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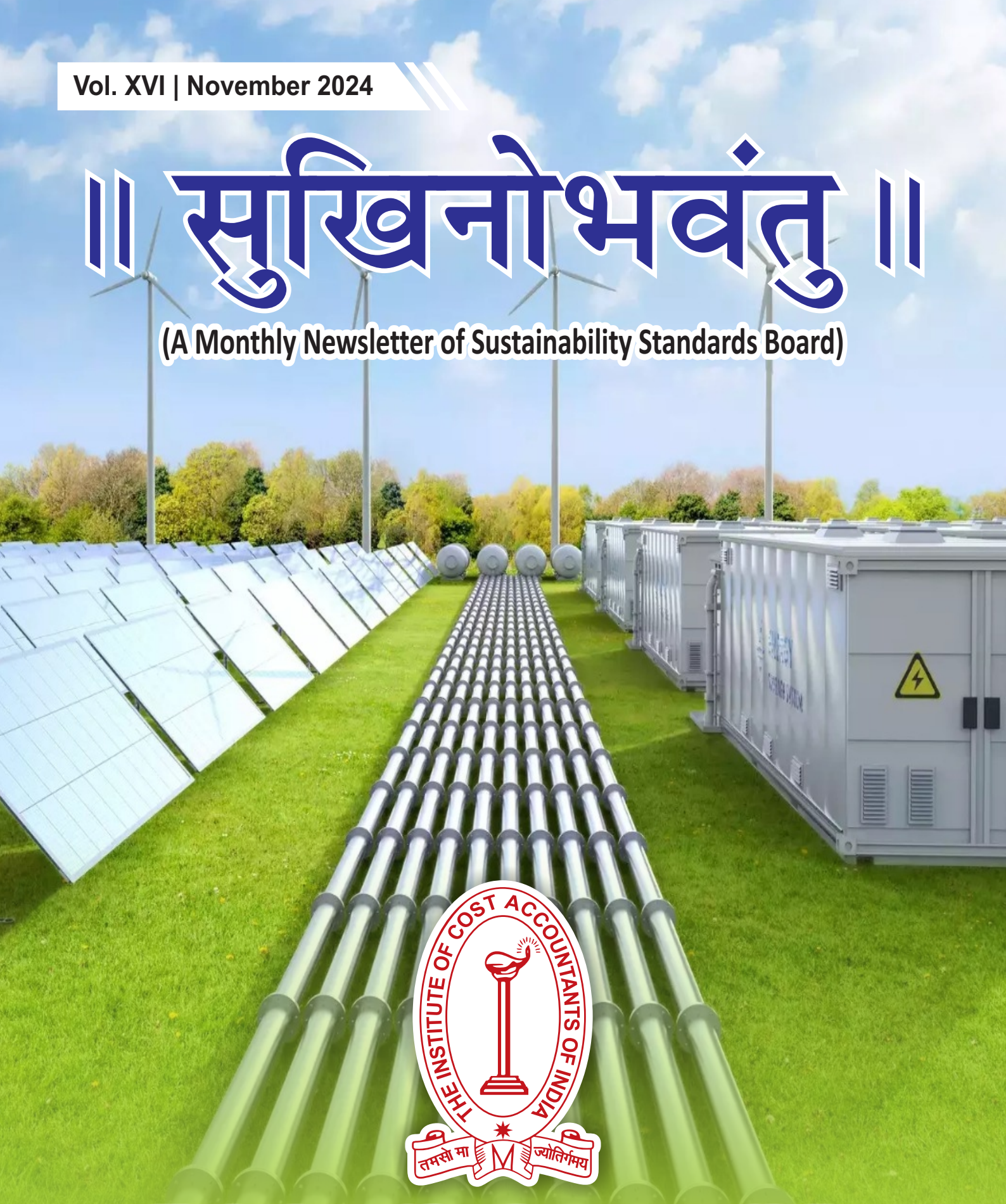
॥ सुखिनोभवंतु ॥

(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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Message From Chairman, SSB

"In the depth of winter, I finally learned that there was in me an invincible summer" — Albert Camus

Dear Professional Colleagues,

When I pen this message for the November 2024 issue of *"Sukhinobhavanthu"* I can see the ornamental snow cap getting wrapped in the western ghats. Yes, the winter is onset an we are all set to receive yet another festive month, i.e. Christmas. The month gone again was a happening month as far as SSB is concerned.

You will be happy to know that we have commenced the classes for the 2nd batch of ESG course will good number of participants from various walks and from across the country and abroad. But what made me more happier the fact that we have received many positive and valuable feedback regarding the course. These feedback will definitely help us in improving the contents and coverage of our ensuing batches. The registrations for the third batch is in full swing and is expected to close very soon.

Our stakeholders are the real guiding instruments who help us in driving various initiatives of SSB. It is only because of their constant support, that our newsletter and webinar series are marching ahead rapidly. It is a matter of great delight, that there are several takers for our webinars and newsletters both in India and abroad. I can see many youngsters, particularly the "YUVA CMAs" are motivated to take specialization in Sustainability related areas in their respective work space. No doubt, both the webinar series and newsletter has become a brand in its own. Honouring the constant views from stakeholders, we have launched and exclusive brand image for our *Vasudhaiva Kutumbakam* Webinar series which is popularly known as the VK Webinar Series. The brand image and its details are provided somewhere in this edition of newsletter which may kindly be referred.

I did mention to you in one of my earlier communication that SSB is working on the "Best Article Award" for the articles published in *Sukhinobhavanthu* newsletter. I am proud to inform you that the process for identifying the best articles are just finished and the details of the winners will be published in the December 2024 issue of *Sukhinobhavanthu* newsletter. Thanks to all those who have worked in this initiative and developing a strong process to follow in the years to come.

Last but not the least, as informed January of every year will be celebrated as the Sustainability month. The list of activities planned for the same is in the final stage. Stay tuned to the December issue to know more about the same. If you are a member of ICMAI, the details will also flash in your mail box any time.

Professionally Yours,

CMA (Dr.) Ashish P Thatte
November 25, 2024

SDGs and Goal wise Status Report of Indian States

Part II

CMA (Dr.) Aditi Dasgupta
Joint Director
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Kolkata

In this series, we will examine the goal-wise performance of Indian states based on NITI Aayog's index. The first segment focused on the SDGs and India's stand on index creation and in this part we will discuss about the goal wise status report of Arunachal Pradesh, Assam and Andhra Pradesh.

ARUNACHAL PRADESH

Arunachal Pradesh has made significant progress in the 2023-2024 SDG (Sustainable Development Goals) India Index, advancing from its previous status as a "Performer State" to being categorized as a "Front Runner State." This progress highlights the state's commitment to achieving SDG targets, particularly in areas such as poverty reduction, with a notable decrease in multidimensional poverty by nearly 11% over the past three years.

