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॥ सुखिनो भवन्तु ॥

(A Monthly Newsletter of Sustainability Standards Board)



ICMAI
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Message From Chairman, SSB

As we step into October 2025, I'm pleased to welcome you to this month's edition of the *Sukhino Bhavantu*, our monthly Newsletter.

While October is a month of celebrations and festivities it is also a season of reflection and transition. This time of the year is an opportune moment to reaffirm our collective commitment to building a more sustainable, resilient and equitable future.

In many parts of our country, this season, every year brings an urgency of climate crisis. We see that our commitment to the ESG principles and Norms is the ideal solution to deal with these crises involving proactive and resilient actions by the Government for timely checks and responses to the emerging conditions. This shall primary include the *green practices* including energy conservation, zeroing down the possible harmful emissions, transition to more sustainable modes of operations in business and services, both. This month is also celebrated as the 'Energy Awareness Month' so awareness about these initiatives for collectively addressing the situation with our green practices should be prioritized.

On the front of the initiatives taken by our Board during this month towards our commitment for spreading awareness and knowledge on Sustainability and ESG, the Sustainability Standards Boards organized two webinars this month as a part of its *Vasudhaiva Kutumbakam webinar series*. Also for the *Pariniyati Webinar series*, a joint initiative of SSB and International Affairs Committee, two webinars highlighting the Sustainability practices and opportunities in Gulf countries- Malaysia and Indonesia perspective were organized so far. I am sure that the members are benefitted from these insightful sessions.

I also pleased to inform that the Examinations for the Fourth of our ESG Course shall be conducted this month marking yet another milestone in the SSB agenda of spreading knowledge and awareness. Further, as per the requests received from many members, the Board has also decided to extend the enrolment deadline for the 5th Batch of the ESG Course to October 31st, 2025. I encourage those interested to register soon.

With this I conclude my address wishing you all a very Happy Deepawali with a request to include 'Sustainable Practices' a part of all your festivities including sustainable gifting, minimal wastage, avoiding harmful emissions and focus on green practices to the extent possible.

Professionally Yours,

CMA (Dr.) Ashish P. Thatte

Chairman

Sustainability Standards Board of ICMAI

October 25, 2025

Continent-wise Corporate Sustainability Reporting Frameworks – Mapping of SDGs and Evaluation of Diversities

Episode 3 - East Africa – Sustainability Reporting in the Cradle of Civilization

CMA (Dr.) Aditi Dasgupta

Joint Director

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In Episode 2, we explored North Africa, where countries such as Egypt, Morocco, and Tunisia are embedding sustainability reporting through frameworks like the GRI, UNGC, and green bond policies, aligning disclosures with SDGs related to water, clean energy, climate, and decent work. Despite challenges such as political instability and uneven reporting standards, the region has demonstrated leadership in green finance and renewable energy (UNEP, 2020; Morocco Ministry of Finance, 2021).

In this episode, our focus shifts to East Africa, a region marked by rapid economic transformation, acute climate vulnerabilities, and increasing attention to sustainability integration. The emphasis here is on reporting maturity, SDG mapping, and ESG adoption across industries, with Kenya and Rwanda emerging as regional frontrunners.

Key Takeaways: East Africa is gradually strengthening its sustainability reporting through Kenya's ESG guidelines, Rwanda's Vision 2050, and regional green finance initiatives. Despite resource gaps and data challenges, the region shows strong alignment with SDG 8 (Decent Work), SDG 13 (Climate Action), and clean energy goals. With targeted capacity building and low-cost compliance support, Indian CMAs can play a catalytic role in shaping East Africa's ESG future.

Regional Sustainability Reporting Landscape

East Africa's sustainability reporting landscape is evolving, though still at a nascent stage compared to more mature markets.

- Kenya has taken significant steps through the Capital Markets Authority (CMA) ESG Guidelines (2021), which mandate listed companies to disclose ESG-related practices, particularly climate resilience and social impact (CMA Kenya, 2021).
- Rwanda has embedded sustainability in its Vision 2050 strategy, emphasizing green

growth, climate resilience, and inclusive development (Government of Rwanda, 2020).

- Uganda and Tanzania are gradually integrating ESG principles, particularly in extractives, agriculture, and financial services, though reporting remains inconsistent.
- South Africa's King IV Report on Corporate Governance (2016) continues to influence practices across the continent, including East Africa, by promoting integrated reporting and stakeholder inclusivity (IoDSA, 2016).

Frameworks referenced include the Global Reporting Initiative (GRI), UN Global Compact



(UNGC), and sector-specific ESG disclosure models, with adoption concentrated among listed firms, multinational subsidiaries, and large domestic enterprises.

Mapping to UN SDGs

East African corporate sustainability disclosures are most aligned with the following SDGs:

- SDG 8 – Decent Work and Economic Growth: Companies highlight initiatives to address youth unemployment and build entrepreneurial ecosystems (UNDP, 2021).
- SDG 13 – Climate Action: Given frequent droughts, floods, and climate shocks, disclosures stress adaptation, emission reduction, and climate-smart agriculture (IPCC, 2022).
- SDG 1 – No Poverty; SDG 6 – Clean Water; SDG 7 – Affordable and Clean Energy: Firms increasingly report on poverty alleviation, improved water access, and renewable energy adoption. Kenya and Ethiopia are leaders in geothermal and hydropower energy initiatives, linking corporate reporting to SDG 7 (IRENA, 2021).

Challenges and Opportunities

Challenges:

- Resource constraints: Many organizations lack expertise and budgets for ESG reporting (World Bank, 2020).

- Data gaps: Weak data infrastructure hinders consistency and comparability of disclosures.
- Capacity needs: Limited trained professionals in ESG assurance and reporting slow adoption.

Opportunities:

- Green finance expansion: Kenya issued the region's first green bond in 2019, setting a precedent for climate-linked financing (CBK, 2019).
- Regional cooperation: The East African Community (EAC) is promoting harmonized sustainability policies within regional integration frameworks (EAC, 2021).
- International partnerships: Initiatives supported by the EU, UNEP, and World Bank are catalyzing capacity building in corporate accountability and transparency (UNEP, 2020).

Role of Indian CMAs

Indian Cost and Management Accountants (CMAs) can play a pivotal role in East Africa's sustainability landscape by:

- Capacity building in assurance services through training programs tailored to East African regulators and corporates.
- Promoting low-cost compliance models, including simplified digital templates for SMEs.



- South–South cooperation: Collaborating with East African professional accounting bodies to design contextualized ESG frameworks.

By bringing expertise in ESG assurance and reporting innovation, Indian CMAs can strengthen East Africa's transition from emerging ESG adoption to robust sustainability frameworks.

Conclusion

East Africa demonstrates how sustainability reporting is not just about compliance, but about building resilience, inclusion, and long-term value. With challenges of climate stress, resource scarcity, and limited reporting infrastructure, the path ahead requires regional collaboration, global partnerships, and professional expertise. By aligning with SDGs and leveraging opportunities in renewable energy and green finance, East Africa has the potential to become a regional sustainability leader—with Indian CMAs playing a crucial enabling role.  (to be continued...)

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Governance as the Bridge Between Values and Outcomes

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Governance provides the structural foundation through which organizational values are transformed into measurable outcomes. While spirituality offers the moral compass and leadership brings vision, governance ensures that these principles are systematically implemented, monitored, and sustained. This article explores governance as the bridge between values and results, examining how ethical frameworks, policies, and oversight mechanisms can embed purpose into organizational operations. Drawing from corporate and policy case studies, it outlines best practices for translating moral intent into tangible, accountable action.

Introduction

This is the third article in the series *Spirituality, Governance, and Sustainability – An Integrated Pathway for Ethical Leadership*. While the previous discussion examined how spirituality enriches leadership beyond compliance, this article turns to governance as the mechanism that converts values into outcomes. Spiritual principles such as mindfulness, empathy, and service provide a moral compass for leaders, but without institutional frameworks, these values risk remaining aspirational. Governance functions as the bridge—embedding spiritual intent into structures, policies, and performance measures that translate purpose into tangible results.

Governance is often associated with compliance, control, and regulation. While these elements are essential, governance in its highest form is a strategic enabler that connects values with impact. Spiritual leadership without governance risks being aspirational but ineffective; governance without values risks becoming mechanical and disconnected from societal needs. The integration of the two ensures that values are not just expressed but operationalized in a measurable, enduring manner.

The Role of Governance in the Values–Outcomes Chain

Governance acts as the conduit between organizational intent and societal impact. It converts principles into systems, and systems into results:

- **Codification of Values:** Translating ethical principles into formal policies, codes of conduct, and operating procedures.
- **Implementation Mechanisms:** Assigning roles, responsibilities, and accountability structures to ensure adherence.
- **Performance Monitoring:** Establishing metrics that measure both financial and non-financial outcomes, including ESG indicators.

By institutionalizing values in this way, governance creates continuity that outlasts individual leaders.

Governance Tools for Embedding Values

Values-driven governance requires specific tools and mechanisms to move from aspiration to accountability:

- **Codes of Conduct:** Formal behavioral expectations that reflect organizational values.

- **ESG Reporting Frameworks:** Disclosures of environmental, social, and governance performance that ensure transparency.
- **Ethics Committees and Ombudspersons:** Independent oversight mechanisms that safeguard integrity.
- **Stakeholder Councils:** Platforms for dialogue with employees, communities, investors, and regulators.

Together, these tools institutionalize mindfulness, empathy, and service at the organizational level.

From Ethical Intent to Sustainable Outcomes

Without governance structures, even the most well-meaning sustainability commitments can remain symbolic. Effective governance ensures:

- Alignment between organizational strategy and sustainability goals.
- Continuity of ethical practices despite leadership changes.
- Measurement and reporting that hold the institution accountable for progress.

Governance transforms spirituality-inspired intent into outcomes that are both measurable and enduring.

Corporate and Policy Illustrations

- **Unilever:** Its Sustainable Living Plan is embedded into performance reviews, demonstrating how governance links sustainability to business strategy.
- **Infosys (India):** Transparent disclosures, independent board oversight, and stakeholder engagement ensure that ethics are institutionalized.
- **EU Corporate Sustainability Reporting Directive (CSRD):** A regulatory framework that mandates linking governance with sustainability reporting and impact assessment.
- **Tata Group:** Through its Code of Conduct, CSR commitments, and board oversight, Tata institutionalizes values such as fairness and nation-building, ensuring measurable outcomes across generations.

These examples demonstrate how governance converts values into institutional practice and societal impact.

Challenges in Operationalizing Values through Governance

Despite its strengths, governance faces several obstacles:

- **Complexity of Measurement:** Social and environmental values can be difficult to quantify.
- **Short-Term Pressures:** Market expectations may conflict with long-term sustainability objectives.
- **Risk of Bureaucracy:** Overly rigid governance systems can stifle innovation and responsiveness.

The task is to ensure governance remains adaptive, transparent, and purpose-driven.

Best Practices for Value-Driven Governance

Organizations that successfully bridge values and outcomes often adopt the following practices:

- Embed values in board charters and strategic plans.
- Establish clear accountability chains for sustainability objectives.
- Use integrated reporting to link financial, social, and environmental outcomes.
- Conduct regular ethical audits to maintain alignment with stated values.

These practices help ensure that governance structures reflect both integrity and adaptability.

Conclusion

Governance is the essential bridge that connects the moral vision of spirituality and leadership with the practical realities of measurable outcomes. By institutionalizing ethical values through policies, structures, and monitoring systems, governance ensures that sustainability commitments are more than aspirational statements—they become verifiable achievements. Governance enables purpose to be realized in practice, serving as the pathway from intent to impact, from values to performance.

As the series continues, the next article will turn to sustainability, exploring how governance and spirituality converge to create resilient systems that balance economic growth with social equity and environmental stewardship.

SB

Sustainability – A Global Outlook

1. Mexico Adopts 17 Climate-Aligned Legal Clauses to Advance Sustainable Law Frameworks

Seventeen climate-aligned legal clauses have been transposed into Mexican law and made available in Spanish, spanning sustainability, finance, governance, and construction. The collaboration between The Chancery Lane Project (TCLP), Nader, Hayaux & Goebel, and Hogan Lovells aims to build capacity for climate-conscious law across Latin America. The launch at the Global Alliance of Impact Lawyers (GAIL) Summit in Mexico City advances efforts to localize global climate law frameworks.

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2. Climate Fund Managers Closes \$1B Climate Adaptation Fund for Emerging Markets

Climate Investor Two surpasses \$1 billion target to become the largest adaptation infrastructure fund in emerging markets. Backed by \$190 million in new commitments and a €205 million EU guarantee under the EFSD+ program. New Bridge-to-Bond model enables bond investors to access adaptation infrastructure assets for the first time.

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3. US Pushes Back Against EU Plan to Cut Global Shipping Emissions

The US has threatened sanctions on countries supporting an EU-backed global framework to cut shipping emissions. The IMO proposal would introduce the first global pricing mechanism for maritime emissions, taking

effect from 2027. The standoff reflects deepening transatlantic divisions over trade, energy, and climate governance.

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4. EU Launches \$6.1M Initiative to Scale Sustainable Algae Farming and Blue Innovation Hubs

The European Union has launched four new projects to expand sustainable algae farming and blue innovation hubs across Europe's seas, with €5.7 million (\$6.1 million) in funding allocated under the European Maritime, Fisheries and Aquaculture Fund (EMFAF). The initiatives — MED-Hubs, ATL.A.HUB, OCEAN GARDENS and SEAGROW — aim to create interconnected centres of innovation, scale regenerative aquaculture systems, and bring new marine biotechnology products to market. Together, they form a key component of the EU's broader blue economy strategy focused on climate neutrality, biodiversity restoration and coastal resilience.

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5. US Declines to Back World Bank Climate Statement Signed by 19 Directors

Nineteen of the World Bank's 25 executive directors have issued a joint statement reaffirming their commitment to the bank's climate action priorities, despite opposition from the United States, its largest shareholder. The statement—signed by directors representing 120 countries—reiterates support for the World Bank's goal of

directing 45% of its annual financing toward climate-related projects and for maintaining alignment with the Paris Agreement.

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6. **EU Postpones Sustainability Reporting Rules for Non-EU Companies**

The European Commission has delayed the adoption of sustainability reporting standards for non-EU companies under the Corporate Sustainability Reporting Directive (CSRD) until at least October 2027. The delay is part of the EU's broader effort to reduce administrative burdens through its "simplification agenda," affecting over 100 planned legislative acts. The move coincides with transatlantic negotiations and internal EU proposals to narrow the scope of corporate disclosure requirements under the Omnibus I initiative.

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7. **European Executives Back Stronger Sustainability and Due Diligence Rules: E3G Survey**

63% of executives across five major EU economies support mandatory climate transition plans for large companies. Half of surveyed firms say sustainability reporting strengthens investment opportunities, while 55% link it to competitiveness. Business leaders warn that EU Omnibus reforms risk raising costs and undermining alignment with global due diligence standards.

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8. **Global CEOs Cut Economic Optimism, Boost AI and Hiring Plans: KPMG Survey**

Global CEOs are tempering optimism about the world economy while doubling down on investment in artificial intelligence, workforce expansion, and sustainability, according to KPMG's 2025 Global CEO Outlook released on October 7. The survey

of over 1,300 chief executives shows confidence in the global economy slipping to 68%, the lowest since 2021. Leaders cite persistent geopolitical instability, sluggish growth, and market volatility as key factors weighing on sentiment. Yet, rather than scaling back, most CEOs are recalibrating their growth strategies to focus on innovation and resilience.

