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॥ सुखिनो भवतु ॥

(A Monthly Newsletter of Sustainability Standards Board)



The Institute of Cost Accountants of India
(Statutory body under an Act of Parliament)

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

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**Details awaited*



Message From Chairman, SSB

“Go green, go clean—Happy Eco-Diwali”

Dear Professional Colleagues,

This month is indeed a happening month, be it in terms of festivals or the activities of the Board. I hope you all had a splendid Durga Puja and fully charged with wisdom for yet another year of professional excellence. After a fortnight long festive days we are all set for the Festival of Lights, i.e. Diwali, which is widely celebrated all across the world by Indians. Let us welcome the festive days with brightness in thoughts and deeds. Diwali reminds me about the motto of our Institute – “Thamasoma Jyothirgamaya” which means “Remove the darkness and lead us to the world of brightness”

SSB is all set to offer variety of gift hampers on this occasion, in terms of various activities. Let me take the liberty in announcing the novel gift hampers which are going to be operational during the Diwali Days.

I am indeed delighted to announce that the 2nd batch of the ESG Certificate Course will be commenced on October 31st, 2024 on the auspicious occasion of Diwali. We would be soon commencing workshop series on ESG Training Module for Key Managerial Personnel (KMPs). This workshop is exclusively designed for corporates in general and KMPs in particular. We are indeed happy that the corporates have appreciated the coverage of the workshops. We have also lined up eminent speakers who are having immense practical exposure to the topics. Corporates who are keen for organising the workshop in their premises may get in touch with the Secretary, Secretarial Standards Board (SSB) of ICMAI at ssb@icmai.in

I am pleased to inform you that SSB will be observing January month of every year as the Sustainability Month. The calendar of activities for the 2025 edition is under preparation and hopefully, we will inform you the details by next month. I take this opportunity to thank the members of SSB for the valuable suggestions provided in this regard. The readers also may give their “Out of Box” inputs to make the Sustainability Month more meaningful. Your ideas may be sent to Secretary, Secretarial Standards Board (SSB) of ICMAI at ssb@icmai.in. Special prizes will be there for the ideas if they are shortlisted and implemented. So hurry up! Mail us your ideas latest by October 31, 2024.

I am sure that the new gift hampers will be professionally rewarding to all of you. Further, while there should not be any compromise in terms of celebrations during the festival days, I also appeal to all of you to be responsible citizens in true sense. The celebration should never hamper the nature, bio-diversity and the peace. Then only we can achieve sustainability in true sense. I am sure that you all are in consensus with me in this regard.

Let me once again wish you, your loved ones and family a very Happy and Prosperous Diwali.

From Durga Puja we are moving to Lakshmi Pujan which reminds all of us that Change is the only thing constant.

See you with some exciting news in November 2024. Till then enjoy the festive days and exciting daily routines.

Professionally Yours,

CMA (Dr.) Ashish P Thatte

October 25, 2024

SDGs and Goal wise Status Report of Indian States

Part I

CMA (Dr.) Aditi Dasgupta

Joint Director

The Institute of Cost Accountants of India
Kolkata

In this series, let us examine the goal-wise performance of Indian states based on NITI Aayog's index. The first segment focuses on the SDGs and India's stand on index creation which not only measures the progress of states in a transparent manner but also fosters a competitive spirit aimed at improving overall performance. By providing reliable data and insights, the index helps align national policies with global SDG targets and ensures that no region or population is left behind in India's development narrative.

In September 2000, leaders from 189 countries gathered at the United Nations and signed the Millennium Declaration, committing to achieving eight measurable Millennium Development Goals (MDGs) by 2015. These goals focused on eradicating poverty and hunger, achieving universal primary education, promoting gender equality, reducing child mortality, improving maternal health, combating diseases like HIV/AIDS and malaria, ensuring environmental sustainability, and fostering global partnerships. While substantial progress was made, particularly in halving extreme poverty, the achievements were uneven. As the MDGs were set to expire in 2015, discussions about a post-2015 agenda began, emphasizing the creation of a sustainable world with equal focus on environmental sustainability, social inclusion, and economic development.

The MDG Fund played a crucial role in achieving these goals by taking an inclusive approach, particularly focusing on marginalized groups like ethnic minorities, indigenous populations, and women. Following the Rio+20 conference in 2012, global consultations were held to shape a new development agenda, culminating in the proposal of 17 Sustainable Development Goals (SDGs) to continue the momentum of the MDGs. These new goals, presented for approval in 2015, aimed to guide global development from 2015 to 2030.

The Sustainable Development Goals (SDGs) are a set of 17 interlinked global goals established by the United Nations in 2015, aimed at achieving a better and more sustainable future for all by 2030. The goals address global challenges including poverty, inequality, climate change, environmental degradation, peace, and justice. The 17 goals are designed to be interconnected, ensuring that progress in one range of social, economic, and environmental areas:

1. **No Poverty** : Eradicating extreme poverty for all people everywhere.
2. **Zero Hunger** : Achieving food security and promoting sustainable agriculture.
3. **Good Health and Well-being** : Ensuring healthy lives and promoting well-being for all.
4. **Quality Education** : Providing inclusive and equitable education.
5. **Gender Equality** : Achieving gender equality and empowering all women and girls.
6. **Clean Water and Sanitation** : Ensuring availability and sustainable management of water and sanitation.
7. **Affordable and Clean Energy** : Ensuring access to affordable, reliable, and sustainable energy.
8. **Decent Work and Economic Growth**: Promoting inclusive and sustainable economic growth and employment.



9. *Industry, Innovation, and Infrastructure:* Building resilient infrastructure and promoting sustainable industrialization.
10. *Reduced Inequality :* Reducing inequality within and among countries.
11. *Sustainable Cities and Communities :* Making cities inclusive, safe, resilient, and sustainable.
12. *Responsible Consumption and Production:* Ensuring sustainable consumption and production patterns.
13. *Climate Action :* Taking urgent action to combat climate change.
14. *Life Below Water :* Conserving and sustainably using oceans, seas, and marine resources.
15. *Life on Land :* Protecting, restoring, and promoting sustainable use of terrestrial ecosystems.
16. *Peace, Justice, and Strong Institutions:* Promoting peaceful, inclusive societies and access to justice.
17. *Partnerships for the Goals :* Strengthening global partnerships to achieve the SDGs.

The SDGs are critical for creating a balanced approach to development that integrates economic growth, social inclusion, and environmental sustainability. They provide a comprehensive plan for reducing poverty and inequality, improving health and education, and ensuring that economic development does not come at the expense of the environment.

The SDGs recognize the interconnected nature of these challenges. For instance, achieving quality education (SDG 4) contributes to better health outcomes, reduces poverty, and promotes gender equality. Similarly, addressing climate action (SDG 13) is essential for protecting ecosystems, which

in turn supports food security and clean water access.

India's Role in Achieving the SDGs

India, being one of the largest developing countries, plays a critical role in meeting these global targets. India was one of the key nations involved in drafting the SDGs. Since the SDGs were adopted in 2015, India has integrated these goals into its national development agenda, with several ongoing initiatives at the central and state levels aimed at achieving them. The Indian government, through its NITI Aayog (National Institution for Transforming India), plays a central role in coordinating efforts to localize and implement the SDGs. India's approach to the SDGs is multi-pronged, involving policy reforms, financial allocations, and monitoring systems. The government has aligned the SDGs with national programs such as Swachh Bharat Abhiyan (Clean India Mission), Make in India, Digital India, Beti Bachao Beti Padhao (Save the Girl Child, Educate the Girl Child), and Skill India.

SDG India Index by NITI Aayog: Tracking India's Progress Towards Sustainable Development

The SDG India Index, developed by NITI Aayog, is a comprehensive tool for tracking and monitoring India's progress in achieving the Sustainable Development Goals (SDGs). Launched in 2018, the index is designed to assess how well India and its states are faring in their efforts to meet the 17 SDGs set by the United Nations. The SDG India Index serves as a significant indicator of the country's sustainable development trajectory, providing insights into areas of success and improvement.

Purpose of the SDG India Index

The primary objective of the SDG India Index is to encourage competitive and cooperative federalism

by ranking states and union territories based on their performance on the SDGs. It also provides a holistic picture of where India stands in relation to the global agenda of achieving the 2030 targets. This helps policymakers identify areas requiring urgent attention and facilitates informed decision-making for future policies.

Additionally, the SDG India Index promotes accountability by offering transparent, reliable data on the progress made toward achieving the SDGs. This transparency not only helps governments but also enables citizens, civil society organizations, and private sectors to align their efforts with national and global goals.

Structure and Methodology

The SDG India Index covers all 17 SDGs and is built on the principles of inclusivity and equity. It uses a robust framework of 115 indicators, spread across key sectors like health, education, economic growth, environment, gender equality, and infrastructure. These indicators are collected from official sources such as the National Sample Survey Office (NSSO), National Family Health Survey (NFHS), and various ministries.

Each state is assigned a score between 0 and 100 for each SDG, where:

- 0 represents the worst possible performance,
- 100 indicates the achievement of the target.

States and union territories are then classified into four categories:

- Aspirants (0-49): States that are far from achieving the SDGs.
- Performers (50-64): States making steady progress but with room for improvement.
- Front-Runners (65-99): States nearing their targets.
- Achievers (100): States that have met the SDG targets.

The SDG India Index has become an essential tool for governments at both the central and state levels. By highlighting the areas where progress is lacking, the index guides policymakers in tailoring specific programs to address state-specific challenges. Furthermore, it promotes competition among states, motivating them to improve their performance across various SDG dimensions.

Key Findings of the SDG India Index

In the most recent report for 2020-21, India achieved a composite score of 66, moving up

from 60 in 2019. This indicates steady progress in areas such as healthcare, education, and gender equality, though challenges remain, particularly in climate action and inequality.


Some key takeaways from the SDG India Index:

- Kerala consistently ranks as the top performer, with its high scores in health, education, and gender equality.
- Bihar, Jharkhand, and Uttar Pradesh often rank lower, highlighting disparities between states in terms of development outcomes.
- Punjab and Himachal Pradesh have emerged as front-runners in ensuring access to clean water and sanitation (SDG 6).
- Tamil Nadu and Gujarat have made notable progress in economic growth and employment, aligning with SDG 8 (Decent Work and Economic Growth).

Challenges Highlighted by the Index

While the SDG India Index shows progress, it also underlines several persistent challenges:

1. Inequality (SDG 10): Economic disparity remains a significant issue, with poorer states lagging behind in essential services such as healthcare, education, and infrastructure.
2. Gender Equality (SDG 5): Despite improvements, gender inequality continues to be a challenge, particularly in rural areas where access to education and employment opportunities for women is limited.
3. Climate Action (SDG 13): India faces difficulties in meeting its climate action goals, especially in reducing pollution and managing sustainable urban development.
4. Clean Water and Sanitation (SDG 6): Although progress has been made, the accessibility and quality of water services remain problematic in several states.

The success of India's SDG agenda will be crucial to global SDG achievement, given India's size and influence. India's path toward sustainable development is one of both optimism and caution, with the potential for significant contributions to global well-being if the challenges are addressed in time. 