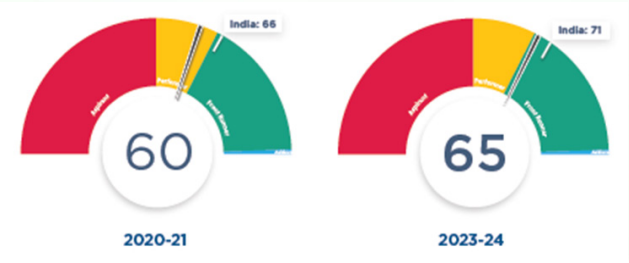
The state has shown commendable results in SDG areas such as zero hunger and health, though it continues to face challenges in areas like education and mobile network coverage. Groundwater extraction in Arunachal is also among the lowest, reflecting strong environmental stewardship.

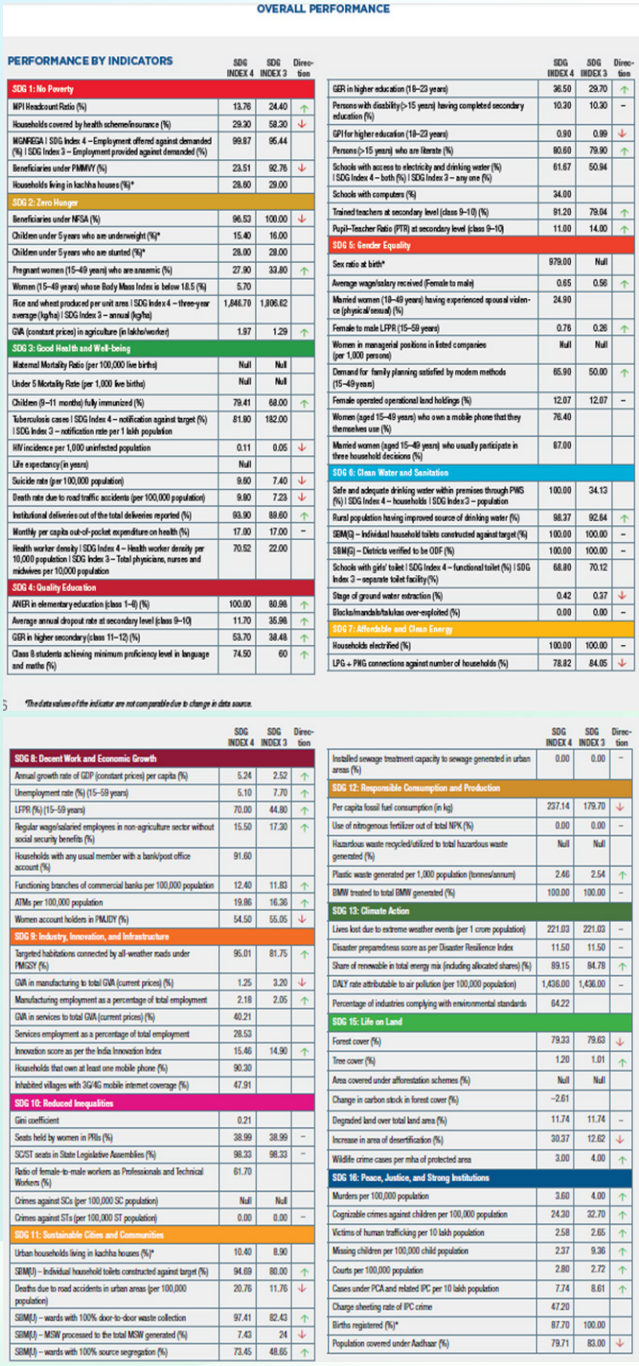
Chief Minister emphasized the state's dedication to achieving all SDG goals using a saturation approach, ensuring that the development benefits reach all citizens. This aligns with the broader vision of a "Viksit Arunachal" or developed Arunachal, aiming for inclusive growth and improved quality of life.

Key achievements and areas of progress:

1. **Zero Hunger (SDG 2):** Arunachal Pradesh has made significant progress and is classified as a Front Runner, showing improvements in food security and hunger alleviation.
2. **Good Health and Well-being (SDG 3):** The state also ranks as a Front Runner in health outcomes, performing well in reducing maternal and child mortality rates.
3. **Clean Water and Sanitation (SDG 6):** The state demonstrates strong efforts toward ensuring clean water and sanitation, although some regions face challenges in sewage treatment capacity.
4. **Life on Land (SDG 15):** Arunachal Pradesh excels in environmental sustainability, particularly in groundwater extraction, having the lowest extraction rates in the country.

ARUNACHAL PRADESH





OVERALL PERFORMANCE

PERFORMANCE BY INDICATORS	SDG INDEX 4	SDG INDEX 3	Direction
SDG 1: No Poverty			
MPI Headcount Ratio (%)	13.76	24.40	↑
Households covered by health scheme/insurance (%)	29.30	58.30	↓
MGNREGA I SDG Index 4 – Employment offered against demanded (%) I SDG Index 3 – Employment provided against demanded (%)	99.87	95.44	
Beneficiaries under PMMVY (%)	23.51	92.76	↓
Households living in kachha houses (%)*	28.60	29.00	
SDG 2: Zero Hunger			
Beneficiaries under NFSA (%)	96.53	100.00	↓
Children under 5 years who are underweight (%)*	15.40	16.00	
Children under 5 years who are stunted (%)*	28.00	28.00	
Pregnant women (15–49 years) who are anaemic (%)	27.90	33.80	↑
Women (15–49 years) whose Body Mass Index is below 18.5 (%)	5.70		
Rice and wheat produced per unit area I SDG Index 4 – three-year average (kg/ha) I SDG Index 3 – annual (kg/ha)	1,846.70	1,806.62	
GVA (constant prices) in agriculture (in lakhs/worker)	1.97	1.29	↑
SDG 3: Good Health and Well-being			
Maternal Mortality Ratio (per 100,000 live births)	Null	Null	
Under 5 Mortality Rate (per 1,000 live births)	Null	Null	
Children (9–11 months) fully immunized (%)	79.41	68.00	↑
Tuberculosis cases I SDG Index 4 – notification against target (%) I SDG Index 3 – notification rate per 1 lakh population	81.80	182.00	
HIV incidence per 1,000 uninfected population	0.11	0.05	↓
Life expectancy (in years)	Null		
Suicide rate (per 100,000 population)	9.60	7.40	↓
Death rate due to road traffic accidents (per 100,000 population)	9.80	7.23	↓
Institutional deliveries out of the total deliveries reported (%)	93.90	89.60	↑
Monthly per capita out-of-pocket expenditure on health (%)	17.00	17.00	–
Health worker density I SDG Index 4 – Health worker density per 10,000 population I SDG Index 3 – Total physicians, nurses and midwives per 10,000 population	70.52	22.00	
SDG 4: Quality Education			
ANER in elementary education (class 1–8) (%)	100.00	80.98	↑
Average annual dropout rate at secondary level (class 9–10)	11.70	35.98	↑
GER in higher secondary (class 11–12) (%)	53.70	38.48	↑
Class 8 students achieving minimum proficiency level in language and maths (%)	74.50	60	↑
GER in higher education (18–23 years)	36.50	29.70	↑
Persons with disability (>15 years) having completed secondary education (%)	10.30	10.30	–
GPI for higher education (18–23 years)	0.90	0.99	↓
Persons (>15 years) who are literate (%)	80.60	79.90	↑
Schools with access to electricity and drinking water (%) I SDG Index 4 – both (%) I SDG Index 3 – any one (%)	61.67	50.94	
Schools with computers (%)	34.00		
Trained teachers at secondary level (class 9–10) (%)	91.20	79.04	↑
Pupil–Teacher Ratio (PTR) at secondary level (class 9–10)	11.00	14.00	↑
SDG 5: Gender Equality			
Sex ratio at birth*	979.00	Null	
Average wage/salary received (Female to male)	0.65	0.56	↑
Married women (18–49 years) having experienced spousal violence (physical/sexual) (%)	24.90		
Female to male LFPR (15–59 years)	0.76	0.26	↑
Women in managerial positions in listed companies (per 1,000 persons)	Null	Null	
Demand for family planning satisfied by modern methods (15–49 years)	65.90	50.00	↑
Female operated operational land holdings (%)	12.07	12.07	–
Women (aged 15–49 years) who own a mobile phone that they themselves use (%)	76.40		
Married women (aged 15–49 years) who usually participate in three household decisions (%)	87.00		
SDG 6: Clean Water and Sanitation			
Safe and adequate drinking water within premises through PWS (%) I SDG Index 4 – households I SDG Index 3 – population	100.00	34.13	
Rural population having improved source of drinking water (%)	98.37	92.64	↑
SBM(G) – Individual household toilets constructed against target (%)	100.00	100.00	–
SBM(G) – Districts verified to be ODF (%)	100.00	100.00	–
Schools with girls' toilet I SDG Index 4 – functional toilet (%) I SDG Index 3 – separate toilet facility (%)	68.80	70.12	
Stage of ground water extraction (%)	0.42	0.37	↓
Blocks/mandals/talukas over-exploited (%)	0.00	0.00	–
SDG 7: Affordable and Clean Energy			
Households electrified (%)	100.00	100.00	–
LPG + PNG connections against number of households (%)	78.82	84.05	↓

