

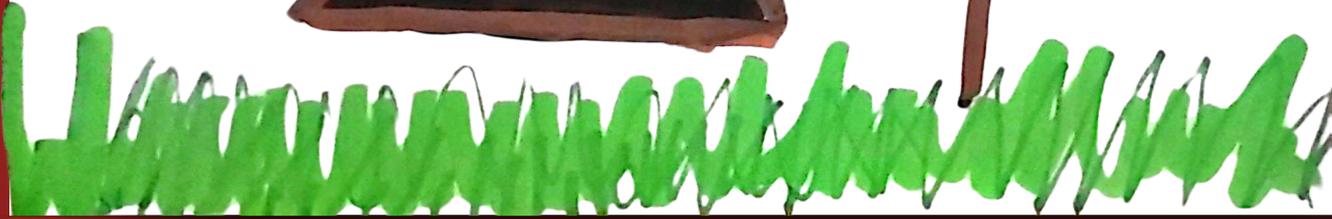
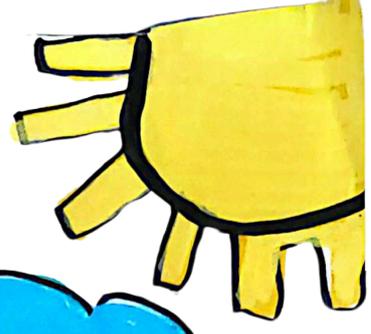


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# Message

from the Chairman



**"Sustainability is not just about adopting the latest energy-efficient technologies... It is the responsibility of every individual every day." – Joe Kaeser**

Dear Professional Colleagues,

Small is beautiful and I extend my warm welcome to all of you through the smallest month's newsletter, but big and rich in contents. The month gone was a remarkable month for SSB where we celebrated the Sustainability month with Pan India participation. The highlight of the celebrations was the Sustainability Summit 2.0 and the Green Awards function. I take this opportunity to thank my council colleagues and all the members of the Board for making the activities eventful.

We sincerely thank all the Regional Councils, Chapters, and our Headquarters Offices at Kolkata and New Delhi for enthusiastically organizing a multitude of meaningful activities such as tree plantation drives, green walks, and thought-provoking sessions on sustainability as a part of Sustainability month celebrations. The response from members and participants has been truly encouraging and reflects the growing commitment of our fraternity towards responsible and sustainable growth.

As mentioned earlier, the Sustainability Summit 2.0 was successfully organized on January 29, 2026 at Radisson, Noida. We were honoured to have Mr. Lee White, Chief Executive, IFAC, as the Chief Guest for the occasion who delivered the key note address. The event was further graced by the distinguished presence of Prof. Lakshman R. Watawala, Former President, SAFA and President, The Institute of Certified Management Accountants, Sri Lanka as Guest of Honour; Ms. Jennifer Lopez, Chief Executive Officer, CAPA; and Mr. Puvendran Gajendra, Governing Body Member of The Institute of Certified Management Accountants, Sri Lanka. I am also happy that many of my council colleagues also made it for the summit and Green Awards.

The occasion was further marked by the release of two significant publications viz. Handbook on ISS 1 & ISS 2 along with the Guidance Note on ISS 1 & ISS 2 and Compendium of *Sukhinobhavantu* Newsletter, comprising six issues from August 2025 to January 2026.

The Summit witnessed the participation of eminent professionals, sustainability experts, and industry leaders. The deliberations comprised four enriching technical sessions, including insightful panel discussions, fostering dialogue on accountability, governance, and sustainable value creation. A detailed synopsis of the Summit and details of Green Award winners are given in the newsletter separately.

Since inception Dr. Ranjith Krishnan was serving as the curator and editor of our newsletter. From a humble beginning, the newsletter has reached this remarkable heights with commencement of

various interesting columns and sections. During his tenure the Best Articles Award was erected and we have so far seen two Best Article Awards till date. He could always move along with the time and has always covered the developments in the area of Sustainability on a real time basis in our newsletter. Dr. Krishnan was instrumental in transforming the newsletter from a simple electronic platform to digital platform. Similarly, he has also coined and commenced the *Vasudhaiva Kutumbakam* and *Pariniyati* webinar series which is as on today a brand by itself. We have recently completed the 50<sup>th</sup> edition of VK webinar series during the Sustainability month. I convey my sincere appreciations to Dr. Ranjith Krishnan for taking this newsletter and webinar series to higher altitude and look forward to his continuous support in these initiatives. I further welcome him to take on broader responsibilities within the Board. His excellence, experience, and insightful perspective will certainly add significant value to our thought process and forthcoming assignments.

I am equally delighted to welcome CMA Arunabha Saha, Secretary, Thane Chapter of ICMAI as the new editor of *Sukhinobhavantu* and the co-ordinator of our VK and *Pariniyati* series. He requires no introduction as he is already a key resourceful person for the newsletter through his novel and interesting columns. His proper blend as an experienced multi talented professional and a special flair in writing are definitely going to give a new face to this newsletter. Similarly he is also going to give a new dimension for our webinar series as well. On behalf of the Board, I congratulate CMA Saha on taking up the new role and assure all the support in his endeavour.

The month of March generally marches with hands and bags full of activities and for SSB also its not an exception. Besides the routine VK webinar series we have two major events scheduled on March 08 and 16 respectively. The webinar on March 08<sup>th</sup> is titled as “*Naari Prabha*” organised as a part of International Women’s Day. The second event which is on March 16 will be a full day Program on “IFSC enabled Global Platform for Indian Enterprise-Direct Listing and Sustainable Finance” which will be held in NSE Auditorium, BKC, Mumbai. The registration for the event is open and is filling up rapidly. Do register at the earliest. Details of the events are given separately in the newsletter.

More areas to cover, but time is preventing me to do so as I have to meet the timelines of the Press. However I reserve my thoughts for the ensuing edition.

On behalf of SSB, I wish all the readers a Happy International Women’s Day. I also convey my heartfelt love and appreciations to the little children who are contributing the cover page images for *Sukhinobhavantu*.

Yours Professionally,

**CMA (Dr.) Ashish P. Thatte**

February 25, 2026

# नमोस्तुते

Dear Readers, Contributors, Colleagues and Friends,

As I complete my three-year term as Editor of *Sukhinobhavantu*, it is with a full heart that I write to thank each one of you. Interestingly, it is for the first time, that I am writing to all of you as an Editor. Serving this esteemed newsletter published by the Sustainability Standards Board of the Institute of Cost Accountants of India has been an honour and a deeply rewarding journey. Together we have shaped this newsletter that not only informs but inspires action on sustainability across accounting, finance and corporate practice.

The journey of *Sukhinobhavantu* began in February 2023 with a clear and purposeful vision—knowledge dissemination through scholarly articles and the creation of awareness on ESG and sustainability. The intent was not merely to discuss sustainability as a theoretical or fashionable concept, but to emphasise it as an essential way of life that must be embedded in our everyday actions. Sustainability should not remain a buzzword; rather, it must become a lived practice.

True to its name, inspired by the spirit of “*Sarvajana Sukhino Bhavantu*”—let all beings be happy and at peace—the initiative has steadily evolved into a rich Sustainability platform of ideas, research, and reflective engagement. Over time, it has introduced a wide range of thoughtfully curated sections, each contributing to the broader goal of promoting sustainable consciousness.

One of the key sections, “**Sustain the Sustainability**,” has attempted to break down global sustainability reporting frameworks, explore SDG developments across Indian states and countries worldwide, and analyse major global platforms such as COP and G20 leadership from a sustainability perspective. A dedicated “**Sustainability Musing**” column has consistently captured significant developments in ESG and sustainability, not merely reporting them but also examining them critically and proposing pathways for improvement. The themes covered across issues have been diverse and forward looking ranging from e-waste management to solar energy and the Carbon Border Adjustment Mechanism. Recognising the deep roots of sustainability in Indian thought, a special column on “**Ancient Scriptures and Sustainability**” was introduced to highlight how ancient Indian wisdom and global civilisations had long contemplated sustainable living. Over the last several issues, these insights have been brought to readers through carefully crafted narratives connecting timeless knowledge with contemporary challenges.

Each month, global and Indian developments in ESG and sustainability have been highlighted, alongside a “**Articles**” section where scholars contribute their work on relevant themes. A “**Vruksh**” series exploring sustainability through the lens of trees correlating with nakshatras has also been introduced, offering an innovative confluence of ecology and tradition.

The “**Mandala Art**” section reflects the emotional and spiritual dimensions of sustainability, reminding readers that inner balance is essential for sustainable living. In the “**Reroute to the Roots**” section, cultural and traditional wisdom are revisited to reveal how sustainability values are deeply embedded in our ethos. Parallely, the instalment series “**Professional Ethics Time to untangle**” explored professional ethics and workplace values, linking them to sustainable and responsible conduct.

Through the “**Do You Know**” section, fascinating sustainability facts are brought to light, while the “**Nature’s Hidden Connection**” series uncovers the interconnectedness of all elements in nature. The “**Voices of Science**” and special “**Features**” sections have addressed a wide array of topics—from the Indian Budget through a sustainability lens to innovative eco-friendly initiatives such as cow dung paints and enhancing economy through bird droppings! Additionally, the monthly “**Sustainability Quiz**” engages readers interactively, recognising the first five winners in every edition and encouraging wider participation.

Similarly SSB organises a fortnightly webinar series titled “*Vasudhaiva Kutumbakam*” which has recently completed its 50<sup>th</sup> edition. We have so far covered 50 diversified and unconventional topics with excellent participation and interaction from across the globe.

The success of any initiative lies in an effective collaboration and *Sukhinobhavantu* newsletter and *Vasudhaiva Kutumbakam* webinar series are not exceptions. During the last three years, SSB had four Secretaries viz. CMA (Dr.) D P Nandy, CMA Yogender Pal Singh, CMA Dibbendu Roy and Dr. Kimi Thareja. I thank all of them

for the support they have extended during my tenure. The contributions of CMA (Dr.) Aditi Dasgupta, Joint Director deserves a special mention here. The newsletter what we see today is all the outcome of her painful and dedicated efforts. Her energy levels in execution of work are indeed a motivation for the colleagues. Words always fall short to thank Dr. Aditi. All what I can say is it was always a learning for me. Thank you Dr. Aditi for all your good work. I am sure that the newsletter will shine brighter in the times to come with your dedicated efforts. I am also thankful to Ms. Pragma Negi, Officer, ICAI who was part of newsletter team for a brief period. The designers are to be remembered with gratitude for the eye-catching designing and timely release of the newsletter of 25<sup>th</sup> of every month without any difficulty.

I consider myself to be lucky and indeed “chosen” for entrusting me with the opportunity of being the editor of *Sukhinobhavantu* newsletter and the co-ordinator of *Vasudhaiva Kutumbakam* webinar series. I thank the President CMA TCA Srinivasa Prasad, Vice President CMA Neeraj D. Joshi and the ever supporting and guiding Chairman of SSB CMA (Dr.) Ashish P. Thatte and the Past Presidents for reposing trust on me in handling these assignments.

Thank you to our readers; your curiosity, constructive feedback and steady readership sustained every issue. Thank you to the authors and researchers, whose expertise and willingness to share practical insights gave the newsletter its substance and credibility. To our reviewers of best articles award - your diligence, rigor and excellence in review ensured the quality and relevance of our contents.

It is my pleasure to congratulate and warmly welcome CMA Arunabha Saha as the incoming Editor of *Sukhinobhavantu*. CMA Saha is well known to our readers through his regular and interesting columns. He brings strong expertise in applied research in diversified areas including sustainability reporting, cost management, ESG strategy fresh perspectives and has a clear road map to further strengthen our newsletter’s impact. I am confident that under his leadership *Sukhinobhavantu* and *Vasudhaiva Kutumbakam* will reach new heights, broader reach and continued relevance to India’s evolving sustainability landscape. I would like to assure my full support and best wishes to CMA Saha. I look forward to collaborating as a contributor and to seeing the newsletter flourish under his leadership.



Finally, to everyone who made these three years meaningful — thank you all. It has been a privilege to serve, to learn, and to help foster a community committed to responsible, long-term value creation. I remain an enthusiastic member in this journey and invite you all to continue engaging, sharing, and innovating.

At this time of concluding my thoughts, my mind is bubbling with all the good memories this assignment has given to me, for which I will be ever grateful to ICAI. I am reminded of a “*Kshama Prarthana*” which goes as follows.

यदक्षरपदभ्रष्टं मात्राहीनं तु यद् भवेत् ।  
तत् सर्वं क्षम्यतां देव नारायण नमोस्तुते ॥  
विसर्गबिन्दुमात्राणि पदपादाक्षराणि च ।  
न्यूनानि चातिरिक्तानि क्षमस्व परमेश्वर

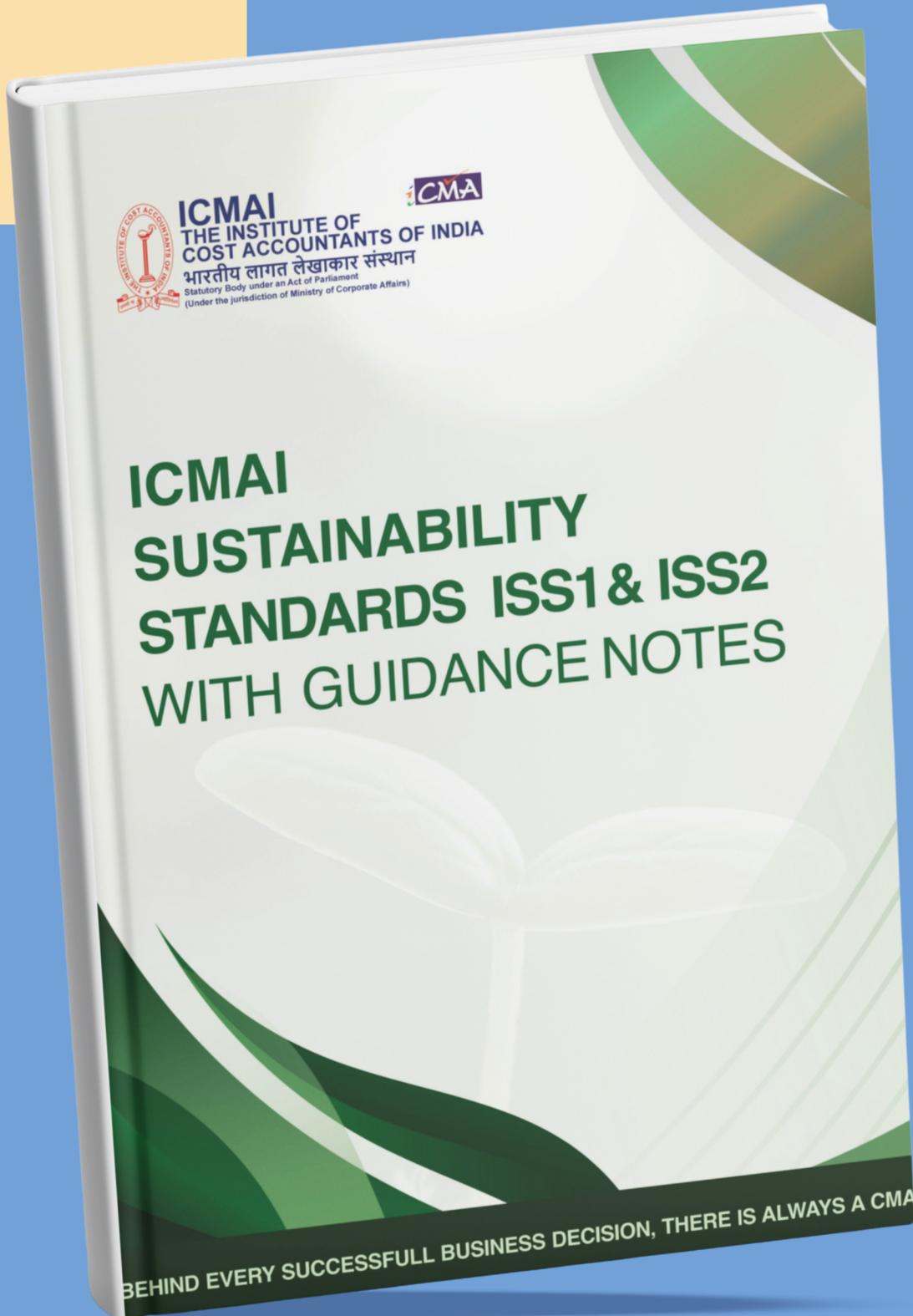
The simple meaning of the above sloka is “O Parameshwar, forgive me for the unknown errors crept in letters, phrases, grammar and phonetics”. I humbly seek the pardon of the learned readers for any unknown errors occurred during my tenure.

It was indeed enriching working for the newsletter and webinar series. I once again thank all of you for all the support.

*Sukhinobhavanthu*

**Dr. Ranjith Krishnan**

# SSB Publication



# Editor's Note:

It is both a privilege and a profound responsibility to assume the role of Editor of our esteemed newsletter, *Sukhinobhavantu*. I extend my heartfelt gratitude to the Sustainability Standards Board (SSB) of ICMAI for reposing their trust and confidence in me. The honour entrusted to me is accompanied by a challenge of equal magnitude—to preserve, strengthen, and elevate the standards that this publication has already so admirably achieved.

This being my first Editorial address, I consider it important to share that I may not write a regular monthly editorial column, as the Newsletter has already attained such an elevated standard of content and intellectual depth that it truly speaks for itself.

*Sukhinobhavantu* is not merely a newsletter; it is a thoughtful platform where ideas on sustainability and ESG converge with professional insight, research, and vision. The articles, thematic explorations, and contemporary discussions presented in each issue reflect intellectual depth and clarity. They are not only innovative but also forward-looking, addressing the dynamic intersections of governance, accountability, environmental stewardship, and social responsibility. In a world where sustainability reporting is rapidly evolving—from integrated reporting frameworks to climate-related disclosures—our newsletter has consistently remained relevant and impactful.

I must place on record my deep appreciation for the outgoing Editor, Mr. Ranjith Krishnan. Under his stewardship, *Sukhinobhavantu* has grown from its foundational phase into a publication that can confidently stand alongside world-class sustainability and ESG newsletters. Globally respected publications are known for their rigor, clarity, research orientation, and strategic depth. Our newsletter, through disciplined editorial standards and meaningful content, has steadily approached that benchmark. Mr. Krishnan's vision, meticulous guidance, and commitment have been instrumental in this transformation. His continued inspiration will be invaluable as we strive to maintain—and hopefully surpass—the standards he has set.

The strength of any publication lies in its contributors, and we are indeed fortunate. Our authors bring with them diverse expertise, analytical acumen, and deeply reflective thought. Their articles do not merely describe sustainability trends; they interrogate them, contextualize them within the Indian and global landscape, and provide actionable insights. It is this intellectual vibrancy that gives *Sukhinobhavantu* its distinctive character. The depth of thought that flows through their writings reflects a community of professionals who understand that sustainability is no longer a peripheral concern but a central pillar of economic resilience and ethical governance.

ESG and sustainability are subjects in constant evolution. Regulatory frameworks are being strengthened across jurisdictions. Climate disclosures are becoming mandatory in many economies. Green finance, biodiversity accounting, carbon markets, and social impact measurement are reshaping how organizations define value creation. With every passing month, new dimensions emerge—be it supply chain transparency, transition finance, sustainable taxation, or digital tools for ESG analytics. In such a dynamic environment, remaining current is not optional; it is essential. As professionals, especially as Cost and Management Accountants, we must continuously refine our understanding and broaden our perspective to align with global developments.

CMA (Dr.) Aditi Dasgupta, CMA Dibbendu Roy, and the dedicated team members of *Sukhinobhavantu* will undoubtedly continue to extend their wholehearted support and guidance. With their collective wisdom, commitment and collaborative spirit, I am confident that this Newsletter will grow even more popular and intellectually enriching in the years to come through their constant support.

What distinguishes *Sukhinobhavantu* is its commitment to exploring new frontiers. Every month, it brings to light emerging areas within sustainability and ESG—ranging from environmental management accounting and sustainable supply chains to green financing and governance reforms. This continuous expansion of scope ensures that our readers are not merely informed but enlightened. It encourages dialogue, inspires innovation, and fosters professional growth.

As I step into this editorial role, my vision is to further strengthen our engagement with global sustainability discourse while preserving our unique professional identity. We must aspire to

benchmark ourselves against the finest international ESG publications—those that combine analytical depth with strategic foresight—while also addressing the specific needs of Indian industry and regulatory environments. By integrating global best practices with local relevance, *Sukhinobhavantu* can continue to serve as a bridge between thought leadership and practical application.

The phrase “*Sukhinobhavantu*” embodies a universal aspiration—may all beings be happy and prosperous. In the context of sustainability, this is more than a blessing; it is a mission. True prosperity is inseparable from environmental balance, social equity, and ethical governance. As professionals and thought leaders, our responsibility extends beyond compliance. We are custodians of long-term value creation.

I look forward to working closely with our contributors, editorial team, and the Sustainability Standards Board to continue this meaningful journey. Together, let us ensure that *Sukhinobhavantu* not only informs but inspires; not only reports but shapes the sustainability narrative; and not only keeps pace with the evolving ESG landscape but contributes actively to it.

With humility, dedication, and collective effort, we shall strive to uphold the legacy entrusted to us—and carry it forward to even greater heights.

“सर्वे भवन्तु सुखिनः, सर्वे सन्तु निरामयाः ।  
सर्वे भद्राणि पश्यन्तु, मा कश्चिद् दुःखभाग्भवेत् ॥”

*(May all be happy, may all be free from illness; may all see auspiciousness, and may none suffer.)*

Looking forward to a fruitful tenure, I remain.

**CMA Arunabha Saha**

## SSB welcomes its new Editor

The Sustainability Standards Board is pleased to welcome CMA Arunabha Saha as the new Editor of *Sukhinobhavantu* newsletter and Coordinator for the *Vasudaiva Kutumbakam* and *Parinayati* Webinar Series.

The Board places its trust and confidence in the professional acumen, integrity, leadership of CMA Arunabha Saha.



### Brief Profile of CMA Arunabha Saha

CMA Arunabha Saha is a seasoned Cost and Management Accountant with wide professional experience across industry, consulting, and professional development. A graduate in science and a fellow CMA, he is also a certified Social Impact Auditor, reflecting his keen interest in sustainability and responsible business practices.

He has worked with and advised renowned organizations across manufacturing, infrastructure and service sectors, focusing on costing systems, management reporting, internal controls, and performance improvement both in India and abroad. His professional journey reflects a strong commitment to efficiency, governance and value creation across diverse operational environments.

CMA Saha has been actively associated with professional and academic initiatives, contributing to training programmes, seminars and knowledge-sharing platforms for professionals and students. His work combines practical industry exposure with analytical rigor, particularly in areas of cost management, process optimization, ESG-related assessments and social impact evaluation.

Known for his structured approach and people-centric outlook, he continues to contribute to strengthening professional standards and capacity building within the CMA fraternity, while advancing the agenda of sustainability, ethics and responsible growth.