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9. **US Delays Wyoming Coal Lease Auction Following Weak Industry Interest in Montana**

The U.S. Department of the Interior has postponed a planned auction for coal leases in Wyoming just two days after a lackluster sale in neighboring Montana highlighted waning investor appetite for thermal coal. The Bureau of Land Management (BLM), which oversees 245 million acres of federal land, was scheduled to auction 3,508 acres in Wyoming's Campbell and Converse counties on Wednesday. The site holds an estimated 365 million tons of recoverable coal, but Interior officials said a new sale date will be announced later, without citing a reason for the delay.

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10. **Global Survey Exposes Pay and Promotion Gaps Undermining Gender Equality**

A majority of women worldwide believe they are underpaid, revealing the need for stronger women's empowerment and gender equality in workplaces, according to a new report by global job search and employment platform Indeed. The survey of more than 14,500 women in 11 countries found that 56 percent feel they earn less than they deserve, while only 27 percent believe gender-based inequalities will ever disappear.

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Sustainability – Indian Context

1. India Plans \$77B Hydropower Expansion as Strategic Buffer to China's Upstream Dams

India has outlined an ambitious \$77 billion hydropower transmission plan to harness the Brahmaputra River's vast energy potential and bolster its energy security in a geopolitically sensitive region. The Central Electricity Authority (CEA) said the plan aims to transmit more than 76 gigawatts (GW) of hydroelectric capacity from India's northeast by 2047. The projects will span 12 sub-basins of the Brahmaputra River, which flows from Tibet through India into Bangladesh — a waterway that has become increasingly strategic as China accelerates upstream dam construction.

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2. Kerala Becomes First Indian State to Approve Comprehensive ESG Investment Policy

The Kerala Cabinet has approved a state-wide environmental, social, and governance (ESG) policy, making it the first Indian state to formally embed ESG principles into its investment framework. The decision, aims to position Kerala as a preferred destination for ESG-compliant industries.

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3. Government Designates Key Maritime Hubs for Green Hydrogen Development

India has identified three of its major ports — Deendayal in Gujarat, V.O. Chidambaranar in Tamil Nadu and Paradip in Odisha — as green hydrogen hubs under the National Green Hydrogen Mission, the Ministry of

New and Renewable Energy said Friday. The move marks a milestone in India's effort to build an integrated hydrogen ecosystem and accelerate its shift to clean energy.

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4. India, ADB Ink \$125M Loan to Strengthen Climate Resilience in Assam

India signed a \$125 million loan agreement with the Asian Development Bank on Monday to improve water and stormwater systems in Assam, in a project aimed at raising urban livability and strengthening climate resilience. The Assam Urban Sector Development Project will deliver continuous metered water supply and upgraded stormwater management to about 360,000 residents. The program targets six district headquarters — Barpeta, Bongaigaon, Dhubri, Goalpara, Golaghat, and Nalbari — as well as Guwahati.

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5. India Launches National Initiative on Water Security Under MGNREGA

India launched a national initiative on water security on Thursday, mandating a fixed share of rural employment funds for conservation projects. The move aims to boost groundwater recharge and secure water access for future generations. The plan requires rural blocks facing water stress to allocate the bulk of the Mahatma Gandhi National Rural Employment Guarantee Act, or MGNREGA, funds to water-related projects.

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6. National Red List Roadmap Unveiled to Advance Biodiversity Conservation

India unveiled its National Red List Roadmap on Thursday to establish a nationally coordinated system for assessing and conserving species, marking a major step toward fulfilling its biodiversity commitments under the Convention on Biological Diversity and the Kunming–Montreal Global Biodiversity Framework. A National Red List Assessment is a scientific process to evaluate the conservation status of a country's flora and fauna using the IUCN Red List Criteria.

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7. PM Surya Ghar Powers Rooftop Solar Growth as PSBs Sanction \$1.31B in Loans

India's push for affordable solar energy under the PM Surya Ghar: Muft Bijli Yojana gained traction as public sector banks sanctioned over 579,000 loans worth ₹10,907 crore (\$1.31 billion) by September 2025. The milestone highlights the growing demand for rooftop solar systems among households, facilitated by easier credit access and digital integration through the government's JanSamarth and PM Surya Ghar portals.

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8. India Takes Big Step in Carbon Capture as NTPC Converts CO2 Into Methanol

India's largest power producer, NTPC Ltd., has reached a significant milestone in its carbon capture efforts by producing the first drop of methanol using captured carbon dioxide at its 500 MW coal-fired Unit-13 in Vindhyachal, Madhya Pradesh. The achievement comes after two years of successful operation of NTPC's pilot carbon capture project, which uses Carbon Clean's CaptureX semi-modular technology to extract CO₂ from flue gas. The CO₂ was then hydrogenated using green hydrogen to produce methanol, a key feedstock for the chemical and energy industries.

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9. India Launches Nationwide E-Waste Recycling Drive Under Special Campaign 5.0

India launched a nationwide e-waste recycling initiative under the government's month-long Special Campaign 5.0, aimed at promoting *Swachhata*, or cleanliness, and scientific waste management in public offices. The Ministry of Mines and the Department of Defence launched parallel drives to collect and recycle obsolete electronic equipment, from computers and printers to mobile phones, while ensuring resource recovery and environmental protection.

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10. Delhi eyes first artificial rain on October 29, 2025 after 'historic' cloud seeding trial in bid to combat pollution

The Delhi government, in collaboration with IIT Kanpur, conducted a trial seeding flight on Thursday to assess the feasibility of inducing artificial rain over the city in a significant step towards tackling the national capital's pollution crisis. Delhi Chief Minister Rekha Gupta announced that the national capital would see its first artificial rain on October 29 if conditions remain favourable.

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Refurbishments in ESG: Driving Sustainable Transformation in the Built Environment and Corporate Reporting

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Sustainability has become a defining imperative of the 21st century, with the built environment and corporate governance undergoing significant transformation. This article explores the concept of “refurbishment” in two dimensions: sustainable retrofitting of buildings and infrastructure, and the evolution of ESG (Environmental, Social, and Governance) reporting frameworks. In the built environment, refurbishment enhances energy efficiency, reduces lifecycle emissions, promotes circular material use, and supports adaptive work and lifestyle needs. In ESG reporting, refurbishment ensures disclosures remain relevant, reliable, and globally harmonized, with emphasis on climate risk, social equity, governance assurance, and investor trust. The article highlights the pivotal role of Cost and Management Accountants (CMAs) in bridging sustainability and financial performance through environmental accounting, social value mapping, governance assurance, and strategic decision support. A case study of Dell Technologies demonstrates refurbishment as a pillar of circular economy practices, yielding measurable environmental, social, and governance benefits. Ultimately, dual refurbishment—of physical assets and ESG frameworks—emerges as a cornerstone of sustainable transformation, embedding resilience, responsibility, and value creation at the heart of business and society.

Introduction

Sustainability has emerged as the defining priority of the 21st century, with the built environment and corporate reporting practices undergoing a fundamental transformation. Refurbishments — whether in physical assets like buildings and infrastructure or in ESG (Environmental, Social, and Governance) frameworks themselves — represent a critical pathway toward achieving climate goals, strengthening social equity, and enhancing transparency in governance.

This article explores two interconnected dimensions of refurbishment:

1. Sustainable refurbishment of buildings and infrastructure, ensuring environmental

performance and social well-being.

2. Refurbishment of ESG reporting and corporate governance frameworks, ensuring that sustainability disclosures remain relevant, reliable, and globally aligned.

Together, these transformations form the cornerstone of a sustainable future.

Sustainable Refurbishment in the Built Environment

1. Digitization: Smart Foundations

The future belongs to smart buildings. Digital retrofitting enables data-driven energy management, predictive maintenance, and occupant-centric services. For example:

- Energy optimization: Digital systems regulate heating, cooling, and hot water more efficiently.
- Amenity for users: Digital solutions improve indoor comfort, accessibility, and collaboration.
- Cybersecurity: As digital retrofits expand, robust cybersecurity strategies are essential to safeguard building operations.

2. Climate Efficiency: Energy and Material Upgrades

Established buildings often carry the reputation of being energy guzzlers. Refurbishments can reverse this through:

- Energy upgrades: High-performance insulation, renewable energy integration (solar, wind, geothermal), and efficient HVAC systems.
- Sustainable materials: Adoption of fully recyclable and low-carbon materials to close the loop.
- Circularity: Extending the life of existing structures while minimizing demolition waste.

Evidence shows refurbishment can:

- Reduce operational emissions by up to 61%.
- Cut lifecycle carbon emissions by 25% or more versus new builds.
- Divert 90–95% of demolition waste from landfills through reuse and recycling.

3. New Work: Adapting to Changing Lifestyles

The COVID-19 pandemic accelerated trends in mobile and hybrid working, reshaping demands for office and residential spaces. Refurbishments must respond by:

- Creating flexible, collaborative office concepts that support hybrid work.
- Designing residential spaces that balance home-based work and quality of life.

- Ensuring that buildings foster community resilience and well-being.

4. ESG Integration in Real Estate

Sustainable refurbishment is central to real estate's ESG transformation:

- Environmental: Reduced emissions, circular material use, and resource efficiency.
- Social: Improved safety, health, and accessibility while revitalizing urban spaces.
- Governance: Transparent reporting, responsible procurement, and compliance with modern sustainability standards.

For investors, ESG-compliant properties hold their value and increasingly become the only class of real estate assets with long-term growth prospects.

Refurbishments in ESG Reporting and Corporate Frameworks

Just as physical assets need upgrades, ESG reporting frameworks themselves are being “refurbished” to stay relevant in a rapidly evolving global landscape.

1. Environmental Reporting

- Enhanced Climate Disclosures: Integration of climate risk disclosures in line with TCFD and ISSB.
- Double Materiality: Assessing both the company's impact on the environment and the environment's impact on the company.
- Science-based Targets: Adoption of net-zero aligned strategies validated by initiatives such as SBTi.
- Sector-specific Metrics: Moving beyond generic ESG indicators to industry-tailored reporting.

2. Social Reporting

- Human Capital Disclosure: Greater emphasis on diversity, equity, inclusion, wages, and well-being.

- **Supply Chain Due Diligence:** Transparency around labor practices, ethical sourcing, and human rights.
- **Community Engagement:** Reporting on social license to operate and local development contributions.
- **Global Norms:** Alignment with UN Guiding Principles and OECD guidelines on business and human rights.

3. Governance Reform

- **Independent Assurance:** Stronger third-party verification to counter greenwashing and ensure reliability.
- **Digital Transformation of ESG Data:** Use of AI, blockchain, and XBRL tagging (EU CSRD) for comparability and accuracy.
- **Board Oversight:** Linking executive pay to ESG KPIs and making sustainability a core governance priority.
- **Global Convergence:** Alignment of GRI, ISSB, SASB, CSRD, and IFRS to reduce fragmentation.

4. Strategic Implications

- **Investor Relevance:** Decision-useful, reliable ESG disclosures strengthen investor confidence.
- **Regulatory Compliance:** Preparing for mandatory sustainability reporting across major jurisdictions.
- **Trust & Transparency:** Addressing greenwashing concerns and strengthening stakeholder engagement.
- **Integration into Core Strategy:** ESG moves from being a compliance burden to a driver of long-term value creation.

Role of Cost and Management Accountants (CMAs) in Refurbished ESG

Cost and Management Accountants (CMAs) are uniquely positioned to guide both sustainable refurbishment projects and ESG reporting reforms through their expertise in cost control, performance measurement, and governance. Their contributions include:

- **Environmental Accounting:** Measuring lifecycle costs, embodied carbon, and the financial impact of energy efficiency upgrades.
- **Social Value Mapping:** Quantifying community benefits, job creation, and employee well-being initiatives.
- **Governance & Assurance:** Strengthening ESG disclosures through reliable data, audit trails, and alignment with global standards.
- **Decision Support:** Assisting boards and management with scenario analysis, risk evaluation, and integration of ESG into strategic planning.
- **Investor Communication:** Translating sustainability outcomes into financial metrics that resonate with ESG-conscious investors.

CMAs thus act as the bridge between sustainability performance and financial performance, ensuring that refurbished ESG frameworks deliver tangible results for businesses, society, and the environment.

Case Study: Dell Technologies – Refurbishment as a Pillar of ESG Strategy

Company Overview

Dell Technologies is a global leader in computer technology, known for its commitment to sustainability and circular economy practices. It has integrated refurbishment into its ESG strategy through its Dell Refurbished and Asset Recovery Services programs.

Environmental Impact (E)

Initiative:

Dell operates a Certified Refurbished Program where returned or used devices are restored to like-new condition and resold.

Outcomes:

- **E-waste reduction:** In FY2024, Dell recovered over 200 million pounds of used electronics.
- **Carbon savings:** Refurbishing laptops saves up to 80% of the carbon emissions compared to manufacturing new ones.

- Material reuse: Dell uses closed-loop recycled plastics and metals in refurbished products, reducing demand for virgin materials.

Social Impact (S)

☑ Initiative:

Dell partners with local communities and social enterprises to support refurbishment centers, especially in developing regions.

Outcomes:

- Job creation: Skilled employment in repair, logistics, and quality assurance.
- Digital inclusion: Refurbished devices are donated or sold at low cost to schools and NGOs, bridging the digital divide.
- Training programs: Dell supports workforce development in IT repair and refurbishment.

Governance Impact (G)

☑ Initiative:

Dell's ESG governance includes product lifecycle accountability and transparent reporting on circularity metrics.

Outcomes:

- ESG disclosures: Dell reports on refurbishment volumes, emissions avoided, and reuse rates in its annual Sustainability Report.
- Compliance: Aligns with Extended Producer Responsibility (EPR) and Right to Repair regulations in multiple jurisdictions.
- Third-party audits: Ensures ethical sourcing and responsible recycling through verified partners.

Key SDGs Addressed

- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation, and Infrastructure

Dell's refurbishment strategy exemplifies how companies can embed circular economy principles into ESG frameworks, delivering measurable environmental benefits, social value, and strong governance.



Key Takeaways

- Dual Refurbishment: Both physical assets (buildings) and ESG reporting frameworks require refurbishment to meet modern sustainability expectations.
- Environmental Benefits: Refurbishment can reduce lifecycle emissions by over 25% and operational emissions by more than 60%.
- Reporting Reform: ESG disclosures are evolving toward global alignment, double materiality, and stronger assurance.
- Strategic Role of CMAs: CMAs are central to ESG transformation by providing measurement, assurance, and integration of sustainability into decision-making.

Conclusion

Refurbishment is not just about retrofitting bricks and mortar; it is about rethinking sustainability at every level. From smart, climate-efficient buildings to globally aligned ESG frameworks, refurbishments embody the transition toward resilience, responsibility, and long-term value creation. With CMAs at the forefront, organizations can ensure that sustainability is not a buzzword but a measurable, reportable, and accountable reality.



Net Zero By 2070: India's leadership in Sustainability

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"The world is not given by his fathers, but borrowed from his children."

Wendell Berry, an American environmentalist

India, the world's fastest-growing and fourth-largest economy, aims for net-zero emissions by 2070, balancing growth with sustainability. Announced at COP26 by our Prime Minister, the "Panchamrit" commitments include 500 GW non-fossil energy, 50% renewable energy, one billion tonnes carbon emission reduction, and 45% carbon intensity reduction by 2030. As India has shown its achievement as by August 2025, it achieved 243 GW non-fossil capacity and 50% renewable energy ahead of schedule. Strategies like Carbon Capture, Emission Trading, Green Taxonomy, Ethanol Subvention, and Sovereign Green Bonds drive progress. Rooted in Common but Differentiated Responsibilities, India's approach addresses poverty and infrastructure needs while leading globally in sustainable development.