Source:

www.niti.gov.in

Sustainability – A Global Outlook

1. Middle East issued \$16.7 billion in Sustainable Bonds from January to September 2024

Middle East Sustainable Bond Issuance Trends Report, Middle East sustainable bond issuance reached \$16.7 billion in the first nine months of 2024, with the UAE and Saudi Arabia continuing to lead the region. Although the issuance slowed by 18% compared to 2023, the decline followed a robust year boosted by the COP28 halo effect. The slowdown is largely due to rising interest rates and market normalization after the conference in November 2023.

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2. Azerbaijan launches Public Sustainability Training to empower public ahead of COP29

In a bid to promote sustainable development and uphold environmental commitments, the COP29 Azerbaijan Operating Company is launching an online sustainability training program. Crafted by experts from multiple disciplines, this initiative aims to raise awareness among the public on vital sustainability topics such as ecological preservation, social inclusion, and accessibility.

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3. World Bank raises GBP 700 million in 10-Year Sustainable Development Bond to support global initiatives

The World Bank priced a 10-year GBP-denominated benchmark bond, raising £700 million to support sustainable development activities in its member countries. The bond matures in October 2034 and offers an annual coupon of 4.25% with a yield of 4.321%.

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4. U.S. Department of Energy approves \$3 billion for two Sustainable Aviation Fuel Projects

The U.S. Department of Energy announced conditional loan guarantees totalling nearly \$3 billion for two significant sustainable aviation fuel (SAF) projects. The first commitment includes up to \$1.44 billion for Calumet's facility expansion in Montana. This facility will utilize vegetable oils, fats, and greases to produce SAF, renewable diesel, and renewable naphtha. If finalized, the loan guarantee will enable the production of approximately 315 million gallons of biofuels annually, with most being SAF.

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5. Britain closes last Coal-Fired Power Station, leading G7 Nations in ending coal dependence for electricity

The UK's last coal-fired power station, Ratcliffe-on-Soar, closed its doors on Monday, making Britain the first G7 nation to end its reliance on coal for electricity production. The move marks a significant step in the UK's ambition to decarbonize its energy sector by 2030 and achieve net-zero emissions by 2050.

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6. Greece aims for renewables to account for 82% of electricity generation by 2030

Greece has presented a revised national energy and climate plan that significantly raises its renewable energy targets, aiming for renewables to account for 82% of electricity generation by 2030. This is a substantial increase from the 66% target set



in the 2019 plan. The updated proposal will be submitted to the European Commission for approval.

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7. **Germany allocates \$3 billion to help industries cut carbon emissions**

Germany, aiming to become climate-neutral by 2045, is taking bold steps to decarbonize its industries. The government's \$3.1 billion subsidies will support industrial companies in transitioning to greener production methods, reducing emissions in energy-intensive sectors like chemicals, glass, and paper.

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8. **Canada to set mandatory climate disclosure criteria for large private companies**

The Canadian government has advanced two significant sustainable finance initiatives to ensure the country meets its ambitious net-zero emission target by 2050. At the Principles for Responsible Investment conference in Toronto, Deputy Prime Minister and Minister of Finance, announced the development of Made-in-Canada sustainable investment guidelines and mandatory climate disclosures for large federally incorporated private companies.

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9. **High court blocks plans for the UK's first deep coal mine in over 30 years**

Plans to build the UK's first deep coal mine in over three decades have been blocked by the High Court. The mine, proposed for Whitehaven in Cumbria, faced legal challenges from environmental groups over its potential contribution to greenhouse gas emissions.

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10. **Google signs world's first corporate nuclear energy deal to power clean AI growth**

Google has signed the world's first corporate agreement to purchase nuclear energy from multiple small modular reactors (SMRs) to be developed by Kairos Power. The initial phase aims to bring Kairos Power's first SMR online by 2030, followed by additional reactor deployments through 2035. This deal is expected to enable up to 500 megawatts (MW) of new 24/7 carbon-free power to U.S. electricity grids, helping more communities benefit from clean and affordable nuclear energy.

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Sustainability – Indian Context

1. India implements standardized carbon accounting across airports to achieve net zero emissions

The Ministry of Civil Aviation highlighted that airport operators are now required to map carbon emissions and work toward achieving carbon neutrality in a phased manner. A new framework has been established to ensure state governments prioritize carbon neutrality during the construction of new greenfield airports.

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2. Andhra Pradesh eyes \$12b investment in clean energy for net zero by 2047

Andhra Pradesh is eyeing ₹10 trillion (\$11.89 billion) investment in the clean energy sector to achieve net-zero emissions by 2047. AP Chief Minister unveiled the Integrated Clean Energy Policy, which envisages incentives ranging from hassle-free land acquisition at reasonable prices to power subsidies to certain sectors. The policy document said that the ICE Policy is expected to create direct and indirect employment for 7.5 lakh workers.

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3. India to finalize EV manufacturing scheme guidelines soon

The Central Government is expected to roll out the final guidelines of the proposed Electric Vehicle Manufacturing Scheme soon to attract EV manufacturers across the globe to invest in India by offering them lower import duties. The Department for Promotion of Industry and Internal Trade (DPIIT) Secretary, confirmed that the Ministry

of Heavy Industries (MHI) will finalize the scheme's guidelines "within weeks."

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4. NITI Aayog to submit roadmap on energy transition in November

NITI Aayog is also working on setting up a green transition ecosystem for "hard-to-abate" industries, including steel, cement and petrochemicals. Premier policy think tank Niti Aayog will be giving its report to develop the roadmap for green energy transition and achieve the net-zero target in November, according to the PTI.

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5. IIT Roorkee, Uzbekistan's SSU to create PG Program for sustainable future

IIT Roorkee and Samarkand State University will foster research in hydrology, environmental science, renewable energy and sustainable development goals. According to a statement, both institutions will foster research in hydrology, environmental science, renewable energy and sustainable development goals. IIT Roorkee Director and SSU Rector signed the agreement in the presence of key faculty members of both institutions.

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6. India's Green Credit Policy: Preserve Environment and Prosper Your Pocket

The Indian Government's newly introduced Green Credit policy offers individuals and companies the opportunity to earn money by preserving nature. This policy has



the potential to support climate actions nationwide while simultaneously contributing to the enhancement of agriculture and the safeguarding of other valuable natural resources. The policy encourages people and companies to participate in a special program, earning rewards, called green credits, for environmentally beneficial actions.

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7. Railways to Set Up Material Recovery Facilities (MRF) for Waste Management

Indian Railways is installing material recovery facilities at more than 250 stations for waste management. "In line with Indian Railways policy, we target to reduce water consumption by 20% by 2023 and have set up MRF (material recovery facilities) for waste management in more than 250 stations," said, Chairman & CEO, Railway Board, Ministry of Railways while speaking at the 7th International Conference Rail Tech 2023 organised by ASSOCHAM.

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8. Govt. confers Navratna status to NHPC and SJVN, grants more autonomy

The Finance Ministry has granted Navratna status to top public sector enterprises NHPC and SJVN, allowing them greater operational and financial freedom. It will also enable these companies to make significant capital expenditure decisions and investment plans, propelling growth. "This is a significant moment for the country as the hydro CPSUs like NHPC and SJVNL are playing a pivotal

role in harnessing the hydropower potential leading to powering the country by limiting greenhouse gases or other pollutants," remarked Union Power Minister while felicitating the chief executives of NHPC and SJVNL.

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9. Cabinet approves \$492m funding for 15gw hydropower projects in North East

The scheme would be funded through 10 percent gross budgetary support for the North Eastern Region from the total outlay of the power ministry. The Union Cabinet on Wednesday approved equity assistance of ₹4,136 crore (\$492.4 million) for developing hydropower projects in the north-eastern states, generating a capacity of 15 gigawatts over the next eight years. The scheme will entail the formation of a joint venture of a central public sector undertaking and the state governments for all the projects.

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10. TN clears ₹441b in investment proposals, greenlights 3 renewable energy policies

The Tamil Nadu Cabinet, led by Chief Minister, approved investment proposals worth Rs 44,125 crore from 15 companies across sectors on Tuesday. The projects span the electronics, food processing, renewable energy, and battery manufacturing sectors and will significantly change the state's economic landscape and create 24,000 jobs.

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Brochure on Certificate Course on ESG (Batch No. 2)

CERTIFICATE COURSE

CERTIFICATE COURSE ON ESG



Brochure

Sustainability Standards Board



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Certificate Course on ESG | The Institute of Cost Accountants of India



About The Institute

The Institute of Cost Accountants of India (ICMAI) is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, enrolls students for its courses, provides coaching facilities to the students, organizes professional development programmes for the members and undertakes research programmes in the field of Cost and Management Accountancy. The Institute pursues the vision of cost competitiveness, cost management, efficient use of resources and structured approach to cost accounting as the key drivers of the profession. In today's world, the profession of conventional accounting and auditing has taken a back seat and cost and management accountants increasingly contributing towards the management of scarce resources like funds, land and apply strategic decisions. This has opened up further scope and tremendous opportunities for cost accountants in India and abroad.

International Affiliation

The Institute is a founder member of International Federation of Accountants (IFAC), Confederation of Asian and Pacific Accountants (CAPA) and South Asian Federation of Accountants (SAFA). The Institute is also an Associate Member of ASEAN Federation of Accountants (AFA) and member in the Council of International Integrated Reporting Council (IIRC), UK.

Institute's Network

Institute's headquarters is situated at Kolkata with another office at New Delhi. The Institute operates through four Regional Councils at Kolkata, Chennai, Delhi and Mumbai as well as through 117 Chapters situated in India, 11 Overseas Centres abroad, 2 Centres of Excellence, 61 CMA Support Centres and 401 Recognized Oral Coaching Centres.

Institute's Strength

The Institute is the largest Cost & Management Accounting body in the World, having a large base of about 1,00,000 CMAs either in practice or in employment and around 5,00,000 students pursuing the CMA Course.

Vision Statement

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

Mission Statement

"The Cost and Management Accountant professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

Course Objective

- ▲ To build strategies and effectively integrate sustainability matters into all business practices dealing with the strategy, finance, operations and communications.
- ▲ To comprehend and assimilate the rules and regulations and structural framework of Business Responsibility and Sustainability Reporting.
- ▲ To understand and analyze the various disclosures made by the Indian companies and various assurance aspects.
- ▲ To understand and comprehend the best practices adopted in ESG.
- ▲ To build an understanding for preparation of Business Responsibility and Sustainability Report.
- ▲ To understand the value chain partners and their role in the business proposition.
- ▲ To properly map Business Responsibility and Sustainability Report to Global Reporting Initiative (GRI) and Integrated Reporting Framework.

Course Eligibility

- ▲ FCMA/ACMA/ those who have qualified Final CMA examination
- ▲ Final year Students of the CMA course
- ▲ Any Graduate

(Minimum Intake is 25 numbers to start a batch)

Course Duration

- ▲ Classroom learning of 2 hours per day in the Weekend through online mode
- ▲ 50 hours online coaching

Online Examination for 100 marks

- ▲ Multiple Choice Questions – 70 questions, 1 mark each
- ▲ Case Study (also multiple choice) – 5 questions, 2 marks each
- ▲ Project Report – online submission – 20 marks

Minimum Marks is 60 % in each of the all above levels

Course Fees

- ▲ Course Fees (including learning kit) of Rs. 6000 plus GST of 18 %.
- ▲ Final year Students of the CMA course for an amount of Rs. 4500 plus GST of 18 %.
- ▲ Examination Fees of Rs. 750 plus GST per attempt.