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**This Month Cover page Courtesy**

Name- Ms. Anwita Ranjith Iyer

Class- III

Place- Mumbai



## Sarojini Naidu and Sustainability

~ A Timeless Legacy ~

**O**n the eve of Sarojini Naidu’s birthday (13<sup>th</sup> February), we remember not only the “Nightingale of India” but also a visionary whose life reflected the true spirit of sustainability—social, cultural, and ethical.

Though the term “sustainability” was not common in her era, Sarojini Naidu practised its core values through her work. She strongly advocated women’s empowerment, education, and equality, laying the foundation for inclusive and sustainable development. By encouraging women to participate in nation-building, she promoted social sustainability long before it became a global agenda.

Her poetry celebrated India’s natural beauty—rivers, flowers, seasons, and rural life—creating awareness about harmony between people and nature. This deep respect for the environment reflects today’s environmental sustainability principles.

As a freedom fighter and India’s first woman Governor, Sarojini Naidu worked tirelessly for unity, justice, and human dignity. She believed that true progress must uplift the weakest sections of society. Her leadership emphasized ethical governance and community well-being, aligning closely with modern ESG (Environmental, Social, and Governance) values.

Sarojini Naidu also championed indigenous crafts and livelihoods, supporting economic sustainability by preserving traditional skills and empowering local communities.

On her birthday, we honour her enduring message: development must be compassionate, inclusive, and rooted in cultural values. Sarojini Naidu’s life reminds us that sustainability is not only about protecting the planet—it is about nurturing people, preserving heritage, and building a just future for generations to come.

# Sustainability - Global Context



## MONTHLY NEWS

### 1. ECB Warns Simplified EU Sustainability Reporting Standards “Significantly Reduce Transparency for Investors”

The European Central Bank published its staff opinion on the revised European Sustainability Reporting Standards (ESRS), warning that several of the measures put in place to ease sustainability reporting requirements for companies under the EU’s Omnibus process will “significantly reduce transparency for investors and other market participants.”

[READ MORE](#)

### 2. New York Lawmakers Pass Bill Mandating GHG Disclosure by Large Companies

The New York State Senate announced that it has passed a series of environmentally-focused legislative initiatives, including a new bill establishing the Climate Corporate Data Accountability Act, which would introduce mandatory requirements for large companies to report their direct and value chain greenhouse gas (GHG) emissions.

[READ MORE](#)

### 3. SEC Chair Says Commission to Review ESG Fund Names Rule

The U.S. Securities and Exchange Commission (SEC) has placed anti-greenwashing rules put in place by the Commission during the Biden administration setting criteria for ESG and sustainability-labelled investment funds under review, according to comments by SEC Chair.

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### 4. Trump Repeals Landmark “Endangerment Finding” Underlying Major Climate Regulations

President Trump and the U.S. Environmental Protection Agency (EPA) announced today the repeal of the Greenhouse Gas Endangerment

Finding, the landmark 2009 finding underlying the U.S. government’s ability to regulate greenhouse gas (GHG) emissions from carbon-intensive industries including the automotive and energy sectors.

[READ MORE](#)

### 5. EU States Reinvesting Less than 5% of Carbon Pricing Revenues Back into Industrial Decarbonization

European Commission President Ursula von der Leyen defended the EU’s carbon pricing mechanism at an industry conference, noting the system’s progress on decarbonizing industry, and calling on member states to dramatically increase their reinvestment of revenues from the system back into industrial innovation, to help address concerns from emissions intensive sectors over the impact of the program.

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### 6. EU Bans Destruction of Unsold Clothing, Footwear

The European Commission announced the adoption of new measures under its Ecodesign for Sustainable Products Regulation (ESPR), including the introduction of a ban on the destruction of unsold apparel, clothing, accessories and footwear. The new measures follow the adoption of the EU’s ESPR regulation in 2024, empowering the Commission to adopt eco-design requirements for products to improve their environmental sustainability. Requirements may cover a broad range of sustainability aspects including product durability, reusability, reparability, the use of substances that inhibit circularity, energy and resource efficiency, recycled content, remanufacturing and recycling, and products’ carbon and environmental footprints.

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### 7. EU Lawmakers Approve Target to Reduce Emissions 90% by 2040

The European Parliament announced Tuesday the adoption by lawmakers in a 413 – 226 vote of amendments to the EU Climate Law requiring the EU to reduce greenhouse gas (GHG) emissions by 90% by 2040. The vote, however, followed an agreement between Parliament and the European Council which required the introduction of several flexibilities in the Climate Law to put the new 2040 target in place, including allowing for the use of international carbon credits for up to 5% of the GHG reductions, and conducting a review every 2 years, which could result in changes to the target in the future, based on factors including energy prices and technological progress.

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### 8. Canada Drops Zero Emission Vehicle Sales Mandate for Automakers

The government of Canada announced that it will repeal the Electric Vehicle Availability Standard (EVAS), a regulation mandating a minimum and rising share of zero-emission vehicle (ZEV) sales by automakers, which would have required the industry to reach 100% ZEVs by 2035. Initially launched in 2023, the regulation was designed to help increase supply for consumers over time, and included interim mandated targets, including requiring ZEVs to make up 20% of new vehicle sales by 2026, and 60% by 2030.

[READ MORE](#)

### 9. Texas Judge Strikes Down Law Blacklisting Investment Firms that “Boycott” Fossil Fuel Companies

A Texas District Court judge has struck down the state’s “business blacklist law,” ruling that the law requiring state entities to divest from financial companies deemed to be “boycotting” fossil fuel companies was unconstitutional. Passed in 2021, the blacklist law, Senate Bill 13 (SB 13) formed part of an anti-ESG movement in Republican states – which has picked up significant momentum since the election of President Trump – with Texas consistently at the forefront. Texas is the largest net energy supplier in the U.S., providing nearly a quarter of the country’s domestically produced energy, and accounting for over 40% of the nation’s crude oil proved reserves and production, according to the U.S. Energy Information Administration (EIA).

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### 10. GHG Protocol Launches Carbon Accounting Standard for Land Sector

Greenhouse Gas (GHG) reporting framework provider GHG Protocol announced the release of its new Land Sector and Removals (LSR) Standard, aimed at establishing the first global standard for companies to quantify, report, and track GHG emissions and CO2 removals from agricultural land use.

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# Sustainability - Indian Context



## MONTHLY NEWS

### 1. India backs steel sector as EU carbon border tax pressures exports, trade strategy

India signals policy intervention as EU Carbon Border Adjustment Mechanism reshapes global steel trade flows and export economics. European demand accounts for roughly two thirds of Indian steel exports, leaving mills exposed to carbon pricing and quotas. Companies pivot toward Africa and the Middle East, reflecting wider geopolitical shifts in carbon-linked trade.

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### 2. Uday Kotak appointed Chairman of GIFT City by Gujarat government

GIFT City, India's flagship international financial services hub located in Gandhinagar, is envisioned as a global financial and technology centre aimed at attracting international investments and financial institutions. The Gujarat government has appointed veteran banker and industrialist Uday Kotak as the Chairman of Gujarat International Finance Tec-City Company Limited (GIFT City) with immediate effect.

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### 3. SEBI constitutes Working Group to Review ESG Rating Providers (ERPs) Regulatory Framework

Market regulator Securities and Exchange Board of India (SEBI) has constituted a working group to undertake a review of the regulatory framework governing ESG (Environmental, Social, and Governance) Rating Providers or ERPs. SEBI's move follows feedback received from market participants and stakeholders regarding the current regulatory framework. The Working Group comprises representatives from Issuers, Investors, ESG Rating Users, domestic and global ESG rating providers, ESG analysts, legal experts and people from academia.

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### 4. India's ESG rules are redefining corporate accountability

SEBI tightens disclosure standards, extends responsibility across value chains and brings audit-level precision to sustainability reporting. India's corporate sector is entering a new regulatory era, as environmental, social and governance (ESG) norms shift from voluntary disclosures to enforceable standards, driven by the shift to a low-carbon economy and heightened transparency requirements.

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### 5. India's Mumbai to host UK Prince William's annual environment award in 2026

Mumbai will host the Earthshot Prize 2026, Prince William's global environmental innovation award. The move highlights India's growing role in global climate leadership and scalable sustainability solutions. International leaders and UN officials are participating in India's climate forums, signalling global recognition of India's climate efforts.

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### 6. Major investments in clean energy & grid transition

A \$25 million "India Grids of the Future" accelerator launched at Mumbai Climate Week 2026 to modernize power distribution and support renewable integration. Focus: grid reliability, energy storage, and distributed renewable energy. India has already achieved near-universal electrification; the next phase is clean and resilient energy infrastructure.

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### 7. India relying solely on domestic resources for climate finance not sufficient Eco Survey

India faces global challenges in climate finance and relying solely on domestic resources will not be



sufficient, the Economic Survey warned, suggesting mobilising private sector finance. Critical areas, including adaptation, financing for micro, small, and medium enterprises (MSMEs), urban infrastructure, and hard-to-abate industries, remain "underfunded".

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### 8. Mining sector focusing on ESG practices and responsible extraction under “*Viksit Bharat 2047*” vision.

As India accelerates towards its \$5 trillion GDP milestone and the *Viksit Bharat 2047* vision, sustainability and ESG in mining are emerging as central pillars of growth. The one-day Metal and Mining Summit will bring together 30 speakers and over 300 attendees across four knowledge sessions, reflecting the urgency of balancing resource expansion with responsible mining practices. It implies that the hard-to-abate sectors now are central to sustainability agenda.

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### 9. India Needed For Peace, Development: UN Human Rights Chief To NDTV

As the world grapples with the promises and perils of artificial intelligence, India has emerged as a key global voice in shaping its ethical future. Speaking exclusively to NDTV at the high-profile AI Summit in New Delhi, United Nations High Commissioner for Human Rights praised India's leadership, saying the country is uniquely positioned to help define the "red lines" for artificial intelligence through a strong human rights framework.

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### 10. Mumbai, Hyderabad, Bengaluru and Delhi facing climate emergencies; sustainable development need of hour

The cities Delhi, which is the national capital; Mumbai, which is the financial capital; Hyderabad, which is the pharmaceuticals capital, and Bengaluru ; which is the IT capital, are facing serious climate adversities today, despite being major economic powerhouses in the nation. This indicates that we have to chalk out a comprehensive policy to tackle the rising issue of climate emergencies in the country,

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### 11. Indian net-zero pledges lack bankable plans

India's corporate net-zero pledges are failing to convert into credible, finance-linked transition plans, leaving investors without visibility on climate risks and delivery pathways, according to a new IEEFA report.

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### 12. India installs record 36.6 GW of solar capacity in 2025

India installed a record 36.6 gigawatts (GW) of solar capacity in 2025, up 43% from 25.6 GW in 2024, according to a report by Mercom India. Large-scale projects accounted for about 81% of total additions, or roughly 29.5 GW, whilst rooftop solar installations contributed over 19% of the new capacity.

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## East Asia - Corporate Sustainability Reporting, SDG Alignment, and Institutional Maturity in High-Growth Economies and the Role of Cost and Management Accountants

Episode  
7



CMA (Dr.) Aditi Dasgupta

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The Institute of Cost Accountants of India  
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### Abstract

This paper analyses corporate sustainability reporting in East Asia, focusing on Japan, China, and South Korea as high-growth economies with distinct yet converging ESG frameworks. Japan demonstrates a high-maturity, investor-oriented model through mandatory TCFD-aligned disclosures and IFRS-consistent standards issued by the Sustainability Standards Board of Japan. China follows a state-led, compliance-driven approach anchored in mandatory environmental disclosures under its Basic Standards for Corporate Sustainability Disclosure, selectively aligned with global frameworks while prioritising national development objectives. South Korea adopts a hybrid pathway, combining voluntary K-ESG guidelines, ESG ratings, and phased regulatory preparedness shaped by capital market expectations. Across the region, sustainability reporting aligns strongly with SDGs related to climate action, clean energy, economic growth, and responsible production. The paper underscores the strategic role of Cost and Management Accountants in translating ESG requirements into measurable costs, decision-useful metrics, and long-term value creation.

### Key Takeaways

East Asia demonstrates how high-growth economies can institutionalise corporate sustainability reporting without compromising competitiveness. While Japan, China, and South Korea follow distinct regulatory pathways, they converge on climate action, energy transition, and responsible production as core ESG priorities. Sustainability reporting in the region is no longer peripheral; it is increasingly embedded in capital markets, industrial policy, and corporate strategy.

The region's experience underscores a critical insight: ESG maturity is not defined solely by mandatory disclosure, but by the quality of integration between sustainability metrics and economic decision-making. In this integration, cost and management accountants play a pivotal role—transforming ESG from a compliance exercise into a strategic tool for efficiency, resilience, and long-term value creation.

### Context and Orientation

East Asia occupies a distinctive position in the global sustainability reporting landscape. As a region defined by high-growth economies, advanced manufacturing, export competitiveness, and strong state-market coordination, its approach to corporate sustainability reporting reflects neither purely voluntary experimentation nor early-stage capacity building. Instead, ESG disclosure in East Asia has evolved as a strategic instrument—supporting industrial competitiveness, financial stability, and long-term economic resilience under climate and resource constraints.

Japan, China, and South Korea illustrate how sustainability reporting frameworks can differ in regulatory design while converging in substance. Across the region, climate transition, supply-chain accountability, and capital market credibility have emerged as the primary drivers of ESG integration. The result is a reporting ecosystem characterised by increasing alignment with global standards such as

TCFD and ISSB, yet firmly grounded in domestic institutional priorities.

### Sustainability Reporting Frameworks and Institutional Architecture

Japan represents the most institutionally mature ESG reporting regime in East Asia. Climate-related financial disclosure is fully embedded within capital market regulation, with TCFD-aligned reporting mandated for Prime Market listed companies and reinforced by the Sustainability Standards Board of Japan (SSBJ). These standards, closely aligned with IFRS S1 and S2, integrate sustainability into mainstream financial reporting by focusing on governance, strategy, risk management, and performance metrics. Japan’s framework reflects a strong investor-oriented philosophy, where sustainability risks are treated as financial risks and assessed through a single materiality lens linked to long-term corporate value.



China follows a fundamentally different, state-led pathway. Its sustainability reporting framework is anchored in mandatory environmental information disclosure, reflecting national priorities such as pollution control, carbon peaking and neutrality, resource efficiency, and green finance. The Basic Standards for Corporate Sustainability Disclosure provide a structured roadmap, with environmental disclosures becoming mandatory for large and listed enterprises before expanding toward broader ESG coverage. While increasingly interoperable with international frameworks such as ISSB and GRI, China’s approach retains jurisdiction-specific metrics that emphasise emissions intensity, energy use, water management, and alignment with national development objectives.

South Korea occupies an intermediate position, combining voluntary ESG frameworks with strong market discipline. The K-ESG Guidelines promote standardised self-assessment and disclosure, supported by the Korea Exchange and regulatory authorities. Although ESG reporting remains largely voluntary, rating agencies and institutional investors exert significant pressure through governance codes and stewardship expectations. A phased transition toward mandatory climate and governance disclosure is underway, positioning Korea’s ESG ecosystem as preparatory yet increasingly convergent with global norms.

### SDG Mapping and Development Priorities

Corporate sustainability reporting in East Asia demonstrates a clear concentration around SDGs that support industrial growth, innovation, and climate transition. Climate Action (SDG 13) emerges as the dominant anchor across all three countries, reflecting regulatory focus on emissions, transition risk, and resilience. Affordable and Clean Energy (SDG 7) features prominently through renewable energy deployment and energy efficiency measures, while Decent Work and Economic Growth (SDG 8) underpins disclosures related to productivity, workforce quality, and inclusive growth.

Japan’s SDG alignment is framed through a financial materiality lens, linking climate and energy risks directly to capital allocation and enterprise value. China’s mapping reflects a broader development orientation, incorporating SDGs related to sustainable cities, responsible production, water management, and rural development alongside climate action. South Korea places comparatively greater emphasis on governance quality, labour practices, and institutional trust, while climate alignment continues to deepen under investor scrutiny.

In contrast to Africa, where SDG alignment often reflects developmental needs and capacity building, East Asia’s SDG integration is competitiveness-driven, aligning sustainability outcomes with export performance, supply-chain access, and industrial resilience.

### Institutional Maturity and Corporate Reporting Practices

From an institutional maturity perspective, East Asia exhibits high baseline governance capacity and data availability. The diversity lies not in capability but in regulatory philosophy. Japan exemplifies a market-stewardship model, where investor discipline and disclosure quality drive ESG integration. China demonstrates a compliance-oriented model, using mandatory reporting as an extension of environmental governance and industrial policy.



South Korea reflects a coordinated, market-facilitated model that builds disclosure capacity through voluntary adoption and ratings-based incentives before regulatory enforcement.

Despite these differences, a clear convergence is visible. Climate metrics, emissions accounting, and transition planning are increasingly standardised. Assurance, comparability, and decision-usefulness are becoming central to corporate sustainability reporting across the region.

### Role of Cost and Management Accountants

In East Asia's high-growth and cost-competitive environment, the role of cost and management accountants is particularly strategic. Sustainability reporting in this context cannot remain narrative-driven; it must be measurable, auditable, and embedded in operational and financial decision-making.

Cost and management accountants enable this integration by translating environmental and social impacts into cost structures and performance metrics. Their work includes carbon and energy cost accounting, lifecycle costing in manufacturing and mobility sectors, marginal abatement cost analysis, and integration of ESG variables into capital budgeting, pricing, and investment appraisal. In export-oriented industries, CMAs play a critical role in ensuring that sustainability disclosures meet global buyer and investor expectations while supporting efficiency and competitiveness.

Across Japan, China, and South Korea, CMAs act as the bridge between sustainability ambition and

financial discipline—ensuring that ESG reporting strengthens, rather than dilutes, strategic decision-making.<sup>68</sup>

### References:

1. Financial Services Agency of Japan. (2023). Amendments to disclosure requirements on sustainability information in annual securities reports.
2. International Sustainability Standards Board. (2023). IFRS S1: General requirements for disclosure of sustainability-related financial information and IFRS S2: Climate-related disclosures. IFRS Foundation.
3. Sustainability Standards Board of Japan. (2025). SSBJ sustainability disclosure standards (IFRS-aligned).
4. China Securities Regulatory Commission. (2024). Basic standards for corporate sustainability disclosure.
5. Shanghai Stock Exchange, Shenzhen Stock Exchange, & Beijing Stock Exchange. (2024). Guidelines on sustainability reporting for listed companies (trial).
6. Korea Exchange. (2023). ESG disclosure guidelines.
7. Ministry of Trade, Industry and Energy, Republic of Korea. (2021). K-ESG guidelines.
8. Korea Institute of Corporate Governance and Sustainability. (2023). ESG ratings and corporate governance framework.
9. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development.

# ANNOUNCEMENT

## New Columns in *Sukhinobhavantu* Newsletter

For the past 21 months, the column *Reroute to Roots* has been a reflective space to explore sustainability through the lens of our culture and traditional wisdom. It served as a reminder that the values and practices of sustainability are deep entrenched in our ethos.

As the global discourse on sustainability matures, it is time to transition from what sustainability is and why it matters to how do we go on to become more sustainable in reality and how do we achieve the sustainable development goals. Here is where conversations on sustainable finance become imperative and so, we begin a new series *Sustainable Finance: Finding the Future* where we explore the ecosystem of sustainable finance and discuss its noteworthy aspects, recent happenings and future aspirations.

In parallel, we had the 15-installment column *Professional Etiquettes: Time to Untangle* where we explored the different facets of professional etiquettes and workplace wisdom. This is metamorphosing into *Beyond the Balance Sheet*, a space to explore business ethics and governance, and to discuss how corporate decisions impact the stakeholders, society and the environment.

These transitions mark a progression from reflection, wonderment and appreciation, to understanding the real-world impact and action.

*Sukhinobhavantu* acknowledges and stands strengthened by Ms. Usha's contributions and her constant infusion of new ideas through insightful articles, which have emerged as one of the strong pillars of *Sukhinobhavantu*'s success.

**Editor**

# What is Sustainable Finance and Why it Matters?

Part  
I

Usha Ganapathy Subramanian  
Practicing Company Secretary  
Chennai

Abstract

Earlier, the conversations on finance were far removed from the matters relating to environment and sustainability. We can see today that climate risks disrupt supply chains, social unrest affects consumer demand, governance failures destroy shareholder wealth. With the inevitable pace at which climate change is snowballing, the governments, multilateral institutions and financial institutions alike have turned their attention to sustainability. Sustainability is no longer a moral or ethical aspect; it has now become a financial one as well. For how capital is allocated and which kind of enterprises are funded and are allowed to flourish does determine how quickly we can course correct and make our life on Earth sustainable. Flow of credit determines how quickly businesses can transition to sustainable practices, become climate-resilient, build stronger and happier workforces, and build a value chain ecosystem that is both climate friendly and treats their human capital with dignity and respect. In this series, we explore the realm of sustainable finance – be it instruments, markets, recent happenings, or anything in its orbit. In this episode, we lay a foundation for the discussions on sustainable finance.

## Sustainable Finance

Sustainable finance refers to the principle and process of taking into account ESG factors – environmental, social and governance – in investment and lending decisions. Banks, financial institutions and non-banking finance companies are considering more intently ESG factors while funding projects and businesses. Mutual funds, alternative investment funds and personal investment strategies have begun to focus on ESG and sustainability performance of businesses. Corporates seek funding through public issues of sustainability and green bonds in the markets or through private placements as well. Multilateral financial institutions and governments do their part in this as well.

Overall, the financial ecosystem is striving to channel funds to those avenues that further the cause of sustainability. However, this is easier said than done. The world is still in the grips of consumerism and the traditional ways of looking at businesses in terms of revenue growth and profit margins still is predominant in the financial world.

It is not to be treated as a separate standalone branch of financing. In fact, this should become the system-wide mainstream lending and investing norm across the world.

## Why Sustainable Finance matters?

In 2015, the aspirations for a sustainable world were given a definitive shape in the form of the 17 Sustainable Development Goals by the United Nations to be achieved by 2030. However, the sad reality is that, as presented by The Sustainable Development Goals Report 2025, only 35% of the SDG targets can be said to be on track, almost half are moving too slowly, while 18% of the targets have regressed.<sup>1</sup>

Further, when it comes to the net zero targets agreed under the Paris Agreement in 2015, there too we are not on our way to keeping climate change within the aspired 1.5°C compared to pre-industrial levels losses by the year 2050.

<sup>1</sup>[https://unstats.un.org/sdgs/files/report/2025/SDGs\\_Report\\_Key\\_Findings\\_2025.pdf](https://unstats.un.org/sdgs/files/report/2025/SDGs_Report_Key_Findings_2025.pdf)

If capital continues to feed the activities that damage the environment, exacerbate inequality or those that otherwise remain on the grey side of law and ethics, sustainability goals will continue to elude the world. Finance is needed to make aspirations a reality. Sustainable finance is necessary to align business aspirations with sustainability.