Sustainability refers to the responsible management of resources to maintain ecosystem health and biodiversity, ensuring that environmental needs are met without compromising the resources of future generations to meet their own needs. It encompasses practices that promote ecological balance, resource conservation, and the reduction of environmental degradation.

In Indian context, in *Bhūmi Sūkta, Atharva Veda*, it is said that "यत् ते भूमिं विक्वहामि क्षिप्रं तदपि रोहतु" meaning that "Whatever I dig from you, O Earth! may it quickly regenerate". This shows Indian philosophy of regenerative use of resources or take only what can be replenished.

1. India's Net Zero Plan:

As India is the world's fastest-growing and 4th large economy in the world, having achieved impressive rates of 7% in year 2022-23 and 8.2% in year 2023-24, has ambitious target of being a developed country by the year 2047. For achieving the goal, India has made a balanced approach towards the environmental sustainability and has

Table1: Global GHG Emitters 2023/ Source: European Commission

Country	Total Emissions (MntCO ₂ e)	Global share (%)
China	15,944	30.1
United States	5,960.8	11.3
India	4,133.6	7.8
EU27	3,221.8	6.1
Russia	2,672	5
Brazil	1,300.2	2.5
Indonesia	1,200.2	2.3
Japan	1,041	2
Iran	996.8	1.9
Saudi Arabia	805.2	1.5

committed for positioning as NET ZERO EMISSION by 2070. This is bold statement by acknowledging the challenges of development with environment friendly but concrete and progressive steps. Being the third-largest contributor to global emissions, with 7.8% of the total global share (Table 1), India, itself, target to reduce emission intensity while enhancing the quality of life for its citizens. Thus, India is going to play a pivotal role in the global fight for energy conservation and sustainability.

As announced by our Prime Minister Narendra Modi in COP26 in Glasgow, India's net zero plan is a multi-decade strategy aimed at achieving net

zero greenhouse gas emissions by 2070, balancing economic growth with climate responsibility. The commitment/targets as called by our PM, *Panchamrit* are enumerated as under:

1. 500 GW of non-fossil energy capacity by 2030
2. 50% of energy requirements from renewables by 2030
3. Reduction of total projected carbon emissions by 1 billion tonnes by 2030
4. Reduction in carbon intensity of the economy by 45% by 2030
5. Achieving net zero emissions by 2070

1.1 -500 GW of Non-fossil Energy Capacity by 2030:

Government of India has repeatedly reiterated the target of achieving 500 GW of non-fossil fuel-based power generation capacity by 2030. As on August 2025, the total power generated from non-fossil energy is 243 GW (50.1% of total 485 GW). Out of this renewable energy is 185 GW (38.08% of total energy generated), Hydroelectric is 49 GW (10.19%) and Nuclear energy is 9 GW (1.81%). Further, the pipeline projects showing there is 134.85 GW are yet to come (Table 2). These figure shows that the target to achieve the 500 GW is well achievable by 2030.

Table 2: Source-wise renewable energy capacity in pipeline (in GW)

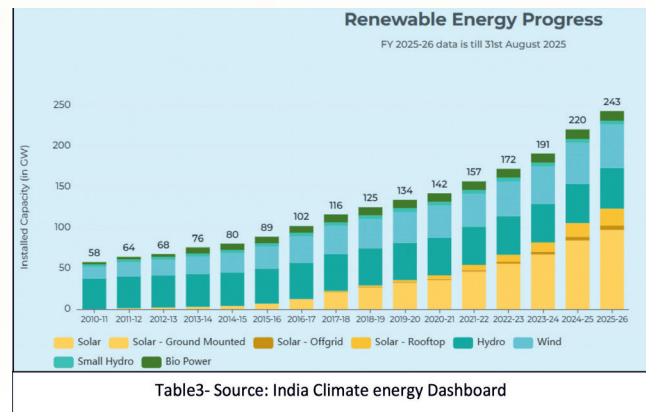
Source of RE	Under construction	Under development	Total pipeline capacity
Solar	54.7	30.49	85.19
Wind	17.52	12.81	30.33
Hydro	18.09	1.24	19.33
Total	90.31	44.54	134.85

Source: India Climate & Energy Dashboard, Niti Aayog

1.2 -50% of energy requirement from renewables by 2030

The second commitment of *Panchamrit*, having set a target of getting 50% cumulative power installed capacity from non-fossil fuel-based energy resources by 2030. India has witnessed a surge in its renewable energy (RE)- based installed

capacity for power generation, growing from 80 gigawatts (GW) in the fiscal year 2014-2015 to 220 GW in the fiscal year 2024-2025 (Table-3). As per the India Climate Energy Dashboard of Niti Ayog, on August 31, 2025, India has achieved the target of 50% power capacity from non-fossil energy source (243 GW of total 485 GW capacity) ahead of five years from target year 2030.



1.3 Reduction of total projected carbon emissions by 1 billion tonnes by 2030:

India emits roughly 2.8–3.0 billion tonnes of CO₂ annually (third largest globally, after China and the US). However, per capita emissions are only 1.9 tonnes per person — well below the global average of 4.5 tonnes/person. If India continued with fossil-heavy growth, total emissions could have reached 4.5–5.0 billion tonnes/year by 2030. Due to renewable adoption, EV growth, and efficiency programs, projections now suggest emissions will be 3.5–4.0 billion tonnes/year by 2030. Hence, 1 billion tonnes of CO₂ emissions avoided cumulatively between 2021–2030. Between now and 2030, India aims to cut cumulative CO₂ emissions by 1 billion tonnes from what would have been emitted under the “business-as-usual” trajectory.

1.4 Reduction in carbon intensity of the economy by 45% over 2005 level by 2030:

India has also committed to reduce the carbon intensity of its economy by 45% compared to its 2005 levels. Carbon intensity means CO₂ emissions per unit of GDP. India targets a 45% reduction by 2030, compared to 2005 levels — meaning it will emit less carbon for every rupee of GDP. Earlier this target was 30%-35% over 2005, however this target was increased to 45% as this was achieved as on 31st October, 2023

(PIB dated 18.12.2023). Hence, two-thirds of the goal already achieved, well ahead of schedule. India is on track to reach or exceed 45% reduction before 2030.

1.5 Achieving net zero emissions by 2070:

By 2070, India aims to neutralize all greenhouse gas emissions — any emissions produced will be balanced by carbon removal through forests, soil, oceans, or technology. Now question arises, why India fixed target of net zero by 2070 not by 2030 as most of targets are still achievable by 2030. The answer is that India is still a developing economy with over 1.4 billion people, many of whom lack access to reliable energy, housing, and infrastructure. Rapid decarbonization by 2030 or 2050 could hinder poverty alleviation, industrial growth, and rural development. However as India has contributed only 4% of cumulative global emissions, far less than developed nations like the US and EU, the timeline reflects the principle of Common but Differentiated Responsibilities (CBDR-RC), which calls for richer nations to act faster and support developing countries. Further, India needs an estimated \$10 trillion to achieve net zero by 2070, covering renewable energy, infrastructure, EVs, and industrial decarbonization.

The extended timeline allows for technological innovation, capacity building, and global climate finance to flow in. India's 2070 pledge sets a realistic benchmark for other developing countries, balancing ambition with feasibility. India's approach is not about delay—it's about sequencing climate action in a way that's just, inclusive, and economically viable.

2. Strategy for Vision NET ZERO

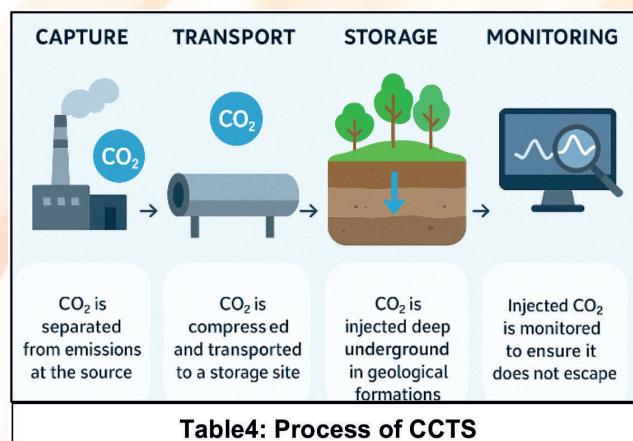


Table4: Process of CCTS

India has initiated many steps to achieve its vision of NET ZERO by 2070. Some are listed below:

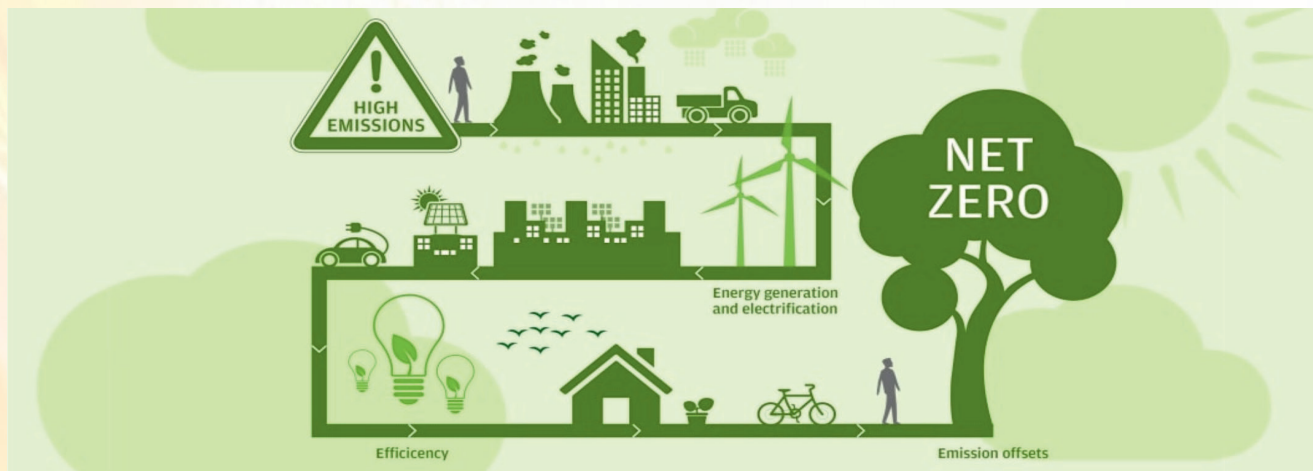
2.1 Carbon Capture, Transportation and Storage (CCTS): Carbon Capture, Transportation, and Storage (CCTS) refers to a process that captures CO₂ emissions at their source, transports them by pipelines, ships, trucks etc., and stores them permanently underground so they do not enter the atmosphere.

2.2 Emission Trading System (ETS): India's Emission Trading System (ETS) is a market-based mechanism designed to reduce greenhouse gas emissions by allowing industries to buy and sell carbon credits. It's part of the broader Carbon Credit Trading Scheme (CCTS) launched in 2023, and it became legally binding in 2025 for select sectors. Industries are assigned targets based on how much CO₂ they emit per unit of output. If a company emits less than its target, it earns credits. If it emits more, it must buy credits or pay a penalty. Credits are traded monthly on power exchanges, regulated by the Central Electricity Regulatory Commission (CERC).

2.3 Business Responsibility & Sustainability Report (BRSR): BRSR is India's comprehensive ESG (Environmental, Social, and Governance) disclosure framework mandated by SEBI for the top 500 listed companies by year 2025-26.

2.4 Green Taxonomy for Climate Finance: Green taxonomy is a classification system that defines what qualifies as an *environmentally sustainable economic activity* — helping investors, companies, and governments direct financial flows toward genuine climate-friendly projects. Green taxonomy is the foundation of climate-aligned finance, ensuring that only *authentic, measurable, and transparent* green activities receive financial support. For India, it will be a crucial tool to channel funds toward achieving the Net Zero 2070 goal and fulfilling the five climate commitments (Panchamrit) announced at COP26.

2.5 Ethanol Subvention Scheme: This scheme is to promote ethanol production capacity in the country — especially from sugarcane-based feedstock like molasses, B-heavy molasses, sugarcane juice, and more recently, grain-based sources (like maize and damaged food grains).



The key goal is to boost ethanol blending with petrol under the Ethanol Blended Petrol (EBP) Programme as 20% (E20) by 2025 in petrol.

2.6 Corporate Average Fuel Efficiency (CAFÉ):

CAFÉ standards set average fuel efficiency targets for automakers across all the vehicles they sell in a given year. Fuel efficiency is expressed as kilometers per litre (km/l) of fuel, or grams of CO₂ emitted per kilometre (g CO₂/km). Every car manufacturer or importer must ensure that the average fuel consumption of all its passenger vehicle models sold in India in a financial year meets the CAFÉ target.

2.7 Sovereign Green Bonds (SBG): A Sovereign Green Bond is a government-issued debt instrument used to raise funds exclusively for financing green projects — those that help reduce carbon emissions and promote environmental sustainability. As announced in the Union Budget 2022–23, SBG are managed by the Reserve Bank of India (RBI) under the Government of India's Green Bond Framework (2022). India issued its first Sovereign Green Bonds in January 2023, worth ₹16,000 crore.

2.8 National Determined contributions (NDC):

NDCs are each country's self-defined climate action plans under the Paris Agreement (2015). They outline how a nation will Reduce greenhouse gas (GHG) emissions, and Adapt to climate change impacts, while balancing economic and developmental priorities

2.9 National Biofuel Coordination Committee (NBCC):

The National Biofuel Coordination Committee (NBCC), constituted by Ministry of Petroleum and Natural Gas, is a key institutional

mechanism in India that coordinates the promotion, production, and development of biofuels in line with the government's energy and environmental policies.

2.10 Other Steps/Schemes: In addition to above there are other scheme e.g. Lifestyle for Environment (LIFE), Environmental Justice India (EJI), GST rate reduction from 18% to 5% for ethanol blending, Pradhan Mantri JI-VAN Yojna to support Bio-ethanol projects, National Policy on Bio-fuel, 2018 and increase of nuclear power plants by private investors etc.

3. Conclusion: The Road to 2070 Starts Now

India's pledge to achieve Net Zero by 2070 is not just a policy promise but a national mission. It reflects the country's determination to grow sustainably while contributing meaningfully to global climate efforts. While the path is steep, the rewards are immense. Cleaner air, energy independence, global leadership, and a resilient economy await a nation ready to transform. The focus to "Net Zero by 2070" represents a call to action for governments, businesses, and citizens alike. Let's not wait till 2070 to act. The future of our planet depends on what we do today. SB

References:

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Recipe of Financial Reporting – the ESG Ingredient

Part-III Role of the CMA

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This final part of the article series on the ESG Ingredient in Financial Reporting explores the pivotal role of the operational-level CMAs and consultants in embedding ESG aspects into the routine MIS, decision support systems and integrated financial reporting. It aims to streamline the CMA's responsibilities by mapping the ESG reporting requirements and the existing cost and operational records, and bring multiple dimensions of an entity's reporting systems onto one platform.

Holistic Reporting

This concluding part explores ESG and Sustainability Reporting as a quintessential part of a CMA's role. Most global statutory reporting requirements delineate financial and non-financial elements. India offers a distinctive mechanism of cost accounting records, reporting and audit under the Companies Act 2013 that integrates financial and non-financial metrics, enabling a focussed, holistic view of profitability and operational efficiency.

While ESG factors are not yet explicitly reported through this mechanism, there is scope for integrated ESG reporting through the Cost Records and the Annexure to the Cost Audit Report, and qualitative commentary by the cost auditor. CMAs are uniquely equipped to handle the qualitative, quantitative and financial aspects of reporting effectively.