*The data values of the indicator are not comparable due to change in data source.

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 8: Decent Work and Economic Growth			
Annual growth rate of GDP (constant prices) per capita (%)	5.24	2.52	↑
Unemployment rate (%) (15–59 years)	5.10	7.70	↑
LFPR (%) (15–59 years)	70.00	44.80	↑
Regular wage/salaried employees in non-agriculture sector without social security benefits (%)	15.50	17.30	↑
Households with any usual member with a bank/post office account (%)	91.60		
Functioning branches of commercial banks per 100,000 population	12.40	11.83	↑
ATMs per 100,000 population	19.86	16.36	↑
Women account holders in PMJDY (%)	54.50	55.05	↓
SDG 9: Industry, Innovation, and Infrastructure			
Targeted habitations connected by all-weather roads under PMGSY (%)	95.01	81.75	↑
GVA in manufacturing to total GVA (current prices) (%)	1.25	3.20	↓
Manufacturing employment as a percentage of total employment	2.18	2.05	↑
GVA in services to total GVA (current prices) (%)	40.21		
Services employment as a percentage of total employment	28.53		
Innovation score as per the India Innovation Index	15.46	14.90	↑
Households that own at least one mobile phone (%)	90.30		
Inhabited villages with 3G/4G mobile internet coverage (%)	47.91		
SDG 10: Reduced Inequalities			
Gini coefficient	0.21		
Seats held by women in PRIs (%)	38.99	38.99	–
SC/ST seats in State Legislative Assemblies (%)	98.33	98.33	–
Ratio of female-to-male workers as Professionals and Technical Workers (%)	61.70		
Crimes against SCs (per 100,000 SC population)	Null	Null	
Crimes against STs (per 100,000 ST population)	0.00	0.00	–
SDG 11: Sustainable Cities and Communities			
Urban households living in kachha houses (%)*	10.40	8.90	
SBM(U) – Individual household toilets constructed against target (%)	94.69	80.00	↑
Deaths due to road accidents in urban areas (per 100,000 population)	20.76	11.76	↓
SBM(U) – wards with 100% door-to-door waste collection	97.41	82.43	↑
SBM(U) – MSW processed to the total MSW generated (%)	7.43	24	↓
SBM(U) – wards with 100% source segregation (%)	73.45	48.65	↑
Installed sewage treatment capacity to sewage generated in urban areas (%)	0.00	0.00	–
SDG 12: Responsible Consumption and Production			
Per capita fossil fuel consumption (in kg)	237.14	179.70	↓
Use of nitrogenous fertilizer out of total NPK (%)	0.00	0.00	–
Hazardous waste recycled/utilized to total hazardous waste generated (%)	Null	Null	
Plastic waste generated per 1,000 population (tonnes/annum)	2.46	2.54	↑
BMW treated to total BMW generated (%)	100.00	100.00	–
SDG 13: Climate Action			
Lives lost due to extreme weather events (per 1 crore population)	221.03	221.03	–
Disaster preparedness score as per Disaster Resilience Index	11.50	11.50	–
Share of renewable in total energy mix (including allocated shares) (%)	89.15	84.78	↑
DALY rate attributable to air pollution (per 100,000 population)	1,436.00	1,436.00	–
Percentage of industries complying with environmental standards	64.22		
SDG 15: Life on Land			
Forest cover (%)	79.33	79.63	↓
Tree cover (%)	1.20	1.01	↑
Area covered under afforestation schemes (%)	Null	Null	
Change in carbon stock in forest cover (%)	-2.61		
Degraded land over total land area (%)	11.74	11.74	–
Increase in area of desertification (%)	30.37	12.62	↓
Wildlife crime cases per mha of protected area	3.00	4.00	↑
SDG 16: Peace, Justice, and Strong Institutions			
Murders per 100,000 population	3.60	4.00	↑
Cognizable crimes against children per 100,000 population	24.30	32.70	↑
Victims of human trafficking per 10 lakh population	2.58	2.65	↑
Missing children per 100,000 child population	2.37	9.36	↑
Courts per 100,000 population	2.80	2.72	↑
Cases under PCA and related IPC per 10 lakh population	7.74	8.61	↑
Charge sheeting rate of IPC crime	47.20		
Births registered (%)*	87.70	100.00	
Population covered under Aadhaar (%)	79.71	83.00	↓

ASSAM

Assam has shown significant progress in achieving the United Nations Sustainable Development Goals (SDGs), as reflected in the SDG India Index 2023-24 by NITI Aayog. The state moved from the "Aspirant" category in 2016 to the "Front Runner" category in 2023-24, with a score of 65, showcasing a consistent improvement of 16 points since the index's inception in 2018. This places Assam in line with the national average, highlighting its commitment to sustainable development.