### Climate finance needs

It must be noted that as far as humanity is concerned, climate change is both an environmental and a financial concern. It creates physical risks, transition costs and liability risks that directly affect asset values, supply chains and cash flows. As per the article “The Cost of Inaction” published by the Climate Policy Initiative in 2024, a cumulative need of USD 266 trillion is needed between 2025-2050 to keep global warming from exceeding 1.5°C compared to pre-industrial levels. This may seem a gigantic amount compared to what is actually available in the ecosystem. However, this amount is a fraction of the estimated economic and social losses of around USD 2,328 trillion that is expected during 2025-2100, if global warming exceeds 1.5°C compared to pre-industrial levels. However, losses of around USD 1,266 trillion can be averted if the global warming is kept within the above limit. Considering this, the cumulative climate finance needs seem reasonable and manageable.<sup>2</sup>

Discussions at climate change conferences, including the COP-29 held in Azerbaijan in 2024 and COP-30 held in Brazil in 2025 in November 2024, highlight that abating climate change is not constrained by a lack of will but by lack of adequate, affordable and accessible finance – especially for the developing nations. The focus is increasingly shifting from setting climate and social targets to harder questions like who will fund the transition and at what cost.

The gap between climate finance needs and actual flows remain substantial and the pledged amounts from developed nations remain below the targets of COP conferences.

### How big is Sustainable Finance?

As sustainability has entered mainstream conversations, sustainable finance too is not a niche segment anymore. As per the Global Sustainable Investment Alliance Review 2024, the value of fund assets that have reported the use of responsible or sustainable investment approaches from select major economies is about USD\$16.7 trillion, increasing by nearly 49% over the last couple of years. In terms of proportion, such funds account for 27% of the total fund market in 2024 up from 3% in 2018.<sup>3</sup> While the numbers do not represent the

<sup>2</sup> <https://www.climatepolicyinitiative.org/the-cost-of-inaction/>

<sup>3</sup> <https://www.gsi-alliance.org/wp-content/uploads/2025/11/GSIR-2024-Main-Report.pdf>

entirety of the sustainable finance universe, the data serves as a starting point to understand how huge the ecosystem is.

However, the report also states that without significant government interventions to align with a sustainable trajectory, the financial sector will be incentivised to fund projects that may rather exacerbate the climate change instead of those addressing it. This is because the financial sector is still primed to look at short-term returns rather than the sustainability of the planet or the welfare of its people.

### Key players in the sustainable finance ecosystem

There are many diverse players in the sustainable finance ecosystem.

- International bodies on climate change and multilateral institutions setting the overall global tone
- Governments and regulators setting the domestic policies on sustainable finance initiatives, sustainable reporting norms and incentives.
- Central banks, commercial banks and development finance institutions defining lending priorities and redefining risk assessment frameworks to include ESG factors.
- Investors and asset managers influencing corporate behaviour through their emphasis on sustainable practices as a key factor in investment decisions
- Businesses responding to government policies, regulators and investors by integrating sustainability in strategy and operations, and by adopting sustainability reporting.
- Rating agencies and assessors providing ratings and metrics to measure the sustainability performance of businesses.

Each of these players play an important role in channelling the resources towards sustainable business and economic models.

### Conclusion

We are looking at a world that still resists adopting sustainable practices and turning a new leaf. Sustainable finance is increasingly becoming necessary in various spheres of the economy. Businesses too, on their part, are floating new instruments to raise funding for climate resilience and transition needs. As the world of sustainable finance continues to grow and evolve, we will continue to explore more in the world of sustainable finance in the future editions to come. 

*Reproduced with suitable modifications from the personal writings and posts of Ms. Usha Ganapathy Subramanian.*

# Perovskite Solar Cells: A Sustainable Path to the Future of Clean Energy

Insight  
IX

CMA Arunabha Saha  
Practicing Cost Accountant  
Thane

Abstract

The world is facing two urgent challenges at the same time: growing energy demand and the need to protect our environment. Solar energy has emerged as one of the cleanest solutions, but traditional silicon-based solar panels have limitations related to cost, energy-intensive manufacturing, and efficiency ceilings. Perovskite Solar Cells (PSCs) are now being seen as a game-changing technology. They promise high efficiency, lower cost, flexible applications, and a much smaller environmental footprint.

## Why We Need New Solar Technologies

Climate change, rising fuel costs, and pollution are forcing countries to move away from fossil fuels. Solar energy is abundant and clean, but existing solar technologies cannot fully meet future needs on their own.

Traditional silicon solar panels:

- Require very high temperatures (above 1000°C) to manufacture
- Consume large amounts of energy during production
- Are heavy, rigid, and costly to transport
- Are approaching their theoretical efficiency limits

This is where PSCs come in. They are often called the fastest-advancing solar technology in history because of how quickly their performance has improved.

## What is Perovskite Solar Cells?

Perovskite solar cells use a special class of materials called perovskites as the main light-absorbing layer. The word “perovskite” comes from a crystal structure known as  $ABX_3$ , named after a naturally occurring mineral.

In simple terms:

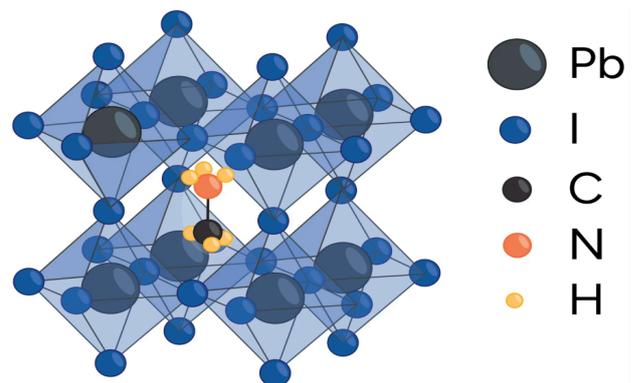
- A very thin layer of perovskite absorbs sunlight
- Sunlight excites electrons in the material
- These electrons flow through layers inside the cell
- Electricity is generated and collected

Unlike silicon cells, perovskite cells do not need thick wafers. Just a thin coating is enough to absorb light effectively.

## The $ABX_3$ Crystal Structure Explained

The chemical formula  $ABX_3$  sounds complex, but it can be understood easily:

- A: A positively charged ion (like methylammonium, formamidinium, or cesium)
- B: A metal ion (usually lead or tin)
- X: A halide ion (iodine, bromine, or chlorine)



This structure allows scientists to adjust and “tune” the material:

- Change colours of light absorbed
- Improve efficiency
- Enhance stability

This tunability is one of the biggest strengths of perovskite materials.

## Rapid Rise in Efficiency: A Solar Revolution

One of the most exciting aspects of PSCs is how fast their efficiency has improved:

- 2009: About 3–4% efficiency
- Today: More than 26% efficiency in laboratories
- Tandem cells (Perovskite + Silicon): Nearly 34% efficiency



### Tandem Solar Cells

In tandem cells:

- Perovskite absorbs high-energy light
- Silicon absorbs lower-energy light
- Together, they capture more sunlight

This combination can exceed the natural efficiency limits of silicon alone.

## Sustainability Benefits of Perovskite Solar Cells

### 1. Low Energy Manufacturing

Perovskite solar cells can be made using:

- Low-temperature processes
- Simple coating or printing techniques
- No heavy furnaces or vacuum systems

This means:

- Lower carbon emissions
- Reduced electricity consumption
- Smaller environmental footprint

### 2. Lower Material Use

Perovskite layers are extremely thin—often 100 times thinner than silicon wafers.

This results in:

- Less raw material usage
- Reduced mining pressure
- Lower waste generation

### 3. Lightweight and Flexible Applications

Perovskite cells can be:

- Flexible
- Semi-transparent
- Lightweight

They can be used in:

- Building windows
- Roof coatings

- Portable devices
- Wearables
- Remote off-grid areas

This expands solar energy use beyond rooftops and solar farms.

## Manufacturing Advantages: Printing Power from Sunlight

Unlike silicon, perovskite solar cells can be manufactured using:

- Inkjet printing
- Spray coating
- Roll-to-roll processes (like newspaper printing)

These methods:

- Reduce production cost
- Enable mass manufacturing
- Support decentralized production

This is particularly important for developing countries, where affordable clean energy is essential.

## Current Challenges: What Still Needs to Be Solved?

Despite their promise, PSCs face a few serious challenges.

### 1. Stability and Lifespan

Perovskite materials are sensitive to:

- Moisture
- Heat
- Oxygen
- UV light

Traditional silicon panels last 20–25 years, while perovskites currently degrade faster. However, better encapsulation and material improvements are extending their lifespan steadily.

### 2. Lead Toxicity

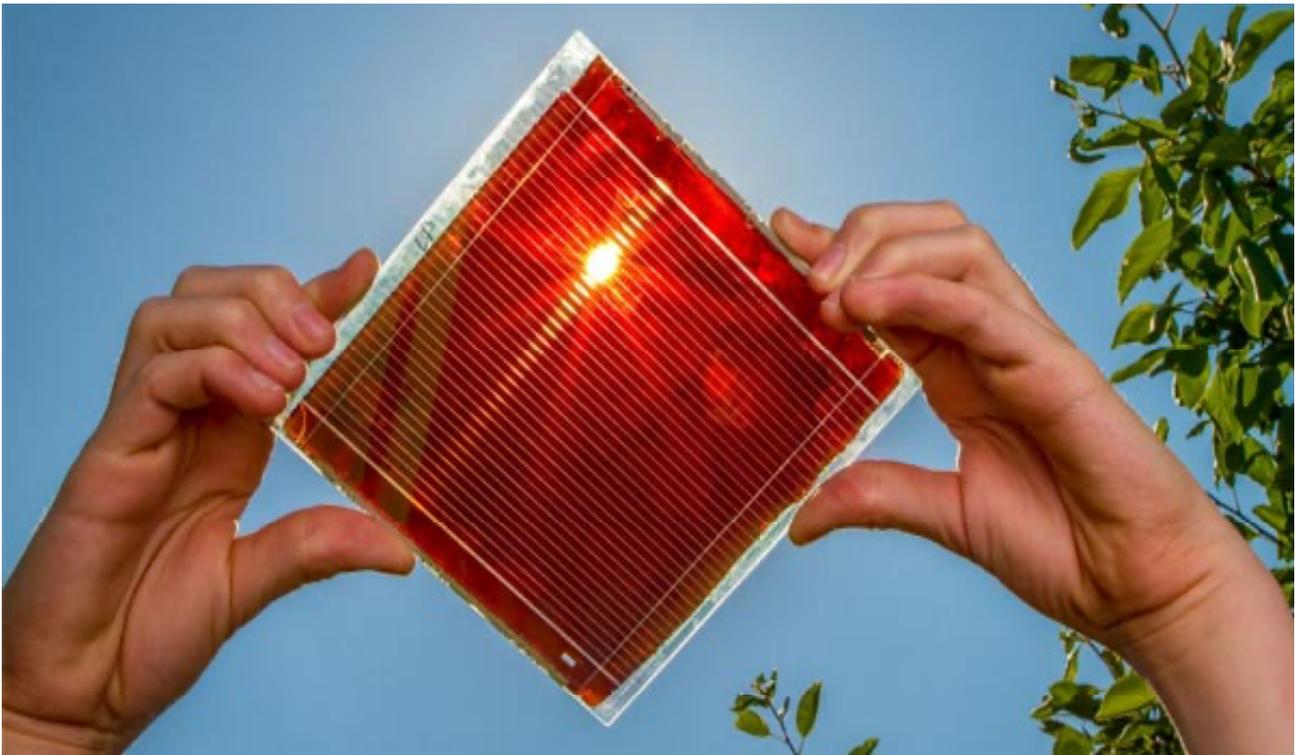
Most high-efficiency perovskite cells use lead, which is toxic.

Sustainability solutions include:

- Lead-free alternatives (tin, bismuth)
- Improved sealing to prevent leakage
- Recycling and recovery systems

### 3. Scaling Up

Efficiencies achieved in small laboratory cells are harder to maintain in large commercial panels. Scaling up without performance loss remains an active research area.



### Recent Breakthroughs: Pushing Theoretical Limits

Researchers at École Polytechnique Fédérale de Lausanne (EPFL) have made major progress by stabilizing rubidium ions in perovskite crystals using a lattice strain technique.

Key outcomes:

- Reduced energy losses
- Improved stability
- Achieved 93.5% of theoretical efficiency limit

This does not mean 93.5% electricity conversion, but it shows how close perovskites are to their maximum possible performance.

Such breakthroughs strengthen the case for PSCs as a long-term sustainable energy solution.

### Market Status and Commercial Progress

Perovskite solar technology is moving from laboratories to real-world use.

- Oxford PV has started producing perovskite-silicon tandem panels
- Utility-scale testing is underway
- Early commercialization is focused on tandem technology

Support from institutions like the U.S. Department of Energy is accelerating research, cost reduction, and durability improvements.

### Beyond Solar Panels: Wider Applications

Perovskite materials are not limited to solar cells. They are also useful in:

- LED lighting
- Sensors
- Photodetectors
- Energy storage integration

Their lightweight nature supports distributed energy systems, making electricity accessible in remote and underserved regions.

### Role of Cost and Management Accountants (CMAs) in Perovskite Sustainability

Technology alone cannot drive sustainability. Financial discipline, cost transparency, and strategic planning are equally important. This is where CMAs play a vital role.

#### 1. Life Cycle Costing

CMAs can analyse:

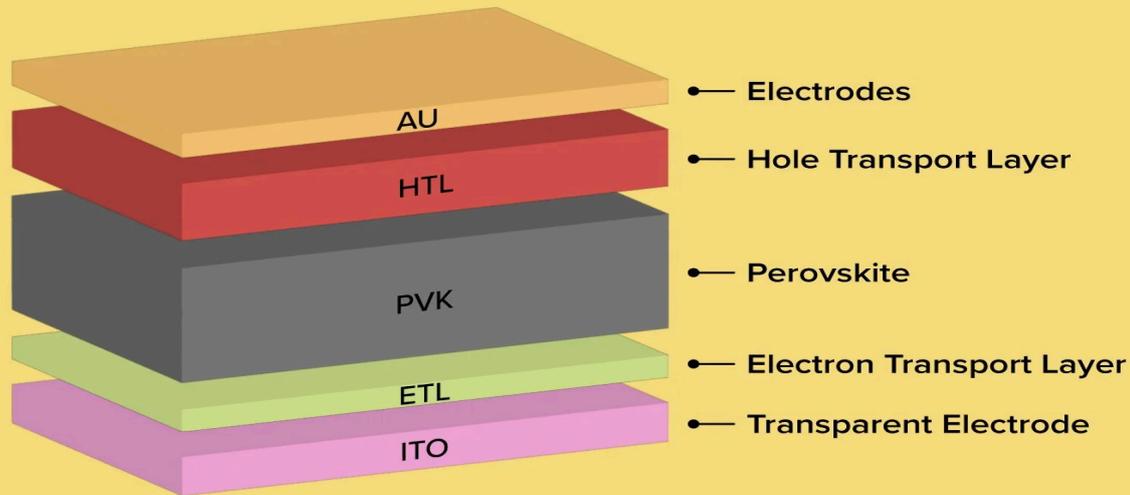
- Manufacturing cost
- Operating life
- Recycling and disposal costs

This helps compare perovskite systems with silicon on a full sustainability basis.

#### 2. Carbon and Energy Cost Accounting

CMAs can measure:

## What Are Perovskite Solar Cells?



Picture source: <https://www.infinitypv.com>

- Energy used in production
  - Carbon emissions avoided
  - Cost savings from low-energy manufacturing
- This supports ESG reporting and green financing.

### 3. Cost Optimization in Scaling

As perovskite technology scales up, CMAs can:

- Identify cost drivers
- Reduce wastage
- Improve material efficiency
- Support pricing strategies

### 4. Investment and Policy Support

CMAs can assist governments and investors by:

- Evaluating project feasibility
- Designing incentive structures
- Assessing long-term financial viability

### 5. Sustainability Reporting

CMAs ensure transparent disclosure of:

- Environmental benefits
- Risk factors (toxicity, stability)
- Compliance with sustainability standards

### Alignment with Global Sustainability Goals

Perovskite solar cells strongly support:

- Net-zero emission targets
- Renewable energy expansion
- Circular economy principles

- Affordable clean energy access

Their low material use and energy-efficient manufacturing make them ideal for a sustainable future.

### Future Outlook: A Brighter and Greener Tomorrow

With continuous research:

- Stability will improve
- Lead-free alternatives will mature
- Commercial adoption will expand

Perovskite solar cells are not just a scientific innovation—they represent a system-level shift toward cleaner, smarter, and more inclusive energy systems.

### Conclusion

Perovskite solar cells mark one of the most exciting developments in renewable energy. They combine high efficiency, low manufacturing energy, flexible applications, and strong sustainability potential. While challenges remain, rapid innovation and responsible financial management can overcome them.

By working together—scientists, engineers, policymakers, and CMAs—perovskite solar technology can play a crucial role in building a sustainable, low-carbon future for generations to come.

Clean energy is not just about power—it is about responsibility, efficiency, and sustainability. 🌱

# Mind Your Mind for Your Vibrant Health



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## Abstract

This write-up emphasizes the profound role of the mind in shaping physical health, emotional balance, and spiritual growth. Drawing from the teachings of the *Srimad Bhagavad Gita* and spiritual leaders like Swami Sivananda and Swami Vivekananda, it highlights how uncontrolled thoughts, ego, and ignorance lead to stress and psychosomatic disorders. The article explains the conscious, unconscious, and subconscious dimensions of the mind, stressing the power of positive mental conditioning. It advocates the practice of Ashtanga Yoga, meditation, and ethical living as practical tools for mind management and inner transformation. Ultimately, it calls for integrating yoga and meditation into institutional life to promote holistic well-being and vibrant health.

**“Empty thyself and I will fill thee” -Lord Jesus**

I have often found myself waking up just before my alarm sounds, perhaps prompted by an internal force—my own mind. This intriguing phenomenon suggests that if we give clear instructions to our subconscious mind, it can work wondrously in our favour. It is supported by the success stories of many accomplished individuals around the world.

Unfortunately, only a small fraction of people enjoy a happy, healthy, and balanced life. In contrast, majority of population grapple with various forms of stress, health issues, tension and conflicts over trivial matters. Despite being aware of their transient existence, many fail to confront the fundamental question: What is causing this turmoil?

The majority struggle to connect with their inner selves, lacking understanding of the mind's existence and its functions. This raises essential questions: What is the mind? Where does it reside within our bodies? Regrettably, many educated individuals possess limited knowledge about the intricacies of the mind and its mechanisms.

**“ That which separates you from God is Mind”**  
- Sri Swamy Sivananda

If you want to connect with God, just vanish your mind by doing meditation and sat-karma.

Manara mule e jagata means this world is in the root of mind.

The mind is notoriously restless and impatient, making it challenging for the average person to gain control. As a result, many make decisions that lead to mistakes or fail to achieve their desired success. However, guidance can be found in the teachings of the '*Srimad Bhagavad Gita*' (Chapter 6, Verse 34 and 35), which states that the mind can be calmed through dedicated practice of yoga and bairagya, ideally under the guidance of an experienced instructor. Asthanga Yoga, comprising eight limbs, is particularly effective for regaining control over the mind.

## The Importance of Mind Management

Managing the mind is crucial; it serves as the chief in command of our five senses: ears, eyes, tongue, skin and nose. These senses often pursue immediate gratification through unhealthy choices—be it junk food, inappropriate media, or gossip—contributing to both mental and physical ailments.

A limited section of the population recognizes the concept of mental health as a critical factor in the ninety percent of health issues known as psychosomatic disorders. Lingering thoughts about past traumas or anxieties about the unknown future only add to these problems.

In understanding the mind, it's essential to distinguish between three states: the conscious, the unconscious, and the sub-conscious. The conscious mind engages with the present, while the unconscious serves as a reservoir of memories and

experiences accumulated since birth. An important takeaway is to limit exposure to negativity; refrain from seeing, hearing or speaking ill, and certainly avoid harbouring negative thoughts.

The sub-conscious mind is a powerhouse, responsible for success, seldom use mind and never makes a mistake. If you will fill your mind with sorrow, fear, tension, disease, ego and feelings of negation, the subconscious mind plans accordingly and contrarily if you will fill your mind with happiness, disease-less, loving others and laugh every time, the mind will act accordingly like boomerang.

### The Challenges of Ego

A significant challenge in controlling the mind arises from ego (ahankar) and ignorance (avidya). Ego is akin to a cataract, obscuring one's ability to perceive and grasp deeper truths. It stems from the concept of "I" and manifests as pride. In mythological tales, the ego's downfall is exemplified by King Bali, whose arrogance led him to lose everything he possessed.

Contrarily, the story of King Indradyumna, who built the Jagannath Temple at Puri, Odisha, is a testament to humility. He chose to live without children to prevent any claims on his revered deity, embodying the principle of diminishing the 'I'-ness to eliminate ego.

Ravana, the ancient king of Sri Lanka, serves as another striking example. Despite his profound knowledge of scriptures, he was ultimately overtaken by ten heads of negativity—Kama (Lust), Krodha (Anger), Moha (attachment), Lobha (Greed), Mada (Pride), Maatsarya (Envy), Ahankara (Ego), Budhi (Intellect), Manas (Mind) and Chitta (will)—leading to his tragic fate.

### Paths to Mind Control

While controlling the mind may be difficult, it is achievable through 'Astanga Yoga', meditation, Japa, Brahma-chintan, and Hari naam Sankirtan, as prescribed in the *Srimad Bhagavad Gita*. Reading *Srimad Bhagbat Gita*, can helpfull to control your mind and make life better. The eight limbs of Astanga Yoga are :

1. **Yama:** Ethical disciplines, including:
  - b. Ahimsa (non-violence)
  - c. Satya (truthfulness)
  - d. Asteya (non-stealing)
  - e. Brahmacharya (self-control)
  - f. Aparigraha (non-possessiveness)
7. **Niyama:** Personal observances, including:
  - h. Shaucha (cleanliness),
  - i. Santosha (contentment),
  - j. Tapas (self-discipline),

- k. Svadhyaya (self-study),
- l. Ishvara Pranidhana (surrender to God)

### 13. Asanas-to make body flexible

14. **Pranayama-Breathing** to activate cells by kumbhaka, rechaka and puraka

### 15. Pratyahara

### 16. Dharana

### 17. Dhyana

### 18. Samadhi

Got an opportunity to visit Belur Mutt in Kolkata and spend some time in meditation hall where Swamy Vivekanand used to do meditation for hours together. Meditation may be the only medicine which can change your life span, make you healthier and happier and a true human being.

One more example of meditation. Lord Budha taught us how to do meditaion and it's benefits in our daily life to make our mind empty so that you can connect with God directly and you can differentiate the good and bad of your thought process. Prince Budha became Lord Budha by doing long time meditation .

As a dedicated practitioner of yoga, have conducted numerous sessions for newly graduated cost accountants, professors, and others within our community to highlight the significance of regular yoga practice and continuing research on Vedas, Upanishads and yoga.

Ultimately, one may excel in various professional domains—medicine, accounting, architecture, cinema, sports, or business—but might still neglect the essential tenets of health management and mind control. The pursuit of wealth, relationships, and life satisfaction can often lead to corruption, malpractice, personal tragedy, and societal violence.