CMA Advantage - International Reporting

The GRI standards are widely used by governments, investors, companies, employees, NGOs and consumer groups, to understand the ESG impact of businesses, take informed decisions, and work towards improved sustainability performance. There are General Standards and industry-specific standards for 40 high-impact industries.

The IFRS S1 is a standard for disclosure of General Sustainability-related Risks and Opportunities that could be reasonably expected to impact the entity's cashflows and access to finance. The IFRS S2 is more specific, and deals with the Climate-related Disclosures. More standards dealing with specific topics may be expected over time.

In the following table, we briefly outline the requirements of these most popular international sustainability reporting frameworks with the corresponding 'CMA Advantage' areas in meeting them.

Disclosure Area	Disclosure Head	The CMA Advantage Areas
GRI General Specific Standards		
General Disclosures (GRI 2)	2-1 Organizational Details	Legal entity costs, registration fees, head office operational costs
	2-2 Entities in Reporting Scope	Consolidated entity financials, inter-company transaction logs
	2-3 Reporting period, frequency, contact	Cost of report preparation, printing, and distribution
	2-4 Restatements	Accounting adjustments, reconciliation entries, variance analysis
	2-5 External assurance	Audit fees, external consultant fees
Activities and Workers	2-6 Sector, value chain, business relationships	Supply chain costs, procurement cost ledgers, vendor contracts

Disclosure Area	Disclosure Head	The CMA Advantage Areas
	2-7 Employees	Employee salaries, benefits, incentives, training costs, payroll records
	2-8 Non-employee workers	Contractor payments, outsourced services cost, temporary staffing expenses
Governance	2-9 Governance structure & composition	Board compensation, governance meeting expenses, legal advisory fees
	2-10 Nomination & selection	Recruitment agency costs, executive search expenses
	2-11 Chair of governance body	Executive remuneration costs, travel and representation allowances
	2-12 Oversight of impact management	Budget allocation to sustainability management, monitoring tools
	2-13 Delegation of responsibility	Cost of sustainability officers, reporting systems
	2-14 Governance role in sustainability reporting	Internal reporting tools, software licenses
	2-15 Conflicts of interest	Legal consultation fees, compliance monitoring costs
	2-16 Critical concerns	Compliance program budgets, whistleblowing system maintenance
	2-17 Collective knowledge	Training, workshops, conferences, capability-building costs
	2-18 Performance evaluation	Consulting fees, internal HR evaluation costs
	2-19 Remuneration policies	Compensation and benefits records, incentive schemes costs
	2-20 Remuneration determination process	HR advisory, remuneration committee expenses
Strategy, Policies & Practices	2-21 Total compensation ratios	Payroll and summary statistics, external benchmarking reports
	2-22 Sustainable development strategy	Project budgets for sustainability initiatives, policy implementation costs
	2-23 Policy commitments	Compliance monitoring, training, external advisory fees
	2-24 Embedding policies	Implementation costs, awareness campaigns, IT systems for compliance
Economic Performance (GRI 201)	201-1 Direct economic value	Revenue, operating costs, employee costs, community investments
	201-2 Climate-related financial risks	Cost-benefit analysis, capex for green projects, carbon accounting systems
	201-3 Defined benefit obligations	Pension and retirement fund costs, actuarial valuations
	201-4 Government assistance	Grants received, tax incentives, subsidies documentation
Procurement & Market Presence (GRI 202 & 204)	202-1 Salary ratios, 204-1 Local procurement	Supplier payments, local purchasing records, wage ledgers
Environment & Resource Management	301 Materials, 302 Energy, 303 Water, 305 Emissions, 306 Waste	Material consumption cost records, energy bills, water usage logs, waste management costs, emissions monitoring investments
Employee & Labor Practices	401 Employment, 402 Labor relations, 403 Occupational health & safety, 404 Training	Labor costs, payroll, employee training expenses, OH S program and equipment costs
Diversity & Human Rights	405 Diversity, 406 Non-discrimination, 407 Freedom of association, 408 Child labor, 409 Forced labor, 414 Supplier social assessment	Policy implementation costs, audits, supplier screening and compliance costs, training records
IFRS S1 General Disclosures and S2 Climate-related Disclosures		
Governance (S1/S2)	- Governance body roles and responsibilities - Oversight processes for sustainability risks and opportunities - Policies and controls	- Board/Committee minutes - Risk management policies - Internal audit reports - ESG office staffing costs
Strategy (S1/S2)	- Approach to managing risks and opportunities - Strategic objectives and transition plans - Impact of sustainability factors on business model and operations	- Strategic planning documents - Sustainability program budgets - Investment in green technologies - Forecasted revenue/cost impacts due to climate or other sustainability risks

Disclosure Area	Disclosure Head	The CMA Advantage Areas
Risk Management (S1/S2)	- Risk identification, assessment, prioritization, and monitoring - Use of scenario analysis (climate-related and other) - Integration with overall enterprise risk management	- Risk registers - Scenario modelling outputs - Insurance costs / premiums - Costs of mitigation measures (flood barriers, energy efficiency upgrades)
Metrics & Targets (S1/S2)	- Key performance indicators (KPIs) for sustainability-related risks/opportunities - Progress toward operational or regulatory targets - Climate metrics (Scope 1, 2, & 3 GHG emissions)	- GHG emissions inventories (Scope 1, 2, 3) - Water/energy usage records - Waste generation and recycling data - Environmental compliance records - Cost of carbon credits or offsets - Targeted investment/tracking spreadsheets
Climate-related Physical Risks (S2)	- Exposure to extreme weather events, rising sea levels, temperature stress	- Historical loss data (flood/drought impact) - Insurance claims - Facility maintenance/capex records for adaptation efforts
Transition Risks & Opportunities (S2)	- Legal/regulatory compliance costs - Market & technology shifts - Energy and resource efficiency programs - Low-emission product development	- Legal and regulatory compliance spend - R&D budgets - CAPEX/OPEX on energy/resource efficiency - Revenue from green/low-emission products/services
Impact on Financial Position and Cash Flows (S1)	- How risks/opportunities affect financial statements - Short, medium, long-term planning	- Forecasted P&L impacts - Cash flow projections - Capital allocation records
Resilience & Scenario Planning (S1/S2)	- Assessment of strategy resilience - Stress tests against sustainability scenarios	- Modelling outputs for scenario analysis - Sensitivity assessment notes - Risk-adjusted valuation
Other ESG Topics (S1)	- Non-climate sustainability issues (biodiversity, human capital, water management)	- Production metrics - Supplier audits - Certifications (e.g., RSPO, LEED) - HR records for workforce well-being initiatives
Commercially Sensitive Disclosures (S1)	- Optional exemptions if disclosure may harm economic benefit	- Internal justifications and board approvals related to non-disclosure - Legal advice documentation
Comparative Information (S1/S2)	- Required for periods after first-year application	- Historical ESG metrics - Prior-year sustainability reports - Prior-year estimates for Scope 1-3 emissions, water, or energy usage

Table generated using Microsoft Copilot

The CMA Advantage - BRSR Core

Many of the disclosures under the 9 Principles of the BRSR are embedded in the cost accounting records (CAR) maintained as per the Cost

Accounting Standards and reported in the Annexure to the Cost Audit Report (CRA-3). The following table maps each principle to the CAR and CRA-3 data-points.

BRSR Principle	Relevant CAS/ Cost Record/ CRA-3 Data Point
Principle 1: Ethical Governance	CAS & CAR: Definitions, Identification, Classification, Measurement and Compliance Costs - Internal and Third-party Assurances, Fines, penalties, compensations, damages Information systems and Internal Controls, Training for ethics and corporate governance CRA-3: Note on the cost accounting policy and internal audit of cost records Paragraphs on related party transactions and Indirect taxes Profit Reconciliation Statement

BRSR Principle	Relevant CAS/ Cost Record/ CRA-3 Data Point
Principle 2: Sustainable Products and Services	CAS & CAR: Capex & Opex Y-o-Y comparison of additional costs for sustainability - Material, Consumables, Sustainable Sourcing, By-products, Rejects, Scrap, Warranty, Packaging, Transport, Warehousing, Inventory carrying costs, Obsolescence, Wastage, Pilferage, Quality, R&D, Repairs & Maintenance, Pollution Control, Utilities etc. (normal and abnormal, recovery and re-use, quantity, and costs) Installed, Normal and Available Capacity & Utilisation and cost of capacity CRA-3: Cost Auditors' comments on product-profitability and life-cycle cost management for all products and services for costs attributed to sustainability in the CAR
Principle 3: Employee Well-being	CAS & CAR: CAS-7 Employee Costs, Record of normal and abnormal man-hours, capacity, utilisation, Monetary Compensation for various categories of manpower Employee welfare and safety expenses, HRM, leaves and normal absenteeism, insurance, transport, etc. Costs of strikes, lock-outs and unplanned shut-downs, compensation for accidents, abnormal overtime etc. Costs of creating and maintaining employee safety infrastructure CRA-3: Y-o-Y comparison of Employee Costs in Product & Service cost sheets Value added statement Profit Reconciliation Statement
Principle 4: Stakeholder Engagement	CAS & CAR: Analysis of Cost of Stakeholder Engagement - cost of training, communication, survey, reporting, grievance redressal, contract management (normal and abnormal cost analysis) CRA-3: Y-o-Y comparison of major items of expense and the Cost Auditor's comments thereon Profit Reconciliation Statement
Principle 5: Human Rights	CAS & CAR: Employee Costs for basic amenities such as washrooms, canteen, first-aid, sick leave, creches, feeding rooms, legal assistance, counselling, therapeutic activities, remedial actions, Contractors' compliances with human rights norms such as fair compensation, safety, basic amenities, etc. CSR Expenses, Community outreach programs Consumer welfare (where relevant) Grants, subsidy, and awards received for such activities CRA-3: Y-o-Y comparison of costs included and excluded from the product cost sheets Profit Reconciliation Statement
Principle 6: Environmental Protection	CAS & CAR: Energy, water and utilities costs and quantities consumed from each source and for product/service group Waste generation and management costs & quantities Quality Control & Pollution control costs of the business including carbon sequestration costs, e.g., tree plantation, green building and equipment (Capex), repairs & maintenance to mitigate pollution, hazardous waste management Cost of assistance for Scope-II and Scope-III emissions CSR expenses for clean and green communities Cost of compliance with environmental norms Grants, subsidy, and awards received for compliance Cost savings from projects for the 6 Rs - re-use, re-cycle, re-engineer & re-design, recover & repair, refuse, reduce CRA-3: Y-o-Y comparison of each major element of such costs with Cost Auditors' commentary Profit Reconciliation Statement
Principle 8: Inclusive Growth	CAS & CAR: Grants, subsidy & awards received for training & development CSR expenses Procurement from MSME & SHG Locating/re-locating the business in an aspirational area CRA-3: Y-o-Y comparison of employee benefits, material overheads, quality control Profit Reconciliation Statement
Principle 9: Consumer Responsibility	CAS & CAR: Costs of compliance with product/service safety norms, Consumer education, training for safe and ethical use of the products/services Costs of Quality and Warranty, including recall, replacement etc. Complaint registration and redressal mechanism Consumer data privacy, information security Safe packaging, handling, transport, printing & communication of user safety instructions CRA-3: Y-o-Y analysis of Quality Control, Warranty and Profit Reconciliation Statement items, and the Cost Auditors' comments

The CMA Advantage in Non-Statutory Reporting

Business sustainability is driven by economic, environmental and social sustainability, and ethical governance. The influence of the ESG elements on the business processes and outcomes, and vice-versa, must be communicated to the decision-makers at all levels, in every business. While ESG reports are mandatory for large corporates, other forms and sizes of organisations may adopt it voluntarily. CMAs must incorporate ESG reporting into their MIS to enhance business decision-

making. A look at the ESG reports of some of the large corporates listed on the Indian bourses reveals that there is a mapping of ESG elements involved in operational decision-making. These are recorded for voluntary reporting, and disclosed on the web-sites, as a matter of pride.

Effectiveness of ESG reporting in the context of financial impact on the entity depends upon the accuracy, validity, reliability, veracity, consistency, and completeness of the information provided, to the right persons at the right time.

TYPICAL AREAS OF ESG INTEGRATION

Operating Area	ESG Impact Factor	Operating Area	ESG Impact Factor
Material	Carbon footprint	Administration	Responsibility and accountability
Energy	Clean / Renewable sources	Marketing	Green value chain
Plant, Equipment	Efficiency – material and energy	Compliance	Lawful and ethical practices
Building	Energy efficiency	Finance	Green blood of the business
Manpower, Outsourcing	Diversity, Equal Opportunity, Fair Pay	IT & IS	Backbone of the business

DYNAMIC REPORTING

A SAMPLE MONTHLY ESG REPORT FOR A MANUFACTURING UNIT

Include the latest updates in the ESG reports in continuum

Build scenarios to estimate the impacts of the decisions in real time

Financial Metric	ESG Metric	Measurement	Target	Actual
Inventory Obsolescence	Carbon footprint of obsolescence	Carbon in MT	10	12
Material Cost	Green supply chain	% of Eco-friendly purchases	50	45
Salaries & Wages	Fair Compensation	Gender Disparity %	10	15
Marketing, SG&A Discretionary Exps.	Mindful Spending	% supplies from MSME, SHG, NGO	50	60
Fines, Penalties and Damages paid	Ethics & Compliance	% to base expense	1	5

Images from 'ESG (A Presentation for the Advanced Skill Training Program of the ICMAI – Pune Chapter, on 15-09-2025)' prepared by CMA Anuradha Dhavalikar

The CAR and MIS prepared using CAS serve as a bridge between the base transactional records and the financial accounting records of an entity, combining qualitative, quantitative, and cost data, to incorporate ESG dimensions in voluntary reporting. The framework of standards and guidance notes issued by the ICMAI have been discussed in the second part of this article.

ESG Data Sources

Quantitative Information: Data from Materials Management System, HRM, Utilities, Maintenance, Waste Management System, submissions to the Factory Inspector, State PCB, ROC etc. provide measurable data for ESG reporting.

Qualitative Information: The reports, studies, survey findings, aggregation of ratings etc. from different departments such as Sales (customer satisfaction), Purchase (vendor rating), HR (employee engagement) etc. may be used in creating a narrative or thematic summary.

Cost Information: Identification and capture of sustainability costs in the Information System (IS) may be done through tailored attributes. In semi-automated/manual IS, segregation of costs requires efforts. Industry-specific costs captured in the CAR can be further analysed for ESG relevance.

Audit & Assurance: All cost, quantitative, and qualitative information for ESG reporting must be drawn from reliable and validated sources, subject to robust internal controls and audit (where applicable). Where statutory Cost Audit applies, the Cost Auditor may provide insights through the Annexure and the Performance Evaluation Report.

Conclusion

ESG action and impact reflect expenses, losses, gains, savings, efficiency and profits that the CMA must drive home through effective integration in MIS. The monetization of the ESG actions

is represented by the 6 R's chart, providing a glimpse of the data points and corresponding value accounting/reporting areas:



It is imperative that we capitalise on the CMA expertise, use the sturdy framework provided by the ICMAI and scale new professional heights through excellence in ESG reporting practices. We conclude this three-part series Recipe of Financial Reporting – the ESG Ingredient with these words of wisdom from the Father of the Nation:

“Our greatest ability as humans is not to change the world, but to change ourselves.

Be the change that you wish to see in the world.

In a gentle way, you can shake the world.

There are two days in the year that we cannot do anything, yesterday and tomorrow.

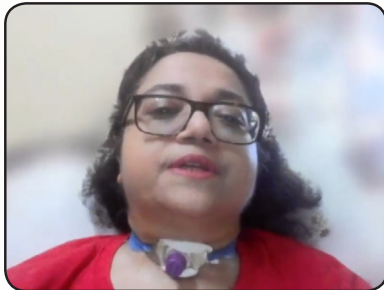
The future depends on what we do in the present.”