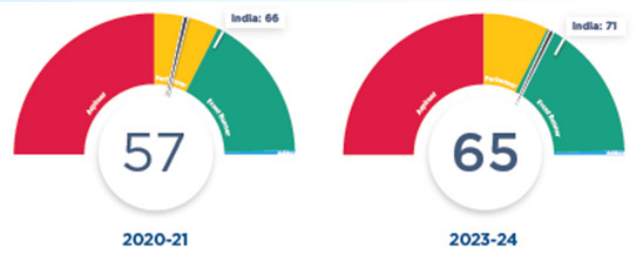
Goal-wise highlights include:

1. **Poverty and Hunger (SDGs 1 & 2)**: Assam's initiatives to address poverty and improve food security are integrated into its Assam Agenda 2030 plan, which emphasizes resource mobilization and efficiency.
2. **Good Health and Well-Being (SDG 3)**: Assam has made considerable strides in healthcare access and services, a focus area in its interdepartmental SDG strategies.
3. **Quality Education (SDG 4)**: Education remains a priority, with state programs aiming to improve access and quality{7}.
4. **Clean Water and Sanitation (SDG 6)**: Assam has made notable progress in ensuring access to clean water and improved sanitation, particularly in urban areas like Guwahati.
5. **Climate Action and Life on Land (SDGs 13 & 15)**: The state has implemented initiatives for climate resilience and conservation of biodiversity, critical for Assam's ecological landscape.
6. **Sustainable Cities and Communities (SDG 11)**: Projects such as the Guwahati Smart City initiative and flood mitigation efforts are key components of Assam's urban development plans.

While Assam has made commendable progress, the state still faces challenges, particularly in quality education (SDG 4), where Assam continues to struggle with high dropout rates and limited infrastructure in schools. Additionally, the state ranks low in areas like zero hunger (SDG 2), gender equality (SDG 5), and innovation and infrastructure (SDG 9).

Efforts have been made to strengthen institutional frameworks and partnerships to improve SDG implementation, including the establishment of a Centre for SDGs in Assam to guide and monitor progress. Collaborative projects with UNDP and other stakeholders aim to address these challenges and enhance inclusive development through focused strategies. Its current trajectory and focus on technology-driven solutions position it well for continued advancement.

ASSAM



OVERALL PERFORMANCE

PERFORMANCE BY INDICATORS

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 1: No Poverty			
MPI Headcount Ratio (%)	19.35	36.20	↑
Households covered by health scheme/insurance (%)	66.70	10.40	↑
MGNREGA | SDG Index 4 – Employment offered against demanded (%) | SDG Index 3 – Employment provided against demanded (%)	99.92	86.11	
Beneficiaries under PMMVY (%)	53.43	95.32	↓
Households living in kachha houses (%)*	2.90	2.40	
SDG 2: Zero Hunger			
Beneficiaries under NFSA (%)	99.71	94.27	↑
Children under 5 years who are underweight (%)*	32.80	29.40	
Children under 5 years who are stunted (%)*	35.30	32.40	
Pregnant women (15–49 years) who are anaemic (%)	54.20	44.80	↓
Women (15–49 years) whose Body Mass Index is below 18.5 (%)	17.70		
Rice and Wheat produced per unit area | SDG Index 4 – three-year average (kg/Ha) | SDG Index 3 – annual (kg/Ha)	2078.49	2147.44	
GVA (constant prices) in agriculture (in lakhs/worker)	0.76	0.62	↑
SDG 3: Good Health and Well-being			
Maternal Mortality Ratio (per 100,000 live births)	195	215	↑
Under 5 Mortality Rate (per 1,000 live births)	40.00	47.00	↑
Children (9–11 months) fully immunized (%)	85.40	85.00	↑
Tuberculosis cases | SDG Index 4 – notification against target (%) | SDG Index 3 – notification rate per 1 lakh population	78.40	141.00	
HIV incidence per 1,000 uninfected population	0.68	0.04	↓
Life expectancy (years)	67.90		
Suicide rate (per 100,000 population)	9.40	6.90	↓
Death rate due to road traffic accidents (per 100,000 population)	8.62	9.43	↑
Institutional deliveries out of the total deliveries reported (%)	95.91	91.10	↑
Monthly per capita out-of-pocket expenditure on health (%)	12.90	12.90	–
Health worker Density | SDG Index 4 – Health Worker Density per 10,000 population | SDG Index 3 – Total physicians, nurses and midwives per 10,000 population	27.55	23.00	
SDG 4: Quality Education			
ANER in elementary education (class 1–8) (%)	100.00	96.26	↑
Average annual dropout rate at secondary level (class 9–10)	20.30	31.47	↑
GER in higher secondary (class 11–12) (%)	40.10	30.94	↑
Class 8 students achieving minimum proficiency level in language and maths (%)	72.00	79.6	↓

	SDG INDEX 4	SDG INDEX 3	Direction
GER in higher education (18–23 years)	16.90	18.70	↓
Persons with disability (>15 years) having completed secondary education (%)	16.80	16.80	–
GPI for higher education (18–23 years)	1.09	0.95	↑
Persons (>15 years) who are literate (%)	69.30	84.90	↓
Schools with access to electricity and drinking water (%) | SDG Index 4 – both (%) | SDG Index 3 – any one (%)	75.46	59.51	
Schools with computers (%)	18.90		
Trained teachers at secondary level (class 9–10) (%)	63.50	29.29	↑
Pupil–Teacher Ratio (PTR) at secondary level (class 9–10)	11.80	11.00	–
SDG 5: Gender Equality			
Sex ratio at birth*	964	925	
Average wage/salary received (Female to male)	0.64	0.53	↑
Married women (18–49 years) having experienced spousal violence (physical/sexual) (%)	32.20		
Female to male LFPR (15–59 years)	0.22	0.17	↑
Women in managerial positions in listed companies (per 1,000 persons)	215.05	221.00	↓
Demand for family planning satisfied by modern methods (15–49 years)	63.20	55.60	↑
Female operated operational land holdings (%)	1.67	1.67	–
Women (aged 15–49 years) who own a mobile phone that they themselves use (%)	57.20		
Married women (aged 15–49 years) who usually participate in three household decisions (%)	92.10		
SDG 6: Clean Water and Sanitation			
Safe and adequate drinking water within premises through PWS (%) | SDG Index 4 – households | SDG Index 3 – population.	76.87	25.70	
Rural population having improved source of drinking water (%)	92.17	74.72	↑
SBM(G) – Individual household toilets constructed against target (%)	100.00	100.00	–
SBM(G) – Districts verified to be ODF (%)	100.00	100.00	–
Schools with girls' toilet | SDG Index 4 – functional toilet (%) | SDG Index 3 – separate toilet facility (%)	62.60	75.30	
Stage of ground water extraction (%)	12.54	11.25	↓
Blocks/mandals/talukas over-exploited (%)	0.00	0.00	–
SDG 7: Affordable and Clean Energy			
Households electrified (%)	100.00	100.00	–
LPG + PNG connections against number of households (%)	108.17	97.61	↑