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



Syllabus of the ESG Course

Session No.	Particulars	Module Duration
1	<p>Shareholders to stakeholders Shifting emphasis from shareholders to Stakeholders Corporate Social Responsibility (CSR) The Three Ps – People, Planet and Profits Connecting sustainability to Strategy and Corporate Governance</p> <p>ESG – the pathway to Sustainability Introduction Conceptual framework Material ESG Issues Concept of ESG Maturity Challenges in implementing ESG</p>	3 hours
2	<p>Importance of Economics, Environment, Social and Governance (E+ESG) in Sustainability UN Mandated Sustainable Development goals (SDGs) 17 SDGs Where are we in SDGs – Globally and in India Reconciling priorities of SDGs – in India and Globally</p>	5 hours
3	<p>Issues with respect to Environmental Factors COP 26 and 27 – Outcome Climate Change – Risk Mitigation and Adaptation Pressures arising out of depletion of natural resources, bio-diversity loss, land use and marine resources, Waste Disposal, Carbon Emission, Conservation of Energy Overview of TCFD and CSRD Reporting, Sustainability and Integrated Reporting – how it incorporates environmental factors</p> <p>Approaches to Environmental Analysis – Differences in approaches of developing, emerging and developed economies Circular Economy Clean and technological innovation Green / ESG related products Blue Economy Overview of Environmental Laws in India</p>	5 hours
4	Product Life Cycle, Service Life Cycle and Life Cycle Assessment	2 hours
5	<p>Overview of Laws relating to social security and Human rights Labour-Employer relationship Training & Development Occupational Health & Safety Community Development & Public Policy</p>	3 hours
6	<p>ESG Investments, Different ESG Instruments, Ratings, Due Diligence and Assurance Approaches to ESG Investments Responsible Investment, Socially Responsible Investment (SRI), Sustainable Investment, Best in Class Investment, Thematic Investment, Impact Investment, Green Investment etc.</p> <p>Investing in ESG through Different Instruments Equity-Based Instruments, ESG & Fixed Income Instruments, Derivative & Alternative Instruments ESG Ratings – How conceptually different from Credit Ratings, Regulatory Ratings and Investor driven ratings ESG Assurance – External Assurance and Internal Audit / Assurance ESG Due Diligence ESG Risk & Opportunities</p>	5 hours



Certificate Course on ESG | The Institute of Cost Accountants of India



Syllabus of the ESG Course

Session No.	Particulars	Module Duration
7	KPIs with specific reference to ESG – How ESG compliance creates long-term value for the organization	4 hours
8	ESG and Capital markets Evolution of regulations National voluntary guidelines - BRR regime - NGRBC guidelines - Current BRSR regime Overview of global reporting framework (GRI, IIRC framework) SEBI consultative paper on ESG Ratings, Disclosure and reporting ESG Ratings SEBI consultative paper on ESG Ratings	3 hours
9	Detailed coverage of BRSR 3 sections 9 principles Essential Indicators and Leadership Indicators Presentation / coverage on the detailed requirements of disclosure in the reporting Guidance Note Issued by SEBI Identification of data points in the BRSR report and discussion on the same. Case studies and practical aspects with respect to BRSR	9 hours
10	Concept of ESG Audit and opportunities how it is related with building up of corporate attitudes towards development of the society	1 hour
	Project Work	10 hours
	Total	50 hours

Contact for further queries

Course Coordinators

CMA Dibbendu Roy, Additional Director and Secretary, SSB at ssb@icmai.in, Mobile No. 9643443047
CMA (Dr.) Aditi Dasgupta, Joint Director at ssb.newsletters@icmai.in, Mobile No. 9831004666

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

Green Jobs and CMAs

Part-II (Manufacturing Sector)

CMA Arunabha Saha
Practicing Cost Accountant
Thane

It is pertinent that in manufacturing industries the impact on environment is substantial. In this article we will discuss the relevance of Green Jobs (GJ) in manufacturing sector and how CMAs can play a vital role in promoting GJ substantially.

In continuation of the article “Green Jobs and CMA” – in the month of September 2024, which covered the general concept on Green Jobs (GJ). This part we will focus on their importance in case of Manufacturing Industries. We will continue to explore the relevance of GJ in other sectors like energy, design, agriculture, tourism, and transport subsequently.

Green Jobs: Green jobs are type of jobs that help to preserve and restore the environment.
(For those who missed the September 2024 “Sukhinobhavantu” Newsletter)

CMA can apply the concept of Environmental Management Accounting (EMA) to measure the environmental impact cost of a manufacturing industry. They can suggest the alternative way to reduce those costs and help attaining sustainability.

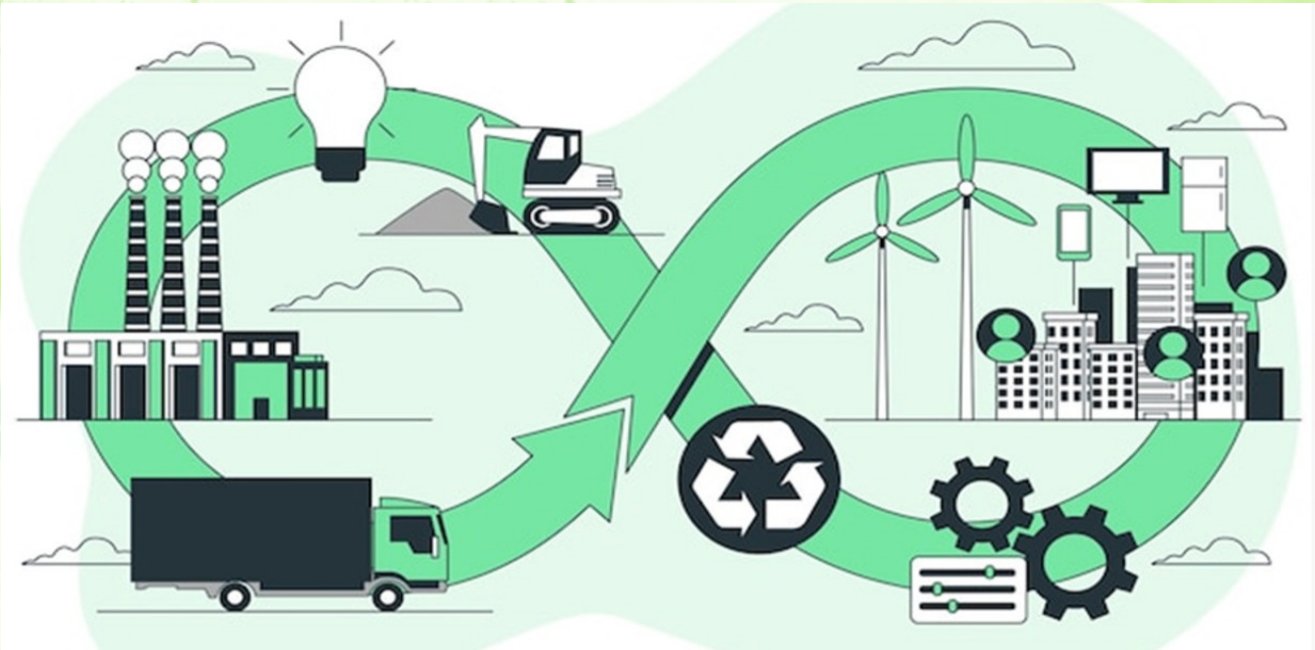
1. Raw materials usage:

EMA can track the cost of Raw Materials and their environmental impact.

- a. Optimisation of Material Usages: By implementing lean manufacturing techniques and material efficiency strategies to minimise the usage of Material and waste generation.
- b. Recycling of Waste: Manufacturing Industries in a collaborative and interconnected network can develop natural ecosystems, where waste from one organisation becomes a resource

for another. For example,

- i. Paper and Construction Industry:
 - ✓ Waste: Paper Mill – Sludge
 - ✓ Use: Can be utilised in the construction industry to make materials like bricks, cement and particle board.
- ii. Oil Refining Industry and Road Construction:
 - ✓ By-Product: Oil Refining – Bitumen
 - ✓ Use: A key component in asphalt production for road construction.
- iii. Textile and Automotive Industry:
 - ✓ Waste: Textile fibres
 - ✓ Use: Recycled and used as raw materials for automotive interiors, such as insulation and padding.
- iv. Food Processing Industry and Agriculture:
 - ✓ Waste: Fruit and vegetable peels, seeds, and pulp.
 - ✓ Use: can be used to produce animal feed, natural fertilisers.
- v. Coal based Thermal Power Industry and Steel Industry for Cement Industry:
 - ✓ The waste product fly ash and slags generated can be used for Cement Industry. Fly ash can also be used for Bricks manufacturing.



vi. Coffee grounds used for Mushroom cultivation:

- ✓ Coffee ground, the dregs remaining after brewing coffee (filter coffee) provides a rich nutrient source for growing mushrooms.

vii. Agricultural Waste (like rice husk, sugarcane bagasse) as biofuel:

- ✓ Agricultural waste can be reused to create bio fuel an alternative source of energy.

viii. Waste Iron and Aluminium recycle to produce new Iron and Aluminium Products.

A CMA can significantly contribute to optimise this type of waste recycling and sustainable operations by applying their financial expertise to identify cost savings, evaluate investments in green technologies and feasibility analysis.

2. Future Cleanup Cost:

A CMA with the help of EMA can predict the future environmental cleanup cost like land restoring from contamination, water bodies pollution, air quality remediation and can provide the same in financials. This will encourage companies to invest in more sustainable practices now to avoid higher cleanup costs later.

3. Depletion of Natural Resources:

CMA can address and manage to calculate the cost of natural resource depletion through EMA. They can calculate the financial impact of resource depletion, identifying opportunities to use resources more efficiently, evaluating the cost-effectiveness of switching to renewable alternatives, integrating environmental costs into product pricing, and advising companies on regulatory compliance related to resource extraction.

4. Emphasis on the proactive role of CMAs in driving sustainability initiatives across the manufacturing process:

I. Sustainable Supply Chain Management:

- ✓ By actively engaging with suppliers to promote sustainable practices, CMAs can foster a network of environmentally conscious businesses, driving innovation and minimising the carbon footprint across the entire supply chain.

II. Carbon Accounting and Reporting:

- ✓ By providing transparent carbon emission data, CMAs empower organisations to identify areas for improvement, set ambitious



sustainability goals, and build trust with stakeholders through responsible environmental practices.

III. Green Financing and Investment:

- ✓ By identifying and evaluating financially viable green projects, CMAs can attract investment towards sustainable manufacturing technologies, accelerating the transition to a low-carbon economy.


Examples of General Questions often Arises from the Operations and Maintenance Department of a Manufacturing Organisation (for its solution):

- Maintenance Personnel: “It is true! If we optimise our energy use, we can reduce not only our electricity bills but also our carbon footprint. How can we get started?”
— Ask a CMA for correct solution.
- Operations Personnel: “Absolutely! We are currently draining water after use. If we can reuse water in our processes, we can save costs and contribute to sustainability. But how can we achieve that?”
— Ask a CMA for practical answer.
- Manufacturing Personnel: “Yes! We generate a lot of waste in our production process.

If we can reuse or reduce it, we could save costs and improve our sustainability efforts. What steps can we take?”
— Ask a CMA for feasible conclusion.