– Mahatma Gandhi



41st Webinar Boardroom Sustainability

September 26, 2025 from 4 to 5:15 p.m.



CMA (Dr.) Aditi Dasgupta



Shri G. Balasubramaniam

The Sustainability Standards Board (SSB) of the Institute of Cost Accountants of India (ICMAI) successfully organized the 41st webinar of the Vasudhaiva Kutumbakam series on the theme “Board Room Sustainability” on Friday, 26th September. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI, introduced the speaker and the topic.

The session was dedicated to exploring the strategic role of the Board of Directors in guiding an organization’s journey toward a more sustainable and equitable future. The presentation was delivered by CS G. Balasubramaniam.

CS G. Balasubramaniam delivered an insightful presentation on “Embracing Sustainable Business Practices,” emphasizing that sustainability is a strategic imperative driven from the boardroom—not a passing trend. He highlighted that integrating environmental, social, and economic factors enhances long-term viability, efficiency, and risk management, dispelling the myth that sustainability undermines profitability. Categorizing directors’ mindsets as Deniers, Hard-headed, Complacent, and True Believers, he underscored the cultural challenges of sustainable governance. Introducing a self-assessment framework with key “Points to Ponder,” he urged boards to build expertise, embed sustainability into strategic agendas, and strengthen accountability through performance-linked goals aligned with global standards. Concluding with insights on “What Makes a Sustainable Board,” he stressed the value of structured governance—developing a forward-looking calendar with at least six strategic meetings a year, prioritizing ESG and succession planning, and clearly defining the roles of the Chairperson, CEO, and board members for impactful strategic engagement.

In conclusion, Mr. Balasubramaniam underlined that the goal of every well-structured board meeting should be to transition from compliance to contribution, with metrics of success expanding beyond traditional financial indicators to encompass the creation of enduring value for both shareholders and society. He concluded that boards can position themselves as truly sustainable boards by embracing diversity, fostering innovation, and aligning strategy with societal expectations.

The session concluded successfully with an engaging Q&A segment that reflected participants’ keen interest in sustainable governance. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI, delivered the closing remarks and extended a formal vote of thanks to the speaker, participants, and organizers for their valuable contributions.



42nd Webinar

Earthy weddings : Embracing circular Economy

October 10, 2025 from 4 to 5:15 p.m.



CMA (Dr.) Aditi Dasgupta



Ms. Pragya Negi



Ms. S.C. Sharada

The Sustainability Standards Board (SSB) of the Institute of Cost Accountants of India (ICMAI) successfully organized the 42nd webinar of the *Vasudhaiva Kutumbakam* series on the theme “Earthy Weddings: Embracing the Circular Economy” on October 10th, 2025. The session was conducted by Ms. M.C. Sharada, and the speaker was introduced by CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI.

The session highlighted the urgent need to shift from India’s extravagant and environmentally taxing wedding practices—10 million weddings annually, each producing around 800–1500 kg of waste and approximately 250 tons of CO₂e—towards a sustainable, circular framework.

Ms. Sharada showcased how eco-friendly choices can transform weddings into meaningful, low-impact celebrations. She promoted minimalist, largely digital invitations, discouraging plastic-wrapped gifts and encouraging digital payments to foster conscious consumption. The event featured green décor using biodegradable materials and locally sourced flowers, with sustainable catering that eliminated single-use plastics, used banana leaves for meals, and glass or steel tumblers for beverages. Partnering with the NGO Plate Bank, reusable steel cutlery was provided through a refundable deposit system to ensure zero waste. Sustainability also extended to gifting, where fabric grow bags, vegetable seeds, and handloom bags replaced plastic-based favors, supporting artisans and home gardening. Comprehensive waste management included scientific segregation, with wet waste converted into biogas and compost, and dry waste recycled, creating both environmental and economic benefits, particularly for women workers in waste processing.

Through these initiatives, the webinar exemplified how weddings can embody the Circular Economy principles of eliminating waste and pollution, circulating materials, and regenerating natural systems. Ms. Sharada concluded by emphasizing that sustainability in celebrations is not merely an environmental commitment but also a means of fostering social inclusion, cultural preservation, and community empowerment, thereby setting a new benchmark for responsible and meaningful celebrations.

The session concluded with a beautiful and impactful message:

“Two souls take a vow to lead a life of love, care, and compassion.

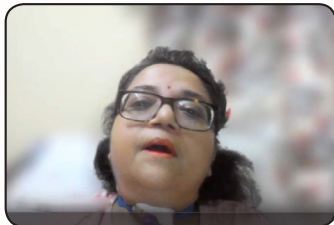
Mother Earth — doesn’t she need some too? Can we all take a similar vow for her?”

The webinar ended with a thought-provoking Q&A session, reflecting the active engagement and keen interest of participants. CMA Pragya Negi, Officer at ICMAI, delivered a formal vote of thanks, expressing gratitude to the speaker, participants, and organizers for their valuable contributions to the session.

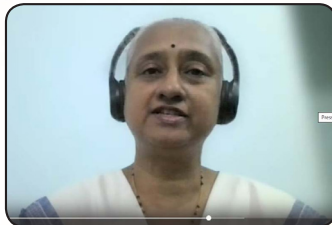


43rd Webinar Embedding ESG in Professional and Personal Decision Making

October 24, 2025 from 4 to 5:15 p.m.



CMA (Dr.) Aditi Dasgupta



CMA Anuradha Dhavalikar



CMA Dibbendu Roy

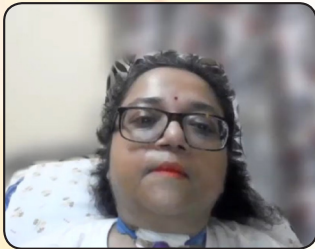
The Sustainability Standards Board (SSB) of the Institute of Cost Accountants of India (ICMAI) successfully organized the 43rd webinar of the *Vasudhaiva Kutumbakam* series on the theme “Embedding ESG in Professional and Personal Decision Making” on October 24th, 2025. The session was conducted by CMA Anuradha Dhavalikar, Practising Cost Accountant, and the speaker was introduced by CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI.

The session gracefully unfolded around the central theme of harmonizing stakeholder expectations, weaving together the diverse perspectives and aspirations of all involved. The distinguished speaker eloquently articulated the profound necessity of embracing varied viewpoints as the cornerstone of sound and enlightened decision-making. She illuminated the essence of cultivating an organizational mind-set that not only acknowledges but also celebrates the multiplicity of stakeholder interests, striving toward common goals without diminishing the vibrancy of differing opinions and requirements. She passionately emphasized the imperative of timely conflict resolution among stakeholders, advocating for the mitigation of resistance to change and the elimination of bias in decision-making processes. The art of effective resource management, she observed, stands as the keystone in bridging gaps and nurturing coherence, ensuring that communication remains lucid and the collective vision is steadfastly pursued for the greater good. Delving deeper, she expounded that the integration of Environmental, Social, and Governance (ESG) principles is no longer a choice but an indispensable mandate for organizations aspiring toward holistic excellence. Through the prism of ethical communication and transparent governance, every stakeholder must embody the spirit of lawful, responsible, and principled practice. In a compelling narrative, she cited thought-provoking case studies such as Volkswagen, which serve as illuminating examples of decision-making intertwined with the true embodiment of ESG values in action.

She poignantly remarked that governance forms the moral compass of any institution, guiding it toward decisions that are socially responsible and legally sound. The philosophy of mindful living, she observed, serves as a gentle reminder that conscious choices and prudent resource utilization pave the way for reducing wasteful expenditure. Concluding her inspiring discourse, she lauded the commendable initiatives of the Sustainability Standards Board (SSB) of the Institute, whose pioneering standards and frameworks illuminate the path toward ethical excellence and sustainable progress for the entire fraternity.

The webinar ended with a thought-provoking Q&A session, reflecting the active engagement and keen interest of participants. CMA Dibbendu Roy, Additional Director and Secretary, SSB, ICMAI, delivered a formal vote of thanks, expressing gratitude to the speaker, participants, and organizers for their valuable contributions to the session.

Global Sustainability Opportunities – South East Asia Series 1- Indonesia & Malaysia



CMA (Dr.) Aditi Dasgupta



Dr. Ranjith Krishnan



CMA A. Sekar



Ms. Pragya Negi

The Sustainability Standards Board (SSB), in collaboration with the International Affairs Committee of the Institute of Cost Accountants of India (ICMAI), initiated the webinar series titled “*Parinayati*” to orient members and professionals toward exploring global opportunities in ESG and Sustainability.

After the successful Africa Series–I in September 2025, covering Kenya and Tanzania, the South East Asia Series–I was conducted in October 2025, focusing on Indonesia and Malaysia. The third webinar of the series was held on October 8 and 9, 2025, on the theme “Global Sustainability Opportunities – South East Asia Series I.” The resource persons were CMA A. Sekar, Practising Company Secretary, and Dr. Ranjith Krishnan, Sustainability Consultant.

On Day 1 (October 8, 2025), sessions focused on the economic landscape, SDG performance, and ESG reporting frameworks of Indonesia and Malaysia. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI, delivered the opening remarks, highlighting the alignment of both countries’ sustainability policies with the UN SDGs and their balanced approach to economic growth and sustainability.

Subsequently, Dr. Ranjith Krishnan presented key statistics, noting Malaysia’s higher per capita GDP and Indonesia’s stronger overall SDG performance, ranking 4th compared to Malaysia’s 5th among South Asian economies. He emphasized that both nations are progressing well in areas such as poverty reduction, health, education, and clean water.

Following this, CMA A. Sekar delivered an in-depth analysis of sustainability opportunities in both countries, outlining their SDG achievements and challenges, and explaining leading global reporting frameworks including GRI, IFRS S1 and S2 (ISSB), and ICMAI’s ISS 1 and ISS 2.

On Day 2 (October 9, 2025), discussions centered on sustainable finance, regulatory frameworks, and professional opportunities. Dr. Aditi Dasgupta began the session by emphasizing that finance is the backbone of the economy and that directing capital toward sustainable projects strengthens systemic resilience.

Subsequently, CMA A. Sekar presented a comparative overview of India’s BRSR framework, Malaysia’s regulatory environment, and Indonesia’s sustainability governance. He explained that Malaysia’s framework, overseen by Bank Negara Malaysia (BNM) and the Securities Commission, is comprehensive but complex, while Indonesia’s Financial Services Authority (OJK) has implemented Regulation No. 51/POJK.03/2017, mandating Sustainable Finance Action Plans and Sustainability Reports for financial institutions and listed companies, demonstrating a strong institutional commitment to sustainability.

All the three resource persons made the sessions highly interactive and insightful, sharing practical examples and addressing participants’ queries effectively.

Stay tuned for further updates on the *Parinayati* webinar series.

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(Under the jurisdiction of Ministry of Corporate Affairs)

44th
Vasudhava Kutumbakam
VK Webinar Series of the Sustainability Standards Board

Symbiotic Existence

Friday | November 14, 2025 | 4 pm to 5:15 pm

Organised by: Sustainability Standards Board (SSB)





CMA TCA Srinivasa Prasad
President, ICMAI

CMA Neeraj D. Joshi
Vice President, ICMAI

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

Resource Person



CMA (Dr.) Subrahmaniya Sivam R
Strategic Consultant

CPE Credit 1 Hour

For queries, email to ssb@icmai.in

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Behind every successful business decision, there is always a CMA

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45th
Vasudhava Kutumbakam
VK Webinar Series of the Sustainability Standards Board

Solar Energy as the Cornerstone of a Sustainable Future

Friday | November 28, 2025 | 4 pm to 5:15 pm

Organised by:
Sustainability Standards Board (SSB)





CMA TCA Srinivasa Prasad
President, ICMAI

CMA Neeraj D. Joshi
Vice President, ICMAI

Resource Person
Dr. Parilosh Nandi
President
EnVERT Group



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

CPE Credit 1 Hour

For queries, email to ssb@icmai.in

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46th
Vasudhava Kutumbakam
VK Webinar Series of the Sustainability Standards Board

Purpose of Business, SDGs, NGRBCs, ESG, BRSR Framework and Valuations

Friday | December 12, 2025 | 4 pm to 5:15 pm

Organised by:
Sustainability Standards Board (SSB)





CMA TCA Srinivasa Prasad
President, ICMAI

CMA Neeraj D. Joshi
Vice President, ICMAI

Resource Person
CMA Pramod Jain
ESG Professional



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

CPE Credit 1 Hour

For queries, email to ssb@icmai.in

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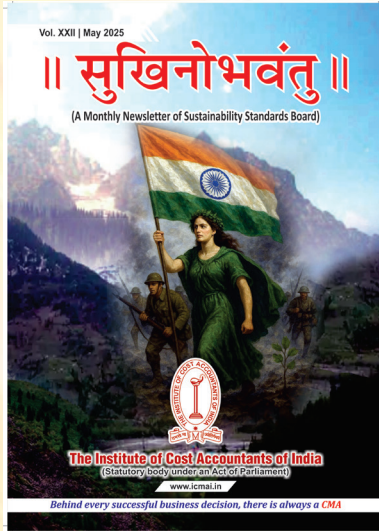
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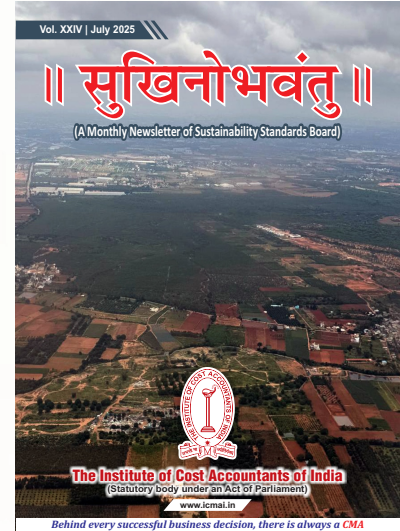
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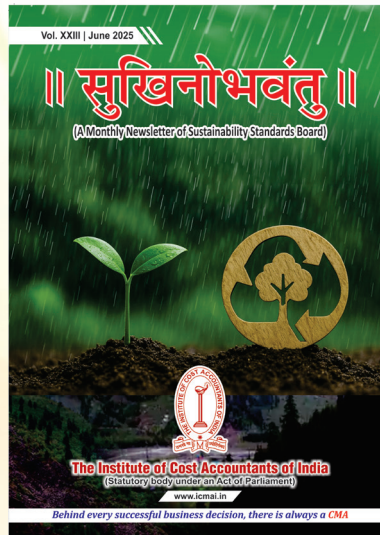
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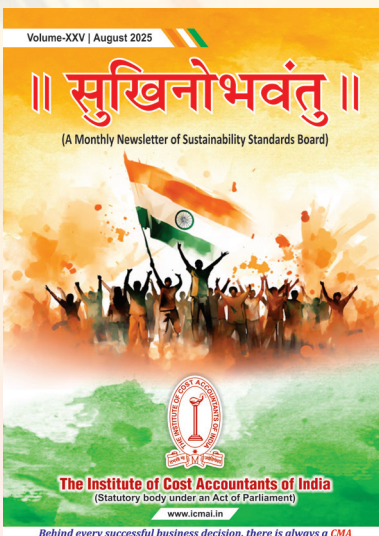
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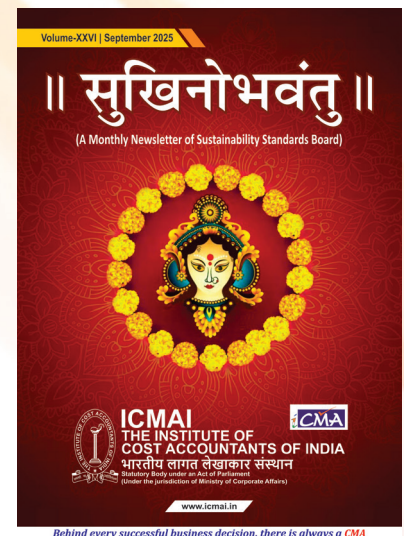
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Part XII – Presentation Etiquette: Going Beyond the Slide Deck

Usha Ganapathy Subramanian
Practicing Company Secretary
Chennai

In the professional world, gone are the days when the Boards and investors took the most important decisions simply by sitting and discussing with zeal and urgency. Perhaps, there were a few papers lying around carrying important figures that would add value to the conversation feverishly prepared by the accounting, costing or the MIS team, with a few final flourishes by the CFO. Much of the discussion revolved around the deeper wisdom of the story behind the numbers, and not the numbers themselves.