PERFORMANCE BY SDGs

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 8: Decent Work and Economic Growth			
Annual growth rate of GDP (constant prices) per capita (%)	6.26	5.26	↑
Unemployment rate (%) (15–59 years)	1.70	7.10	↑
LFPR (%) (15–59 years)	56.80	49.40	↑
Regular wage/salaried employees in non-agriculture sector without social security benefits (%)	47.40	44.80	↓
Households with any usual member with a bank/post office account (%)	95.70		
Functioning branches of commercial banks per 100,000 population	8.85	8.89	↓
ATMs per 100,000 population	13.84	11.60	↑
Women account holders in PMJDY (%)	58.29	59.26	↓
SDG 9: Industry, Innovation, and Infrastructure			
Targeted habitations connected by all-weather roads under PMGSY (%)	99.97	94.38	↑
GVA in Manufacturing to total GVA (current prices) (%)	11.64	12.25	↓
Manufacturing employment as a percentage of total employment	4.69	10.55	↓
GVA in Services to total GVA (current prices) (%)	45.25		
Services employment as a percentage of total employment	18.19		
Innovation score as per the India Innovation Index	11.29	16.38	↓
Households that own at least one mobile phone (%)	91.90		
Inhabited villages with 3G/4G mobile internet coverage (%)	96.08		
SDG 10: Reduced Inequalities			
Gini coefficient	0.25		
Seats held by women in PRIs (%)	54.60	54.60	–
SC/ST seats in State Legislative Assemblies (%)	19.05	19.05	–
Ratio of female-to-male workers as Professionals and Technical Workers (%)	53.30		
Crimes against SCs (per 100,000 SC population)	0.60	0.90	↑
Crimes against STs (per 100,000 ST population)	0.20	0.10	↓
SDG 11: Sustainable Cities and Communities			
Urban households living in kachha houses (%)*	0.80	0.40	
SBM(U) – Individual household toilets constructed against target (%)	104.02	97.00	↑
Deaths due to road accidents in urban areas (per 100,000 population)	27.72	24.70	↓
SBM(U) – wards with 100% door-to-door waste collection	96.60	87.91	↑
SBM(U) – MSW processed to the total MSW generated (%)	46.71	63.2	↓
SBM(U) – wards with 100% source segregation (%)	52.17	42.74	↑
Installed sewage treatment capacity to sewage generated in urban areas (%)	0.00	0.11	↓

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 12: Responsible Consumption and Production			
Per capita fossil fuel consumption (in kg.)	88.42	88.00	↓
Use of nitrogenous fertilizer out of total NPK (%)	68.22	66.64	↓
Hazardous waste recycled/utilized to total hazardous waste generated (%)	83.48	20.92	↑
Plastic waste generated per 1,000 population (Tonnes/Annum)	1.68	0.95	↓
BMW treated to total BMW generated (%)	63.30	75.05	↓
SDG 13: Climate Action			
Lives lost due to extreme weather events (per 1 crore population)	15.57	15.57	–
Disaster preparedness score as per Disaster Resilience Index	23.00	23.00	–
Share of renewable in total energy mix (including allocated shares) (%)	35.06	32.27	↑
DALY rate attributable to air pollution (per 100,000 population)	3,464	3,464	–
Percentage of industries complying with environmental standards	78.47		
SDG 15: Life on Land			
Forest cover (%)	36.09	36.11	↓
Tree cover (%)	2.08	1.80	↑
Area covered under afforestation schemes (%)	Null	Null	–
Change in carbon stock in forest cover (%)	0.45		
Degraded land over total land area (%)	9.45	9.45	–
Increase in area of desertification (%)	16.46	25.23	↑
Wildlife crime cases per mha of protected area	76.00	63.00	↓
SDG 16: Peace, Justice, and Strong Institutions			
Murders per 100,000 population	3.00	3.60	↑
Cognizable crimes against children per 100,000 population	33.80	55.60	↑
Victims of human trafficking per 10 lakh population	6.45	7.21	↑
Missing children per 100,000 child population	9.92	11.86	↑
Courts per 100,000 population	1.43	1.35	↑
Cases under PCA and related IPC per 10 lakh population	1.61	0.52	↓
Charge sheeting rate of IPC crime	32.60		
Births registered (%)*	96.30	100.00	
Population covered under Aadhaar (%)	89.92	45.00	↑

ANDHRA PRADESH

As of 2024, Andhra Pradesh ranks among the top performers in India's Sustainable Development Goals (SDG) progress, standing third in Niti Aayog's SDG Index with a score of 72. This reflects substantial progress on several goals, particularly Goal 7 (Affordable and Clean Energy), where the state is a national leader.

Other areas of notable advancement include Goal 1 (No Poverty), Goal 8 (Decent Work and Economic Growth), Goal 13 (Climate Action), and Goal 15 (Life on Land). However, the state faces challenges in some goals, particularly those related to health, education, and gender equality. Andhra Pradesh did not rank in the top for Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), and Goal 5 (Gender Equality), signalling areas where improvement is needed. The state aims to further boost its ranking by addressing these gaps, continuing its focus on sustainable development, and striving to become a leader in achieving the 2030 global SDG targets.

Andhra Pradesh has made significant strides in achieving various Sustainable Development Goals (SDGs). Here are some key achievements and areas of progress:

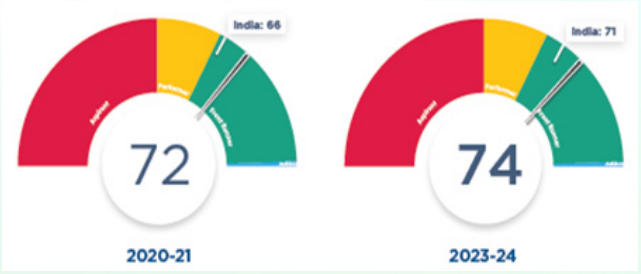
1. **SDG 1 - No Poverty:**
   - The state has made considerable efforts to reduce poverty through welfare schemes like Navaratnalu, which provides financial assistance to farmers, housing for the poor, and pensions for vulnerable groups.
2. **SDG 2 - Zero Hunger:**
   - YSR Rythu Bharosa and other agricultural support schemes have boosted food security and enhanced agricultural productivity, aiding the state's progress toward ending hunger.
3. **SDG 3 - Good Health and Well-being:**
   - The Dr. YSR Aarogyasri health scheme has expanded access to healthcare for low-income households, contributing to improved health outcomes. Additionally, the state has enhanced healthcare infrastructure, including telemedicine services.
4. **SDG 4 - Quality Education:**
   - The state has implemented reforms such as Amma Vodi, which provides financial support to mothers for their children's education, and Nadu-Nedu, aimed at

upgrading government schools. These initiatives have significantly improved educational access and infrastructure.

5. **SDG 6 - Clean Water and Sanitation:**
   - Andhra Pradesh has made notable progress in providing safe drinking water and sanitation facilities through initiatives like Jal Jeevan Mission and Swachh Andhra Mission, improving access to clean water and sanitation in rural and urban areas.
6. **SDG 7 - Affordable and Clean Energy:**
   - The state is a leader in renewable energy generation, particularly in solar and wind power, contributing to affordable and clean energy access across the state.
7. **SDG 8 - Decent Work and Economic Growth:**
   - With its focus on industrial development, tourism, and IT sector growth, Andhra Pradesh has seen positive progress in job creation and economic growth. Initiatives like MSME development programs have also contributed to boosting employment.
8. **SDG 9 - Industry, Innovation, and Infrastructure:**
   - Significant investments in infrastructure, particularly in roads, ports, and airports, have bolstered industrial growth. The state's push towards digitalization and innovation in governance has also contributed to infrastructure improvements.
9. **SDG 11 - Sustainable Cities and Communities:**
   - Programs like Mission for Elimination of Poverty in Municipal Areas (MEPMA) have targeted the development of urban infrastructure, affordable housing, and community services.
10. **SDG 13 - Climate Action:**
    - Andhra Pradesh has focused on afforestation, renewable energy expansion, and climate-resilient agriculture, contributing to its proactive stance on climate action.

