have called their home for generations. As Sarma said in an interview in the publisher's blog, *"By writing it as a YA novel, I was hoping young people would have access to this story, which I was not certain they would have if I had written it for an adult readership. Adults are good at hiding these issues from young people."*

Oonga by Devashish Makhija is a mature examination of the paradox between dystopian development and utopian ideologies. The uncompromising narrative unleashes the stark journey of a little tribal boy in a landscape marred by the clash between Adivasis, Naxalites, the CRPF and a mining company. Along the way, it uncovers the unfair tragedy of victims of violence who are forced into battles they never wanted to fight.

A dialogue from the famous movie Avatar, set in an imaginary Pandora where the Na'vi tribe fights against the mighty Sky people hungry for the unobtainium deposits in their land, comes to mind: *You need to wake up, Parker. The wealth of this world isn't in the ground – it's all around us.*

Even if need less coal in the future to create electricity, an often-overlooked reality is that the shift to net zero will require more mining, not less. Mining will continue for elements such as lithium, nickel, cobalt and graphite for energy storage, copper and aluminum for

energy transmission, and silicon and uranium for solar-, wind- and nuclear-power generation.

An awareness of what is truly precious and a deep sense of respect for those who revere the land they live on, are paramount in addressing this complex issue. **Our hope lies with the younger generation and the wonderful tribe of children's authors who are lighting up the path with stories that allow readers to scrutinize mining projects and the true cost of 'progress'.**

Recommended Reading

I Will Save My Land by Rinchin and Sagar Kolwankar, Tulika Publishers

Year of the Weeds by Siddhartha Sarma, Duckbill Books

Oonga by Devashish Makhija, Tulika Publishers

Pedru and the Big Boom by Nandita Da Cunha, Kalpavriksh

10 Indian Tribes and the Unique Lives They Lead by Nidhi Dugar Kundalia, Duckbill Books

Unearthed: An Environmental History of Independent India by Meghaa Gupta, Puffin

Archana Natraj is a transportation systems engineer who currently follows her passion for teaching, storytelling and reading. She runs Grey Matters, a Facebook group, book clubs and teen life skills workshops.

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