In the light of these insights, urge the management of our institute to integrate Asthanga Yoga into our curriculum, promoting mental wellness among all members and students to make their life better along with social help, whether in their professional or personal lives and requesting all members to start meditation at least for 15 minutes daily with your regular walking and exercise.

By understanding and nurturing our minds, we pave the way to a more harmonious and fulfilling existence. Let us 'MIND our minds' and prioritize vibrant health for ourselves and those around us. 

### References:

1. MIND it's mysteries and contral by Sri Swamy Sivananda
2. Talk and Grow rich by Ron Holland
3. Srimad Bhagbat *Gita*
4. Patanjali Yoga sutras

# Overview of India's Carbon Credit Trading Scheme (CCTS)



CMA A. Sekar

Practicing Company Secretary

Mumbai

## Abstract

India's Carbon Credit Trading Scheme (CCTS) 2023 establishes a national framework to achieve a 45% reduction in GHG emission intensity by 2030. It features a dual-mechanism approach: mandatory compliance for high-emission industries (e.g., steel, cement) and a voluntary offset market for non-obligated sectors. Governed by the BEE and CERC, the scheme ensures market integrity through a rigorous Monitoring, Reporting, and Verification (MRV) process. Strategically operationalizing in 2026 to align with the EU's CBAM, CCTS provides a regulated domestic carbon price, facilitating India's transition toward absolute emission caps and its 2070 Net Zero goal.

## Background

India, as one of the signatory countries to the Paris Agreement in 2016, has demonstrated seriousness by revising upwards its target for reduction of GHG emissions intensity in August 2022 from 35% to 45% by 2030 compared to 2005 levels. Given India's ambitious commitments in relation to its climate goals, it is necessary to have in place a robust national framework for its Carbon market [which is referred to as "Indian Carbon Market" (ICM)]. The said ICM framework consists of two key mechanisms namely.

- a. Compliance mechanism which aims to address the emissions from its energy use and industrial sectors and
- b. Offset mechanism to give incentives to the voluntary actions from entities (other than those covered under compliance) for GHG reduction.

The framework provides a comprehensive approach towards decarbonization of the economy.

## Overview of regulatory framework of CCTS

### 1. Global Framework: The Paris Agreement

The global framework is governed by Article 6 of the Paris Agreement, which allows countries to cooperate to meet their climate targets. Key articles are: -

- **Article 6.2:** which allows bilateral or multilateral trade of "mitigation outcomes" between countries.
- **Article 6.4:** which establishes a centralized UN mechanism in place of the erstwhile Clean Development Mechanism (CDM) for verifying and issuing carbon credits for projects.
- **Article 6.8:** which deals with non-market approaches, for example, technology transfer.

### 2. India's Framework: The CCTS 2023

India has transitioned to a direct carbon market under the Energy Conservation (Amendment) Act, 2022 from the energy-saving certificates (PAT scheme) leading to the Carbon Credit Trading Scheme (CCTS), 2023.

Following are the constituents of the regulatory framework in the Indian Carbon Market (ICM) and their functions in brief: -

- a. National Steering Committee (NSCICM): The National Steering Committee for Indian Carbon Market (NSCICM) acts as the apex governance body that provides strategic oversight and direction for the country's carbon credit framework. It is responsible for recommending greenhouse gas emission targets, approving credit methodologies, and formulating the core rules for the ICM.
- b. Bureau of Energy Efficiency (BEE): The BEE focuses on reducing the energy intensity of the

Indian economy by establishing performance standards for appliances (the "Star Labelling" program) and managing industrial efficiency through the PAT (Perform, Achieve and Trade) scheme. It also serves as the primary Administrator of the Indian Carbon Market, where it handles the registration of entities and oversees the technical issuance of carbon credits.

- c. Central Electricity Regulatory Commission (CERC): The CERC is a statutory body that regulates the tariffs of central and interstate power generation and transmission projects to ensure a competitive and fair electricity market. In the carbon ecosystem, it functions as the designated Regulator, overseeing all trading activities on exchanges and ensuring market transparency to prevent fraud.
- d. Grid Controller of India Ltd.: The Grid Controller of India ensures the reliable, real-time integrated operation of the national power system through its national and regional load despatch centres. It also plays a vital role as the Registry for the Indian Carbon Market, maintaining the official database that tracks the issuance, transfer, and surrender of all carbon credit certificates.

### 3. Core Mechanisms of Operation

The regulatory framework typically splits the market into two distinct streams:

#### a. Compliance Mechanism (Mandatory)

Targeted at "Obligated Entities" in high-emission sectors (e.g., Cement, Steel, Aluminium, and Petrochemicals).

- Baseline-and-Credit: Instead of an absolute cap, the government sets Greenhouse Gas Emission Intensity (GEI) targets (emissions per unit of product).
- The Logic: Entities that emit less than their target earn Carbon Credit Certificates (CCCs). Those that exceed their target must buy CCCs from the market to avoid heavy penalties.

#### b. Offset Mechanism (Voluntary)

Allows non-obligated sectors (like agriculture, forestry, and green hydrogen) to earn credits. Companies can voluntarily register projects that remove or avoid CO<sub>2</sub>. Once verified by an Accredited Carbon Verification Agency (ACVA), these projects generate credits that can be sold to obligated entities or on the global market.

### 4. The "MRV" Process: Ensuring Integrity

The MRV cycle serves as the rigorous "accountability loop" that converts climate promises into verifiable data, specifically targeting two major integrity risks:

#### a. Preventing Greenwashing

Monitoring and Reporting require entities to track

emissions using standardized, BEE-approved methodologies rather than vague corporate estimates. Verification then introduces independent third-party auditors who "stress-test" these claims. This ensures that carbon credits are only issued for reductions that are real, additional, and permanent thereby effectively filtering out "phantom" environmental claims.

#### b. Preventing Double Counting

The MRV process feeds directly into a centralized Registry (managed by Grid-India). Once a reduction is verified, it is assigned a unique serial number. By tracking the credit's entire lifecycle—from issuance to trade to final "retirement"—the system ensures that a single ton of avoided CO<sub>2</sub> cannot be claimed by more than one entity or used to meet two different targets.

This transparent "cradle-to-grave" tracking creates a digital paper trail that keeps the market honest and ensures one credit equals exactly one ton of carbon reduction.



## Overview of the Carbon Trading Market

The carbon trading market in 2026 is divided into two distinct arenas: the Compliance Market (mandatory and government-regulated) and the Voluntary Market (optional and goal-driven).

Each has its own unique set of buyers and sellers, often with significant overlap in project types.

### 1. The Compliance Market

These participants trade because they are legally required to under schemes like India's CCTS (Carbon Credit Trading Scheme) or the EU ETS.

**Sellers:**

- Overachieving Industries: Companies in sectors like Steel, Cement, and Aluminium that beat their government-assigned "Emission Intensity Targets."
- EV Manufacturers: Companies like Tesla or Tata Motors that earn credits by selling zero-emission vehicles, which they then sell to traditional automakers.
- Renewable Energy Giants: Large-scale solar and wind developers that are registered under national compliance frameworks.

**Buyers:**

- Underachieving Industries: Factories or power plants that failed to meet their reduction targets and must buy credits to avoid heavy penalties.
- Aviation & Shipping: Global airlines (under the CORSIA mandate) and shipping companies required to offset their fuel emissions.
- Exporters to Europe: Indian exporters affected by CBAM (Carbon Border Adjustment Mechanism) who buy domestic credits to lower their "carbon tax" when selling to the EU.



**2. The Voluntary Market**

Participants here trade to meet "Net Zero" promises, improve brand reputation, or satisfy investor ESG (Environmental, Social, and Governance) requirements.

**Sellers:**

Project Developers: Organizations that build carbon-saving projects (e.g., mangrove restoration in the Sundarbans or clean cookstove distributions in rural Tamil Nadu).

Farmers & Landowners: Under new 2026 programs (like India's ₹20,000 Cr agriculture carbon budget), farmers earn credits for "Carbon Farming" (sustainable tilling or tree planting).

Nature-Based Solutions: NGOs and private firms specializing in Afforestation and Soil Carbon Sequestration.

**Buyers:**

Tech Titans: Companies like Microsoft, Google, and Amazon are the largest buyers, often prepurchasing "Carbon Removal" credits years in advance.

Consumer Brands: Lifestyle companies (e.g., Apple, Nike, Unilever) that want to label their products as "Carbon Neutral" or "Climate Positive."

Individuals: Environmentally conscious travellers or small business owners looking to offset their personal footprints.

**3. The "Middlemen" (Market Infrastructure)**

Credits rarely move directly from a farmer to the buyer; they pass through a chain of intermediaries:

Entity	Role
Exchanges	Platforms like IEX (India) or Xpansiv (Global) where credits are bid on like stocks.
Registries	"Digital Ledgers" (e.g., Verra, Gold Standard, or India's BEE) that issue and track the serial numbers of credits.
Brokers/Aggregators	Firms that bundle small credits (like from 1,000 individual 1MW solar plants) into one large "bulk" sale for big buyers.
VVBs (Auditors)	Third-party companies (like TÜV SÜD or DNV) that physically visit projects to verify that the carbon was actually saved.

**Action Plan for Indian SMEs**

For an Indian Small and Medium Enterprise (SME), the Carbon Credit Trading Scheme (CCTS) is effectively India's new "Green Stock Exchange." While the heavy hitters (Steel, Cement, etc.) are mandated to participate, SMEs can enter through the Voluntary Offset Mechanism to turn their green initiatives into a revenue stream.

**1. SME Compliance Checklist – A Snapshot**

Action Item	Deadline	Responsibility
Baseline Data Finalization	March 2026	Internal / Consultant
PDD Submission & Validation	May 2026	ACVA (Third Party)
Registry Account Approval	July 2026	Grid-India
Verified Report Submission	August 2026	BEE
First Trade Participation	October 2026	IEX / PXIL

**2. Cluster Aggregation**

The single biggest barrier for Indian SMEs is the MRV (Monitoring, Reporting, and Verification) cost, which can range from ₹2 lakh to ₹5 lakh. To bypass



this, the Ministry of MSME is encouraging Carbon Credit Aggregation Centres (CCAs). By joining a cluster (e.g., an industrial estate in Surat or Coimbatore), the fixed costs are divided, making even small 50-tonne reductions profitable.

### Strategic Driver: The CBAM Factor

A key reason for the rapid formalization of the CCTS framework in 2026 is the EU's Carbon Border Adjustment Mechanism (CBAM). By having a domestic regulatory price for carbon, Indian exporters can offset the carbon taxes they would otherwise have to pay when shipping goods to Europe.

As at the time of this writing, the Indian CCTS is in a critical "pre-launch" operational phase. While the legal framework and monitoring are active, live trading of compliance-based credits has not yet begun.

The timing is not accidental. The EU's Carbon Border Adjustment Mechanism (CBAM)—which taxes carbon-heavy imports into Europe—enters its definitive phase in 2026. By launching the CCTS in October 2026, India ensures that its exporters have a domestic carbon price they can point to, allowing them to potentially reduce the "carbon tax" they would otherwise have to pay to the EU.

### Summary of the CCTS Timeline

Milestone	Expected Date	Status
Target Notification	Jan 2026	Completed
End of First Compliance Year	March 31, 2026	In Progress
Third-Party Verification	April - June 2026	Upcoming
Issuance of Credits (CCCs)	Sept 2026	Upcoming
Live Trading Begins	October 2026	Target Date

### Way Forward

To evolve into a world-class system, India's CCTS requires a strategic shift from its current "emissions intensity" model towards absolute emission caps. This transition will ensure that as Indians economy grows, its total carbon footprint actually shrinks, aligning firmly with the 2070 Net Zero goal.

To ensure long-term stability and investor confidence, the following are some other measures that may be taken:

- **Market Safeguards:** Implementing Price Stability Mechanisms, such as price floors and strategic credit reserves, will prevent market crashes caused by oversupply—a lesson learned from early international trading schemes.
- **Technological Modernization:** Adopting Digital MRV (dMRV) is critical. By integrating IoT sensors, satellite monitoring, and Blockchain technology, India can create a tamper-proof digital ledger that provides real-time data, slashes administrative costs, and virtually eliminates "double counting."
- **Regulatory & Legal Clarity:** The government must provide a clear legal classification for carbon credits (as either "securities" or "commodities") and standardize GST applications. This clarity is essential for attracting large-scale institutional capital.
- **Global Fungibility:** Aligning domestic standards with the EU's CBAM and the Paris Agreement's Article 6 will ensure that Indian credits are recognized internationally, protecting exporters and allowing for cross-border carbon trade.
- **Social Equity:** Strengthening benefit-sharing models will ensure that revenue from offset projects (like forestry or regenerative agriculture) reaches local communities and farmers, maintaining the ethical integrity of the market. <sup>39</sup>

# Special Webinar on Union Budget 2026

February 5, 2026 | 4pm- 5:15pm



CMA (Dr.) Ashish P. Thatte



CMA Arunabha Saha



CMA Dibbendu Roy



CMA (Dr.) Aditi Dasgupta

The Sustainability Standards Board, ICAI organized the Special Webinar on Union Budget 2026 on February 5 2026 on the topic of Sustainability Perspective & Overview of ISS1 & ISS2. CMA Arunabha Saha, Practising Cost Accountant was the speaker for the webinar. CMA (Dr.) Aditi Dasgupta, Joint Director introduced the speaker and the welcome speech was rendered by CMA (Dr.) Ashish P. Thatte, Chairman, SSB, ICAI.

The speaker commenced his presentation by articulating India's unwavering intent towards green growth, moving decisively from intent to execution. He underscored that ESG is no longer a peripheral aspiration but is now deeply embedded within the fiscal architecture of the Government. The new paradigm of growth, he observed, rests firmly on the triad of value, resilience, and responsibility. He stated that ESG must not be viewed as a mere compliance obligation, but as a powerful strategic driver capable of delivering long-term value creation beyond sectoral silos. The Government's vision, he noted, is anchored in enduring sustainability rather than short-term goal attainment. The Union Budget, he highlighted, clearly reflects this commitment through substantial emphasis on green power generation infrastructure and the fixation of ambitious non-fossil fuel energy targets. Drawing attention to the evolving energy landscape, he remarked that fossil fuels are gradually becoming passé, while non-fossil alternatives are being structured to ensure reliable availability for industry requirements. Decarbonisation, he affirmed, represents the future trajectory of economic progress, with emission reduction serving as an enabler of sustainable national growth. He elaborated upon key fiscal allocations that reinforce this green commitment — ₹1,500 crore earmarked for a mineral recycling fund, and a significant ₹20,000 crore allocation for Carbon Capture, Utilisation and Storage (CCUS). These measures, he noted, demonstrate the Government's policy thrust towards fostering a circular economy, strengthened through subsidies and catalytic interventions. He also stressed that leading corporations contributing significantly to the Gross National Product must align themselves with ESG parameters, thereby ensuring accountability at scale. Importantly, he recognised the transformative potential of SMEs in driving structural change. Through initiatives such as the Corporate Mitra scheme, SME stakeholders are being meaningfully hand-held to integrate sustainability into their operational frameworks. In conclusion, he reiterated that ESG is fundamentally a strategy — not merely a reporting mechanism.

The latter segment of the presentation transitioned to an insightful exposition on ISS1 and ISS2, highlighting their general requirements and environmental focus. He explained how embedded policy frameworks, market mechanisms, and investment priorities align with the Union Budget's role as a catalyst for systemic change. Elaborating on ISS1, he outlined its core requirements, including risk analysis, governance structures, supply chain integrity, and convergence with the integrated value creation framework. He particularly emphasised the linkage between sustainability strategy and financial statements, underscoring the growing integration of ESG disclosures with mainstream financial reporting. Moving to ISS2, he discussed its climate-related risk dimensions and its alignment with the Government's emission reduction objectives. He stated how organisations must develop strategic roadmaps to mitigate risks, optimise costs, and position themselves competitively in a low-carbon future. The session concluded with a reminder that sustainability is not a transient trend but a structural shift — one that demands strategic foresight, disciplined execution, and unwavering commitment to responsible growth.

The webinar had a question and answer round and concluded with a vote of thanks by CMA Dibbendu Roy, Additional Director and Secretary, SSB, ICAI.



VK Webinar Series of the Sustainability Standards Board

51<sup>st</sup> Webinar

## Sustainability lessons for CMAs from *Gita*

Friday, February 13, 2026 | 4pm- 5:15pm



Dr. Anil Gor



CMA Arunabha Saha



CMA Dibbendu Roy



CMA (Dr.) Aditi Dasgupta

The Sustainability Standards Board, ICMAI successfully organized the 51<sup>st</sup> edition of the *Vasudhaiva Kutumbakam* Series on 13<sup>th</sup> February 2026 from 4:00 p.m. to 5:15 p.m., on the thought-provoking theme “Sustainability Lessons for CMAs from *Gita*.” The distinguished speaker for the session was Dr. Anil Gor, Professor – Finance and Head, Corporate Engagement at Xavier Institute of Management & Research. The webinar commenced with opening remarks by CMA Arunabha Saha, Coordinator, who set the context for the deliberations. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI, formally introduced the theme and highlighted its contemporary relevance before inviting the speaker to deliver his address.

Dr. Gor began his insightful presentation by referring to the 17 Sustainable Development Goals (SDGs) propounded by the United Nations and aligned them with India’s developmental roadmap envisioned by NITI Aayog. He elaborated on the nation’s progress in achieving these goals and contextualized sustainability within the broader framework of national priorities. Drawing deeply from the timeless wisdom of the *Bhagavad Gita*, Dr. Gor recited select verses, explaining the meaning of each word with clarity and philosophical depth. He emphasized that true sustainability transcends compliance and rests upon inner transformation, ethical conduct, and the pursuit of collective well-being. According to him, happiness forms the cornerstone of sustainable living, and inclusive growth is intrinsic to the *Gita*’s philosophy, which views every living being as a manifestation of the Divine, thereby embracing the entire ecological system within its spiritual fold. He eloquently connected the ICMAI Sustainability Standards and axioms issued by the Institute with the teachings of the *Gita*, underscoring virtues such as integrity, ethics, human rights, inclusive development, and stakeholder-centric governance. In light of prevailing geopolitical challenges, he stressed the urgent need for ethical leadership and value-based decision-making. Dr. Gor described the *Gita* as a practical manual for daily life and briefly touched upon the wisdom embedded in the *Rigveda*, *Yajurveda*, *Samaveda*, and *Atharvaveda*, explaining their philosophical underpinnings. He highlighted the doctrine of *Nishkama Karma*—performing one’s duties without attachment to outcomes—and encouraged professionals to act with dedication, yet without expectation, for the greater good of society. Through simple explanations of selected shlokas, he conveyed that sustainability is fundamentally a philosophy of life—rooted in selfless action, compassion, and responsible stewardship of resources. He concluded by reiterating that the timeless teachings of the Vedas and the *Gita* provide a pathway to leading a simple yet profoundly impactful life.

The webinar witnessed an engaging question-and-answer session, during which participants gained valuable insights from the speaker’s reflections. The session concluded with a heartfelt vote of thanks delivered by CMA Dibbendu Roy, Additional Director and Secretary of the Sustainability Standards Board, marking the successful culmination of a spiritually enriching and intellectually stimulating discourse.

5<sup>th</sup> Parinayati Webinar Series**Green IT and Sustainability in the Netherlands**

Friday, February 20, 2026 | 4pm- 5:15pm



CMA Arunabha Saha



CMA A. Sekar



Mr. Siddharth Sekar



CMA (Dr.) Aditi Dasgupta



CMA Dibbendu Roy

The Sustainability Standards Board, ICAI and the International Affairs Committee successfully organized the 5<sup>th</sup> Parinayati Series on Global Sustainability Opportunities on the theme “Green IT and Sustainability in the Netherlands” on 20<sup>th</sup> February 2026 from 4:00 p.m. to 5:30 p.m. The speakers for the session were CMA A. Sekar, Practising Company Secretary, and Mr. Siddharth Sekar, Data Scientist, Netherlands.

The webinar commenced with opening remarks by CMA Arunabha Saha, Coordinator, who highlighted key sustainability initiatives and developments in the Netherlands. CMA (Dr.) Aditi Dasgupta, Joint Director, ICAI, introduced the speakers and explained the rationale behind selecting the topic, emphasizing the growing linkage between sustainability and information technology and its contemporary relevance.

CMA A. Sekar began his presentation by setting the context of the topic and outlining the historical and cultural relevance of the Netherlands. He noted that the country ranks among the top ten global economies and has strong specialization in logistics, technology, and trade. He elaborated on the 17 Sustainable Development Goals (SDGs) and the Netherlands’ standing among European nations. The speaker provided an overview of global ESG reporting frameworks and discussed the role and objectives of key financial oversight bodies operating in the Netherlands. He further explained the country’s corporate governance, ESG compliance, and labour and employment framework. Detailed insights were shared on the implementation of the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS), including the compliance framework for large enterprises. He also touched upon regulatory changes expected in 2026 and briefly discussed developments relating to the India–EU trade agreement, along with suggested readings.

Mr. Siddharth Sekar, drawing on his expertise in information technology, focused on the Green IT dimension and introduced the framework of reducing cost, carbon, and complexity. He explained why the Netherlands is considered a global leader in the Green IT and sustainability index, supported by its rankings across various parameters. The strategic advantages of the country—such as energy-efficient data centres, robust e-waste management systems, and advanced high-speed digital connectivity infrastructure—were highlighted. He discussed IT-related emissions and the country’s positioning against global benchmarks. The session also covered financial benefits, risk mitigation, and competitive advantages arising from Green IT adoption. Key challenges—including data transparency, governance issues, supply chain complexity, and the concept of net-positive technology—were examined. Through case studies, he outlined high-impact opportunities, including energy-efficient AI, and recommended strategic and operational actions. He concluded with collaboration pathways, priority research areas, and key takeaways, emphasizing the need to integrate digital transformation with sustainability.

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International Women's day, 2026 Special Webinar

## नारी प्रभा

*Her Power - Woman, Work & World*

Experience Sharing by



**CMA Renjini R.**

Head Finance  
Kochi Water Metro Ltd.



**CMA Shilpa Joshi**

Whole-Time Director &  
Chief Financial Officer, Novartis



**CMA (Dr.) Aditi Dasgupta**

Joint Director  
The Institute of Cost Accountants of India



Sunday | March 08, 2026



4.00 PM - 5.30 PM

Organised by Sustainability Standards Board



**CMA TCA Srinivasa Prasad**  
President, ICMAI



**CMA Neeraj D. Joshi**  
Vice President, ICMAI



**CMA (Dr.) Ashish P. Thatte**  
Chairman, SSB, ICMAI



**CMA Arunabha Saha**  
Coordinator

Behind every successful business decision, there is always a CMA.