Through these initiatives, Andhra Pradesh continues to make progress in various SDGs, striving for inclusive development and sustainability.

ANDHRA PRADESH



OVERALL PERFORMANCE

PERFORMANCE BY INDICATORS

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 1: No Poverty			
MPI Headcount Ratio (%)	6.06	15.60	↑
Households covered by health scheme/insurance (%)	80.20	74.60	↑
MGNREGA | SDG Index 4 – Employment offered against demanded (%) | SDG Index 3 – Employment provided against demanded (%)	99.94	83.81	
Beneficiaries under PMMVY (%)	54.04	96.40	↓
Households living in kachha houses (%)*	1.60	3.20	
SDG 2: Zero Hunger			
Beneficiaries under NFSA (%)	100.00	100.00	–
Children under 5 years who are underweight (%)*	29.60	35.50	
Children under 5 years who are stunted (%)*	31.20	31.50	
Pregnant women (15–49 years) who are anaemic (%)	53.70	52.90	↓
Women (15–49 years) whose Body Mass Index is below 18.5 (%)	14.80		
Rice and wheat produced per unit area | SDG Index 4 – three-year average (kg/ha) | SDG Index 3 – annual (kg/ha)	3,516.10	3,729.47	
GVA (constant prices) in agriculture (in lakhs/worker)	1.50	0.73	↑
SDG 3: Good Health and Well-being			
Maternal Mortality Ratio (per 100,000 live births)	45.00	65.00	↑
Under 5 Mortality Rate (per 1,000 live births)	27.00	33.00	↑
Children (9–11 months) fully immunized (%)	101.26	87.00	↑
Tuberculosis cases | SDG Index 4 – notification against target (%) | SDG Index 3 – notification rate per 1 lakh population	80.16	189.00	
HIV incidence per 1,000 uninfected population	0.10	0.05	↓
Life expectancy (in years)	70.60		
Suicide rate (per 100,000 population)	16.80	12.40	↓
Death rate due to road traffic accidents (per 100,000 population)	15.64	15.26	↓
Institutional deliveries out of the total deliveries reported (%)	99.98	99.60	↑
Monthly per capita out-of-pocket expenditure on health (%)	13.50	13.50	–
Health worker density | SDG Index 4 – Health worker density per 10,000 population | SDG Index 3 – Total physicians, nurses and midwives per 10,000 population	107.96	95.00	
SDG 4: Quality Education			
ANER in elementary education (class 1–8) (%)	96.90	87.98	↑
Average annual dropout rate at secondary level (class 9–10)	16.30	16.37	↑
GER in higher secondary (class 11–12) (%)	56.70	48.84	↑
Class 8 students achieving minimum proficiency level in language and maths (%)	73.50	90.2	↓
GER in higher education (18–23 years)	36.50	32.40	↑

	SDG INDEX 4	SDG INDEX 3	Direction
Persons with disability (>15 years) having completed secondary education (%)	15.40	15.40	–
GPI for higher education (18–23 years)	0.99	0.81	↑
Persons (>15 years) who are literate (%)	68.00	65.60	↑
Schools with access to electricity and drinking water (%) | SDG Index 4 – both (%) | SDG Index 3 – any one (%)	98.80	91.26	
Schools with computers (%)	51.60		
Trained teachers at secondary level (class 9–10) (%)	82.50	75.18	↑
Pupil–Teacher Ratio (PTR) at secondary level (class 9–10)	11.00	16.00	↑
SDG 5: Gender Equality			
Sex ratio at birth*	934.00	920.00	
Average wage/salary received (Female to male)	0.72	0.71	↑
Married women (18–49 years) having experienced spousal violence (physical/sexual) (%)	29.90		
Female to male LFPR (15–59 years)	0.62	0.55	↑
Women in managerial positions in listed companies (per 1,000 persons)	182.36	208.00	↓
Demand for family planning satisfied by modern methods (15–49 years)	93.50	93.60	↓
Female operated operational land holdings (%)	30.09	30.09	–
Women (aged 15–49 years) who own a mobile phone that they themselves use (%)	48.90		
Married women (aged 15–49 years) who usually participate in three household decisions (%)	84.00		
SDG 6: Clean Water and Sanitation			
Safe and adequate drinking water within premises through PWS (%) | SDG Index 4 – households | SDG Index 3 – population	73.38	68.52	
Rural population having improved source of drinking water (%)	100.00	99.81	↑
SBM(G) – Individual household toilets constructed against target (%)	100.00	100.00	–
SBM(G) – Districts verified to be ODF (%)	100.00	100.00	–
Schools with girls' toilet | SDG Index 4 – functional toilet (%) | SDG Index 3 – separate toilet facility (%)	96.60	97.28	
Stage of ground water extraction (%)	28.30	44.17	↑
Blocks/mandals/talukas over-exploited (%)	1.50	6.72	↑
SDG 7: Affordable and Clean Energy			
Households electrified (%)	100.00	100.00	–
LPG + PNG connections against number of households (%)	103.56	101.16	↑
SDG 8: Decent Work and Economic Growth			
Annual growth rate of GDP (constant prices) per capita (%)	4.05	3.84	↑

*The data values of the indicator are not comparable due to change in data source.

	SDG INDEX 4	SDG INDEX 3	Direction
SDG 8: Decent Work and Economic Growth			
Annual growth rate of GDP (constant prices) per capita (%)	5.24	2.52	↑
Unemployment rate (%) (15–59 years)	5.10	7.70	↑
LFPR (%) (15–59 years)	70.00	44.80	↑
Regular wage/salaried employees in non-agriculture sector without social security benefits (%)	15.50	17.30	↑
Households with any usual member with a bank/post office account (%)	91.60		
Functioning branches of commercial banks per 100,000 population	12.40	11.83	↑
ATMs per 100,000 population	19.86	16.36	↑
Women account holders in PMJDY (%)	54.50	55.05	↓
SDG 9: Industry, Innovation, and Infrastructure			
Targeted habitations connected by all-weather roads under PMGSY (%)	96.01	81.75	↑
GVA in manufacturing to total GVA (current prices) (%)	1.25	3.20	↓
Manufacturing employment as a percentage of total employment	2.18	2.05	↑
GVA in services to total GVA (current prices) (%)	40.21		
Services employment as a percentage of total employment	28.53		
Innovation score as per the India Innovation Index	15.46	14.90	↑
Households that own at least one mobile phone (%)	90.30		
Inhabited villages with 3G/4G mobile internet coverage (%)	47.91		
SDG 10: Reduced Inequalities			
Gini coefficient	0.21		
Seats held by women in PRIs (%)	38.99	38.99	–
SC/ST seats in State Legislative Assemblies (%)	98.33	98.33	–
Ratio of female-to-male workers as Professionals and Technical Workers (%)	61.70		
Crimes against SCs (per 100,000 SC population)	Null	Null	
Crimes against STs (per 100,000 ST population)	0.00	0.00	–
SDG 11: Sustainable Cities and Communities			
Urban households living in kachha houses (%)*	10.40	8.90	
SBM(U) – Individual household toilets constructed against target (%)	94.69	80.00	↑
Deaths due to road accidents in urban areas (per 100,000 population)	20.76	11.76	↓
SBM(U) – wards with 100% door-to-door waste collection	97.41	82.43	↑
SBM(U) – MSW processed to the total MSW generated (%)	7.43	24	↓
SBM(U) – wards with 100% source segregation (%)	73.45	48.65	↑