Fast forward to the present world, a lot of boardroom discussions, team meetings, conference calls, analyst briefs, and investor pitches, involves a presentation. No, not the kind where one goes extempore and engages the audience in a lively discussion, but a structured journey, usually mandatorily accompanied by a Powerpoint Presentation, which is also fondly called as PPT or by the more jargon-savvy professionals as the deck or a pitch deck depending on the context.

In the professional world, presentations are more than a means to share information. They are an opportunity to influence, connect, persuade, sell, negotiate or create opinions, based on what is one hoping to achieve. Whether one is presenting to clients, management, regulators, or colleagues, how one designs and delivers a presentation reflects the clarity of thought, preparedness, and respect for the audience's time.

This article outlines some pointers that can help professionals make their presentations effective, engaging and more importantly, credible.

1. Understanding the Audience

Before we embark on creating a presentation, we must understand who the presentation

is for, what do they already know, and what do they want to take away. The focus must be on what they want to take away and not just what they don't know. Often times, the presenter may get lost in the details. But clarity on what constitutes the precise intersection between what the audience doesn't know and what they want to know. Tailoring the content, tone, and depth to the audience is the foundation of presentation etiquette. For example, senior leadership may want high-level insights and clear outcomes (*"What's in it for us?"*); technical teams may want detailed walkthroughs (*"How can this be implemented?"*). Regulators or academic panels may expect structured reasoning (*"How does it align with the policy frameworks?"*), while clients may prioritise relevance to their needs (*"How is it going to help us?"*).

We must avoid delving into background information or details that they already know, or the details that they do not really need.

2. Structure with Clarity and Flow

A well-organised presentation has the following aspects:

- A clear beginning, middle, and end
- States the purpose or objective clearly at the beginning
- Flows logically, building on the concepts
- Ends with a summary, recommendations, takeaways, or next steps

It is useful to have section divider slides to clearly demarcate the various sections. There should be smooth transitions between

the various content discussed – not in terms of the transition effect in PPT, but in terms of the flow of the discussion. Giving a simple roadmap of the presentation could go a long way in easing the audience into the presentation. For example: *“We will begin with a quick overview, then discuss at our key findings, then analyse the causes, end with recommendations.”*

3. Slide Design: Less is More

When it comes to slide design, today’s online tools offer a wide variety of eye-catching and engaging designs. But one must be careful to discern that what looks catchy in terms of colours and design, may end up stealing the thunder of the content. So aiming for a simplistic and clean layout is better. It need not be bland, but just simple enough not to distract, and interesting enough to keep the audience engaged. The following aspects must also be taken into account:

- Text information must ideally be presented with clear headings and bullet points, not in paragraphs
- Visuals are a good way of capturing the imagination of the audience. Wherever, appropriate pictures, icons may be used.
- When data is presented, here too visuals speak volumes – charts, tables, graphs or even infographics could be used wherever appropriate.
- Maintaining consistent fonts, colour theme, and spacing to avoid jarring the audience
- It is better to avoid whimsical images, animations, or overcrowded backgrounds

A clean slide deck with about 6–8 slides that are easy to read is more effective than a 40-slide content, which could be interpreted as a mere data dump.

4. Delivering with Purpose

At the end of the day, it is not the PPT that is going to sell ideas or convince the

Board about a project. It is the person who presents that is going to do that job. So, how we speak matters as much as what we show on the PPT. A few pointers to remember:

- Beginning with a warm greeting and a smile is always appreciated.
- Maintaining eye contact projects both confidence and credibility.
- It is necessary that one neither rushes nor drags on. The ability to speak clearly and at a measured pace is of utmost importance.
- The common mistake when it comes to ineffective presentations is that the presenter merely reads from the slides verbatim. This is surely to be avoided.
- Notes can be glanced at but only occasionally. It is necessary to directly with the audience.
- It is also necessary to use pauses strategically, especially to allow key points to sink in.
- When anxiety hits, the presenter may have some prepared questions to ask the audience, and use the few seconds to take a few deep breaths, and resume the presentation.

5. Respect Time and Attention

Respecting the audience’s time is of utmost importance. One must stick to the allotted time limit, and must prioritise what really matters to the audience, instead of focusing on cramming in everything that the presenter knows. If there’s time for a Q&A, ensure to leave time for it. If that is not the convention, a generic invitation to follow-up questions may be given: something like “I will be happy to share further details offline or via email.”

6. Virtual Presentation Etiquette

In hybrid or remote work settings and in webinars, virtual presentations have become the norm. A few aspects to keep in mind here are:



- Here it is necessary to ensure that the tech setup is all good before the presentation. The organisers can usually help with this.
- The presenter may look into the camera, not just at the screen for more impact.
- The background should be uncluttered and the lighting must be even. Virtual backgrounds are accepted in most settings. In case the actual background is cluttered or when one does not feel comfortable sharing the background with the audience, virtual backgrounds can be helpful.
- Online sessions are more difficult to sit through than offline ones. Hence, it becomes necessary to offer breaks if the session is going to be more than an hour long.
- When one is sharing the screen, it is necessary to mute desktop notifications, and close the irrelevant tabs, folders and files.

7. Feedback and Follow-up

It is always good to end the presentation on a positive note or a quote. After the end of the presentation, it is polite to invite feedback, and thank the organisers and participants for their time. Acknowledging the audience's thoughtful engagement leaves a positive impression. If there are action points or recommendations, a short mail with the points can be sent as a follow up. The PDF version of the presentation may be shared with the audience, wherever appropriate.

Conclusion

The crux of a good presentation is that the audience is not only looking at the slides but listening intently to the presenter. Nothing beats dedicated practice and preparation. Being prepared also demonstrates respect for the audience. By being attuned to the needs of the audience, one can transform a presentation from being just another deck to a meaningful conversation. 

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

Kerala Becomes India's First State with a Comprehensive ESG Policy

CMA (Dr.) Aditi Dasgupta

Joint Director

The Institute of Cost Accountants of India
Kolkata

Kerala has officially become the first Indian state to implement a comprehensive Environmental, Social, and Governance (ESG) Policy, marking a transformative milestone in sustainable industrial development and responsible investment governance. This initiative positions Kerala as a pioneer in integrating environmental responsibility, social inclusivity, and ethical governance within its industrial and investment framework.

Overview of the Policy

The Kerala ESG Policy represents a major step toward aligning industrial growth with sustainability goals. It focuses on developing a low-polluting, environmentally friendly industrial ecosystem, where all new projects and infrastructure proposals are assessed through an ESG lens. The policy restricts the entry of highly polluting sectors, promotes resource efficiency, and encourages circular economy practices to ensure that industrial growth remains both responsible and resilient.

To attract responsible investments, Kerala has introduced a structured incentive framework. ESG-compliant enterprises are eligible for a 100% reimbursement of capital investment for a period of five years and a 10% subsidy on fixed capital investment up to ₹50 lakh. In addition, low-cost loans for machinery and technology upgrades will be provided through the Kerala State Industrial Development Corporation (KSIDC). Local enterprises certified for ESG compliance will enjoy a 20% margin preference in government procurement. The policy also extends special incentives to MSMEs adopting

green manufacturing and the Zero Defect, Zero Effect (ZED) model.

Governance and Implementation Framework

The governance of the policy rests with KSIDC, which has been designated as the nodal agency for implementation and monitoring. KSIDC will oversee the transition of industries toward ESG standards, facilitate the disbursement of incentives, and maintain a digital ESG portal for transparency and reporting. Annual progress reports will be published to track outcomes and ensure accountability. The implementation will involve close coordination among the Departments of Industries, Environment, Finance, and Social Justice, thereby institutionalizing ESG principles across multiple policy domains. The policy is designed to remain adaptive, with periodic reviews planned through 2030.

The ESG reporting system is aligned with leading international standards such as BRSR, GRI, SASB, TCFD, and ISSB, ensuring compatibility with both national and global benchmarks. Mandatory disclosures are expected from participating industries, reinforcing Kerala's commitment to transparent and credible governance.

Sustainability and Social Inclusion Goals

Kerala's policy sets ambitious sustainability targets: achieving 100% renewable energy by 2040 and attaining net carbon neutrality by 2050. To reach these goals, the state plans to promote investments in solar parks, floating solar projects, wind farms, hydroelectric stations, and biomass



initiatives. The policy also underlines social inclusion, emphasizing greater participation of women in the workforce, diversity in employment, adherence to labour rights, and strong anti-corruption standards.

Recognizing that awareness is crucial for cultural change, the government intends to embed ESG values into educational curricula at schools and universities. Workshops, seminars, and public campaigns will be organized to promote understanding and adoption of ESG principles among businesses and citizens alike.

Significance and Impact

Kerala's initiative signifies the emergence of subnational leadership in ESG governance within India. While national-level guidelines such as SEBI's BRSR framework exist, Kerala's state-level approach is unique in directly influencing investment and industrial policies. The move is expected to attract global capital seeking responsible investment destinations and to enhance the state's reputation as a sustainable economic hub.

For a state with high population density and ecological sensitivity, this policy offers a pathway to balance growth with environmental protection. By embedding sustainability and ethics into the very design of industrial development, Kerala

aims to achieve inclusive prosperity while minimizing ecological impact.

Challenges Ahead

The success of this policy will depend largely on its enforcement. Ensuring compliance across industries, conducting credible ESG audits, and preventing superficial "greenwashing" are key challenges. Fiscal pressures related to incentive payments also require careful management, particularly given the state's existing financial constraints. Moreover, coordination with national frameworks and regulatory agencies will be necessary to maintain consistency and avoid policy overlap. Traditional sectors may need transitional support to gradually adapt to new ESG requirements.

Conclusion

Kerala's ESG Policy is a pioneering attempt to integrate sustainability, social responsibility, and ethical governance into state-led industrial planning. If effectively implemented, it could become a benchmark for other Indian states seeking to align economic growth with environmental and social well-being. By demonstrating that prosperity and sustainability can coexist, Kerala has positioned itself as a model for the next generation of development governance in India.

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Part XVIII – Converging Modern Sustainability Frameworks with Ancient Vedic Sustainability

Usha Ganapathy Subramanian
Practicing Company Secretary
Chennai

Introduction

As the world struggles to make sense of the widespread environmental degradation and the widening economic disparities, “sustainability” has become a word we hear everywhere right from government reports, boardrooms, classrooms, and policy papers. Yet, beyond the metrics and frameworks like the SDGs, ESG reporting, or the circular economy, one must realise that sustainability was never meant to be a checklist. It was always meant to be a way of living, which is something that India has known and practised for centuries.

Our Vedic thought has long spoken of the same principles the modern world is now rediscovering. These are not to be mistaken as abstract spiritual ideals. They indeed are profoundly practical directions for how to live, govern, and manage resources responsibly. Today’s policymakers would do well to take lessons from the Vedic worldview and supplement it with the modern sustainability frameworks in their policy frameworks.

In this brief article, let us explore how these ancient Indian principles can help us reimagine sustainability as something that goes beyond compliance, reporting or even looking good to their stakeholders, to an actual way of living.

The Pancha Bhuthas: The Five Elements and the Principle of Ecological Balance

In the Vedic way of looking at the world, everything that exists is formed out of five elements: Earth, Water, Fire, Air and Space. They

are not things that we can own or measure, but living parts of a whole that keep each other alive. In the Vedic view, we too are made of the same elements, so what happens to them happens to us. Nature was never seen as separate from the divine. Every river, tree, mountain, and living being was treated as sacred. This reverence was not about ritual alone. It was a way of remembering that all life shares the same breath. When we forget that, we begin to see the world as something to use, not something to care for.

Modern life often moves in the opposite direction. We have learnt to value efficiency over empathy. The forests become furniture, the rivers become resources, and we begin to measure worth by what can be priced. When one element is taken beyond its limit, the others begin to strain. When the soil loses its richness, water and air lose their strength too. When we pollute rivers, the air and earth bear the brunt too. As a result of all these, our health suffers too. The Vedas speak of balance not as an idea but as a law of living. We take, we pause, we give back, we begin again.

Modern sustainability uses terms like conservation or circular economy, but the thought is much older. It was always about knowing when “enough is enough.” Businesses often flinch when new requirements under environmental or labour laws come up. When industries are required to design processes that restore what they use, or when policies keep the weakest in mind, they are not requiring businesses to do something beyond reason. They are simply

asking businesses to return to something that is normal, balanced and sustainable.

The five elements remind us that nature does not need management as much as it needs understanding. If our reports and metrics can carry even a trace of that awareness, we will have honoured the oldest covenant humanity ever made with the earth.

Ahimsa, Aparigraha and Satvik Living: Non-Violence, Ethical and Low-Impact Consumption

The Vedas often speak of restraint, and they do so with kindness. It is not a command to give up everything. It is just a reminder to stay awake to what we really need. For example, both health sciences and ethical consumption, merely require that one stays aware of the body's signal for being full while eating. This ensures not only that resources are not wasted, but also ensures good health. Sometimes excess consumption becomes a habit, which leads to bigger problems of addiction. So, when one abides by *Aparigraha*, one also stops the spiralling consequences. It is also about sharing what we have so that the circle stays unbroken. The Vedic concept of *Satvik* living emphasizes purity, simplicity, and harmony with nature.

However, over time, we have learnt to see growth as the singular definition of success. Bigger numbers, larger spaces, faster returns. But growth for growth's sake soon forgets its roots. The same earth that gives also tires. The Vedic idea was simple: take what is needed, leave what can grow again.

In our work too, this thought matters. Policies, budgets, or production plans, all of them carry a chance to choose balance over speed. When a company decides to waste less or to repair instead of replace, it is not resisting change. It is remembering an older wisdom that once came naturally to us.

Restraint, in that sense, is steady power. Perhaps that is what the world needs now; a recalibration of sorts of endless ambition, and infusing the grace to stop at enough.



Karma Yoga and Stewardship Accountability

The Bhagavad Gita emphasises the concept of *Karma Yoga*, performing one's duty selflessly without attachment to results. Translated into the sustainability context, the man is only a steward for the environment. He has a duty towards its conservation and is required to take responsible action today for the well-being of future generations. This concept aligns with today's frameworks of Extended Producer Responsibility, Corporate Social Responsibility, and Environmental Liability Accounting. Ethical action, in that sense, is not only about compliance or law. It is about conscientiousness and an act of accountability.

For professionals and leaders, this is both a responsibility and an opportunity. To make choices that do good without waiting for regulations to demand it. To see every policy or product as part of a larger cycle of giving and taking. Nature, after all, responds not to what we promise, but to what we practise.