# IFSC enabled Global Platform for Indian Enterprise - Direct Listing & Sustainable finance



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**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**  
 भारतीय लागत लेखाकार संस्थान  
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**Sustainability Standards Board (SSB)**

jointly with

**Western India Regional Council of ICMAI**

Is organising

4 CPE  
 Credit  
 Hours

## Program on IFSC enabled Global Platform for Indian Enterprise - Direct Listing and Sustainable Finance

### Keynote Speaker:



**Shri K. Rajaraman,**  
 Chairperson, IFSCA  
 (\*Confirmation awaited)

### Galaxy of Speakers :

- ❖ **Shri Pradeep Ramakrishnan**, Executive Director, Department of Capital Markets, IFSCA
- ❖ **CS Makarand Lele**, Former President ICSI & Member SSB Board, ICMAI
- ❖ **Ms. Hetal Kotak**, Head - Listings NSE International Exchange (NSE IX)
- ❖ **CMA Robin Banerjee**, Chairman of Nucleon Research Pvt Ltd (\*Confirmation awaited)



**CMA TCA Srinivasa Prasad**  
 President, ICMAI



**CMA Neeraj D. Joshi**  
 Vice President, ICMAI



**CMA (Dr.) Ashish P. Thatte**  
 Chairman, SSB, ICMAI



**CMA Mihir N. Vyas**  
 Chairman, ICMAI-WIRC

Program Details:	
Date	Monday, March 16th 2026
Time	10.00 am to 4.00 pm
Venue	NSE Auditorium, Exchange Plaza, Plot No. C/1, G-Block, Bandra-Kurla Complex, Bandra (East), Mumbai - 400051
Registration Fees	Rs 500 plus GST
Registration Link	<a href="https://eicmai.in/ocmac/SSB/DelegateApplForm_SSB2.aspx">https://eicmai.in/ocmac/SSB/DelegateApplForm_SSB2.aspx</a>

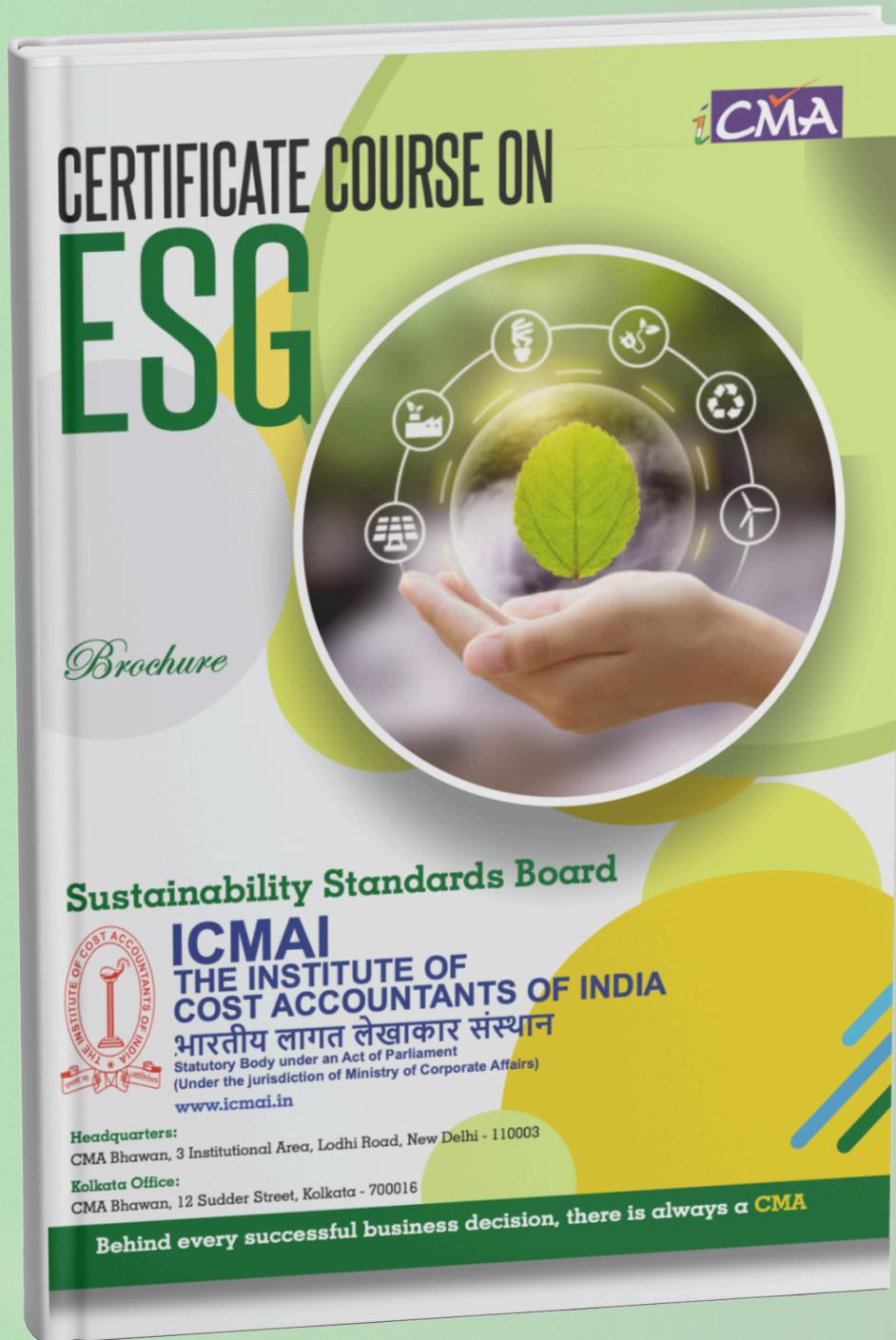


**CMA Arunabha Saha**  
 Program Coordinator

FORTHCOMING WEBINARS

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BROCHURE OF THE CERTIFICATE COURSE ON ESG



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## Report of ICMAI Sustainability Summit 2.0 & Green Awards Ceremony

The SSB, ICMAI organized the Sustainability Summit 2.0 on 29<sup>th</sup> January, 2026 at Radisson, Noida. The event was graced by Mr. Lee White, Chief Executive Officer, IFAC. The guest of honours were Mr. Laxman Watawala, President, The Institute of Certified Management Accountants, Sri Lanka and Former President, SAFA and Ms. Jennifer Lopez, Chief Executive, Confederation of Asian and Pacific Accountants (CAPA). Mr. Puvendran Gajendra, Governing Body Member of The Institute of Certified Management Accountants, Sri Lanka were present at the occasion. CMA TCA Srinivasa Prasad, President, ICMAI, CMA Neeraj D. Joshi, Vice-President, ICMAI, CMA (Dr.) Ashish P. Thatte, Chairman, SSB, ICMAI and Council Member, CMA Manoj Kumar Anand, Council Member, ICMAI were present at the inaugural session.

### Address by CMA (Dr.) Ashish P. Thatte

**CMA (Dr.) Ashish P. Thatte**, Chairman, Sustainability Standards Board (SSB), ICMAI, welcomed the dignitaries and administered the Sustainability Oath, which was solemnly affirmed by all participants. In his address, he highlighted that 97% of companies in India are providing sustainability-related information, compared to 91% in OECD countries, reflecting India's proactive approach toward sustainability disclosures.

He further stated that the SSB had issued ICMAI ISS 1 and ISS 2 last year, carved out from the international IFRS Foundation standards IFRS S1 and S2, and this year the Institute has released comprehensive Guidance Notes to facilitate implementation. He also mentioned that the *Vasudhaiva Kutumbakam* webinar series—focusing on out-of-the-box sustainability themes—is conducted on the 2<sup>nd</sup> and 4<sup>th</sup> Fridays of every month, and the current edition marked a significant milestone. Additionally, he referred to the monthly newsletter *Sukhinobhavantu*, published on the 25<sup>th</sup> of every month, which has successfully completed 30 volumes. He emphasized that the ICMAI Green Awards represent the Institute's first structured initiative to recognize and felicitate companies demonstrating excellence in sustainability practices.

### Address by CMA Neeraj Joshi

**CMA Neeraj D. Joshi** emphasized that sustainability is a collective commitment of all stakeholders. He spoke about the global relevance of **IFRS S1 and S2** sustainability disclosure standards and how ICMAI ISS 1 and ISS 2 are harmonized with global requirements to enhance awareness and implementation. He highlighted the importance of the ICMAI Green Awards across various categories and the Best Article Awards for the *Sukhinobhavantu* newsletter. He underscored that the event's technical sessions were designed to be meaningful, impactful, and professionally enriching.

### Address by CMA TCA Srinivasa Prasad

**CMA TCA Srinivasa Prasad** stated that climate change and sustainability are not adjuncts to strategy but are central to long-term resilience and responsible growth. He emphasized the importance of measuring environmental impact, ensuring transparency in sustainability disclosures, and noted that CMAs can make decisive contributions in these areas.

He referred to the unprecedented global focus on IFRS sustainability disclosures and stressed that standards have no relevance unless effectively implemented and monitored. He described BRSR as India's sustainability blueprint and highlighted that India's approach balances sustainability with inclusive growth. He reiterated that CMAs play a critical role in translating sustainability standards into implementable reality and that ICMAI Sustainability Standards serve as enablers for companies across market capitalizations. The Summit, he noted, provides practical insights for stakeholders to act responsibly and humanely.

### Address by Prof. Lakshman Watawala

**Prof. Lakshman Watawala** shared initiatives undertaken by Institute of Certified Management Accountants of Sri Lanka, including voluntary adoption of Integrated Reporting and awards recognizing excellence in integrated standards. He mentioned that the top 100 companies in Sri Lanka are mandated to report on sustainability aspects.

He discussed ISSB sustainability reporting dynamics, value creation principles, investor orientation, and linkages with GRI standards and Sustainable Development Goals (SDGs). Emphasizing environmental concerns such as emissions reduction and ecological preservation, he underlined the need for integrated accounting that includes non-financial metrics to ensure that companies and society develop together.

**Address by Mr. Lee White**

**Mr. Lee White, CEO of International Federation of Accountants (IFAC)**, shared his experience with the IFRS ecosystem and highlighted the ongoing digital transformation across countries. He emphasized professional unity amid geopolitical tensions and global disruptions.

He spoke about the practical challenges in implementing sustainability reporting standards and stressed the urgent need for stakeholder awareness. He noted that organizations are increasingly focusing not just on financial results but on long-term impact, aligned with risks and opportunities. He appreciated ICMAI's ethical leadership and strategic initiatives in sustainability, noting alignment with IFAC's global objectives.

**ICMAI Green Awards 2023-24– Overview**

**CS Makarand Lele**, Past President of **Institute of Company Secretaries of India (ICSI)**, presented an overview of the ICMAI Green Awards 2023–24. He explained the objectives, evaluation parameters, categorization, jury process, and the concept of rolling trophies. He appreciated the technical jury and jury members for their meticulous assessment process before formally releasing the ICMAI Green Awards.

**Award Presentations****Tulsi Awards – Small Cap Category**

Presented by Ms. Jennifer Lopez, CEO CAPA, along with CMA (Dr.) Ashish P. Thatte and CMA Manoj Kumar Anand.

- **Wniner** – Sagar Cements Limited
- **1<sup>st</sup> Runner-up** – Blue Dart Express Limited
- **2<sup>nd</sup> Runner-up** – Aavas Financiers Limited

**Kalpavriksha Awards – Mid Cap Category**

Presented by Prof. Lakshman Watawala and CMA Neeraj D. Joshi.

- **Winner** – Metro Brands Limited
- **1<sup>st</sup> Runner-up** – Polycab India Limited

**Vatavruksha Awards – Large Cap Category**

Presented by Mr. Lee White and CMA TCA Srinivasa Prasad.

- **Winner** – Zydus Lifesciences Limited
- **1<sup>st</sup> Runner-up** – Larsen & Toubro Limited
- **2<sup>nd</sup> Runner-up** – HDFC Life Insurance Company Limited

**Newsletter Awards**

The Best Article Award for the *Sukhinobhavantu* newsletter was conferred upon Dr. Dileep S.D. (received on his behalf by CMA Arunabha Saha, Editor).

The 2<sup>nd</sup> Best Article Award for 2024–25 was presented to CMA Jyotsna Rajpal.

**Publications**

The publications on ICMAI ISS 1 and ISS 2, along with the Guidance Note Handbook and a compendium of the last six months of *Sukhinobhavantu*, were formally released during the ceremony.

**Technical Session I****Theme: Sustainable Economy – The Inevitable Role of CMA (Panel Discussion)**

The session was moderated by CMA Anuradha Dhavalikar, Practising Cost Accountant. The distinguished speakers included:

CMA Venkateswaran Ramakrishnan, General Manager, Securities and Exchange Board of India (SEBI)

Dr. Suneel Pandey, Director, Circular Economy & Waste Management, The Energy and Resources Institute (TERI)

CMA Anuradha Dhavalikar presented an overview of sustainable economy principles, highlighting CMAs as

change leaders in value creation and responsible governance.

CMA Venkateswaran Ramakrishnan elaborated on BRSR evolution, ESG funds, six sustainable investment strategies, Social Stock Exchange mechanisms, Sovereign Green Bonds, ESG debt instruments, sustainability bonds, and green deposits. He also discussed ESG rating providers and India's net-zero roadmap, including the target of Indian Railways achieving net zero in the coming decades.

Dr. Suneel Pandey shared insights into the formation of TERI in 1974, research initiatives, environmental case studies, and the role of individuals in sustainability transitions.

The session concluded with a formal vote of thanks and felicitation of speakers by CMA Suresh R. Gunjalli.

### Special Address – 50<sup>th</sup> Vasudhaiva Kutumbakam Series on Environment & Sustainability

**Dr. Ranjith Krishnan**, Sustainability Consultant, welcomed the distinguished guests and participants and introduced the significance of the *Vasudhaiva Kutumbakam* initiative. He described the 50<sup>th</sup> edition as a momentous milestone in the Sustainability Standards Board's (SSB) journey of thought leadership. He expressed gratitude for the gracious presence of **Dr. Abhishek Gupta**, IA & AS, Director General of **International Centre for Environment Audit and Sustainable Development (iCED), Jaipur**.

Dr. Krishnan briefly recounted the wide spectrum of themes covered in the previous editions of the webinar series, highlighting how SSB has consistently addressed diverse and emerging dimensions of sustainability over the past year.

### Special Address by Dr. Abhishek Gupta

**Dr. Abhishek Gupta** elaborated on the constitutional mandate and pivotal role of the Comptroller and Auditor General of India (C&AG). He explained that as India's Supreme Audit Institution, the C&AG serves the nation by safeguarding public interest through independent oversight and ensuring the proper utilization of public funds.

He outlined the role, aims, and objectives of iCED, emphasizing its commitment to strengthening environmental audit capacity and promoting sustainable governance practices. He also referred to the collaboration between iCED and the Institute of Cost Accountants of India (ICMAI) through Memoranda of Understanding (MoUs), aimed at enhancing professional capacity and fostering knowledge-sharing initiatives.

Dr. Gupta appreciated the *Vasudhaiva Kutumbakam* series for its comprehensive and diversified coverage of sustainability themes. He noted that the philosophy of "the world is one family" aptly reflects the spirit of the series and commended the speakers for their insightful deliberations. He highlighted that the C&AG has undertaken audits of organizations covered under the Business Responsibility and Sustainability Reporting (BRSR) framework, including major public sector enterprises such as Oil and Natural Gas Corporation (ONGC) and NTPC Limited (NTPC). He informed that audit reports would be released shortly and that such evaluations would continue as a regular and systematic exercise.

Dr. Gupta emphasized that BRSR serves as a structured framework covering the top 1,000 listed companies by market capitalization. He further explained the sustainability framework developed by Government Accounting Standards Advisory Board (GASAB), an inter-governmental and inter-ministerial body that formulates standards for public sector accountability and reporting.

He observed that while substantial budgetary allocations are made toward Sustainable Development Goals (SDGs), outcomes are not always effectively mapped against expenditure. He stressed the importance of impact assessment and outcome measurement aligned with the SDGs to evaluate the true utilization of resources.

Concluding his address, Dr. Gupta underscored that various government schemes are increasingly being aligned with sustainability objectives, ensuring that public spending translates into tangible and long-term benefits for citizens. He reaffirmed the critical role of audit institutions, professionals, and standard-setting bodies in strengthening transparency, accountability, and sustainable governance.

### Emerging opportunities for CMA in Environmental Audit

**CS Makarand Lele**, Past President of Institute of Company Secretaries of India (ICSI) and Member, SSB, commenced his presentation by referring to the notifications of the Environmental Audit Rules which came into force in August 2025. He shared that a detailed and threadbare analysis of the Rules had been

undertaken in consultation with International Centre for Environment and Development (iCED). He emphasized that the Environmental Rules are anchored in the axioms of Lifestyle for Environment (LiFE) principles and are aimed at improving ESG ratings while promoting green bonds, climate financing, green credits, and carbon trading mechanisms. He elaborated on the core audit functions prescribed under the Rules, the regulatory architecture, the structure of Certified Environmental Auditors, the coverage of the Rules, and the key audit areas requiring professional attention. A significant part of his presentation focused on why Cost and Management Accountants (CMAs) are uniquely positioned to undertake Environmental Audits. He outlined emerging opportunities for CMAs in environmental risk advisory, sustainability consulting, ESG assurance, and compliance advisory services. To equip professionals for this evolving domain, he stressed the importance of capacity building through awareness of environmental laws, analytical tools, and certification pathways. He specifically urged members to familiarize themselves with Institute of Cost Accountants of India (ICMAI)'s ISS 1 and ISS 2 Standards and the accompanying Guidance Notes to effectively understand and apply sustainability reporting frameworks. In conclusion, he highlighted that Environmental Auditing represents the next natural evolution for CMA professionals, seamlessly integrating Compliance, Cost Management, Governance, and Sustainability. **CMA Parvathy Venkatesh**, Practising Cost Accountant, felicitated CS Makarand Lele for his insightful deliberation.

**CMA Jyotsna Rajpal**, recipient of the 2<sup>nd</sup> Best Newsletter Award for the *Sukhinobhavantu* Newsletter, delivered an engaging presentation on the theme “Circular Economy: From Indian Household to Industry.” She traced the historical evolution of waste management practices and explained how sustainable development principles gradually paved the way for the circular economy paradigm.

She emphasized that the concept of “Zero Waste” has long been embedded in traditional Indian lifestyles and agricultural practices. Highlighting sectors such as edible oil and aluminium, she illustrated how circular economy principles can be effectively implemented in industry. She elaborated on the 7R framework—Reduce, Reuse, Recycle, Repair, Refurbish, Rethink, and Recover—as practical tools of circularity applicable across households, agriculture, and industrial operations. She concluded with a thought-provoking message encouraging mindful and responsible consumption decisions.

The final segment of the Summit featured a panel discussion on the theme “The S Factor in Sustainability Reporting.” The session was moderated by **CMA Arunabha Saha**, Practising Cost Accountant.

The distinguished panelists included:

**CMA (Dr.) S.K. Gupta**, CEO, ICMAI SAO

**CMA (Dr.) Subrahmaniya Sivam R.**, Consultant

**CMA A. Sekar**, Practising Company Secretary

The panelists shared diverse perspectives on sustainability reporting, emphasizing the social (“S”) dimension. They discussed objectives and evolving frameworks of sustainability reporting, supported by case studies and conceptual references including the *Bhagavad Gita*, the Triple Bottom Line approach, labour law compliance, and the principle of double materiality. Industry examples—particularly from the steel and construction sectors—were cited to illustrate practical initiatives toward environmental protection, waste minimization, and responsible resource utilization. The discussion also referred to ISS 1 and ISS 2 Standards and their practical implementation in sustainability practices.

The speakers were felicitated by Dr. Ranjith Krishnan and CS Makarand Lele.

**CMA Siddhartha Pal** delivered the concluding remarks, succinctly summarizing the key deliberations of the event and highlighting the initiatives of the Sustainability Standards Board (SSB).

**CMA Arunadha Dhavalikar** proposed the Vote of Thanks. In her eloquent address, she expressed gratitude to all speakers, panelists, organizers and participants whose collective efforts ensured the grand success of Sustainability Summit 2.0.

The event concluded with the National Anthem.

GLIMPSES OF ICAI SUSTAINABILITY SUMMIT 2.0 & GREEN AWARDS CEREMONY



**CMA (Dr.) Ashish P. Thatte, Chairman, SSB, ICAI delivering the welcome speech in the Sustainability Summit 2.0 held at Noida on 29th January, 2026**



**CMA (Dr.) Ashish P. Thatte, Chairman, SSB, ICAI felicitating Ms. Jennifer Lopez, Chief Executive CAPA**



**Dr. Abhishek Gupta, IA & AS, Director General, iCED, C & AG felicitated by CMA Dr. Ashish P. Thatte, Chairman, SSB, ICAI**



**Dr. Suneel Pandey, Director, TERI felicitated for his delivery in the technical session of the Sustainability Summit 2.0**



**CMA TCA Srinivasa Prasad, President, ICAI felicitating Mr. Lee White, CEO, IFAC at the Sustainability Summit 2.0 held at Noida on 29th January, 2026**



**CMA Neeraj D. Joshi, Vice President, ICAI felicitating Mr. Lakshman R. Watawala, President CMA Sri Lanka and Past President, SAFA**



**Release of compendium of Sukhinobhavantu- Monthly newsletter of SSB, ICAI of last 6 issues**



**Group photograph of SSB members along with Chief Guest and Guest of Honour**



Zydus Lifesciences Limited being felicitated as the winner of the Vatavruksha Award for the category of Large Cap Companies at the Green Awards 2023-24



Larsen & Toubro Ltd. on receiving the certificate for being the 1<sup>st</sup> runner up for the Vatavruksha Award for the Large Cap Companies at the ICMAI Green Awards 2023-24



HDFC Life Insurance Company Ltd. on receiving the certificate for being the 2<sup>nd</sup> runner up for the Vatavruksha Award for the Large Cap Companies at the ICMAI Green Awards 2023-24



Metro Brands Limited being felicitated as the winner of Kalpavriksha Award for the category of Mid-Cap Companies at the Green Awards 2023-24



Polycab India Ltd. on receiving the certificate for being the 1<sup>st</sup> runner up for the Kalpavriksha Award for the Mid Cap Companies at the ICMAI Green Awards 2023-24



Sagar Cements Limited being felicitated as the winner of the Tulsi Award for the category of Small Cap Companies at the Green Awards 2023-24



Blue Dart Express Ltd. on receiving the certificate for being the 1<sup>st</sup> runner up for the Tulsi Award for the Small Cap Companies at the ICMAI Green Awards 2023-24



Aavas Financiers Ltd. on receiving the certificate for being the 2<sup>nd</sup> runner up for the Tulsi Award for the Small Cap Companies at the ICMAI Green Awards 2023-24



Aavas Financiers Ltd. on receiving the certificate for being the 2<sup>nd</sup> runner up for the Tulsi Award for the Small Cap Companies at the ICMAI Green Awards 2023-24



CMA Jyotsna Rajpal felicitated for being adjudged the 2<sup>nd</sup> prize winner of best newsletter award

# Report of Sustainability related activities organised by chapters and regions of ICAI during January and February 2026

## KANPUR CHAPTER

Sustainability month was observed on 26th January, 2026 at Kanpur Chapter premises and members took part in plantation drive and saplings of various plants and fruits were planted by them. Member's activity took part in cleaning up of neighbourhood of chapter premises and inside the Chapter. Pledge was also taken by members to keep their surroundings at their residence and office place neat and clean. Importance of clean surroundings was emphasised to the students present.