- Maintenance Personnel: “Exactly! If we analyse our waste streams, we might find opportunities to recycle or repurpose materials. What do you suggest as a first step?”
— Ask a CMA for viable explanations.

The true cost of doing business includes proper control of the environmental and social impacts actions. CMA professionals play a vital role in quantifying these costs and guiding organisations toward sustainable practices. CMAs with their deep understanding and knowledge of finance and strategic insights can address sustainability issues in manufacturing activities. Their expertise in EMA enables them to measure environmental impacts and costs, helping organisations make informed decisions. By seamlessly integrating financial analysis with sustainability practices, CMAs can guide companies towards optimised resource utilisation, waste minimisation, and adherence to environmental regulations, ultimately fostering long-term profitability and environmental responsibility.

In the next issue we will discuss on Green Jobs in Energy Sector. 

Influence of Financial Literacy in Achieving Economic Sustainability

Priya Subbaraman
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India is seeing an increasing growth in its GDP but equally, income inequality is rising. With this backdrop, this article examines the need for economic sustainability and inclusive growth of individuals and organisations. Financial Inclusion is a stated goal of our Government and Financial Literacy is a critical pillar in creating a more sustainable, equitable world. This article examines the relationship between economic sustainability and financial literacy.

“Loka Samastah Sukhino Bhavantu” - “Global wellbeing” which is a term that India has given to the world together with **“Vasudhaiva Kutumbakam”- “The World Is One Family”**.

Why is this important? This is important because all forms of sustainability, be it environmental, social, economic, are needed for human sustainability. The world needs to come together and cooperate for any sustainability goal to be met and exceeded. Economic sustainability is one aspect of sustainability and unlike environmental sustainability, both economic and social sustainability have sustainability far beyond corporates and businesses.

Before we understand economic sustainability, let us broadly discuss sustainability. In 1987, the United Nations Brundtland Commission defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainability must then not just take care of your present, but it must take care of the future “you” and your family and future generations.

What is not sustainable is not competitive. And what is not competitive is not sustainable, as we are currently experiencing first-hand.¹ Therefore, sustainability in all its forms need to be made available at the lowest possible cost and have the widest possible reach for it to be embraced and its outcome expanded.

¹ The-Global-Sustainable-Competitiveness-Index-Report-2023.

Economic sustainability

Economic sustainability is a wide term and encompasses not just profit (and therefore economic sustainability of an enterprise) or individual sustainability (income equals or exceeds expenses) but sustainability of the broader ecosystem. Economic sustainability is a set of knowledge tools, practices that promotes inclusive development of individuals, countries and the world in general. It involves making informed choices that minimize negative impacts on the environment, society, and the economy while promoting long-term resilience and wellbeing for all.

Economic sustainability for a business has various aspects. India’s capital markets regulator Securities and Exchange Board of India (SEBI) has rightly laid down 9 principles as part of its Business Responsibility and Sustainability Reporting. A recap of these principles is set out for context:

PRINCIPLE 1: Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable.

PRINCIPLE 2: Businesses should provide goods and services in a manner that is sustainable and safe.

PRINCIPLE 3: Businesses should respect and promote the well-being of all employees, including those in their value chains.



PRINCIPLE 4: Businesses should respect the interests of and be responsive to all its stakeholders.

PRINCIPLE 5: Businesses should respect and promote human rights.

PRINCIPLE 6: Businesses should respect and make efforts to protect and restore the environment.

PRINCIPLE 7: Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent.

PRINCIPLE 8: Businesses should promote inclusive growth and equitable development.

PRINCIPLE 9: Businesses should engage with and provide value to their consumers in a responsible manner.

Economic sustainability is possible only when the above principles are met.

India has historically presented itself as a developmental paradox— “ample resource, ample poverty”, which some would refer to as a manifestation of the so-called “resource curse”². Income inequality is also an important aspect of economic sustainability. If India’s GDP grows and India becomes the fourth or third largest economy but there are parts of India that cannot afford three square meals a day, then that economic situation is not sustainable.

² Behera Bhagirath and Pulak Mishra, “Natural Resource Abundance in the Indian States: Curse or Boon?”, *Review of Development and Change*. 17(1) (2019):53-73.

From a personal/ individual/ family perspective, economic sustainability means eliminating malnutrition, eradicating poverty, increasing access to education, providing sanitation and housing for all, equipping young people with skills to compete in the global labour market, enabling access to finance and financial services³.

Financial literacy

It is defined as a combination of financial awareness, knowledge, skills, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being (OECD, 2012). Our National Strategy for Financial Inclusion has a vision to make financial services available, accessible, and affordable to all the citizens in a safe and transparent manner to support inclusive and resilient multi-stakeholder led growth. The pillars of this vision rest upon:

1. Access to Livelihood & Skill Development
2. Financial Literacy & Education
3. Effective Co-ordination
4. Customer Protection & Grievance Redressal
5. Universal Access to Financial Services
6. Financial Inclusion Policies

³ <https://pib.gov.in/newsite/PrintRelease.aspx?relid=197762>

Just one-third of adults worldwide are classified as financially literate⁴. In India too, the ratio is similar. Financial literacy is a core life skill for participating in modern society. People who have access to financial products and services, and especially digital ones may be exposed to financial fraud and scams, which they need to identify and manage. Further, the world is becoming increasingly complex where everyone will need to take charge of their own financial future.

Let us look at our underserved population. The armed forces, Central Armed Police Forces exceed 10 lakh active personnel. Data on the actual strength of total State Police Forces are about 21.41 lakh personnel. Industry employs 140 million and services 160 million people⁵. AISHE report 2021-22 states that 1.07 crore students were reported to have passed out from various levels such as UG, PG, Ph.D., M.Phil., and other Diploma /Certificate courses. The graduates, the newly employed and those who are already in service, all need financial literacy to understand their financial situation and achieve their long-term financial fitness.

Causality and correlation

Causality, as the word suggests, is one action causes the other to occur. Therefore, in examining whether financial Literacy has any influence in achieving economic sustainability, one must examine the causality or correlation of these relationships.

Let us see an example of what causality and correlation mean. Causality is a fairly simple concept. For e.g.: when interest rates go up, bonds yields go down.

However, correlation is more difficult to grasp. There is a relationship but one action does not cause the other. For e.g. Cricket Matches and Stock Market Performance; there could be a correlation between India winning cricket matches and an uptick in stock market performance. These could be due to national optimism.

4 <https://sdg-action.org/financial-education-for-a-sustainable-future/>

5 <https://www.dataforindia.com/work-employment-in-india/>

However, cricket outcomes do not directly cause stock market gains, as the stock market is influenced by economic factors like company performance, investor sentiment, and policy decisions.

There have been studies that say that linking financial literacy with financial behaviour did not show a causal relationship. This is true to an extent because circumstances, behaviours and biases (subconscious or otherwise) will form part of any decision making, not just economic ones. Also, low-income groups suffer from social pressures and despite the unaffordability of certain events, will spend money that they do not have, and get into costly debt.

If consumers have insufficient income to save, boosting financial literacy is unlikely to translate into higher saving. In other words, financial literacy may not be ineffective *per se*; rather it might not be able to translate into changes in financial behaviour. (Lusardi, Michaud, and Mitchell, 2013)

Financial Literacy and Financial Capability

To assess respondents' financial literacy, Financial Industry Regulatory Authority ("FINRA") under the National Financial Capability Study (NCFCS) sought responses to seven quiz questions covering fundamental economics, personal finance, and numeracy concepts. As in previous years, the data showed that financial literacy is strongly correlated with behaviour that is indicative of financial capability⁶.

The Reserve Bank of India too calculates the Financial Inclusion Index every year. The FI-Index was first introduced by the RBI in August 2021 to measure financial inclusion in the country. The index, ranging from 0 (complete exclusion) to 100 (full inclusion), covers banking, investments, insurance, postal services, and pensions. The FI-Index evaluates financial inclusion through three key parameters: Access (35%), Usage (45%), and Quality (20%). These parameters cover 97 indicators, providing a detailed picture of the nation's financial landscape. The index's Quality parameter is particularly noteworthy, as it assesses

6 <https://finrafoundation.org/sites/finrafoundation/files/NFCS-Report-Fifth-Edition-July-2022.pdf>



financial literacy, consumer protection, and service quality, ensuring a holistic view of financial inclusion. The Financial Inclusion Index for March 2024 stood at 64.2, up from 60.1 last year.

In terms of causality and correlation, it would not be incorrect to summarize that financial literacy can only increase financial capability. Financial literacy and awareness at the individual level helps grow the economy through channelling funds to commercial uses. We have seen that consistently for the past 12 months, mutual fund investments in systematic investment plans have been increasing⁷. These will be deployed in shares and in primary issuances of debt instruments, leading to availability of finance to businesses, resulting in improved economic sustainability.


Financial Inclusion is a stated goal of our Government and Financial Literacy is a critical pillar in creating a more sustainable, equitable world that leaves no one behind.

Financial Literacy is broad and inter alia covers the following:

- Emphasis on managing as well as earnings
- Saving for education or retirement, using debt responsibly, and running a business.
- Asset creation
- Saving the Right Way: emergency funds, early investments, retirement planning, protection.

⁷ SIP inflows have been rising month after month. The figure spiked from ₹18,838 crore in January this year to ₹21,262 crore in June, an increase of 12.8 per cent in six months. Published in Mint

- Misconceptions and mis-selling (fraud identification and management)
- Process Literacy
- Training for certifications and for leveraging platforms such as ONDC and GeM
- Programs for access to Growth Finance: Purpose driven credit and loans
- Investments and capital markets, Insurance, Pensions, Government Schemes and programs, Debt Management, and Grievance redressal.
- Covering medical expenses Retirement
- Saving for education
- Risk preferences
- Home ownership and mortgages
- Credit card behaviours and predatory loans
- Credit scores, credit ratings

In closing, like with any other kind of behaviour, financial discipline and long-term financial fitness is a habit to be inculcated. It is not unusual that we avoid subjects and concepts that are difficult to understand but with like any other habit, financial literacy should also start with young persons, either at school or at least at college level and should continue as a lifelong learning. As an example, those who practice yoga regularly and are well trained continue to have a teacher. In the same manner, getting a teacher/ practitioner who can guide the financial literacy journey is an investment well made. 

Leveraging Environmental Disclosures for Catalyzing for Sustainable Future

CMA (Dr.) S K Gupta

Chief Executive Officer

ICMAI Social Auditors Organization
New Delhi

Shalini Yadav

Academic Associate

Indian Institute of Management
Indore

The preservation of the natural systems that sustain life on Earth is contingent upon environmental protection. It is essential for maintaining biodiversity, mitigating climate change, and ensuring the long-term well-being of both humans and the planet. Stakeholders are demanding that companies should work towards shifting capital toward sustainable solutions. Environmental disclosure frameworks offer a systematic approach for firms to disclose on their environmental risks, impacts, and management strategies, thereby contributing to environmental protection.

The Perspective

Preserving the natural systems that sustain life on Earth requires environmental preservation. It contributes to maintaining the equilibrium required for planetary well-being, human health, economic prosperity, and biodiversity. Everyone's future is healthier and more sustainable when environmental conservation is given priority. No matter how much technology advances, we cannot live in a hazardous environment. Our survival depends on nature since it gives us access to necessities like fresh air, food, water, and favorable weather. The environment, which is essential to human survival, is being neglected as the world develops quickly. People need clean water, fresh air, and a healthy environment no matter where they reside. For the sake of the planet's and society's well-being, environmental conservation is not merely a choice.