Conclusion

We cannot go back in time. But we can carry forward what our ancestors tried to teach; that progress is empty without harmony, and knowledge is incomplete without humility. The Vedic view reminds us that sustainability is not a department or a report. It is the thread that runs through how we earn, build, work, and live.

If we can hold that thought, even lightly, then sustainability will cease to be a goal on paper. It will return to what it once was: a way of living.

SB

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

Environmental Consciousness and Sustainability in Ancient Mesopotamia

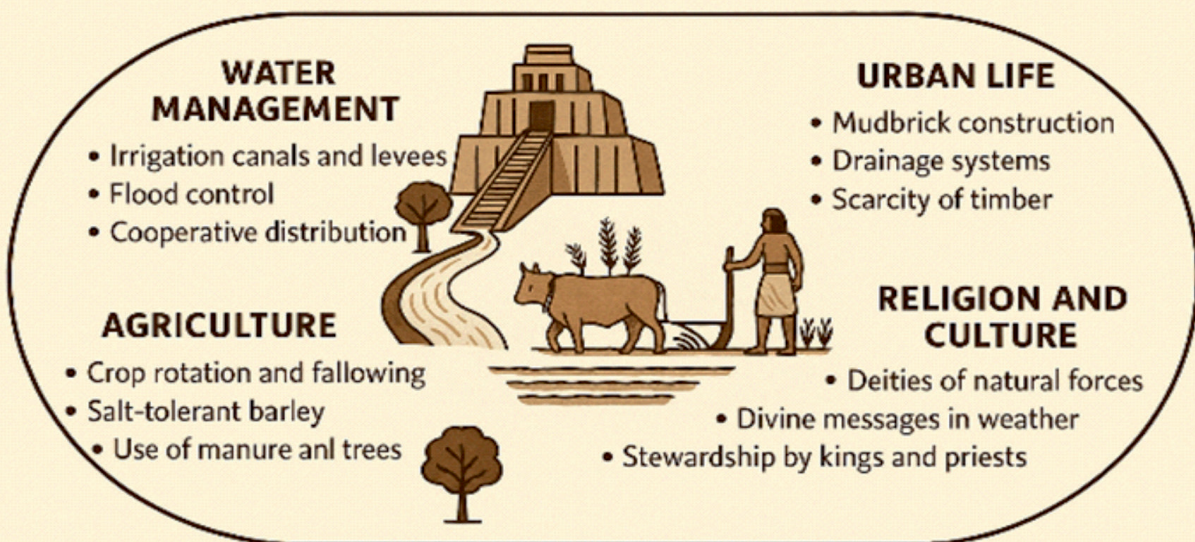
CMA (Dr.) Aditi Dasgupta

Joint Director

Institute of Cost Accountants of India
Kolkata

ENVIRONMENTAL CONSCIOUSNESS AND SUSTAINABILITY IN ANCIENT MESOPOTAMIA

3500-539 BCE



Ancient Mesopotamia, flourishing between 3500 and 539 BCE, is often described as the “cradle of civilization.” Situated between the Tigris and Euphrates rivers, its fertile plains provided the foundation for some of the earliest urban societies. While the modern concept of “environmental consciousness” did not exist, the Mesopotamians showed a clear awareness of their dependence on natural resources and developed practices of environmental management that reveal both remarkable ingenuity and enduring ecological challenges.

The geography of Mesopotamia shaped its environmental strategies. The rivers brought life-giving water but also carried the constant risk of floods and droughts. To overcome this

unpredictability, Mesopotamians engineered extensive irrigation canals, levees, and reservoirs that transformed semi-arid land into productive farmland. Their ability to control and distribute water collectively suggests an early recognition that sustainable use of natural resources required organization and cooperation. At the same time, flood control systems highlight their efforts to balance the blessings and dangers of riverine life.

Agriculture was at the heart of Mesopotamian sustainability. Farmers experimented with crop rotation, fallowing, and the careful selection of grains suited to their soil. Over time, they shifted from wheat to barley, a more salt-tolerant crop, in response to the growing problem of soil salinization caused by irrigation. Palm orchards,



gardens, and sheltering trees were integrated into farmlands to create microclimates and conserve soil, while domesticated animals such as sheep, goats, and cattle provided manure for fertilization, closing loops in resource use. Record-keeping on cuneiform tablets reveals a sophisticated system of governance that tracked planting schedules, yields, and water allocation, showing that administrators consciously managed agricultural sustainability.

Urban life also reflected an environmentally conscious approach. Cities such as Ur and Babylon were constructed primarily with mudbrick, reeds, and clay, materials that were abundant, locally available, and biodegradable. Drainage systems within these urban centers reveal concern for sanitation and water management, while monumental architecture such as ziggurats symbolized humanity's connection to the natural and divine order. Scarcity of timber forced the Mesopotamians to use wood sparingly and to import cedar and other valuable timber from distant lands, demonstrating both an awareness of local resource limits and the beginnings of ecological dependency on external environments.

Religion and culture reinforced this relationship with nature. Natural forces were personified in deities such as Enki, the god of water, Adad, the storm god, and Shamash, the sun god. Deviations in weather, from floods to locust swarms, were interpreted as divine messages, reminding society of the fragility of human survival in the face of environmental change. Kings and priests were viewed as custodians of the land, responsible for maintaining harmony between people and the natural world. The Code of Hammurabi,

written around 1750 BCE, even included rules on irrigation and land use, offering one of the earliest legal frameworks for resource management.

Yet despite their ingenuity, the Mesopotamians also faced significant ecological challenges. Over-irrigation without adequate drainage led to widespread salinization, reducing crop yields and forcing changes in agricultural practices. Expanding agriculture and urban centers contributed to deforestation, which in turn worsened flooding and reduced biodiversity. Overgrazing by sheep and goats further degraded soil and accelerated desertification. These cumulative pressures played a role in the decline of several Mesopotamian cities, demonstrating the consequences of exceeding environmental limits.

The legacy of Mesopotamian environmental management is therefore twofold. On the one hand, their irrigation systems, agricultural adaptations, and legal codes show an early form of environmental responsibility that resonates with modern sustainability principles. On the other hand, the decline caused by salinization, deforestation, and overuse of land underscores the dangers of unsustainable practices.

Ancient Mesopotamia offers both inspiration and caution. It stands as one of the earliest examples of a society that sought to adapt intelligently to its environment, but it also reminds us that civilizations can falter when natural resources are exploited beyond their capacity. Their story continues to be relevant today, as modern societies confront similar challenges of balancing growth with ecological stewardship.

SB

Insight Series: - V

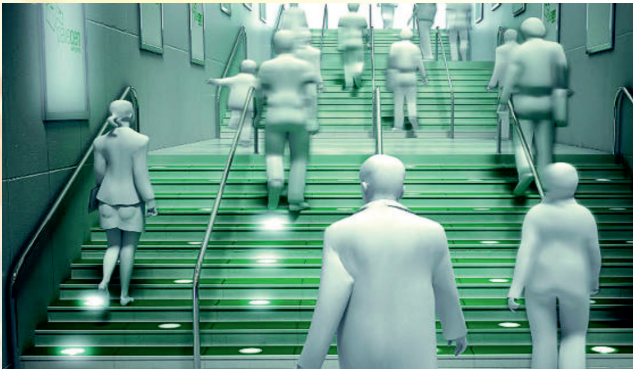
CMA Arunabha Saha

Practicing Cost Accountant
Thane

In a world racing to find clean, renewable energy solutions, Japanese engineers have introduced an ingenious way to turn human footsteps into electricity. Using piezoelectric flooring, this innovation harvests energy from walking, converting it into usable power for urban infrastructure. Installed in high-traffic areas like railway train stations and shopping centres, it transforms the everyday act of walking into a collective energy source.

This idea, much like the universally adopted Tenji blocks for accessibility, reflects Japan's genius for combining technology with human-centered design. This article explains how piezoelectric flooring works and its role in building sustainable cities, and how Cost & Management Accountants (CMAs) can help make such innovations affordable and scalable.

Power Beneath Our Feet: How Piezoelectric Floors and Tenji Blocks are Shaping Sustainable Inclusive Cities.



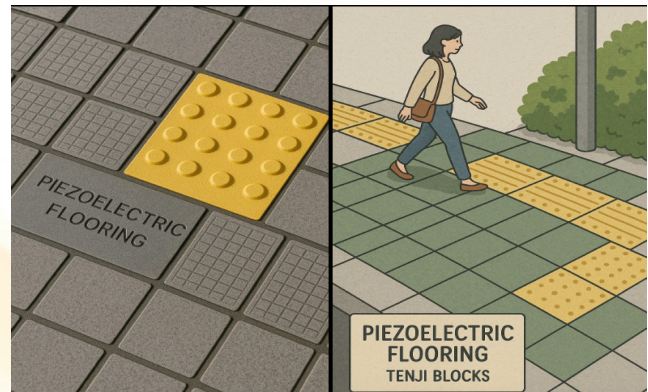
Introduction

Japan has long been a pioneer in blending technology with daily life. From robotics to high-speed railways, its urban design reflects an emphasis on sustainability, accessibility, and innovation.

When walking through Tokyo, you will notice two fascinating things beneath your feet:

1. Tenji blocks – the yellow tactile tiles on sidewalks and platforms, invented in 1965 by Seiichi Miyake to help the visually impaired navigate safely. What started as a small invention in Okayama now guides millions of people across more than 150 countries.
2. Piezoelectric flooring – a modern system that captures the energy of footsteps and transforms it into electricity.

Together, these innovations highlight how something as ordinary as the ground beneath us can reshape cities — making them smarter, greener, and more inclusive.



The Science Beneath the Step: How Piezoelectric Flooring Works

At first glance, piezoelectric floors look like regular tiles. Inside, however, they contain crystals and ceramics that release electricity when compressed.

Think of it this way:

- When you squeeze a lemon, juice comes out.
- When you squeeze a piezoelectric material, electricity comes out.

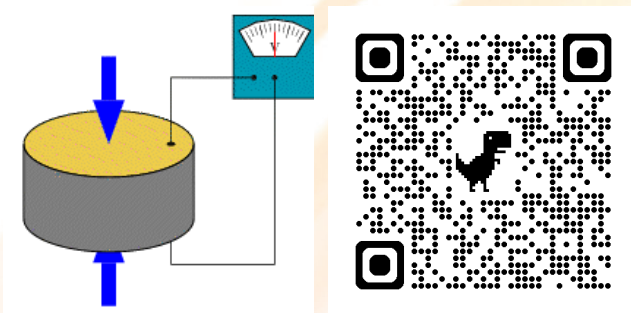
This effect, known as the piezoelectric effect, was discovered in the 19th century and has long been used in lighters and sensors. Japanese engineers saw an opportunity: *Why not scale it up to the very floors people walk on daily?*



Courtesy: <https://timesofindia.indiatimes.com>

Step-by-Step Process

1. **Pressure Application** – A footstep applies force to the tile.
2. **Material Deformation** – Embedded piezoelectric crystals deform under pressure, creating charge separation.
3. **Electricity Generation** – Each step generates a small alternating current (AC).
4. **Signal Conversion** – A rectifier converts AC to direct current (DC).
5. **Energy Storage** – Batteries or supercapacitors store this energy for later use.



Courtesy: <https://en.wikipedia.org>

Core Components

- **Piezoelectric Material** (Lead Zirconate Titanate (PZT), Quartz crystals): converts stress into electricity.
- **Mechanical Actuator**: amplifies the pressure from each step.
- **Rectifier Circuit**: converts AC to stable DC.

- **Storage Devices**: hold energy for powering lights, sensors, or displays.

In places like railway station, thousands of footsteps every minute accumulate into a meaningful source of renewable energy.

Why Piezoelectric Floors Matter

1. **Sustainability** – Harvests clean energy without emissions.
2. **Urban Integration** – Ideal for stations, malls, airports, or stadiums.
3. **Scalability** – Complements solar, wind, and other renewables.
4. **Symbolism** – Like Tenji blocks, they demonstrate how small design choices can impact millions.

Practical Applications

- **Transport hubs**: Powering lights or ticket gates.
- **Airports & malls**: Generating energy for Wi-Fi routers and signage.
- **Sports arenas**: Fans' movement helps light parts of the stadium.
- **Smart cities**: Integration with IoT for energy grids and data tracking.

As Vincent van Gogh said: *"Great things are done by a series of small things brought together."* Each step may seem tiny, but millions of steps together can illuminate cities.

Everyday Energy and the Bigger Picture

Piezoelectric flooring offers one more solution to diversify energy supply.

Just as:

- Solar panels capture sunlight,
- Wind turbines capture moving air,
- Piezoelectric floors capture human movement.

Or in simple words:

"Every step you take can be a step towards a greener planet."

The Other Side of the Sidewalk: Tenji Blocks and Inclusivity

While piezoelectric floors focus on sustainability, Tenji blocks emphasize accessibility.

Invented by Seiichi Miyake in 1965 for his blind friend, these tactile tiles now form a universal language:

- Bumps: Stop/danger ahead.
- Lines: Safe path forward.

Global adoption has been remarkable:

- The U.S. mandated them in train stations under the Americans with Disabilities Act (1990).
- Dubai introduced stylish metallic versions in malls.
- Tokyo has even integrated QR codes in blocks, providing voice navigation via apps.

Countries exploring to use Piezoelectric Floors other than Japan:

Netherlands: Has experimented with piezoelectric technology, notably in dance floors in Rotterdam where dancing generates energy for the floor's lighting systems.

United Kingdom: Has tested piezoelectric tiles in locations like Heathrow Airport to power lighting and displays.

Other Countries: The United States, and China are also exploring piezoelectric systems in roads, sidewalks, and urban centres as part of smart city initiatives.

Relevance to India

- a. Massive Foot Traffic – India's railway stations, metro systems, and bus terminals handle millions of commuters daily, providing ideal conditions for energy harvesting.
- b. Smart Cities Mission – The government is actively investing in urban infrastructure upgrades, offering a ready platform for integrating such innovations.
- c. Energy Demand-Supply Gap – With rising electricity demand and pressure on fossil fuels, supplemental renewable sources like footstep energy can ease the grid.
- d. Cost Reduction Potential – As with solar panels, large-scale adoption and local manufacturing in India can significantly reduce installation costs.
- e. Inclusivity and Accessibility – Inspired by Tenji blocks, India can combine sustainability with accessibility, aligning with the Accessible India Campaign.
- f. Public-Private Partnerships (PPP) – Strong PPP models in infrastructure development make scaling of such projects financially feasible.
- g. Youth and Awareness Factor – India's young population is more receptive to green technologies, boosting public acceptance and long-term adoption.
- h. ESG and Net-Zero Goals – Corporates and cities can include such projects in sustainability reports, strengthening India's path toward net-zero by 2070.

Piezoelectric floors & Tenji blocks remind us of that small innovations beneath our feet can make cities not only smarter but also more humane.

Challenges and Realities

Like all technologies, piezoelectric floors face hurdles:

- High costs compared to ordinary flooring.
- Energy scale: produces supplemental, not primary, power.
- Durability: floors must withstand constant wear and tear.

Yet history suggests optimism. Solar panels in the 1990s were costly and inefficient; today they are mainstream. As adoption increases, piezoelectric floors too will become cheaper and stronger.

Future Possibilities

Imagine the potential:

- Airports where rolling suitcases generate power.
- Schools where children's play lights the classrooms.
- Shopping malls where crowds themselves power digital displays.
- Stadiums where cheering fans literally light up the scoreboard.

As Alan Kay once said: *"The best way to predict the future is to invent it."*

The Role of CMAs in Piezoelectric Innovation

Technology alone is not enough. For widespread adoption, innovations must be financially viable and strategically managed. Here, CMAs play a crucial role.