## EIRC

A webinar on the theme "BRSR Reporting & Sustainability Accounting: The CMA's Role in ESG Performance" was hosted on 27th January, 2026 from 4.00 pm to 6.30 pm. CMA Rambabu Pathak, Sr. Manager (Finance) and Company Secretary, Eastern Coalfields Limited was the speaker.

## WIRC

As part of celebrating the Month of Sustainability, the Western India Regional Council of The Institute of Cost Accountants of India (ICMAI-WIRC) undertook a series of meaningful initiatives reaffirming its commitment to environmental stewardship and responsible governance.

### a. Tree Plantation and Tree Distribution Ceremony:

On the auspicious occasion of Republic Day, ICMAI-WIRC organised a Tree Plantation and Tree Distribution Ceremony, symbolising the Council's dedication to environmental conservation and a greener future. The initiative aimed not only at planting saplings but also at fostering awareness about ecological responsibility among members and students. The programme was graced by CMA (Dr.) Ashish Thatte, Chairman, SSB Board, ICMAI; CMA Mihir Narayan Vyas, Chairman, ICMAI-WIRC; and CMA Vivek Bhalerao, RCM, ICMAI-WIRC, in the presence of members, students, and WIRC staff. The dignitaries highlighted the critical role of professionals in promoting sustainable practices and encouraged participants to integrate environmental consciousness into both personal and professional spheres. The distribution of saplings further extended the impact of the initiative, enabling participants to actively contribute to afforestation efforts within their communities.



**b. CPE Seminar on the theme “From Compliance to Competitiveness: CMA Framework for ESG & BRSR Excellence**

Continuing its sustainability drive, ICAI–WIRC organised a CPE Seminar on the theme “From Compliance to Competitiveness: CMA Framework for ESG & BRSR Excellence.” The seminar focused on the evolving landscape of Environmental, Social, and Governance (ESG) reporting and Business Responsibility and Sustainability Reporting (BRSR), emphasising how CMAs can transition organisations from mere regulatory compliance to strategic sustainability leadership. The session was delivered by CMA A Sekar, Practising Company Secretary and CMA Nayana Savala, Practising Cost Accountant. The speakers provided practical insights into ESG frameworks, regulatory expectations, assurance mechanisms and the strategic integration of sustainability metrics into corporate decision-making. The seminar empowered participants with actionable knowledge to enhance transparency, accountability and long-term value creation in organisations.

**c. Released First-ever “ESG Outlook” on the theme “ESG: ~ पर्यावरण ~ Moving from Disclosure to Accountability”.**

Adding a significant milestone to the sustainability initiatives, the ESG Committee of ICAI–WIRC released its **first-ever publication**, “ESG Outlook” on the theme “ESG: ~ पर्यावरण ~ Moving from Disclosure to Accountability”. The publication was unveiled during Technical Session I – “ESG Excellence: CMAs as Architects of Sustainable & Responsible Growth” at the Regional Cost and Management Accountants’ Convention (RCMAC) 2026.

The release of ESG Outlook at the hands of esteemed dignitaries including CMA (Dr.) Ashish Thatte, Chairman, SSB Board, ICAI; CMA Mihir Narayan Vyas, Chairman, ICAI–WIRC; CMA Mahendra Bhombe, RCM & Chairman, ESG Committee, ICAI–WIRC; CMA Vivek Bhalerao, RCM ICAI–WIRC, CMA Malhar Dalwadi, Co-opted Member, Professional Development Committee, ICAI–WIRC; CMA Kartik Vasavada, MCM ICAI–Baroda Chapter, CMA Sailaja Vachhrajani, General Manager (Finance) & CFO, Madhya Gujarat Vij Company Limited; and Shri Saket Modi, Director, Square Mile Global Consulting, along with the other distinguished leaders of ICAI–WIRC.

**ESG Outlook:**

<https://icmai-wirc.in/wp-content/uploads/2026/02/ESG-OUTLOOK.pdf>

The “ESG Outlook” serves as a thought leadership initiative, reflecting the profession’s evolving role in driving sustainable transformation. It underscores the shift from disclosure-based reporting to accountability-driven action, positioning CMAs as key architects in building resilient, responsible and future-ready organisations.

# Carbon Border Adjustment Mechanism (CBAM): Implications for India's Trade, Sustainability & the Strategic Role of Cost & Management Accountants



**CMA (Dr.) Aditi Dasgupta**  
Joint Director  
The Institute of Cost Accountants of India  
Kolkata

## Abstract

The European Union's Carbon Border Adjustment Mechanism (CBAM) marks a decisive shift in the interface between climate policy and international trade. By imposing a carbon-linked levy on imports of carbon-intensive goods, CBAM seeks to prevent carbon leakage and reinforce the EU's climate neutrality goals. For India, a major exporter of steel, aluminium, cement and fertilisers to the EU, CBAM represents both a trade challenge and a strategic inflection point. This article analyses CBAM's implications for India through the lens of environmental sustainability, economic sustainability and institutional adaptation and examines the critical role that Cost and Management Accountants (CMAs) can play in enabling compliance, competitiveness and credible transition.

## Introduction: From Free Trade to Carbon-Conditioned Trade

Global trade is entering a new phase where market access is increasingly conditioned on carbon efficiency, not merely price or quality. The EU's Carbon Border Adjustment Mechanism (CBAM), operational in its definitive form from 1 January 2026, exemplifies this transformation.

Unlike traditional tariffs negotiated through trade agreements, CBAM is embedded in the EU's climate law architecture and mirrors the internal carbon pricing faced by EU producers under the Emissions Trading System (ETS). This makes CBAM not just a trade instrument, but a regulatory extension of climate policy beyond borders. For India—an emerging economy with coal-intensive industrial production and no fully operational economy-wide carbon price—CBAM raises complex questions of competitiveness, equity, and sustainable development.

## Understanding CBAM: Core Design and Economic Logic

CBAM applies to imports of selected carbon-intensive goods—iron and steel, aluminium, cement, fertilisers, electricity, and hydrogen. Importers into the EU must:

- Declare the embedded greenhouse gas emissions in imported goods
- Purchase and surrender CBAM certificates, priced in line with EU ETS allowances
- Deduct any verifiable carbon price already paid in the country of origin

The economic rationale is to ensure carbon cost parity between EU producers and foreign suppliers, thereby preventing carbon leakage and protecting the integrity of EU climate ambition.

From a sustainability perspective, CBAM internalises environmental externalities—but it does so through trade, making its distributional effects asymmetric.

## India's Exposure: Trade Structure and Carbon Intensity

India's exports to the EU are significantly concentrated in CBAM-covered sectors, particularly iron and steel and aluminium, which together account for around 90% of India's CBAM-relevant exports to the EU.

### Key vulnerabilities include:

- High carbon intensity of production, largely due to coal-based energy
- Absence of a mature domestic carbon pricing

system, limiting deductions under CBAM

- Compliance and MRV (Measurement, Reporting, Verification) gaps, especially for MSMEs

Although CBAM-affected exports represent a small share of India's GDP, the impact on specific sectors, regions, and employment clusters can be substantial. The risk is not only reduced export volumes, but margin compression, loss of long-term contracts and exclusion from EU value chains.

## CBAM and Sustainability: Beyond the Environmental Lens

### Environmental Sustainability

From a global perspective, CBAM can contribute to emissions reduction by incentivising cleaner production worldwide. It sends a strong price signal that carbon efficiency matters in trade.

For India, CBAM can act as a forcing mechanism to accelerate:

- Energy efficiency improvements
- Renewable energy integration in industry
- Adoption of low-carbon technologies (e.g., green steel, low-clinker cement)

However, environmental sustainability achieved through trade penalties risks being perceived as externally imposed unless aligned with domestic policy frameworks.

### Economic Sustainability

Economic sustainability requires that climate action does not undermine:

- Industrial competitiveness
- Employment and livelihoods
- Developmental priorities of emerging economies

CBAM poses risks to economic sustainability if:

- Carbon costs are paid abroad rather than domestically
- Smaller firms are crowded out due to compliance costs
- Trade diversification leads to lower-value markets

Conversely, if India internalises carbon pricing domestically and reinvests revenues into technology, skills, and infrastructure, CBAM can support long-term economic resilience rather than short-term disruption.

## What Policies Should India Adopt to Address CBAM?

### Accelerate the Domestic Carbon Market (CCTS)

India's Carbon Credit Trading Scheme (CCTS) must be rapidly operationalised with:

- Credible sectoral emissions benchmarks

- Transparent pricing and registry systems
- EU-aligned MRV protocols

This would allow Indian exporters to claim carbon price deductions under CBAM, ensuring that carbon revenues remain within India rather than accruing to the EU.

### Integrate Decarbonisation into Industrial Policy

Schemes such as the National Steel Policy and PLI must explicitly embed:

- Carbon intensity targets
- Incentives for low-carbon processes
- Support for green hydrogen and renewable-powered manufacturing

Decarbonisation should be treated as an **industrial competitiveness strategy**, not merely an environmental obligation.

### Strategic Trade and Climate Diplomacy

India should:

- Seek mutual recognition of verified carbon pricing under CBAM
- Advocate for technology transfer and climate finance linked to CBAM revenues
- Use multilateral platforms (G20, WTO) to highlight equity and development concerns

The objective should be **rule-shaping**, not exemption-seeking.

### Build Shared MRV Infrastructure for MSMEs

Without collective solutions, MSMEs risk exclusion from EU markets. Government and industry bodies should establish:

- Shared emissions accounting platforms
- Accredited verifier pools
- Cluster-based compliance support

### The Strategic Role of Cost & Management Accountants (CMAs)

The Carbon Border Adjustment Mechanism fundamentally converts carbon from an abstract policy objective into a quantifiable and monetised cost of production. This transformation places Cost and Management Accountants at the centre of the sustainability-competitiveness interface.

### Carbon Cost Accounting and Management

CMAs play a critical role in identifying and measuring embedded carbon emissions as an integral element of product cost. By incorporating carbon prices into

cost sheets, pricing decisions and margin analysis, they enable firms to internalise climate costs in routine managerial decision-making. Their expertise supports informed choices on sourcing, process selection and capital investment under emerging carbon constraints.

### MRV, Assurance and Governance

CBAM's compliance architecture is heavily dependent on robust measurement, reporting and verification systems. CMAs are uniquely equipped to design emissions accounting frameworks aligned with EU methodologies, establish internal controls over carbon data and ensure consistency between sustainability disclosures and financial reporting. This strengthens both regulatory compliance and corporate governance.

### Strategic Decision Support

Beyond compliance, CMAs contribute to strategic evaluation by assessing the economic trade-offs between absorbing CBAM costs and investing in decarbonisation. Through scenario analysis and long-term cost modelling, they help management evaluate competitiveness under varying carbon price trajectories and align sustainability initiatives with profitability and capital efficiency.



### Institution Building and Capacity Development

At the systemic level, CMAs can contribute to the development of India's carbon market architecture and institutional readiness. By supporting capacity-building initiatives—particularly for MSMEs—and providing evidence-based cost analysis for policy design, CMAs help embed carbon management within India's broader economic framework.

In this evolving landscape, CMAs emerge not merely as compliance facilitators but as key architects of sustainable and competitive business models.

### Conclusion: CBAM as a Strategic Inflection Point

CBAM represents a structural shift in global trade governance—from tariff-based liberalisation to carbon-conditioned market access. For India, it poses undeniable short-term challenges, but also a strategic opportunity.

If India responds defensively, CBAM will erode competitiveness and externalise carbon revenues. If India responds strategically—through domestic carbon pricing, industrial decarbonisation, and institutional capacity-building—CBAM can become a catalyst for sustainable industrial transformation.

In this transition, Cost and Management Accountants will play a pivotal role, translating climate ambition into measurable costs, credible data and sound economic decisions.

CBAM, ultimately, is not just a border tax—it is a test of whether sustainability and competitiveness can be aligned in a developing economy context.▲

### References:

1. European Commission. (2021). Proposal for a Regulation of the European Parliament and of the Council establishing a Carbon Border Adjustment Mechanism. Brussels: European Commission.
2. European Commission. (2023). Carbon Border Adjustment Mechanism: Transitional phase guidance and reporting requirements. Brussels.
3. European Commission. (2025). Implementing and delegated acts under the CBAM Regulation. Brussels.
4. European Union. (2021). European Climate Law (Regulation (EU) 2021/1119). Official Journal of the European Union.
5. International Trade Centre (ITC). (2024). Trade Map Database. Geneva: ITC.
6. Organisation for Economic Co-operation and Development (OECD). (2022). Carbon Pricing and Competitiveness: A Framework for Analysis. Paris: OECD Publishing.
7. World Trade Organization (WTO). (2021). Trade and Climate Change. Geneva: WTO.
8. Ministry of Power, Government of India. (2023). Carbon Credit Trading Scheme (CCTS) Notification under the Energy Conservation Act. New Delhi.
9. Bureau of Energy Efficiency (BEE). (2023). Perform, Achieve and Trade (PAT) Scheme: Framework and Sectoral Coverage. New Delhi.
10. NITI Aayog. (2022). India's Long-Term Low Emissions Development Strategy. Government of India.

# The Future of Ethical Leadership – Challenges and Opportunities

Episode  
7



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Abstract

Article 7, the concluding paper in the series Spirituality, Governance, and Sustainability – An Integrated Pathway for Ethical Leadership, reflects on the evolving future of ethical leadership in a rapidly changing global landscape. It synthesises insights from the series to argue that the integration of spirituality as a universal ethical compass, governance as an institutional framework and sustainability as a long-term societal outcome is essential for resilient and responsible leadership in the coming decade. The article examines key challenges confronting ethical leadership, including cultural diversity in interpreting spirituality, the ethical implications of technological and AI-driven governance and the need for deeper global collaboration to address transnational sustainability challenges. It highlights emerging global coalitions and governance initiatives that are embedding shared ethical values into corporate, national and international systems. Looking toward the 2030s, the article proposes a forward-looking roadmap centred on inclusive ethical foundations, digitally responsive governance, sustainability as a moral imperative, strengthened global cooperation and leadership education rooted in integrated values and systems thinking. The central argument is that ethical leadership must move beyond symbolic commitments to systemic alignment of values, institutions and impact. By sustaining the dynamic cycle of spirituality, governance, and sustainability, leaders can shape a legacy of trust, resilience, and shared prosperity in an increasingly complex and interconnected world.

## Introduction: Ethical Leadership at a Turning Point

As the global order confronts climate urgency, technological disruption, and deepening social and geopolitical fractures, ethical leadership has moved from being aspirational to existential. The preceding articles in this series established spirituality as the ethical foundation of leadership, governance as its institutional expression, and sustainability as its long-term societal outcome. This concluding article synthesises those insights and projects them forward, examining how the Spirituality–Governance–Sustainability triad must evolve to remain effective in the coming decade.

The 2030s will test whether ethical leadership can be systemically embedded across cultures, technologies, and borders—or whether it will remain confined to isolated initiatives and symbolic commitments.

## Cultural Diversity and the Meaning of Spirituality

A central challenge for future ethical leadership lies in the varied cultural interpretations of spirituality. In many Eastern traditions, spirituality emphasises interconnectedness, balance, trusteeship, and karmic responsibility, often translating into collective and relational governance approaches. In contrast, Western governance frameworks tend to interpret spirituality through secular ethics—human rights, dignity, justice, and individual accountability. In secular policy environments, spiritual language is frequently avoided altogether, re-emerging indirectly through concepts such as stewardship, inclusivity, and intergenerational equity.

These differences can generate friction in global governance and policy coordination. Yet they also present an opportunity. The future of ethical leadership depends on reframing spirituality not



as doctrine, but as a universal ethical compass—one grounded in compassion, responsibility, and respect for human and ecological limits. Leaders who can translate spiritual values into inclusive, culturally sensitive ethical principles will be better equipped to bridge divides while preserving moral depth.

### Technology, AI, and the Ethics of Governance

Technological acceleration—particularly in artificial intelligence, data analytics, and digital governance—poses one of the most profound ethical tests of our time. While these tools promise efficiency, predictive capacity, and enhanced sustainability monitoring, they also introduce serious risks: algorithmic bias, erosion of privacy, opaque decision-making, and the displacement of human judgment.

Governance systems designed for an analog era are struggling to keep pace. Ethical leadership in the next decade must therefore extend decisively into the digital realm. This requires embedding ethics-by-design into AI systems, ensuring transparency and accountability, and maintaining meaningful human oversight. Here, the spiritual dimension of leadership plays a critical role—acting as a moral counterbalance to purely efficiency-driven decision-making and reminding institutions that technological capability does not equate to ethical legitimacy.

### Global Collaboration for Sustainability

Sustainability challenges are inherently transnational. Climate change, biodiversity loss, inequality, and supply-chain risks cannot be addressed through isolated national policies or fragmented corporate actions. Yet global cooperation remains constrained by geopolitical tensions, short-term political cycles, and uneven capacities across countries.

The coming decade is likely to witness a shift toward polycentric governance, where governments, businesses, civil society, and communities jointly shape solutions. Ethical leadership in this context demands long-term thinking, commitment to intergenerational justice, and trust-building across sectors and borders. Sustainability, reframed as a shared ethical responsibility rather than a competitive agenda, becomes the unifying outcome of the triad.

### Emerging Global Coalitions: Ethics at Scale

Encouragingly, new global coalitions demonstrate how ethical leadership is already evolving from isolated actors to collaborative ecosystems. Initiatives such as the UN Global Compact, Principles for Responsible Investment, responsible business conduct frameworks under the OECD, stakeholder capitalism movements, and global ESG alliances illustrate how shared ethical intent can be translated into coordinated governance and measurable sustainability outcomes.

These coalitions embody the integrated pathway advanced in this series: spirituality expressed as shared values, governance operationalised through standards and accountability, and sustainability pursued as a collective global goal.

### A Roadmap for Ethical Leadership in the 2030s

Drawing together the insights of this series, the future pathway for ethical leadership can be articulated through five interlinked shifts:

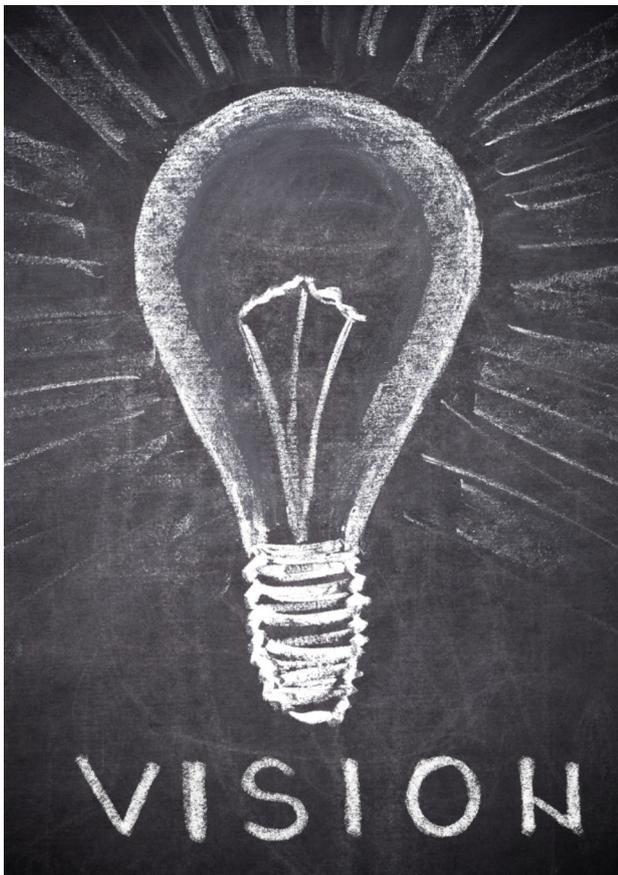
- Reframing spirituality as an inclusive ethical foundation**, rather than a cultural or religious construct
- Modernising governance systems** to address digitalisation, AI ethics, and complex systemic risks
- Embedding sustainability as a moral obligation**, not merely a regulatory or reputational concern
- Strengthening global coalitions** for harmonised standards, shared accountability, and collective action
- Educating future leaders** in integrated ethics,

systems thinking, and consciousness-based leadership

Together, these shifts move ethical leadership from rhetoric to resilience.

### Conclusion: From Ethical Vision to Enduring Legacy

Sustainable societies are not built solely through better rules, advanced technologies, or expanded reporting frameworks. They are shaped by leadership that consistently aligns inner values with institutional systems and long-term societal impact. The Spirituality–Governance–Sustainability triad offers more than a conceptual model—it provides a dynamic pathway for ethical stewardship in an increasingly complex world.



As this series concludes, its central message is clear: the future of ethical leadership will be defined not by declarations, but by the systemic integration of values, governance, and sustainability at scale. Leaders who embrace this integrated pathway will not only respond to the challenges of the present—they will shape a legacy of trust, resilience, and shared prosperity for generations to come.

### Series-Wide Executive Synthesis

The series Spirituality, Governance, and Sustainability – An Integrated Pathway for Ethical Leadership advances a unified framework that positions ethical leadership at the intersection of

inner values, institutional governance, and long-term societal impact. It argues that spirituality, understood as a universal ethical compass grounded in integrity, stewardship, and interdependence, provides the moral foundation for governance systems that are transparent, accountable, and purpose-driven, ultimately enabling sustainability as a holistic development paradigm. Progressing from conceptual foundations to policy and future pathways, the series demonstrates how values-driven leadership can be translated into regulatory frameworks, corporate responsibility, and global cooperation. Drawing on international and national examples, it highlights the growing importance of culturally sensitive ethics, technology and AI governance, and collaborative sustainability action. The central message is clear: resilient and sustainable societies emerge when moral purpose, governance structures, and sustainability outcomes are aligned, making ethically anchored leadership a strategic necessity for the decade ahead.▲

### References:

1. United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. United Nations, 2015.
2. United Nations Global Compact. Corporate Sustainability in the World Economy. UN Global Compact Office, latest edition.
3. OECD. G20/OECD Principles of Corporate Governance. OECD Publishing, 2023.
4. OECD. Guidelines for Multinational Enterprises on Responsible Business Conduct. OECD Publishing, 2023.
5. European Commission. The European Green Deal. European Union, 2019.
6. SEBI. Business Responsibility and Sustainability Reporting (BRSR) Framework. Securities and Exchange Board of India, 2021–2024.
7. Government of India. National Guidelines on Responsible Business Conduct (NGRBC). Ministry of Corporate Affairs, 2019.
8. World Economic Forum. Global Risks Report. WEF, latest edition.
9. Floridi, L. et al. “AI4People—An Ethical Framework for a Good AI Society.” Minds and Machines, 2018.
10. UNESCO. Recommendation on the Ethics of Artificial Intelligence. UNESCO, 2021.
11. Sachs, J. D. The Age of Sustainable Development. Columbia University Press, 2015.
12. Porter, M. E., and Kramer, M. R. “Creating Shared Value.” Harvard Business Review, 2011.
13. Elkington, J. Cannibals with Forks: The Triple Bottom Line of 21<sup>st</sup> Century Business. Capstone, 1997.