Importance of environment Protection

Environment is a global public good and a prerequisite for the enjoyment of human rights. Environment has no respect for international boundaries and borders, and belongs to all countries and peoples. However the capacity of environment is limited and a common issue for the entire mankind is to conserve this limited global environment so that all people on earth

(and coming generations) can enjoy a healthy life. With rising temperatures, extreme weather events, and melting ice caps threatening ecosystems and livelihoods worldwide, concerted action is essential to mitigate the impacts of climate change and build resilience in vulnerable communities.

The problems of environmental protection and of sustainable development of material resources represent, at present, a common preoccupation of all the states of the world, a global-wide objective. To this end, a series of international provisions with universal vocation have been adopted by means of collaboration and cooperation among states. The international measures regarding environmental protection have been provided for, stated, or recognized at the level of international general or conventional law.

The preservation of the natural systems that sustain life on Earth is contingent upon environmental protection. It guarantees the preservation of the delicate equilibrium necessary for the well-being of the planet, human health, economic prosperity, and biodiversity. Contributing to a more sustainable and healthier future for all is achieved by prioritizing environmental protection. By preserving natural ecosystems, reducing pollution, adopting



sustainable practices, and promoting awareness, we can ensure the delicate balance of our environment.

Environmental conservation involves the protection, preservation, and restoration of ecosystems and natural resources. It is essential for maintaining biodiversity, mitigating climate change, and ensuring the long-term well-being of both humans and the planet. Conservation efforts can prevent habitat destruction, safeguard endangered species, and maintain the delicate balance of ecosystems. By conserving natural resources, we can minimize environmental degradation, reduce pollution, and promote sustainable development.

Challenges in environmental conservation

Several challenges impede the progress of environmental conservation and resource efficiency. One significant challenge is the lack of awareness and understanding of the importance of these issues among the general public and policymakers. Many people are unaware of the environmental consequences of their actions and fail to recognize the need for sustainable practices. Additionally, there may be conflicting interests between economic development and environmental conservation, leading to resistance or limited support for conservation efforts. Another challenge is the inadequate implementation and enforcement of environmental regulations and policies. Weak governance structures, corruption, and lack of

resources often hamper the effective enforcement of environmental laws. Insufficient funding for conservation initiatives and limited access to technology and expertise also pose significant challenges. Moreover, there is often a lack of coordination and collaboration between different stakeholders, hindering the development and implementation of effective conservation and resource efficiency strategies.

Overcoming the challenges requires a collective effort, involving education, governance, sustainable land and resource management, collaboration, technological innovation, and economic incentives.

How Environment disclosure framework helps in Environment protection?

There is a growing focus on the need to effectively and rapidly shift capital toward sustainable solutions. However, key questions remain as to how investors, stakeholders, and decision-makers alike can best assess which companies, activities, or financial products are truly sustainable. And how can this information best be standardized across various contexts?

Environmental disclosure frameworks offer a systematic approach for firms to disclose on their environmental risks, impacts, and management strategies, thereby contributing to environmental protection. These frameworks promote accountability, openness, and well-informed decision-making, which improves environmental performance.



Here are six good reasons why a company should be transparent about their environmental footprint, and disclose their environmental performance:

- 1. Reputation and brand image:** Being transparent about a company's environmental footprint can help improve its reputation and brand image, by demonstrating a commitment to sustainability and environmental responsibility.
- 2. Compliance and legal requirements:** Companies may be required by law or industry standards to disclose information about their environmental footprint, such as emissions data and energy use.
- 3. Risk management:** Transparency can help companies identify and manage risks related to environmental issues, such as climate change and resource depletion.
- 4. Cost savings:** Companies that are transparent about their environmental footprint may be able to identify opportunities for cost savings, such as reducing energy consumption or waste.
- 5. Drive innovation:** Environmental disclosure can encourage businesses to innovate and develop new solutions that reduce their environmental impact. This can lead to the development of new technologies, processes, and products that are more sustainable and efficient.
- 6. Stakeholder engagement:** Being transparent about a company's environmental footprint can help engage with stakeholders, including

customers, employees, and communities, and demonstrate a commitment to responsible business practices.

Considerations for Implementing More Robust E&S DCP

DCP can take many forms and varies by company depending on, among other things, the complexity and size of the company's business. Examples of DCP include the following:

- A disclosure committee—composed of business unit or business function heads, personnel from the company's legal, investor relations, and financial reporting/accounting departments, and representatives of other specialist groups, as appropriate—that organizes and oversees the disclosure process.
- A disclosure committee charter that outlines specific authority and responsibilities for the committee.
- Documented methods of identifying, collecting, measuring, and updating information, metrics and related data.
- A formal reporting process to engage the appropriate individuals at the company and to aggregate and communicate the required information upward to management (including, for example, a chart of reporting hierarchy and responsibilities).
- A tracking system for routine disclosures, such as a disclosure calendar outlining key deadlines, milestones, and responsible parties.

Will disclosure create an impact?

Environmental disclosures are a powerful way to encourage sustainability and make things better for the earth. By making the effects on the world clear, they promote accountability, smart choices, and constant improvement. These actions not only help businesses meet legal requirements and improve their image, but they also help reach world goals for sustainability. In the end, environmental disclosures make businesses more responsible, which leads to a healthier world and a better future for everyone.

How disclosure will lead to sustainable development?

- **Enhanced Accountability and Transparency:** Organizations will be held accountable for their environmental impact by providing comprehensive information, which increases transparency using disclosures. Gaining an accurate understanding of the organizations' genuine state will benefit investors, stakeholders, regulators, and customers.
- **By encouraging corporate responsibility:** encourages businesses to implement moral policies that place an emphasis on environmental conservation.
- **Economic value creation:** reducing resource usage and waste management can result in cost savings when inefficiencies are identified.

Long-term Viability: Through the reduction of environmental risks, sustainable practices help firms maintain their long-term profitability.

- **Regulatory compliance and preparedness:** adherence to Standards: Aligning with disclosure frameworks helps organizations comply with environmental regulations and standards. Also, Organizations can anticipate and prepare for future regulatory changes, reducing the risk of non-compliance.
- **Supporting Global environmental goals:** Disclosure frameworks frequently correlate with global sustainability goals like the SDGs and the Paris Agreement, helping environmental preservation efforts. It also pindustry collaboration to address global environmental issues.

Environment related disclosures in Business Responsibility and Sustainability Report

PRINCIPLE 6: Businesses should respect and make efforts to protect and restore the environment

Broad architecture of Environmental disclosure themes

- Details of total energy consumption (in Joules or multiples) and energy intensity

- Does the entity have any sites / facilities identified as designated consumers (DCs) under the Performance, Achieve and Trade (PAT) Scheme of the Government of India? (Y/N) If yes, disclose whether targets set under the PAT scheme have been achieved. In case targets have not been achieved, provide the remedial action taken, if any.
- Provide details of the following disclosures related to water,
- Has the entity implemented a mechanism for Zero Liquid Discharge? If yes, provide details of its coverage and implementation.
- Provide details of air emissions (other than GHG emissions) by the entity,
- Provide details of greenhouse gas emissions (Scope 1 and Scope 2 emissions) & its intensity,
- Does the entity have any project related to reducing Green House Gas emission?
- Provide details related to waste management by the entity
- Briefly describe the waste management practices adopted in your establishments. Describe the strategy adopted by your company to reduce usage of hazardous and toxic chemicals in your products and processes and the practices adopted to manage such wastes.
- If the entity has operations/offices in/around ecologically sensitive areas (such as national parks, wildlife sanctuaries, biosphere reserves, wetlands, biodiversity hotspots, forests, coastal regulation zones etc.) where environmental approvals / clearances are required,
- Provide details of environmental impact assessments of projects undertaken by the entity based on applicable laws,
- Is the entity compliant with the applicable environmental law/ regulations/ guidelines in India; such as the Water (Prevention and Control of Pollution) Act, Air (Prevention and Control of Pollution) Act, Environment

protection act and rules thereunder (Y/N). If not, provide details of all such non-compliances,

- Provide details of any specific initiatives undertaken or used innovative technology or solutions to improve resource efficiency, or reduce impact due to emissions / effluent discharge / waste generated, please provide details of the same as well as outcome of such initiatives,
- Does the entity have a business continuity and disaster management plan?
- Disclose any significant adverse impact to the environment, arising from the value chain of the entity. What mitigation or adaptation measures have been taken by the entity in this regard.
- Percentage of value chain partners (by value of business done with such partners) that were assessed for environmental impacts.

Conclusion

Investors, interest groups, employees, regulators, and other stakeholders are calling for more corporate disclosures on environmental matters, and the pressure is expected to intensify in the foreseeable future. Environmental data and metrics also are becoming more important to companies, as business strategies, enterprise risks, executive compensation plans, and other aspects of operations are increasingly affected by Environmental matters and performance.

Against this backdrop, companies will face increased risks—and opportunities—associated with Environmental disclosures. Accordingly, building increased confidence regarding the accuracy and reliability of Environmental metrics and disclosures will become more important. Having robust architecture with respect to Environmental disclosures would not only serve as a sound risk mitigation strategy but also help companies successfully manage environmental matters and integrate them into business operations. To that end, companies should consider the particular facts and circumstances that specifically pertain to their businesses in light

of the considerations outlined above and ensure that they have appropriate disclosure mechanism for Environmental disclosures. **SB**

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17th Webinar ESG and PSUs

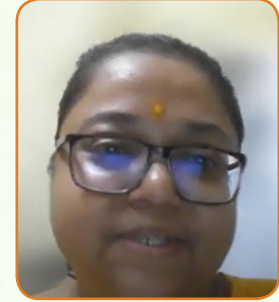
September 27, 2024 from 4 to 5:15 pm



CMA Dibbendu Roy



CMA Ram Ganesh R.



CMA (Dr.) Aditi Dasgupta

The last webinar of the month of September 2024 as a part of *Vasudhaiva Kutumbakam* series was held on Friday September 27, 2024 on the topic "ESG and PSUs". CMA Ram Ganesh R, from Kerala State Beverages (M & M) Corporation Ltd. was the resource person.

CMA Dibbendu Roy, Additional Director, ICAI welcomed the resource person and introduced the theme of the webinar. CMA Ram Ganesh started his session by giving a bird's eye view of ESG, its connectivity with PSUs, comparison between private and government Companies when comes to ESG, various avenues of ESG in PSUs etc. He further explained various standards to measure the environmental and social impact and the interlinkage between the climate, culture and policies in ESG implementation. He explained the goal of Net Zero and Sustainable Investing with the advent of ESG metrics.

The learned speaker briefly touched upon LODR and other disclosures as a part of regulatory measure in ESG. He further discussed about the need of large scale investments, social investment and policy implementation initiatives undertaken by the PSUs in the sphere of ESGs. He highlighted the requirement of a professional who can exclusively head the ESG initiatives in each organization He stressed upon the requirement of an ESG Manual and proper reporting and monitoring system by both PSUs and Private Entities which can help the nation to achieve the goal of Net Zero by 2070.

Citing various examples, he highlighted the achievements of Maharatna PSUs in ESG arena. Towards the end of his talk, he explained the challenges faced by PSUs in ESG implementation.