	SDG INDEX 4	SDG INDEX 3	Direction
Installed sewage treatment capacity to sewage generated in urban areas (%)	0.00	0.00	–
SDG 12: Responsible Consumption and Production			
Per capita fossil fuel consumption (in kg)	237.14	179.70	↓
Use of nitrogenous fertilizer out of total NPK (%)	0.00	0.00	
Hazardous waste recycled/utilized to total hazardous waste generated (%)	Null	Null	
Plastic waste generated per 1,000 population (tonnes/annum)	2.46	2.54	↑
BMW treated to total BMW generated (%)	100.00	100.00	–
SDG 13: Climate Action			
Lives lost due to extreme weather events (per 1 crore population)	221.03	221.03	–
Disaster preparedness score as per Disaster Resilience Index	11.50	11.50	–
Share of renewable in total energy mix (including allocated shares) (%)	89.15	84.78	↑
DALY rate attributable to air pollution (per 100,000 population)	1,436.00	1,436.00	–
Percentage of industries complying with environmental standards	64.22		
SDG 15: Life on Land			
Forest cover (%)	79.33	79.63	↓
Tree cover (%)	1.20	1.01	↑
Area covered under afforestation schemes (%)	Null	Null	
Change in carbon stock in forest cover (%)	−2.61		
Degraded land over total land area (%)	11.74	11.74	–
Increase in area of desertification (%)	30.37	12.62	↓
Wildlife crime cases per mha of protected area	3.00	4.00	↑
SDG 16: Peace, Justice, and Strong Institutions			
Murders per 100,000 population	3.60	4.00	↑
Cognizable crimes against children per 100,000 population	24.30	32.70	↑
Victims of human trafficking per 10 lakh population	2.58	2.65	↑
Missing children per 100,000 child population	2.37	9.36	↑
Courts per 100,000 population	2.80	2.72	↑
Cases under PCA and related IPC per 10 lakh population	7.74	8.61	↑
Charge sheeting rate of IPC crime	47.20		
Births registered (%)*	87.70	100.00	
Population covered under Aadhaar (%)	79.71	83.00	↓

Sources :

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Sustainability – A Global Outlook

1. ISO launches Global ESG Implementation Principles at COP29

At COP29, the International Organization for Standardization (ISO) unveiled new ESG Implementation Principles to help organizations navigate the complex Environmental, Social, and Governance (ESG) landscape. These guidelines aim to simplify compliance with disclosure requirements and improve the measurement, reporting, and communication of sustainability efforts.

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2. Singapore joins EU and China in Expanded Green Financing Taxonomy

Singapore has joined the European Union (EU) and China in presenting the Multi-Jurisdiction Common Ground Taxonomy (M-CGT), a significant step towards harmonizing sustainable finance taxonomies across the three regions. Developed by the People's Bank of China (PBOC), the EU Directorate-General for Financial Stability (FISMA), and the Monetary Authority of Singapore (MAS), the M-CGT builds on the existing EU-China Common Ground Taxonomy (CGT) to include the Singapore-Asia Taxonomy (SAT).

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3. EU Parliament agree to postpone, soften deforestation ban on imports

The European Parliament's recent vote to delay the EU deforestation regulation signals a shift that could impact environmental and trade policies for years to come. While the law was originally set to take effect by December 2024 for large companies, it now faces a one-year postponement, pushing deadlines to the end of 2025, with smaller companies complying by mid-2026.

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4. IDB to invest $11.3 billion in annual climate finance by 2030

The Inter-American Development Bank (IDB) and its private sector arm, IDB Invest, are accelerating their climate and environmental sustainability efforts across Latin America and the Caribbean. By 2030, they plan to significantly increase their green and climate financing—IDB aims for 50%, while IDB Invest targets 60%, including mobilized private capital.

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5. California to vote on stricter low carbon fuel standard amid higher cost concerns

California regulators are preparing to vote on amendments to the state's Low Carbon Fuel Standard (LCFS), a move that could intensify the push for low-carbon fuels to meet aggressive climate targets. The changes propose raising the carbon intensity reduction goal for transportation fuels from 20% to 30% by 2030 and establishing a 90% target by 2045. This policy, in effect since 2011, has driven significant production in renewable fuels but now faces scrutiny over its future impacts.

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6. China passes first-ever energy law to promote carbon neutrality

China has taken a landmark step in its climate strategy by passing its first-ever energy law, which will come into effect on January 1, 2025. Adopted during a session of the

Standing Committee of the National People's Congress—China's top legislative body—the law comprises nine comprehensive chapters covering a range of critical energy issues.

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7. American Petroleum Institute presents new policy roadmap to Trump administration

The American Petroleum Institute (API), representing nearly 600 U.S. oil and natural gas companies, has released a policy wishlist for President-elect Donald Trump's incoming administration. The platform focuses on reversing several Biden-era policies that API argues limit consumer choice and hinder industry growth.

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8. 80% of global financial regulators aligned with ISSB, TCFD recommendations

The Financial Stability Board (FSB) has released its 2024 progress report on climate-related financial disclosures, underscoring the strides made by global jurisdictions in implementing International Sustainability Standards Board (ISSB) disclosure standards. This report draws insights from a survey involving FSB member jurisdictions and input from key standard-setting bodies and international organizations.

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9. Amazon deforestation in Brazil hits 9-Year low

The Brazilian government, led by President, reported a significant milestone in forest conservation: the smallest annual deforestation rate in the Amazon in nearly a decade. According to the National Institute for Space Research (INPE), deforestation dropped by 30.6% in the year starting August 2023. During this period, 6,288 square kilometers (2,427 square miles) of forest were cleared, the lowest since 2014, INPE Director confirmed.

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10. IAASB unveils new global standard for Sustainability Reporting Assurance

The International Auditing and Assurance Standards Board (IAASB) has officially published the International Standard on Sustainability Assurance 5000 (ISSA 5000), marking a significant step in standardizing sustainability assurance practices globally. IAASB Chair announced this to be milestone during the recent Accountancy Europe/ IFAC webinar, highlighting the collaborative journey leading to its development.

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MONTHLY NEWS

Sustainability – Indian Context

1. India criticizes Developed Nations' climate finance stance at COP29

As negotiations at the CoP29 summit in Baku intensified, India expressed deep dissatisfaction with the lack of meaningful engagement from developed nations on critical climate finance and mitigation issues. Speaking at the closing plenary of the subsidiary bodies on Nov. 16, India's delegation criticized developed countries for stalling progress on the Sharm el-Sheikh Mitigation Ambition and Implementation Work Programme, a pivotal agenda item for the Global South.

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2. SEBI mulls measures to facilitate ease of doing biz for ESG Rating Providers

Markets regulator Sebi suggests changes to the framework for ESG Rating Providers, especially those using a subscriber-pays model. Sebi recommends exemption from disclosing ESG ratings to stock exchanges and sharing reports with subscribers and rated issuers simultaneously. The proposals aim to improve clarity and transparency in ESG ratings.