How CMAs can contribute

1. Cost Analysis & Feasibility – Evaluating if installing piezoelectric flooring in high-footfall areas offsets costs through long-term energy savings.
2. Performance Measurement – Tracking cost per unit of electricity to gauge efficiency.
3. Sustainability Reporting – Quantifying carbon footprint reduction in financial terms for ESG reporting.
4. Policy & Incentives – Advising on subsidies, tax breaks, and green financing models.
5. Life-Cycle Costing – Assessing installation and long-term maintenance costs versus benefits.
6. Smart City Integration – Guiding investment planning for urban energy grids and IoT applications.

In essence, CMAs bridge the gap between engineering vision and economic reality, ensuring such projects are both impactful and sustainable.

Conclusion

Japan's piezoelectric floors and Tenji blocks may seem like minor details beneath our feet, but they carry powerful lessons. One shows how everyday steps can generate clean energy; the other proves that inclusivity can be designed into the very fabric of cities.

Together, they highlight the importance of human-centered innovation — technology that serves both the planet and its people.

As we move toward the future of smart, sustainable cities, success will depend not only on inventors and engineers but also on professionals like CMAs, who ensure these bold ideas remain economically sound, socially inclusive, and environmentally impactful.

Quite literally, the future lies beneath our feet — and every step we take can light the way forward. 

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Root of Stability: The Seven Chakra Mandalas

The Power of the Root (Muladhara) Chakra

Geeta Joshi Brahme

Founder Sun N Soul
Certified Mandala Therapist

In many yoga and Ayurvedic traditions the human subtle body is described as a column of seven main energy centres — the chakras — that run from the base of the spine to the crown of the head. Each chakra is associated with particular physiological regions, emotional qualities, and life functions: survival and grounding at the base (Muladhara), creativity and pleasure in the pelvis (Swadhisthana), personal power at the solar plexus (Manipura), love and connection at the heart (Anahata), communication at the throat (Vishuddhi), intuition at the third eye (Ajna), and spiritual connection at the crown (Sahasrara). While chakras are primarily a map from spiritual and yogic systems, contemporary authors and some researchers have explored correlations between chakras and nervous system anatomy or psychophysiological states.

This series will take you in the world of 7 chakras of our body! We are starting with the Root chakra

What is the Root Chakra (Muladhara)?

The root chakra — Muladhara in Sanskrit — sits at the base of the spine, around the tailbone and pelvic floor. It is considered the foundation of the energetic system: it grounds life force into the body and supports survival instincts, physical stability, basic needs (safety, shelter, food), and a sense of belonging on the planet. In yogic language Muladhara anchors prana (life energy) and supports the upward movement of energy through the rest of the chakra column. Anatomists and some modern commentators have noted possible corporeal correlates — such as nerve

plexuses and pelvic structures — that might be reflected in traditional chakra descriptions.

Functions of the Root Chakra — how it “works”

Practically, Muladhara is linked to:

- Physical stability and posture: sensation of being supported by the body and the earth.
- Safety and survival: instinctive responses, basic drives, and the felt sense of security.
- Grounding and presence: the ability to feel “here” and steady in the present moment.
- Energetic foundation: a steady base that allows higher chakras to function smoothly.

Physiologically, practices aimed at the root—grounding, standing asanas, breathwork and pelvic floor engagement—affect the autonomic nervous system, muscular tone, which helps explain why people report increased steadiness and reduced anxious agitation after grounding practices.

Signs the Root Chakra Is Out of Balance

Chakra systems describe two broad types of imbalances: underactive (blocked/weak) and overactive (excess/rigidity). Signs commonly associated with Muladhara dysregulation include:

Underactive / under-energized root

- Chronic anxiety about basic needs (money, safety).
- Feeling spacey, ungrounded, disconnected from the body.

- Low energy, poor motivation, instability in daily routine.
- Physical: poor posture, pelvic tension or numbness, digestive upsets.

Overactive / hyperactive root

- Excessive clinging to security, rigid control, stubbornness.
- Aggression, fear-driven behaviours, hoarding.
- Physical: hypervigilance, bracing of pelvic or lower-back muscles.

Because these descriptions mix psychological and somatic observations, it's wise to interpret them as prompts for self-inquiry rather than diagnostic labels.

How to Balance the Root Chakra — practical methods

A balanced Muladhara often results from practices that restore body awareness, safety, and contact with the earth. Below are accessible, evidence-aligned approaches you can use in daily life:

1. Grounding / Earthing — walk barefoot on grass/earth or sit with feet touching the ground. Small studies suggest grounding can reduce inflammation, normalize cortisol rhythms and support sleep — all helpful for calming survival-driven stress.
2. Root-centred yoga and movement — standing poses (Tadasana, Mountain), grounding seated poses, and gentle pelvic floor awareness strengthen proprioception and the feeling of being supported. Programs combining chakra-focused yoga and meditation have shown positive effects on physical and psychological markers in preliminary trials.
3. Breath and body practices — slow diaphragmatic breathing, pelvic floor engagement on exhalation, and body-scanning meditations anchor attention in the lower torso.

4. Routines and practical safety — small, consistent daily rituals (sleep schedule, regular meals, budgeting steps) build the real-world sense of safety that supports the root.
5. Nature and sensory anchors — standing trees, heavy blankets, warm baths, or grounding visualisations (imagining roots growing into the earth) help the nervous system down-regulate.
6. Therapies and energy work — many people find complementary therapies (Reiki, pranic healing, biofield work, mandala making) helpful for subjective balance; some clinical studies and meta-analyses report short-term anxiety reduction with such interventions, although mechanisms remain debated and research is preliminary. Use these as supportive, not exclusive, approaches.

Benefits of a Balanced Root Chakra

When Muladhara feels balanced you may notice:

- Improved sense of safety and reduced chronic worry.
- More resilience under stress and steadier emotional reactivity.
- Better posture, grounded presence and physical vitality.
- Enhanced ability to build healthy routines and stable relationships.

These outcomes mirror what scientists see when interventions lower autonomic hyperarousal or improve sleep and circadian regulation — the physiological substrate of feeling “safe” in the body.

Research & Evidence — what the science says

Scientific inquiry into chakras as literal, measurable entities is limited and exploratory. Reviews and comparative studies suggest intriguing correspondences between chakra locations and neuroanatomical features; however, direct



causal claims about chakras are not established. More robust evidence exists for specific practices associated with chakra work: grounding (earthing) has small studies supporting benefits for sleep and inflammation, yoga and breath practices reliably affect autonomic function and mood, and some biofield therapies show short-term anxiety reduction in controlled trials. In short: the practices that are commonly used to “balance the root” overlap with interventions that have measurable psychophysiological benefits, even if the metaphysical framing (chakras as literal energy wheels) remains outside mainstream biomedical proof.

Selected references for further reading

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To conclude: Working with the root chakra is both poetic and practical: you can treat it as a symbolic map for strengthening safety, routines and body-awareness, while also using concrete practices (grounding, yoga, breathwork, sleep and basic self-care) that modern research shows support physiological regulation and emotional resilience.



SMALL RIVER, BIG LESSONS: KUPPAM FLOWS INTO GLOBAL RECOGNITION

A small river from North Kerala has captured global attention for its inspiring journey from degradation to rejuvenation. At the recently held International Conference on Environment at Torino University, Italy, social scientists and environmentalists from across the world were deeply moved by the story of the Kuppam River, presented by Dr. P. P. Balan, former Director of KILA and Senior Consultant to the Ministry of Panchayat Raj, Government of India.

Dr. Balan, the lone participant from India, shared how people's participation and decentralised governance transformed a dying river into a vibrant lifeline. His presentation, titled *"Puzhayozhukan Kanivunaran"* (Kindly Allow the River for Its Smooth Flow), showcased a pioneering initiative undertaken when he served as the President of Chapparappadavu Grama Panchayat.

A River's Revival through People's Power

Back in the mid-1990s, the Kuppam River—which divides Chapparappadavu Panchayat into two—was on the brink of destruction due to pollution, deforestation, and uncontrolled human activity. As part of the People's Campaign for the Ninth Plan (1996), the Panchayat launched a participatory river protection programme under Kerala's decentralisation process.

The Panchayat first prepared a Biodiversity Register, meticulously documenting local flora and fauna with active community involvement—one of the first such registers in India. Ward-level committees were formed to spread awareness, monitor pollution, and take direct action. The initiative gained momentum through Padayatras (awareness marches) that brought together people from all walks of life.

Soon, neighbouring Panchayats and a municipality joined hands, expanding the initiative across the Kuppam River basin. KILA (Kerala Institute of Local Administration) became the nodal agency, coordinating diverse voluntary programmes aimed at ecological restoration and sustainable livelihoods.

From a Polluted Stream to a Prosperous Lifeline

Today, three decades later, the Kuppam River flows clean and serene, surrounded by lush greenery. Waste disposal into the river has stopped, the riverbanks are protected, and the area has become a hub of eco-tourism and local economic development. Self-Help Groups (SHGs) have emerged, creating employment and enhancing community welfare.



What was once a neglected waterway has now become the nerve centre of development—a shining example of how grassroots governance and community participation can bring lasting environmental change.

The Kuppam Model Inspires Italy's River Po

At the Torino Conference, participants were struck by the relevance of the Kuppam model to the challenges faced by the River Po, Italy's longest river (652 km), often referred to as the "Ganges of Italy." Originating in the Alps and flowing into the Adriatic Sea near Venice, the Po faces severe pollution near industrialised Torino. The devastating drought of 2022 made the river so shallow that people could cross it without wetting their feet.

Recognising the urgency, the Municipality of Torino has now decided to adopt key principles from the Kuppam initiative, focusing on:

- Community involvement
- Ward-level action plans
- Localised activities
- Effective monitoring committees
- Sustainable water management
- Tourist orientation and awareness

A Model of Decentralised Governance

The conference participants unanimously commended Kerala's decentralised governance and bottom-up planning approach, which empowers local communities to drive change. The Kuppam story stood out as a living example of how democratic decentralisation can transform not only local ecosystems but also inspire global action.

In acknowledging the success of the Kuppam River rejuvenation, the Torino Conference reaffirmed an enduring truth – "small is indeed beautiful."

The Sustainability Standards Board truly appreciates the untiring efforts of Dr. PP Balan in taking Bharat to greater heights.

SB

Today's topic of discussion - PUSHYA Nakshatra



Lord Rama, Lord Krishna as well Goddess Laxmi as well as Lord Bharat (Rama's Brother) are all born in this nakshatra.

People born under this nakshatra whose lord is Shani Maharaj are extremely disciplined and come with a larger purpose or Life mission to help Humanity.

They can handle big projects on Planet Earth.

Saturn being their Nakshatra lord it is natural for these personalities to be disciplined, just, fair values and working for the welfare of others.

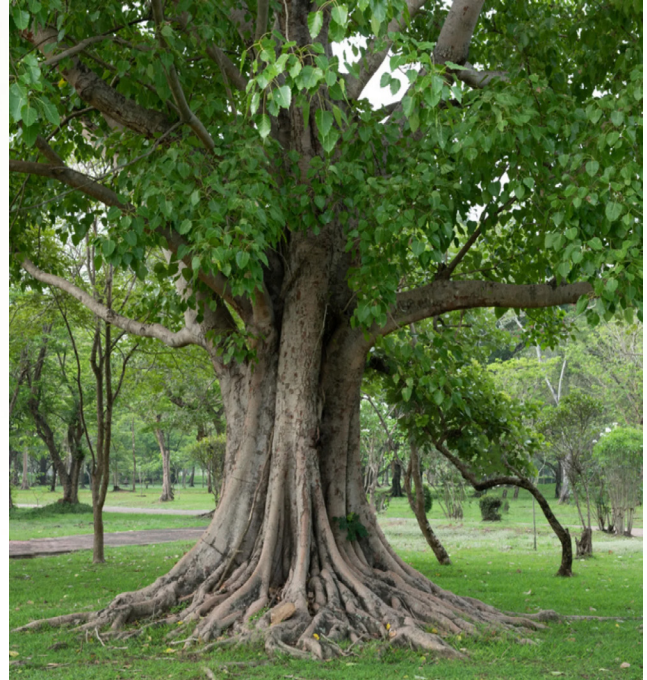
They are also highly spiritual and enlightenment can be a natural outcome of their journey.

Pushya Nakshatra comes every 27 days and many auspicious things can be carried out during this day.

Many families prefer this nakshatra muhurat for Marriages or start new endeavors, it is excellent for earning good profits and even investments can fetch good results.

This can be an excellent time for balancing Vata, Pitta and Kapha in the body. When Jupiter comes in Pushya Nakshatra it is called as the Guru Pushya Yoga and this is when you perform havan or buy gold and you will experience a surge in your prosperity.

Even Children experience amazing health and boost their immunity when they have Suvarna(Gold) Prashan (eat) during this nakshatra every 27 days for a certain period of time in their growings days.



Do so after consulting an ayurvedacharya for the exact timings to boost the health of your children.

This is a very good nakshatra for those on their spiritual path as Sadhana can surely guide them towards Enlightenment.

The tree belonging to Pushya Nakshatra is Peepal or the Sacred Fig. What are the qualities of a Peepal Tree - They are considered very sacred, auspicious, they are considered protective, nourishing and are of great spiritual importance in Sanatan Dharma.

So praying to Peepal tree and also during Pushya Nakshatra can bring you prosperity as well as help in your spiritual sadhana.

People belonging to this nakshatra are generally wise and untill have a backlog of negative karma are bound to move towards their highest potential with ease.

If they are stingy or narrow minded or suffering from jealousy then beware, you need to convert these vices into virtues.



—Purvi Dalal
Industrial Designer



The positive impact on the environment that cactus leather can have, if incorporated into major production lines across industries, is remarkable. Depending on the version used, cactus leather may result in a 32–42 percent reduction in plastic waste and nearly 20 percent savings in water consumption compared to conventional alternatives. In recent years, the global footwear industry has witnessed a growing shift toward sustainable and eco-friendly materials, and one of the most innovative developments in this space is the use of cactus skin as a plant-based leather substitute. Derived

primarily from the nopal (prickly pear) cactus, this material offers durability, flexibility, and breathability comparable to animal leather, but with a significantly lower environmental footprint. Unlike traditional leather production, which requires high water consumption, chemical tanning, and animal farming, cactus leather is biodegradable, cruelty-free, and resource-efficient. Its application in shoe manufacturing not only addresses ethical and environmental concerns but also aligns with the rising consumer demand for sustainable and responsible fashion.

We are in pursuit of improvement and are keen to know your views. Please write to us at ssb.newsletters@icmai.in

Five questions on sustainability

1. NRAP in the context of Augmentation Plans stand for _____
2. UK Clean Energy Jobs plan to create _____ new roles by 2030.
3. It is estimated that the world lost _____ hectares of forest in 2024, driven by agriculture and wildfires.
4. _____ becomes the first Indian State to approve comprehensive ESG investment policy.
5. India's renewable energy target is to achieve _____ GW of non-fossil fuel electricity capacity by 2030.

CONGRATULATIONS TO ALL THE WINNERS !

Sl. No.	Name
1.	CMA B K Unhelkar
2.	CMA Kamal Nath Thakur

CORRECT ANSWERS OF PREVIOUS QUIZ

1.	Environmental Governance
2.	Economic Impacts
3.	A Financial Return
4.	Environmental, Economic and Social Sustainability
5.	A Critical factor for Economic Growth

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

Call for articles

Sukhinobhavantu is inviting articles on the theme ESG/ Sustainability or related themes for publishing in November'2025 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 November 14, 2025, by email to ssb.newsletters@icmai.in The right for selection of articles vests with SSB. Decision of SSB will be final and binding.

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