The passion towards Sustainability and the wide experience of working in various State PSUs was clearly evident in the talk given by the speaker which was filled with examples and experiences.

After the talk, the floor was opened for the Question and Answer session, where the learned speaker reciprocated to all the queries with immense clarity.

In conclusion, CMA (Dr.) Aditi Dasgupta, Joint Director, ICAI summarised the proceedings and proposed vote of thanks.

18th Webinar

Corporate Social Responsibility: Regulatory Provisions

October 11, 2024 from 4 to 5:15 pm



Shri Naman Shah



CMA Dibbendu Roy

Corporate Social Responsibility (CSR) is ever evolving since its inception and the regulatory amendments are happening in an incredible speed. Professionals in general and Cost Accountants in particular, has to keep a constant track of all the regulatory changes taking place in the area of CSR. Keeping this in view the Sustainability Standards Board (SSB) organised a webinar on "Corporate Social Responsibility: Regulatory Provisions". as a part of *Vasudhaiva Kutumbakam* series on October 11, 2024. The webinar got overwhelming response from the participants both from India and abroad.


Shri Naman Shah, Director, Deloitte Haskins & Sells LLP. , a veteran in the area of CSR was the speaker for the webinar. CMA Dibbendu Roy, Additional Director introduced the theme of the webinar.


To commence with, Shri Naman Shah discussed the evolution of CSR in India, regulatory provisions and its amendments happened since 2013. He highlighted the role of CSR Committee, Board of Directors and the role of Cost Accountants in execution of CSR projects as well as complying with the various provisions of the CSR. He further elaborated the expenditure which are categorized as eligible expenditure and expenditure which are not eligible to be categorized as CSR. He discussed the penal provisions of unspent amount of CSR. He highlighted the role of implementing agencies in executing the CSR activities, the concept of ongoing projects and its financial and regulatory impact on the Companies.

Further, he deliberated on the impact assessment and the outlays categorization for such projects. The speaker thereafter gave an overview of the administrative overheads and creation of capital assets.

The Q&A session was extremely lively where the participants raised various queries on the basis of the difficulties they encounter in handling CSR assignments. The speaker, out of his varied experience appropriately responded to the queries. The participants were immensely benefitted from the talk. In spite of long holidays to follow, the participation for the webinar was exemplary which has highly motivated the spirits of SSB Secretariat to come out with many webinars in future.

CMA Roy, in conclusion proposed Vote of Thanks.

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Vasudhaiva Kutumbakam Series
20th Webinar


**Independence through Financial Literacy -
A route to achieve UN's Sustainable
Development Goals**


Friday | November 8, 2024 | 4 pm to 5:15 pm


Organised by
Sustainability Standards Board (SSB)

Speaker


CMA Bibhuti Bhusan Nayak
President, ICMAI


CMA T C A Srinivasa Prasad
Vice President, ICMAI


Ms. Priya Subbaraman
Co-Founder and Director
Dhiraas Skilldev Foundation


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

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21st Webinar of the
Vasudhaiva Kutumbakam Series

**Achieving Sustainability in
BFSI Sector- The Road Map**

Friday, November 22, 2024 from 4 to 5:15 pm

Organised by
Sustainability Standards Board (SSB)

SPEAKER


CMA Bibhuti Bhusan Nayak
President, ICMAI


CMA T C A Srinivasa Prasad
Vice President, ICMAI


Shri Aditya Vyas
Assistant Vice President
STCI Primary Dealer Limited


CMA (Dr.) Ashish P. Thatte
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22nd Webinar of the
Vasudhaiva Kutumbakam Series

**Sustainability viewed from
the lens of Economics**

Friday | December 6, 2024 | 4 pm to 5:15 pm

Organised by
Sustainability Standards Board (SSB)

SPEAKER


CMA Bibhuti Bhusan Nayak
President, ICMAI


CMA T C A Srinivasa Prasad
Vice President, ICMAI


CMA A. Sekar
Practising Company Secretary


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

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FORTHCOMING VASUDHAIVA KUTUMBAKAM SERIES

From 'Sacred' to 'Commodity': Water, Food, and the Economics of Sustainability

Usha Ganapathy Subramanian
Practicing Company Secretary
Chennai

Economics and sustainability are not disparate concepts but are deeply intertwined. Economics dictates the frameworks within which the factors of production – both natural and human – are used to create goods and services, how the rewards of production are distributed through the value chain, and how development is pursued. In today's world, the measure of success in terms of 'how much' irrespective of 'how', has led to widespread exploitation of resources, loss of biodiversity, and unsustainable economic structures. The ends to which valuable resources are used have become increasingly unsustainable and lacking in inherent value to human life.

Adam Smith discussed the paradox of value, otherwise known as the diamond-water paradox, in his seminal work published in 1776, "*An Inquiry into the Nature and Causes of the Wealth of Nations*",¹ little did we know that the ramifications of the paradox will have a toll on the environment and society. Smith highlighted the stark contrast between a commodity's value in use and value in exchange. Water, which is indispensable for life, is undervalued in the markets in comparison to something like a diamond, which is not important at all for sustaining life. Diamonds have become an object to be coveted and cherished as heirlooms, revered as objects of cosmic importance or even divinity. Whereas water and food are wasted with impunity. It is not a discrete concept concerning just water and diamond but the whole continuum of things that we use and consume. This troubling dissonance between value and price play out on a large scale from the under-pricing of essential goods and services to the environmental

degradation caused by overconsumption. This paradox may seem like an academic debate but its consequences reverberate through everyday life.

Many commodities that are consumed in large quantities but are not important for sustenance of life, leave a huge footprint on the environment. For example, the manufacture of a single t-shirt could cost gallons of water, the wastage of about 80% of the tree material that goes in², or extraction of fossil-fuels, and only to spend ages in the landfills after brief use by a single human. A single water bottle could stay in the landfills for half a millennium. As resources are commodified, the environment pays a heavy toll for this mindless consumption. Unsustainable exploitation of water and soil, deforestation, contamination of water bodies and air, the resultant loss of biodiversity are all caused by unchecked consumerism.

The environmental damage goes unmeasured and uncompensated, for there is no "corporation" that owns the environment or takes responsibility for it. Disclosures on Environmental, Social, and Governance (ESG) performance and ratings, which measure a company's sustainability efforts, and Corporate Social Responsibility (CSR) initiatives are often the only attempts by businesses to offset their environmental damage and improve social equity. However, these actions rarely go far enough in addressing the root causes of resource exploitation. If the nature were a businessman, we would be forced to pay the fair price for everything done to it and taken out of it. If the

¹ https://en.wikipedia.org/wiki/Paradox_of_value

² <https://www.livemint.com/mint-lounge/style/global-warming-climate-change-sustainable-fashion-textile-waste-zara-cotton-11727955054650.html>

price of commodities is made to reflect the cost that the environment bears and if labour is paid its fair share, commodities may become more expensive as a result of this and that should be acceptable, for that will help us redistribute our consumption patterns to more sustainable ones.

In our culture, we have the custom of not just respecting water and food but we revere it. Food and water have been offered with the utmost respect and reverence in spiritual practices. Food offered to the deities has been consumed as *prasad* and has been seen as a result of the divine bounty. Those who are fortunate to receive the divine bounty partake it with everyone around – in the form of community gatherings where *prasad* is served, ‘*Anna Dana*’. The ‘*Anna Dana*’, the producer of food must be revered.

Yet today, industrialisation has led to commodification of the invaluable gifts of nature – water, food, maybe air too in the near future. Ecological and social value of basic necessities is lost to a time so long in the past that no one remembers. Today, food is mass-produced and often wasted due to its low price relative to its value. Globally, 1.3 billion tonnes of food are wasted each year, while millions go to bed hungry.³ The low price of food in some areas, relative to its actual value, encourages overconsumption and waste in some parts of the world, while acute and chronic food shortage persist in others. India, one of the world’s largest producers of food⁴, wastes 68.7 million tonnes annually⁵. Meanwhile, 190 million people in the country go hungry every day.⁶ The painful irony is that these parts are not miles away from each other but could just be neighbouring streets.

3 <https://earth.org/facts-about-food-waste/#:~:text=1.,-to%20feed%203%20billion%20people>.

4 <https://www.fao.org/india/fao-in-india/india-at-a-glance/en/#:~:text=India%20is%20the%20world's%20largest%20producer%20of,spices%2C%20fish%2C%20poultry%2C%20livestock%20and%20plantation%20crops>.

5 [https://timesofagriculture.in/food-wastage-in-india-farm-to-bin/#:~:text=According%20to%20the%20UNEP's%20\(United,contributors%20being%20India%20and%20China.&text=The%20FSSAI%20\(Food%20Safety%20and,this%20staggering%20amount%20of%20wastage](https://timesofagriculture.in/food-wastage-in-india-farm-to-bin/#:~:text=According%20to%20the%20UNEP's%20(United,contributors%20being%20India%20and%20China.&text=The%20FSSAI%20(Food%20Safety%20and,this%20staggering%20amount%20of%20wastage)

6 <https://www.feedingindia.org/blog/how-reducing-food-waste-can-play-a-role-in-ending-hunger/>

Meanwhile, the person who provides us food, is seen as a vulnerable person at the end of the value cycle. Even in case of “organic” labels, how much of the price goes to the hands that grow the crops is not known. In India, for example, the average farmer’s income is a fraction of what marketers of luxury goods earn. We witness farmer suicides caused by heavy debt burdens and the inability to make ends meet. The low value placed on labour is exacerbated by the fact that bargaining power is virtually non-existent for the primary producer in many situations reinforcing cycles of poverty.

The same happens for everyone at the start of the value chain in any commodity – the labourers that mine the diamonds, the hands that stitch the clothes and the bags, and so on. What more, the low-income economies are the ones that actually manufacture the luxury goods for the corporations in the high-income economies. The market consistently undervalues those at the beginning of the value chain and the cost to the environment. Thus, we can see that the unsustainable patterns of consumption and the misplaced concept of value don’t just degrade the environment but also lead to growing inequities.

We are on the verge of an environmental catastrophe for the entire mankind as the climate change data tells us – we are consuming the equivalent of 1.6 Earths as of now.⁷ However, even as data shows, not much has been achieved in terms of changing the mindset of the society. After industrialisation, the lure of consumerism and luxuries has latched itself well in the minds of people. Unless there is a compelling realisation and a shift in the mindset towards conscious and responsible consumption, the economic inequalities will spread and the environmental degradation will continue.

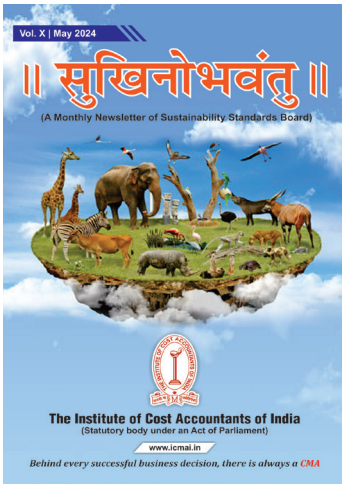
To reverse these trends, the respect for water, food, nature’s gifts and human labour must return as a conscious exercise. Water-pricing reforms, rainwater harvesting, and sustainable agriculture should be promoted. Zero-waste restaurants and celebrations must be the norm and wastage of food should become national news. Most importantly, circular economy

7 <https://www.un.org/en/actnow/facts-and-figures/#:~:text=We%20are%20using%20the%20equivalent,than%20in%20low%2Dincome%20countries>.