## The G in ESG – Where Governance serves Stakeholders and Respects Environment

### Part I



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#### Abstract

Ethics and governance in business determine the way in which the business consumes resources, converts them into output and adds value, and the way in which it distributes the benefits of the value created among the factors of production and stakeholders. How the environment is treated, how the employees' well-being is safeguarded often depend on the inherent conscientiousness of the decision-makers in the business. With the push of the international institutions like the OECD and the domestic government and regulators, and the rise of sustainability-conscious investors, business certainly has become beyond the balance sheet. In this new series, we explore how business practices and decisions can impact environment, employees' well-being and society, and how the elements of governance and ethics can shape better decisions. And in this episode, we delve on governance as an essential component of ESG and an overview of how the ecosystem is transforming.

### Introduction

Most conversations on sustainability and ESG focus more on the environment and sometimes on the society but rarely does governance share the limelight in the discussion. Governance, on the other hand, is often discussed in the context of preventing corporate failures, board oversight on management and operations, risk management, strategy or at the best, board room discipline and rigour. Many a time, governance is also relegated to checklists and processes.

However, it must be remembered that both environment and the society are important stakeholders of a business. A business both impacts and is impacted by them. However, true accountability to either of them can only be said to be present only if the business decisions reflect it in every sense.

### Good governance – the backbone of trust

Governance can be described as the culmination and sum total of the decision-making processes of those at the helm. Good governance is the backbone of stakeholder trust. The tenets of good governance are fairness in decisions, transparency, accountability and responsibility to stakeholders.

OECD (2023) states, “Corporate governance involves a set of relationships between a company’s management, board, shareholders and stakeholders. Corporate governance also provides the structure and systems through which the company is directed and its objectives are set, and the means of attaining those objectives and monitoring performance are determined.”<sup>1</sup>

### From Shareholder Primacy to Stakeholder-centric Model

The traditional model of corporate governance revolved around maximising shareholder returns. The management and the governing body were thought to be answerable mainly to the owners of the business. In the context of companies, the owners are the shareholders. Hence, the traditional models of corporate governance can be said to be “shareholder-centric”. This was based on the reality that shareholders, especially, equity shareholders bore the ultimate benefits of the returns and the risk of the enterprise.

However, with the passage of time and the occurrence of several instances of fraud and governance failures that eroded the wealth and trust of shareholders, employees, lending institutions,

<sup>1</sup> OECD (2023), G20/OECD Principles of Corporate Governance 2023, OECD Publishing, Paris, <https://doi.org/10.1787/ed750b30-en>.

suppliers and other stakeholders alike, the world has come to accept that a business must remain accountable not only to shareholders but also to every other stakeholder. This is stakeholder-centric governance. It does not mean disregarding profitability or wealth creation but it refers to growing with conscience.



### Shift in Investor Perception

It is not only the institutions and governments that have recognised stakeholder-centricity, the investors have on their part have pitched in to a great extent.

Gone are the days when investors were bothered only about the numbers; now the concept of ESG investing has been gaining ground for the last decade. Trillions of dollars now chase ESG-friendly businesses. ESG ratings and sustainability reporting have now become necessary to attract investments and even bigger customers.

Markets react negatively to poor governance practices, employee layoffs, data breaches, environmental mishaps, and media reports on unsustainable practices.

### Walking the Talk: The Reality

The transformation from shareholder-centric governance to the broader stakeholder-centric governance is accepted to be necessary by all institutions and organisations at least on paper.

However, the crucial question is whether all the debates, discussions and sermons on sustainability get transformed into reality or do they remain only on the dais.

One may wonder how far is governance today stakeholder-centric.

- Do all stakeholders have a say in the decisions of the business just as shareholders do?
- Are employees consulted when there is a planned layoff or major restructuring?
- Are customer grievances escalated beyond token redressal?
- Are sustainability concerns a regular matter in the board agenda?

The way the desired outcomes are defined also plays a major part in how the stakeholders are served. The results are often judged based on the measurable quantitative parameters like the revenue, net profits, margins, etc. but seldom on a qualitative aspect like employee and customer satisfaction or environmental impact.

For instance, if the boards prioritise quarterly results and bottom-line growth over long-term resilience, it may result in cutting corners that could ultimately affect the stakeholders, especially, the environment, small suppliers and employees.

While transformation is indeed necessary, it is easier these days to seem “ESG-friendly” than to actually respect all stakeholders. For example, a business may advertise that they adopt circular economy practices and have highly visible DEI (diversity, equity and inclusion) drives, but these may still form a miniscule section of their operations and have negligent impact.

The investors are having to wonder whether the sustainability reporting reflects the reality reasonably, the customers are questioning whether their green choices are actually green, employees may wonder whether the next round of layoffs are round the corner, future applicants may wonder whether DEI is truly the norm in the organisation, suppliers may wonder whether their dues will actually be cleared on time, and the silent environment sits awaiting repair and healing.

### Conclusion

It is ultimately the governance culture that determines the fairness of decisions. It is up to those at the helm of affairs to steer the corporate ship towards success while ensuring that the ship does not end up contaminating the very waters it travels in nor does it distress those that keep the ship running. The G in the ESG is what determines whether the E and S are truly respected or are merely letters in a buzzword. <sup>SB</sup>

*Reproduced with suitable modifications from the personal writings and posts of Ms. Usha Ganapathy Subramanian.*

## When Bird Droppings Made a Nation Rich: The Story of Peru's Guano Boom



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### Introduction

In the mid-19th century, Peru experienced one of the most unusual economic booms in world history—powered not by gold, oil, or spices, but by bird droppings. Known as guano, the accumulated excrement of seabirds became Peru's "white gold," transforming the country into one of the wealthiest nations in Latin America for a brief but dramatic period. Rich in nitrogen, phosphorus, and potassium, guano revolutionised global agriculture at a time when soils in Europe and North America were severely depleted.

### Why Peruvian Guano Was So Valuable?

The secret lay in Peru's unique natural geography. Cold, nutrient-rich ocean currents supported massive fish populations along the coast, attracting millions of seabirds—especially the Guanay cormorant, along with pelicans and boobies. Over centuries, their droppings accumulated on rainless offshore islands such as the Chincha Islands, forming layers of guano several metres deep.

Unlike guano in wetter climates, Peru's deposits were not leached by rain, preserving extremely high concentrations of nutrients. Farmers discovered that even small quantities dramatically improved crop yields, making guano the most powerful natural fertiliser known at the time.

### Ancient Wisdom Before Modern Wealth

Long before global trade recognised its value, guano was carefully managed by the Inca Empire. The Incas treated guano as a strategic resource, strictly regulating access and protecting seabird colonies. Disturbing nesting birds was a serious crime, sometimes punishable by death. This early model of sustainable resource management ensured long-term productivity—an approach later abandoned during the export frenzy.

### The Guano Boom: 1840s–1880s

The modern guano era began after European scientists highlighted its fertilising power. Explorers such as Alexander von Humboldt brought global attention to Peruvian guano, and soon ships from Britain, France, and the United States lined up along Peru's coast.

Between the 1840s and 1870s, Peru exported an estimated 12 million tonnes of guano. At its peak, guano generated nearly 60% of government revenue, funding railways, ports, and public infrastructure. The wealth also enabled major social reforms, including the abolition of slavery and indigenous tribute systems in 1854. For a time, guano made Peru an economic powerhouse.

Its importance was so great that it sparked international rivalry and conflict. The Chincha Islands War in the 1860s saw Spain attempt to seize control of Peru's guano-rich islands, underlining the strategic value of fertiliser in feeding industrialising nations.

### Environmental and Human Costs

The boom, however, came at a heavy cost. Unsustainable mining stripped islands bare, destroying habitats and causing seabird populations to crash—from an estimated 53 million birds in the 19th century to a fraction of that number by the early 20th century. Labour conditions were often brutal, relying on enslaved Africans, forced indigenous labour, and later thousands of Chinese "coolies" working in extreme conditions.

Peru's overdependence on a single commodity also proved dangerous. As deposits dwindled and alternative fertilisers emerged, the guano economy collapsed, leaving the country burdened with debt and limited industrial diversification.



## The Bust: Synthetic Fertilisers Change the World

The final blow came in the early 20th century with the invention of the Haber–Bosch process, which allowed nitrogen to be extracted directly from the atmosphere. This innovation made artificial fertilisers cheap and widely available, causing global demand for natural guano to plummet almost overnight. Peru’s age of “white gold” had ended.

## Guano in the Modern Era

Today, guano has made a quiet but meaningful comeback. Peru now harvests guano on a limited scale under strict environmental regulations, protecting seabird breeding cycles and island ecosystems. It is primarily used in domestic and organic farming, valued for its natural nutrient balance and low environmental footprint.

This modern approach reflects a return to principles once practiced by the Incas—respecting ecological limits while meeting human needs. Guano no longer makes Peru extraordinarily rich, but it supports sustainable agriculture, rural livelihoods, and biodiversity conservation.

## How Guano Works

Guano’s potency comes from its concentrations of:

- Nitrogen (N): fuels leafy growth.
- Phosphorus (P): supports root development and flowering.
- Potassium (K): improves overall plant health and resilience.

These nutrients, combined with organic matter and trace elements, made guano exceptionally effective on depleted soils — often producing dramatic yield increases with relatively small applications.

## Modern Guano: Sustainable Harvesting and Niche Demand

Today guano harvesting in Peru continues on a much smaller, regulated scale. The Peruvian state and conservation bodies now limit extraction to

protect seabird breeding cycles and island ecosystems; guano is harvested periodically rather than continuously to allow recovery. Modern guano is prized largely by organic and specialty growers who value natural fertilisers and the soil-health benefits they bring. Recent ecological pressures (disease, El Niño, overfishing) have, however, put seabird populations and long-term supply under strain.

## Lessons from Bird Droppings

Peru’s guano story is more than an economic curiosity. It offers enduring lessons about sustainability, resource management, and the risks of overreliance on a single natural asset. What once made a nation wealthy also revealed how quickly natural abundance can be exhausted when short-term profit overrides long-term stewardship.

From ancient fertiliser to global commodity and back to sustainable practice, guano reminds us that even the humblest materials—when shaped by nature and human choices—can change the course of history.

## Key Takeaways for India

- Value of Natural Resources: Nature-based resources can create economic value if managed wisely.
- Bird Availability in India: India has seabirds such as cormorants, pelicans, gulls, terns, and egrets, especially along the western and eastern coasts and island regions.
- Limited Mass Accumulation: Unlike Peru, India’s monsoon rainfall and humid climate prevent large-scale, long-term accumulation of bird droppings (guano).
- Support Natural Farming: India can still promote local, small-scale organic inputs inspired by nutrient recycling rather than large guano mining.
- Support Natural Farming: Organic and natural fertilisers improve soil health and reduce chemical dependence.
- Diversify the Economy: Relying on a single resource is risky; balanced growth is crucial. <sup>SB</sup>

## Union Budget 2026-27: Growth, Inclusion & Sustainability – A Policy Analysis through the SDG Lens



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### Introduction: A Budget for Viksit Bharat with Global Sustainability Alignment

The Union Budget 2026–27 presents a strategic roadmap for sustaining high economic growth while ensuring social inclusion, technological advancement, and environmental responsibility. Anchored in fiscal discipline and a projected growth rate of around 7%, the budget aims to balance macroeconomic stability with long-term developmental priorities. Fiscal consolidation continues with the fiscal deficit targeted at 4.3% of GDP and a declining debt-GDP ratio, while public capital expenditure has been significantly enhanced to ₹12.2 lakh crore to stimulate investment and employment.

Beyond domestic economic goals, the budget aligns closely with the United Nations Sustainable Development Goals (SDGs), reflecting India's commitment to inclusive growth, climate action, resilient infrastructure, and human development. Its emphasis on manufacturing competitiveness, green energy transition, MSME support, social inclusion, and digital transformation positions India's fiscal policy within a global sustainability framework.

### Growth with Stability: Fiscal Prudence and Investment Push

The budget reiterates the government's commitment to fiscal prudence while sustaining high growth. A calibrated reduction in fiscal deficit and debt ratio is intended to create fiscal space for development expenditure and private investment. Increased capital expenditure on infrastructure is expected to crowd in private investment, enhance productivity, and generate employment.

Such fiscal consolidation aligns with SDG 8 (Decent Work and Economic Growth) and SDG 16 (Strong Institutions), as stable macroeconomic conditions

and responsible public finance are essential for long-term development and governance credibility.

### Manufacturing and Industrial Policy: Towards Self-Reliance and Innovation

A central pillar of the budget is the push toward advanced manufacturing and industrial resilience. Strategic investments in semiconductors, biopharma, electronics, rare earths, textiles, and capital goods aim to strengthen domestic value chains and reduce import dependence. Initiatives such as the ₹10,000 crore Biopharma SHAKTI programme and Semiconductor Mission 2.0 seek to position India as a global innovation hub.

Revival of legacy industrial clusters and support for MSMEs through growth funds and credit mechanisms will enhance employment and regional development. Mandatory digital payment systems like TReDS for MSMEs will improve liquidity and financial inclusion in supply chains.

These measures contribute directly to SDG 9 (Industry, Innovation and Infrastructure), SDG 8 (Employment and Growth), and SDG 12 (Responsible Production).

### Infrastructure and Urban Transformation: Engines of Sustainable Growth

Infrastructure remains the backbone of the budget. New freight corridors, high-speed rail networks, waterways expansion, and City Economic Regions for Tier-II and Tier-III cities are designed to boost connectivity and regional development.

The Infrastructure Risk Guarantee Fund and asset monetisation through REITs aim to mobilise private capital while improving efficiency. These initiatives will enhance logistics efficiency, reduce carbon intensity of transport, and support urban economic growth.

Such investments advance SDG 9 (Infrastructure), SDG 11 (Sustainable Cities), and SDG 10 (Reduced Regional Inequalities).

### Energy Transition and Climate Action

The budget demonstrates a strong commitment to energy security and climate sustainability. A ₹20,000 crore allocation for Carbon Capture, Utilisation and Storage (CCUS), incentives for renewable energy inputs, and support for biogas-blended fuels signal a transition toward low-carbon growth.



Customs duty exemptions for lithium-ion storage, solar glass inputs, and nuclear power equipment further strengthen India’s clean energy ecosystem. These measures contribute to SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action).

### Human Capital Development: Education, Skills and Health

Recognising demographic potential, the budget prioritises skill development, health infrastructure, and education-employment linkage. Expansion of allied health training, new AYUSH and design institutes, and university townships near industrial corridors aim to create a skilled workforce aligned with industry needs.

Girls’ hostels in STEM institutions, medical value tourism hubs, and digital education initiatives promote gender inclusion and global service competitiveness.

These interventions align with SDG 3 (Good Health), SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 8 (Employment).

### Agriculture, Rural Development and Social Inclusion

Agriculture and rural livelihoods receive focused attention through AI-enabled advisory platforms, crop diversification programmes, and value chain development. Support for women-led enterprises (SHE-Marts), Divyangjan skilling, and mental health institutions strengthens social inclusion.

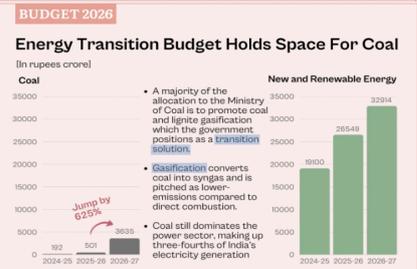
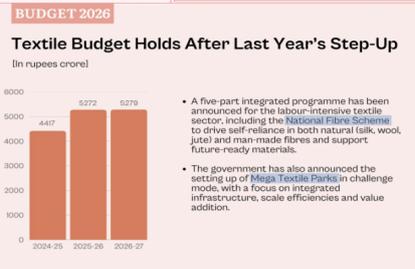
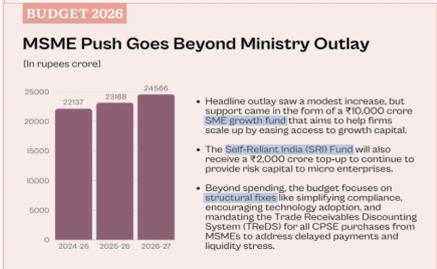
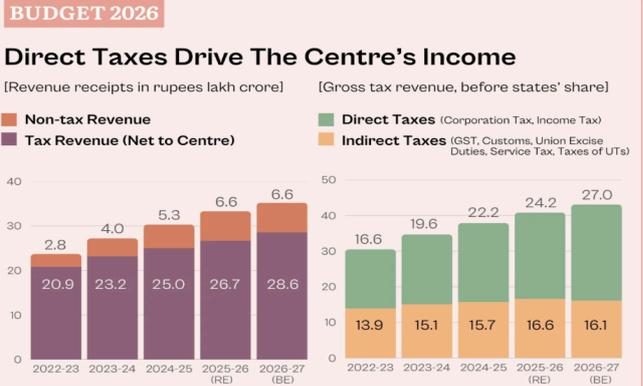
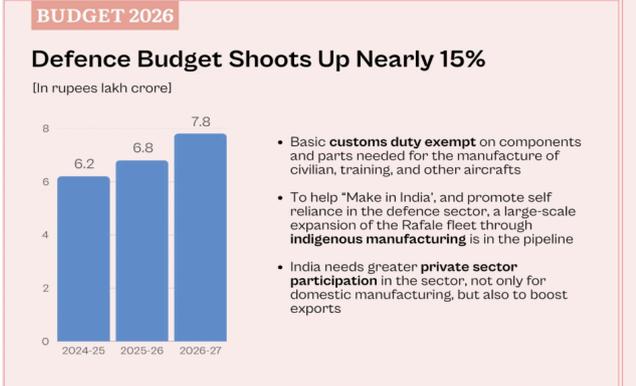
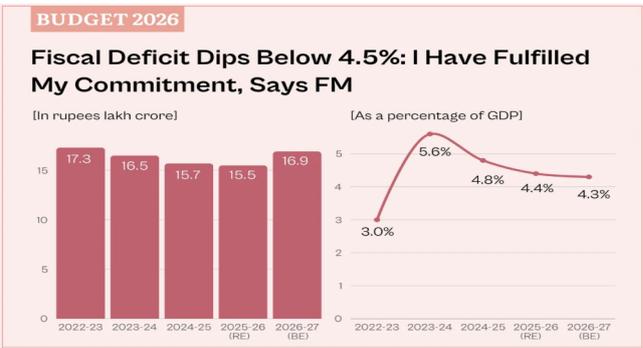
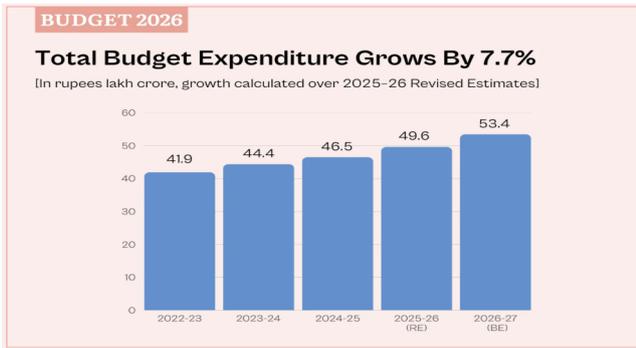
These initiatives aim to raise farm incomes, promote rural entrepreneurship, and ensure equitable access to opportunities, aligning with SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), and SDG 10 (Reduced Inequalities).

### Financial Sector and Tax Reforms: Enabling Growth

Financial sector reforms include a high-level committee on banking, municipal bond incentives, corporate bond market development, and simplified tax structures under the new Income Tax Act 2025. These measures enhance capital market depth, improve ease of doing business, and attract investment, supporting SDG 8 (Economic Growth) and SDG 17 (Partnerships and Finance for Development).

### Mapping Budget 2026-27 with Sustainable Development Goals

Major Budget Declaration	Key Measures	Expected Impact	Relevant SDG Numbers	What the SDGs Aim For
Fiscal consolidation & public capital expenditure	Fiscal deficit reduced to 4.3% of GDP; capex raised to ₹12.2 lakh crore	Macroeconomic stability, investor confidence, infrastructure-led growth and employment	SDG 8, SDG 16	SDG 8: Promote sustained, inclusive economic growth and decent work; SDG 16: Build effective, accountable institutions
Manufacturing & industrial push	Semiconductor Mission 2.0, Biopharma SHAKTI, rare earth corridors, revival of industrial clusters	Industrial self-reliance, technological innovation, global competitiveness and job creation	SDG 8, SDG 9, SDG 12	SDG 8: Economic growth and employment; SDG 9: Industry, innovation and infrastructure; SDG 12: Responsible production
MSME and textile sector support	SME Growth Fund, textile parks, TReDS mandate, cluster modernisation	MSME expansion, export competitiveness, job creation and formalisation of economy	SDG 8, SDG 10	SDG 8: Decent work and growth; SDG 10: Reduce inequality within and among countries
Infrastructure & logistics transformation	Freight corridors, high-speed rail, waterways expansion, City Economic Regions	Improved connectivity, reduced logistics costs, balanced regional development and urban growth	SDG 9, SDG 11	SDG 9: Build resilient infrastructure; SDG 11: Make cities inclusive, safe and sustainable
Energy transition & climate action	₹20,000 crore CCUS fund, incentives for renewable energy and nuclear power, biogas promotion	Lower carbon emissions, energy security, clean technology adoption	SDG 7, SDG 13	SDG 7: Affordable and clean energy; SDG 13: Climate action and resilience
Financial sector & capital markets	Banking reform committee, municipal bond incentives, corporate bond market development	Improved access to finance, stronger financial system, infrastructure funding	SDG 8, SDG 17	SDG 8: Sustainable economic growth; SDG 17: Strengthen global partnerships and finance for development



Picture source: <https://thesecretariat.in/article/budget-2026-in-pictures>

Major Budget Declaration	Key Measures	Expected Impact	Relevant SDG Numbers	What the SDGs Aim For
Education, skills & health	Allied health training expansion, university townships, STEM hostels for girls, medical tourism hubs	Skilled workforce, gender inclusion, improved healthcare access and service exports	SDG 3, SDG 4, SDG 5, SDG 8	SDG 3: Good health and well-being; SDG 4: Quality education; SDG 5: Gender equality; SDG 8: Employment and growth
Agriculture & rural development	AI-based agri advisory (Bharat-VISTAAR), crop diversification, livestock and fisheries support	Higher farm productivity, rural income growth, technology adoption in agriculture	SDG 1, SDG 2, SDG 12	SDG 1: End poverty; SDG 2: Zero hunger and food security; SDG 12: Sustainable consumption and production
Women empowerment & social inclusion	SHE-Marts, support for Divyangjan skilling and assistive devices, mental health institutions	Inclusive growth, women entrepreneurship, improved social protection and well-being	SDG 5, SDG 10, SDG 3	SDG 5: Gender equality; SDG 10: Reduced inequalities; SDG 3: Health and well-being
Digital governance & emerging technologies	AI mission expansion, digital compliance systems, education-to-employment linkage	Improved governance efficiency, innovation-driven growth, future-ready workforce	SDG 9, SDG 16	SDG 9: Innovation and technology; SDG 16: Strong institutions and governance

to become a developed economy while contributing to global sustainable development.