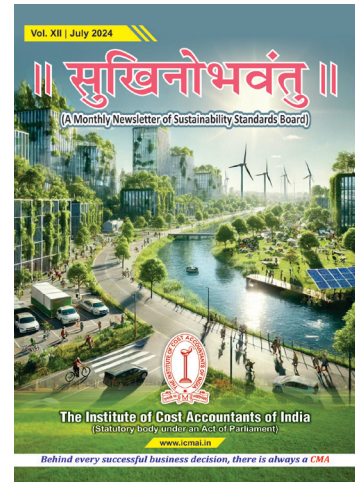
should be encouraged in each sector. The linear produce-use-dump sequence should give way to the circular framework of produce-use-refurbish, repurpose or recycle. Together with these measures, the value chain system should ensure payment of fair share of the price to the producers and the environment. Businesses that want to demonstrate responsible conduct must start with their own value chains, their own

suppliers and iron out inequalities and restore environmental damage. Producer cooperatives and producer companies also have the potential to bring social equity. The values enshrined in the verse “Lokah Samasthah Sukhinobhavantu” must be internalised in the minds of governments, corporations and individuals alike. A systemic change as well as individual action are the need of the hour. The time for action is now. **SB**

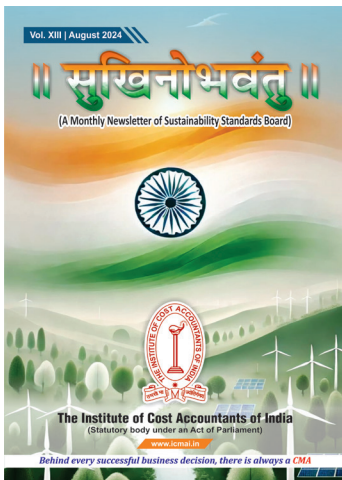
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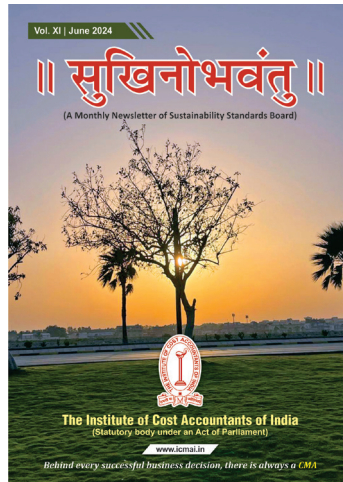
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AI in ESG Analysis

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As the demand for sustainability and responsible business practices continues to grow, Environmental, Social, and Governance (ESG) factors have become crucial in corporate decision-making. In the fast-changing landscape of ESG reporting, organizations are facing numerous challenges. With heightened regulatory scrutiny and new directives, companies are under increasing pressure to provide comprehensive and accurate ESG reports. These challenges include managing data availability and quality, addressing data fragmentation, and ensuring the accuracy and consistency of reports.

Amid these complexities, adopting AI technologies presents a powerful solution, enabling organizations to improve the precision, efficiency, and thoroughness of their ESG reporting. Integrating ESG considerations into business strategies necessitates robust data analysis, where machine learning (ML) and artificial intelligence (AI) prove invaluable. By leveraging ML and AI, organizations can turn ESG data into actionable insights, driving positive outcomes for both businesses and society. AI-powered data analytics also allow investors to utilize large volumes of ESG-related data to make informed portfolio decisions. Machine learning algorithms can analyze historical data on environmental performance, social impact, and governance practices, helping identify investment opportunities and risks.

The use of AI and data analytics in ESG assessments is increasingly important as companies and investors focus on sustainability and responsible business operations. AI and analytics facilitate more comprehensive, real-time, and accurate ESG evaluations, overcoming the limitations of manual processes. Here's how AI and data analytics are being integrated into ESG assessments:

1. Automated Data Collection and Processing

- **AI-Powered Data Scraping:** AI algorithms can automatically gather ESG-related data from various sources, including sustainability reports, news, regulatory filings, social media, and other unstructured data. This reduces dependence on company self-reported data, which can sometimes be inconsistent or biased.
- **Natural Language Processing (NLP):** NLP models analyze qualitative data, such as corporate social responsibility (CSR) reports, public statements, and news, to extract meaningful insights into a company's ESG practices.

2. Real-Time Monitoring and Analysis

- **Dynamic ESG Metrics:** AI enables continuous monitoring of ESG performance through real-time analysis of environmental, social, and governance actions. This supports a more accurate and up-to-date assessment of a company's ESG impact. This helps companies and investors respond promptly to changing conditions, such as regulatory shifts or public sentiment.

Geospatial Analytics: AI can leverage satellite imagery and other geospatial data to track environmental factors such as deforestation, carbon emissions, and water usage, which are essential for evaluating a company's environmental impact.

3. Predictive ESG Risk Assessment

- **Risk Detection:** AI-powered analytics can anticipate future ESG risks by uncovering trends and correlations



within large datasets. For instance, AI models can evaluate how a company's environmental practices may lead to regulatory risks or how inadequate labor practices could negatively impact its social rating.

- **Scenario Modeling:** AI can simulate different scenarios to assess the long-term viability of a company's ESG strategies, such as the effects of climate change regulations or shifts in consumer preferences toward ethical consumption.

4. Standardization and Benchmarking

- **AI-Based Comparisons:** AI algorithms can standardize ESG data across industries, regions, and company sizes, enabling more accurate benchmarking against industry peers. This is particularly valuable given the lack of universal ESG reporting standards.
- **Sentiment Analysis:** AI can assess public sentiment around ESG issues, helping businesses and investors gauge the societal and reputational impact of certain practices or controversies.

5. Data Transparency and Accountability

- **Blockchain Integration:** Combining AI with blockchain can increase transparency in ESG reporting by creating immutable records of a company's ESG performance. This enhances accountability and reduces the risk of greenwashing or inaccurate reporting.
- **Enhanced Audits:** AI-driven forensic analytics can be applied to ESG data to detect discrepancies or fraudulent claims, ensuring the integrity of ESG reports and certifications.

6. Personalized ESG Investment Strategies

- **Tailored Portfolios:** For asset managers and institutional investors, AI-driven analytics can design personalized ESG portfolios based on specific criteria, such as carbon footprint reduction, diversity and inclusion, or corporate governance standards. This enables more precise alignment of investments with individual ESG preferences.
- **AI-Driven Scoring Models:** AI is employed to develop ESG scoring



systems that offer investors a clear, data-driven assessment of a company's sustainability performance, going beyond conventional financial metrics.

7. Regulatory Compliance and Reporting

- **Automated Compliance:** AI can help organizations ensure they meet ESG-related regulatory requirements by automatically analyzing policies and reporting structures. This is particularly crucial as mandatory ESG disclosures become more prevalent across different regions.

8. Enhanced Reporting Accuracy:


- Leveraging AI allows companies to optimize their ESG reporting processes, resulting in more accurate, timely, and comprehensive data for stakeholders.

9. Social and Governance Monitoring

- **Diversity and Inclusion Tracking:** AI can assess diversity and inclusion efforts by analyzing internal data on workforce composition, pay equity, and promotional practices, helping companies improve their social performance.
- **Governance Insights:** AI-driven data analytics can monitor governance metrics like board composition, executive pay, and shareholder rights, helping investors and regulators assess corporate governance health.

10. Benefits of AI and Data Analytics in ESG

- **Efficiency:** AI automates time-consuming tasks such as data gathering and analysis, improving the speed and scope of ESG assessments.
- **Accuracy:** By processing large amounts of structured and unstructured data, AI reduces the risk of human error and bias in ESG evaluations.
- **Scalability:** AI enables companies and investors to monitor ESG factors across multiple companies, sectors, and geographies with ease.
- **Proactivity:** AI enables early detection of potential ESG risks, allowing organizations to mitigate negative impacts before they escalate.

Incorporating AI and data analytics into ESG assessments enhances the efficiency and reliability of these evaluations while offering deeper insights into sustainability risks and opportunities. This approach is now crucial for businesses and investors aiming to make informed decisions and align with global sustainability objectives. In other words, ESG data analytics offers valuable insights to organizations, providing the actionable information needed to track their progress in enhancing ESG performance and to make well-informed decisions. 

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Sustainable Management Practices in Indian Airports

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FEATURE

Airports in India has initiated several initiatives in sustainability sphere. The airports have been accredited the certification of Environment Management systems (EMS) for efficient environmental performance monitoring. The objective of effective sustainability measures is to reduce the carbon footprint and reach our goal of net zero emissions.

All airports have taken novel initiatives including reverse vending machines as practised in Mumbai International Airport. The objective of such reverse vending machines is to do the recycling of plastic bottles. The Mumbai Airport has their goal of 100 percent single use plastic free and with such goals we can reach the net zero emissions faster and quicker.

Two important developments are that two domestic airports of Mumbai and Thiruvananthapuram have adopted ISO 50001:2018 energy management system. In this manner we can reach our goal of 100 % sustainable airports. This airport has also achieved the waste minimization approach and it has become the first airport to get the accreditation of Zero Waste to Landfill recognition from CII with a landfill diversion rate of 99.5 percent in waste management.

Airports have started waste management plan and not only measures of segregation of wastes but recycling of wastes have resulted in sustainable practices in the airports. The hazardous waste is earmarked as per the Hazardous Waste Management Rules 2016 and proper management are done for the best interests of the stakeholders.

With effective implementation, Thiruvananthapuram International Airport is proud to be India's first

airport to earn the Zero Waste to Landfill (ZWL) recognition from the Confederation of Indian Industry (CII), showcasing its dedication towards sustainability. By embracing the 5R principles and implementing a strong value chain system, TRV Airport achieved an impressive landfill diversion rate of 99.50%, setting a new benchmark in waste management.

Chhatrapati Shivaji Maharaj International Airport (CSMIA) had replaced the conventional AC fans with EC fans in the AHUs to enhance the energy savings and thereby reduce the operational costs and this initiative has helped them achieve emission reduction of 1,910 tonnes of CO2 and 24,17,760 Kwh units of energy savings per year.

Airports employ various techniques for reducing wastage of water by proper water stewardship programmes and recycling water for better usage and requirements. Airports use technology-driven sewage treatment plants (STPs) to treat wastewater from terminals, airside, landside, and cargo facilities. The treated water is repurposed for restrooms, cleaning, and HVAC in terminal buildings, minimizing freshwater consumption and maintaining water quality. CSMIA is the pioneer and the leader in CSMIA leads in recycling treated water to meet various operational needs.

Mumbai's CSMIA leads with sustainable water management. It is the first Indian airport to use waterless urinals by which it has saved up to 100,000 liters of water daily.

Ahmedabad and Mangaluru airports are undertaking mobile car wash facilities with private partner and washing 25 cars on a single filling.

Airports have also taken steps in the field of Biodiversity and Wildlife Management. The local

biodiversity conservation has results in lowering of bird strikes and relocation of wild animals to protective areas where they are safeguarded and protected.

With introduction of fire crackers, pyrotechnic technology we have observed a substantial reduction in birds and other animals helping to prevent encroachment of birds and other habitat in protected area of airports. Further, use of signages, aerobridges, and lights will protect the airport from further intrusion. Non-destructive Wildlife Hazard Management techniques are practiced at Ahmedabad Airport. Also, organic chemical spray is carried out in the airport to control weeds & grass.

Green building initiatives like ACI Green Airport Recognition for environmental practices, ACA Level 4+ accreditation are few techniques in which we encourage best practises. Goa Airport has become the first airport to bag the Indian Green Building Council's (IGBC) platinum rating under the Green New Buildings rating system. The airport also has the honour of installation of recycling of waste generated at the airport by treating the 100% of the organic waste generated daily through such installation of organic waste composter.

Various other techniques like single-use plastic-free, indoor planting, green walls, water features, earning LEEDs and IGBC certifications will enable sustainable practices in greater manner at airports.

Energy conservation has enabled Delhi Airport to indirectly cut 200,000 tonnes of carbon emissions. It draws power from renewable sources like hydropower and solar energy. Hyderabad airport has emulated the same growth of 100 percent energy from renewable sources.

Green Transportation program is the mechanism in which diesel and petrol transportation are replaced by Taxibots from 2019 by thereby reducing the carbon emissions.


Paperless flying process from entry to boarding gates using 'Digiyatra' App has made queuing at the airports lower and eased the process of seamless entry to the airports.

Since 2014, a remarkable 73 airports across the country have fully transitioned to 100 per cent

green energy usage. The Ministry of Civil Aviation (MoCA) has been at the forefront of these efforts by introducing initiatives to help airports achieve carbon neutrality and ultimately reach net zero carbon emissions. It has standardised the Carbon Accounting and Reporting framework by providing clear guidelines for airport operators to measure and reduce their carbon footprints.

Cochin International Airport has become the world's first green airport thus earning the Champions of Earth award 2018, the United Nation's highest environmental honour. The airport is powered by solar energy, which meets all of its electrical needs through such green energy.

India's major airports—Delhi, Mumbai, Hyderabad, and Bengaluru—have earned top certifications from the Airports Council International (ACI) for their sustainability efforts. The airports have achieved Level 4+ certifications, denoting their status as carbon-neutral facilities. This recognition not only marks a significant milestone in India's aviation sector but also sets a high benchmark for other airports aiming to reduce their environmental impact.

With the above developments we have to also embrace the best practices of the world. Currently, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is a significant endeavour developed and managed by the International Civil Aviation Organization (ICAO). CORSIA it is envisioned as a global market-based measure which aims to stabilise carbon emissions at 2020 levels by mandating airlines to offset their emissions growth post-2020. The scheme is executed in phases: a pilot phase (2021-2023), a voluntary phase (2024-2026), and a mandatory phase from 2027 onwards, with certain exemptions. We hope that India will adhere to these norms by maintaining international standard airports and aligning with global regulations. 

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Environmental Sustainability in Ancient Greece

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The modern discourse on environmental sustainability often revolves around technological innovations, governmental policies, and global cooperation. However, sustainable living has ancient roots, particularly in the practices and philosophies of Ancient Greece. This civilization, which flourished from around the 8th century BC to the fall of the Hellenistic period in 31 BC, laid the groundwork for many aspects of modern Western thought, including a relationship with nature that emphasized balance and sustainability. Although environmental consciousness as we know it today was not a formalized concept in Ancient Greece, their practices reveal an intrinsic awareness of living harmoniously with the natural world.

Ancient Greek Philosophy and the Environment

One of the defining characteristics of Ancient Greek society was its strong philosophical tradition. Greek philosophers, especially those from the pre-Socratic era and later thinkers like Plato and Aristotle, reflected deeply on the relationship between humans and nature. Their ideas, while rooted in metaphysics and ethics, reveal early concepts of what we today call sustainability.

The Pre-Socratic Philosophers

Thales of Miletus, often regarded as the first philosopher in Western history, believed that water was the fundamental substance of the world, indicating his recognition of the environment's foundational importance. Similarly, other pre-Socratic philosophers, such as Anaximander and Heraclitus, emphasized the importance of elemental balance in nature. Heraclitus' famous doctrine of perpetual change, summarized by the phrase "everything flows" (*panta rhei*), underscores the dynamic balance between human actions and the natural world.

Plato and the Balance with Nature

Plato, one of the most influential philosophers in ancient Greece, was highly concerned about

the degradation of the environment. In his work *Critias*, he describes how deforestation and poor agricultural practices led to soil erosion and the degradation of land around Athens. Plato observed that once-lush forests were reduced to barren hills, and he lamented the loss of biodiversity. These descriptions demonstrate that the ancient Greeks were aware of the impact of human activity on the environment, even though they lacked the scientific knowledge of modern ecology. Plato's writing offers early warnings about the dangers of environmental neglect and highlights the importance of living in harmony with nature.

Agricultural Practices: Sustaining the Land

Agriculture formed the backbone of Ancient Greek society. The Greeks understood that the fertility of the land was finite and developed strategies to ensure that it remained productive over generations. This conscious management of natural resources can be seen as an early form of sustainability.

Crop Rotation and Soil Management

The Greeks practiced crop rotation, an agricultural method that prevents the depletion of soil nutrients. By alternating the cultivation of legumes, which replenish nitrogen in the soil, with other crops like wheat or barley, they ensured that their fields remained fertile. This practice reflects an understanding of the need to preserve the land's fertility for future use, avoiding the "tragedy of the commons," where shared resources are overused and degraded.

Terracing and Irrigation

To optimize agricultural production in the mountainous terrain of Greece, farmers built terraces on hillsides to prevent soil erosion and retain water. This method made otherwise unproductive land arable and demonstrated an understanding of sustainable land use. The

Greeks also employed irrigation systems to maximize the utility of water resources in the dry Mediterranean climate. This careful management of water and soil shows their commitment to maintaining the productivity of their environment without exhausting it.

Forest Management and Wood Usage

Wood was a crucial resource in ancient Greece, used for everything from building ships and houses to crafting tools and fuel for fires. The Greeks understood that forests were a finite resource, and this awareness led to early forms of forest management.

Selective Logging

Rather than indiscriminately clearing large areas of forest, Greek communities often practiced selective logging. They would cut down specific trees while leaving others to grow, which helped preserve forest ecosystems and ensured a continuous supply of wood. This method of forest use helped prevent deforestation, which Plato later warned about, and allowed Greek communities to maintain a sustainable relationship with their forested areas.

Reforestation Efforts

There is evidence that some Greek city-states engaged in early forms of reforestation. For example, after deforesting regions for shipbuilding or agriculture, communities would plant new trees to replace what had been lost. This practice shows that they had a long-term perspective on resource management, recognizing the need to replenish natural resources for future generations.

Urban Planning and the Integration of Nature

The cities of ancient Greece, known as *poleis* (singular: polis), were designed with the landscape in mind. City planners carefully integrated their settlements into the natural environment, balancing the needs of urban life with respect for the surrounding ecosystems.

Sustainable Water Management

Greek cities often featured advanced systems for managing water resources. The city of Athens, for example, constructed aqueducts and cisterns to channel water from distant sources to urban centers without overburdening local water supplies. This ensured that both the city's population and its agricultural hinterland

had enough water, avoiding the unsustainable depletion of local water sources.


Green Spaces and Public Gardens

Greek cities also integrated green spaces and public gardens into urban life, an early form of the concept that we now call "green infrastructure." These areas provided space for relaxation, recreation, and community activities while maintaining a connection to nature. These practices reflect a recognition that urban environments must coexist with natural systems to support the well-being of their inhabitants.

Religious Practices and Respect for Nature

The Greeks' reverence for nature was also reflected in their religious beliefs. Many deities in the Greek pantheon were associated with natural elements. Demeter, the goddess of agriculture, was worshipped in festivals like the Eleusinian Mysteries, which celebrated the renewal of the earth and the cycle of the seasons. Similarly, Artemis, the goddess of wild animals and forests, was revered by hunters and those who lived close to nature. These religious practices reinforced the idea that nature was sacred and deserved respect.

Temples dedicated to these gods were often situated in natural settings, such as groves and mountains, reflecting the deep connection between spirituality and the environment in Greek culture. The belief in divine retribution for environmental degradation, whether through droughts or poor harvests, encouraged sustainable practices as a form of religious duty.

Although the concept of environmental sustainability in its modern form did not exist in ancient Greece, many aspects of their society were guided by principles that resonate with today's environmental consciousness. Their agricultural methods, forest management, and urban planning reflected an understanding of the importance of preserving natural resources. Moreover, their philosophical and religious traditions emphasized the need for balance and respect for nature. By examining the practices and beliefs of ancient Greece, we gain insight into how human societies can live sustainably within their environmental limits, offering valuable lessons for contemporary efforts to combat climate change and preserve our planet. 

॥ सुखिनो भवन्तु ॥

DO YOU KNOW?

In an effort to one-up nature, engineers have created an artificial plant that captures carbon dioxide ten times more efficiently than its natural counterparts. And it generates enough electricity to power a lamp.

The fake plant is built with bacteria-based solar cells, and looks odd. But it offers a fun, novel concept to tackle two important issues: carbon dioxide removal and clean electricity generation.



Carbon dioxide is the main planet-warming greenhouse gas. It is also an important indoor air pollutant that threatens human health, mentioned electrical and computer engineers at the State University of New York at Binghamton, in their *Advanced Sustainable Systems* paper.

The European standard for a safe carbon dioxide threshold indoors is 800 parts per million (ppm). But studies report that carbon dioxide levels in indoor environments often exceed 2,500 ppm.

So the researchers set out to develop a small, maintenance-free indoor version of the expensive carbon capture systems that are being developed for outdoor capture. They decided to harness cyanobacteria, which are photosynthetic bacteria that convert carbon dioxide and water into oxygen. Researchers have been using these organisms to make bacteria-based biobatteries.

Now, they put the bacteria into artificial leaf-shaped devices to make biological solar cells that absorb indoor light. They feed on carbon dioxide to produce oxygen and generate a small amount of electricity.

The engineers constructed an artificial plant made of five of these leaves. The leaves are connected to each other electrically via metal wires, and via channels through which water and nutrients can flow. The porous stem of the plant brings up water and nutrients from a plate below, just like in natural plants.

Researchers have made fake plants before that produce electricity by harvesting motion. The cyanobacteria-based plants used the energy from indoor light to drive photosynthesis. They reduced indoor carbon dioxide levels by 90%, from 5000 to 500 ppm, much higher than the 10% reduction that natural plants achieve. The fake plants also produced 140 microwatts of energy, enough to power an LED light.

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

1. COP-30 is scheduled to be held at _____
2. _____ has been designated as the nodal authority for facilitating offshore wind energy projects.
3. _____ is the first fully solar-powered railway station in India
4. "OSOWOG" stands for _____
5. _____ is the first step to get to "Real Zero"

WINNERS	
Sl. No.	Names
1.	CMA Bidyut Basu
2.	CMA Kamal Nath Thakur
3.	CMA Thirumoorthi V.
4.	CMA Arindam Sinha
5.	CMA B.K. Unhelkar

Congratulations to the Winners!
CORRECT ANSWERS OF PREVIOUS QUIZ

1. Baku, Azerbaijan	2. Integrate	3. Sustainability	4. Product Environment Footprint	5. 9%
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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'2024 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, 2024, 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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