Its alignment with multiple SDGs demonstrates that fiscal policy is increasingly being used as an instrument of sustainable transformation. If effectively implemented, the budget has the potential to accelerate India's progress toward the SDGs while reinforcing its position as a resilient and responsible global economic power. ▲

### References:

- Government of India. Union Budget 2026–27: Key Highlights. Ministry of Finance, New Delhi.
- Government of India. Budget Speech 2026–27 (Official Budget Address). Ministry of Finance, New Delhi.
- United Nations. Transforming our World: The 2030 Agenda for Sustainable Development. United Nations, New York, 2015.
- United Nations Development Programme (UNDP). Sustainable Development Goals (SDGs): Goal Framework and Targets. UNDP Global Resources.
- NITI Aayog. SDG India Index and Dashboard: Progress on Sustainable Development Goals. Government of India.

## Conclusion: Budget 2026–27 as a Sustainability-Aligned Growth Blueprint

The Union Budget 2026–27 reflects a comprehensive policy framework that integrates growth, inclusion, and sustainability. By prioritising manufacturing competitiveness, infrastructure expansion, energy transition, and human capital development, the budget supports India's aspiration

# Yajna: The Ancient Principle of Circular Economy and Ecological Reciprocity



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Abstract

The Vedic concept of Yajna represents a foundational principle of reciprocity between humans, nature, and the cosmos, extending far beyond ritualistic interpretation. This article interprets Yajna as an early model of circular economy and ecological stewardship, rooted in the philosophy of giving back to sustain cosmic and environmental balance. Drawing upon Vedic literature and the *Bhagavad Gita*, it highlights how Yajna embodies regenerative resource use, stakeholder responsibility, and intergenerational trusteeship. The discussion connects ancient Indian wisdom with contemporary sustainability frameworks, including ESG, stakeholder capitalism, and circular economic models, demonstrating that sustainable development is not merely a modern construct but deeply embedded in civilizational ethics. Yajna thus emerges as a timeless framework for responsible governance, ethical business, and ecological reciprocity. Long before modern discussions on sustainability and circular economy emerged, Indian civilizational thought articulated a deeply integrated ecological philosophy through the concept of Yajna. Commonly seen as a ritual of fire offerings, Yajna in its original Vedic sense represents a systemic principle of reciprocity between humans, nature, and the cosmos. It embodies a worldview where economic activity, ecological balance, and ethical responsibility are inseparable.

## Yajna: Beyond Ritual to Cosmic Economy

The Sanskrit root “yaj” means to give, to offer, and to act for collective welfare. In the Vedic worldview, Yajna sustains cosmic order (rta) through a cycle of giving and receiving. Nature provides resources—air, water, soil, energy—and human beings must return value through responsible action.

The *Bhagavad Gita* captures this reciprocal loop:

**“Yajñād bhavati parjanya, parjanyaḍ anna-sambhavaḥ” – Bhagavad Gītā 3.14**

This verse establishes a closed-loop system: Human responsibility (Yajna) → Ecological balance (rain) → Food and resources → Human sustenance → Return to nature through responsible action. This is essentially the foundation of today’s circular economy.

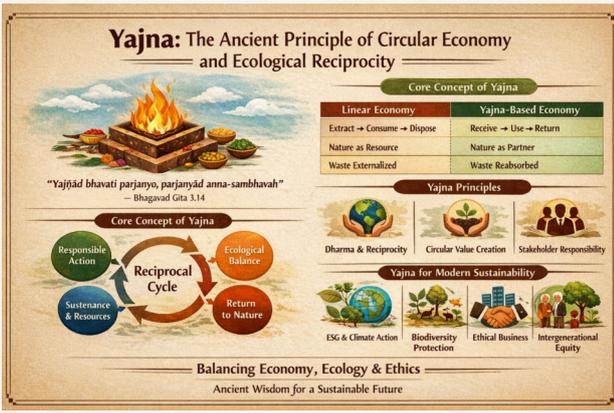
## Yajna as an Ancient Circular Economy Model

Modern sustainability frameworks emphasise resource efficiency, waste minimisation, and regeneration of natural systems. Yajna mirrors these principles through reciprocal flows rather than extractive consumption.

## Linear Economy vs Yajna-Based Economy

Linear Economy	Yajna-Based Economy
Extract → Consume → Dispose	Receive → Use → Return
Nature as resource	Nature as partner
Growth without limits	Growth within dharma
Waste externalised	Waste reabsorbed

In Yajna, nothing is taken without being returned—whether through ethical conduct, social responsibility, or ecological restoration.



### Ecological Reciprocity and Dharma

Yajna operates within the moral framework of dharma, which governs responsible conduct toward nature and society. The Atharva Vedic vision of Earth as a living mother anticipates modern ideas of regenerative agriculture, biodiversity protection, and intergenerational equity. Humans are trustees of resources, not absolute owners—an idea aligned with ESG principles and stakeholder capitalism.

### Yajna as a Business and Governance Model

In modern terms, Yajna can be interpreted as a circular value creation system where every stakeholder receiving value must return value to the system.

### Yajna as a Business Operating Model

Traditional Term	Modern Business Equivalent
Yajna	Circular value creation system
Offering	Strategic reinvestment
Agni (fire)	Transformation process
Devatas	Stakeholders
Prasada (returns)	Revenue & social value

Yajna thus replaces profit maximisation with value circulation, aligning with stakeholder capitalism and ESG integration.

### Yajna as ESG and Risk Management

Yajna integrates environmental, social, and governance responsibility as a duty rather than compliance.

ESG Dimension	Yajna Logic
Environmental	Use resources → regenerate ecosystems
Social	Create wealth → share and uplift society
Governance	Profit with accountability and long-term vision

From a financial perspective, Yajna reduces unpriced externalities that later emerge as environmental, regulatory, or reputational risks.

### Relevance to Contemporary Sustainability

Yajna aligns closely with global sustainability frameworks such as:

- Responsible Consumption and Production
- Climate Action
- Biodiversity Protection
- Stakeholder Partnerships

What modern policy expresses through metrics and compliance, Yajna expresses as civilizational ethics.

### Conclusion

Yajna is one of humanity’s earliest articulations of a regenerative and ethical economy. It teaches that sustainability is not merely technical but moral and relational. When consumption is balanced by contribution and growth by responsibility, prosperity becomes enduring.

By reviving the spirit of Yajna—not merely as ritual but as a guiding principle—modern institutions and societies can move toward a model where:

- Economy serves ecology
- Growth respects limits
- Value circulates among stakeholders
- And humanity lives in harmony with nature

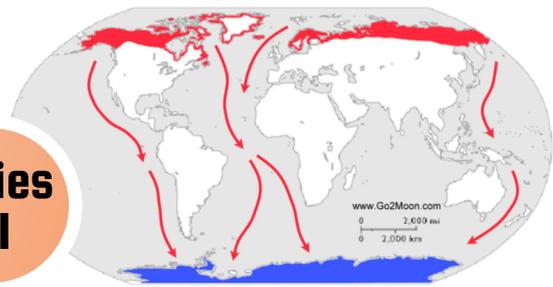
In this sense, Yajna is not ancient history; it is enduring future wisdom for a sustainable and resilient world. 🌱

### References:

1. *Bhagavad Gita*, Chapter 3, Verse 14 – “Yajñāḥ bhavati parjanya, parjanyaḥ anna-sambhavaḥ” (On the cyclical relationship between human action, nature, and sustenance).
2. *Rig Veda* – Hymns on Yajna and cosmic order (Ṛta), emphasising reciprocity between humans and nature.
3. *Atharva Veda* (Bhūmi Sukta) – Concept of Earth as a living mother and human responsibility toward ecological balance.
4. Sharma, R. (2019). *Ecological Wisdom in the Vedas*. New Delhi: Bharatiya Vidya Publications.
5. Kautilya. *Arthashastra* – Principles of responsible resource management and statecraft relevant to sustainability.
6. Ellen MacArthur Foundation (2015). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition*.

# How Bird Migration Supports Ecosystem Fertility?

Series  
III



CMA Arunabha Saha  
Practicing Cost Accountant  
Thane

## Introduction

Bird migration is usually celebrated as a marvel of endurance and navigation. But beyond the astonishing distances and precise routes lies a quieter, less visible role—migratory birds actively help keep ecosystems fertile and alive. As they move between continents, oceans, and climate zones, they carry nutrients that nourish soils, plants, and entire food webs far from their original source. Migratory birds such as Arctic terns and bar-tailed godwits travel tens of thousands of kilometres every year, stitching together oceans, wetlands, grasslands, islands, and tundra into one connected living system. Their journeys turn them into natural messengers of fertility.

## Nature's Flying Nutrient Carriers

When birds feed in nutrient-rich areas—often coastal waters or productive oceans—and later rest or breed in distant regions, they transport nutrients inside their bodies. These nutrients are released through droppings, known as guano, which are rich in nitrogen, phosphorus, and potassium. In places where soils are naturally poor—such as Arctic tundra, remote islands, or high-latitude wetlands—this input can make a dramatic difference to plant growth and soil health.

## From Oceans to Land

Many long-distance migrants feed primarily on fish and marine invertebrates. When they move inland or northward, they effectively transfer ocean-derived nutrients onto land. This process fertilises soils, boosts plant productivity, and creates better conditions for insects, grazing animals, and birds higher up the food chain. In simple terms, nutrients that begin in the sea end up sustaining life on land because birds carry them there.

## Strengthening Food Webs

Healthier soils lead to stronger and more diverse vegetation. This supports herbivores, pollinators, and predators, gradually strengthening entire food webs. Even though the effect of bird droppings may seem small at first, repeated migration cycles year after year build up long-term fertility. Over time, these contributions help ecosystems remain productive and resilient.

## More Than Fertiliser: Seeds and Renewal

Bird droppings often contain seeds from distant locations. When these seeds land in nutrient-rich guano, they have a higher chance of germinating and surviving. This combination of seed dispersal and fertilisation allows plants to colonise new areas, increasing biodiversity and helping ecosystems adapt to changing conditions.



<https://www.researchgate.net>

## A Natural Phosphorus Shortcut

One of the most remarkable roles of migratory birds is their influence on the phosphorus cycle. By feeding on deep-sea fish and returning phosphorus to land through guano, seabirds shortcut a geological process that would otherwise take millions of years. This makes birds a crucial link between marine depths and terrestrial life.

## Long-Distance Ecological Connectivity

Bird migration proves that ecosystems do not work in isolation. A feeding ground in one ocean can influence soil fertility thousands of kilometres away. These “nutrient threads” have existed for millennia, quietly supporting life across the planet long before human-made fertilisers appeared.

## In simple words

Migratory birds act like living pipelines of fertility. By moving nutrients, seeds, and energy across vast distances, they enrich distant lands, support vegetation, and maintain the balance of ecosystems. Their journeys remind us that Earth functions as one interconnected system—and protecting these birds means protecting the invisible processes that keep nature productive and alive. 🌱

# Healing Through Mandalas: A Natural Support for Women in Menopause



**Geeta Joshi Brahme**  
Founder Sun N Soul  
Certified Mandala Therapist

## Abstract

Menopause is a major life transition for women, often accompanied by physical symptoms (hot flashes, sleep changes), emotional shifts (anxiety, mood swings), and challenges to overall quality of life. While medical treatments such as hormone therapy play an important role, many women seek complementary practices that support emotional balance and well-being. One such practice gaining clinical support is mandala therapy.

## What Are Mandalas?

Mandalas are circular, symmetrical designs used in spiritual and artistic traditions across cultures. In psychological and therapeutic contexts, mandala coloring or creation is used as a mindful, meditative art practice. It draws attention inward, engages focus, and promotes calm awareness—similar to mindfulness or meditation.

This therapeutic use of mandalas—popularized in Western psychology in part through Carl Jung’s writings—doesn’t require artistic expertise. Anyone can color or create a mandala and benefit from the process.

## Scientific Evidence: Mandala Drawing & Menopausal Well-Being

A randomized controlled clinical study has directly investigated the effects of mandala drawing and colouring on women in the climacteric period (perimenopause through post-menopause):

Women in menopause were randomly assigned to either a mandala coloring group or a control group.

Anxiety was evaluated with the State-Trait Anxiety Inventory, and quality of life specific to menopause was measured using the Menopause-Specific Quality of Life Questionnaire (MENQOL).

## Key Results

Reduced Anxiety:

After the intervention, women in the mandala group had significantly lower anxiety scores compared to the control group.

## Improved Quality of Life

Mandala participants showed improvements across vasomotor (hot flashes), psychosocial, physical, and sexual quality of life subscales—suggesting broad enhancement of daily functioning and experience.

## Statistical Significance

The differences were not small: the mandala group’s post-test scores were significantly lower (better) on anxiety and menopausal quality of life measures than those of women who did not do mandala.

Conclusion is Mandala was a safe, effective, complementary activity that helped reduce menopause-related anxiety and significantly improve quality of life.

## Why Mandalas Help – The Therapeutic Mechanisms

### 1. Mindful Focus and Calming Attention

Drawing and colouring mandalas requires focused attention on patterns and balance, promoting



present-moment awareness and reducing rumination—similar to mindfulness practice.

## 2. Emotional Expression Without Words

For many women, menopause brings emotions that are hard to articulate. Mandala allows non-verbal expression of inner experience, helping externalize and process feelings safely.

## 3. Stress Relief and Neuropsychological Benefits

Art-based activities have been shown in broader research to decrease stress hormones and lower psychological tension, even without formal therapy settings.

## 4. Accessibility and Empowerment

Because mandala coloring doesn't require artistic skill, it's an inclusive and empowering tool women can easily adopt at home or in group workshops.

### How Women Can Practice Mandala for Menopause Support

#### Choose Tools:

Start with guided mandala drawing exercises.

#### Pick a Routine:

Set aside 15–30 minutes daily or every other day for mindful coloring.

#### Create a Calm Setting:

Play soft music, sit comfortably, and focus on breathing while you color.

#### Reflect Afterwards:

Take a few minutes to note how you feel emotionally and physically after each session.

You can combine mandala work with meditation, journaling, or gentle movement like yoga for enhanced benefit.

Menopause is a time of transformation, and women deserve supportive, effective, and accessible tools for emotional well-being. Mandala drawing and coloring has now been shown in clinical research to reduce anxiety and improve quality of life during this stage. As a complementary self-care practice, it empowers women to engage deeply with their inner experience and fosters resilience in body and mind.

Today's women lead in all dimensions. The need to deal with emotional balance is the need of time. Right decisions can be taken with calm and balanced mind, where to achieve this state of mind practicing mandalas show their powerful impact. Right decision-making leads to sustainable future of self, family, friends and for the world. 

# Poorva Phalguni Nakshatra

**Purvi Dalal**  
Industrial Designer



## Introduction

Anyone belonging to this nakshatra will be family oriented. A man in this nakshatra will have a successful professional life and a woman will have comforts, harmony and luxury and be very much interested in nurturing a family. The nakshatra lord here is Venus so all the qualities of Venus - Luxury, Beauty, Harmony, Prosperity etc.

Poorva - Northern & Phalguni - Month of Joy, spiritual awakening and Poorva Phalguni nakshatra suggests that this is the nakshatra where spiritual awakening can happen with ease and harmony.

This is also the nakshatra of good fortune, art, creative work, etc and the deity of this nakshatra is Sun God.

So you have the energy of Venus as well as Sun.

## The gana is Manushya Gana and the Padas (Quarters):

1. Leo (13°20' - 16°40'): Ruled by Sun - Creative, confident, and dramatic. Allows self expression
2. Virgo (16°40' - 20°00'): Ruled by Mercury - Focus on service, analytical, and practical. - having artistic sensibilities and an eye for detail
3. Libra (20°00' - 23°20'): Ruled by Venus - Artistic,

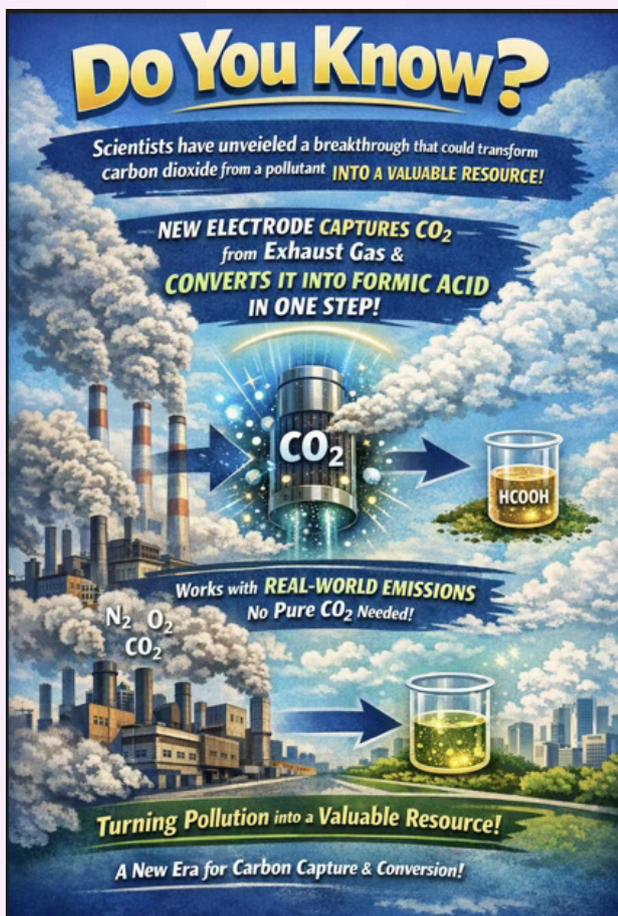
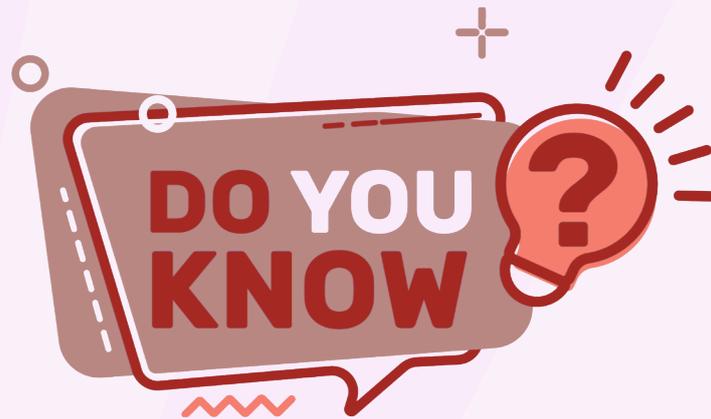
sociable, and relationship-oriented., can be great partners in business and famous public life is possible

4. Scorpio (23°20' - 26°40'): Ruled by Mars - Intense, passionate, and deeply emotional, magnetic and can have great spiritual charisma

This nakshatra belongs to Lord Bhaga who brings fortune along but you may tend to become lazy and not make the most of your good fortune if you do not understand that you were born in this nakshatra because of good karma but you must continue working hard and you will be having ample happiness and prosperity in life. This nakshatra teaches you that good fortune must be mixed with discipline and effort to create more resources and complete your Life Mission as well as Soul Mission.

## Which tree will aid you in this mission Palash Tree

It grows red orangish flowers in this season of Phalgun which celebrates Mahashivratri, Holi etc. This used to be used to create the Holi colours with natural Palash Flowers but nowadays we use chemicals to celebrate Holi. This mixture is used in water and sucks out the heat in the body. The energy of this tree is a great influence to keep us energetic and on our path. 



Scientists have unveiled a breakthrough that could transform carbon dioxide from a pollutant into a valuable resource. A newly developed electrode can capture carbon dioxide directly from exhaust gases and instantly convert it into useful chemicals like formic acid — all in a single step. Unlike traditional carbon capture methods that require pure, concentrated CO<sub>2</sub>, this innovation works with real-world emissions from factories, furnaces, and even low concentrations found in ambient air. By combining capture and conversion into one seamless process, the technology offers a simpler, more cost-effective way to tackle emissions at their source. This remarkable advancement signals a future where industrial carbon emissions may no longer be waste — but a resource waiting to be transformed.

We are in pursuit of improvement and are keen to know your views.  
Please write to us at [ssb.newsletters@icmai.in](mailto:ssb.newsletters@icmai.in)

## 5 Questions on Sustainability

1. ISO \_\_\_\_\_ outlines requirements for local governments to develop structured, risk-based climate adaptation plans worldwide.
2. Nearly \_\_\_\_\_ % of districts in India have experienced hazard reversals, with flood-prone regions turning drought-prone and vice versa.
3. \_\_\_\_\_ adopted the world's first voluntary certification methodologies for permanent carbon removals,
4. ISS1 and ISS2 standards have a \_\_\_\_\_ dimension.
5. At the \_\_\_\_\_ Summit, Google announced a collaboration with the Office of the Principal Scientific Advisor (PSA) to the Government of India, positioning climate technology at the centre of the country's digital transformation.

The names of first 5 participants giving correct responses will be declared in the ensuing newsletter. The responses may be sent to [ssb.newsletters@icmai.in](mailto:ssb.newsletters@icmai.in)



### CORRECT ANSWERS OF JANUARY QUIZ

1	14.3%
2	\$ 19 billion or 15 million pounds
3	10000 companies
4	Carbon capture
5	Abu Dhabi



### LAST MONTH WINNER

CMA Leelendra Adusumilli

## Call for articles

*Sukhinobhavantu* is inviting articles on the theme ESG/ Sustainability or related themes for publishing in March 2026 edition. The articles should be relevant and original. The article should clearly cover/depict the scope, opportunity and potential for cost accountants. It should not exceed 2200 words and references/sources are to be given wherever required. It should reach us latest by March 14, 2026, by email to [ssb.newsletters@icmai.in](mailto:ssb.newsletters@icmai.in) The right for selection of articles vests with SSB. Decision of SSB will be final and binding.

# GREAT NEWS FOR CHILDREN!

Your Drawing Can Be Featured in

## Sukhinobhavantu

Hello Little Artists! We are happy to invite children aged 6 to 12 years to share their creativity for the Newsletter Sukhinobhavantu.

### What Can You Draw?

Children may create drawings based on any of the following ideas:

- Nature
- Kindness
- Family
- Peace
- Love
- Harmony
- Patriotism
- Friendship
- Anything that makes the world a joyful place

### Drawing Instructions (Very Important)

- Use an A4 size page
- Keep a 20 mm header & 20 mm footer
- Stay within the central area
- Do NOT draw in the header or footer

### Review & Decision:

The artwork will be reviewed collectively, and the decision of the Reviewing Authority shall be final and binding.

Please feel free to contact

**Aditi Didi**

[ssb.newsletters@icmai.in](mailto:ssb.newsletters@icmai.in)

Pick up your colours, pencils, and crayons, and  
Let your imagination bring joy to the world!

Your talent our pride!



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