Read More.....

3. India Powers ahead in renewable energy, meeting clean energy targets

The Ministry of New and Renewable Energy announced substantial advancements in India's renewable energy capacity on Tuesday, revealing a record-setting increase over the past year that underscores the country's commitment to sustainable development. According to the latest data, India's renewable energy capacity surged by 24.2 gigawatts, marking a 13.5 percent rise to 203.18 GW in October 2024 from 178.98 GW in October 2023 as part of India's larger "Panchamrit" clean energy goals.

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4. Tata Power signs 25-year deal to power Noida airport with wind and solar energy

Tata Power has entered into a 25-year partnership with Noida International Airport to supply 23.8 megawatts of clean energy, including solar and wind power. According to a statement, the agreement, valued at ₹550 crore ($66 million), involved two power purchase agreements signed between senior officials of the two companies.

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5. Toxic smog engulfs New Delhi as air quality hits 'severe' levels ahead of winter

A thick blanket of toxic smog enveloped the Indian capital on Tuesday, plunging air quality into the "severe" range and raising concerns about public health, particularly ahead of the winter season when cold air traps pollutants. The hazardous mix of smoke, emissions, and dust is an annual occurrence in New Delhi. Vehicles, construction activities, and agricultural fires in neighboring states of Punjab and Haryana are primary contributors to the city's poor air quality.

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6. India regains Presidency of International Solar Alliance till 2026

India has been elected president of the International Solar Alliance from 2024 to 2026. France will serve as the co-president during the period. The announcement was made during the seventh session of the ISA Assembly, which is currently underway in New Delhi.

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7. MNRE approves 50 solar parks with 37.5 gw capacity, expands wind energy plans

The Ministry of New and Renewable Energy has approved 50 solar parks with a total capacity of nearly 37.5 gigawatts, Union Minister announced on Monday in New Delhi. While addressing the 7th General Assembly of the International Solar Alliance, the minister outlined India's ambitious renewable energy targets, which included identifying potential offshore wind energy sites to reach 30 GW capacity by 2030.

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8. SEBI proposes measures to facilitate ease of business for ESG rating providers

Markets regulator Securities and Exchange Board of India released a consultation paper on Thursday to facilitate ease of doing business for ESG rating providers or ERPs. The paper proposed several regulatory changes to enhance ERPs' scope, including rating unlisted securities and other products or issuers. Currently, ERPs are restricted to rating only listed entities.This change aims to broaden the market for ESG ratings and encourage more comprehensive assessments of various issuers.

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9. Coal PSUs to boost circular economy with innovative waste management

Coal public sector undertakings in India are scaling up their operations to convert their mining waste into valuable resources in the economic value chain, giving circularity a considerable fillip. According to a coal ministry, these PSUs are commissioning six overburden processing plants in different installation stages.

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10. IIT Indore develops catalyst to produce hydrogen from methanol

IIT Indore has developed a catalyst that produces purified hydrogen from methanol at much lower temperatures and is cheaper than current methods, according to PTI. The news agency said this breakthrough is expected to make hydrogen production more efficient, significantly boosting clean energy efforts.

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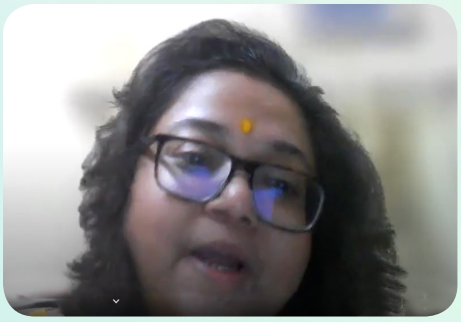
Vasudhaiva Kutumbakam

VK Webinar Series of the Sustainability Standards Board

The brand image designed for the *Vasudhaiva Kutumbakam* webinar series (VK Webinar Series) of the Sustainability Standards Board of the Institute of Cost Accountants of India is a powerful visual representation of the Sanskrit concept *"Vasudhaiva Kutumbakam,"* meaning "The World is One Family." This phrase underscores a philosophy of global unity, which is central to the Board's mission to promote sustainable practices worldwide. The brand image incorporates an image of the Earth, symbolizing the interconnectedness of all living beings, and uses shades of orange, green, and teal to deepen the sustainability theme. Orange conveys warmth, energy, and a sense of responsibility, signalling proactive efforts toward environmental stewardship. Green, widely associated with nature and growth, highlights the Board's focus on environmental consciousness, while teal brings a sense of stability and peace, reinforcing the aim for a balanced coexistence. The typeface for *"Vasudhaiva Kutumbakam"* combines traditional calligraphic flourishes with modern readability, reflecting a blend of cultural heritage and contemporary values that the Board embraces in its approach to sustainability. The positioning of the Earth at the top of the brand image, supported by the phrase below, visually suggests that the foundation of global unity sustains the planet, highlighting the notion of a global family caring for a shared world. As a visual identity for the Board's VK Webinar Series, the brand image effectively communicates the values of interconnected economic and environmental responsibilities. It serves as an invitation for readers to adopt a global mindset and work together to preserve and sustain the planet, reinforcing the Board's vision of a world united by shared sustainable practices. The brand image for the Board's VK Webinar Series weaves together cultural heritage, global unity, and sustainability, creating a call to action that aligns with the vision of the Institute of Cost Accountants of India. Through its colours, text, and Earth imagery, it prompts viewers to consider the importance of a unified, sustainable approach to preserving our planet.

CMA Dibbendu Roy

CMA (Dr.) Ashish P. Thatte



CMA (Dr.) Aditi Dasgupta

CMA T.C.A. Srinivasa Prasad

The inauguration of the 2nd batch of Certificate Course on ESG was held on October 31,2024 on the auspicious day of Diwali.

CMA TCA Srinivasa Prasad, Vice President, ICMAI was present during the inauguration. CMA (Dr.) Ashish P. Thatte, Chairman, Sustainability Standards Board welcomed the Vice President and all the participants and delivered the opening remarks. He said, the ESG certificate course is rich in contents with a balance in both practical and theoretical orientation. He profusely thanked the members of SSB for developing the contents for the course. He further spoke about the new brand image of *Vasudhaiva Kutumbakam* webinar series and explained in detail the meaning and thought process behind the design. Dr. Thatte thereafter spoke on the diversified activities of the Board and appealed the participants the take active lead in the activities.

CMA T.C.A. Srinivasa Prasad during his special address complimented the efforts of SSB under the able leadership of Chairman. He spoke on the ever increasing scope and need to educate the professionals in the sphere of Sustainability. He thereafter unveiled the brand image of *Vasudhaiva Kutumbakam* webinar series. Talking about the new image, the Vice President complimented the thought process of people who were instrumental in designing an exclusive brand image for the webinar series. He added that the vision behind the new image will lead the Board to achieve great results in the times to come.

The classes for the 2nd batch of ESG Certificate course commenced from November 03, 2024.

॥ सुखिनोभवंतु ॥

BROCHURE ON CERTIFICATE COURSE ON ESG (BATCH NO. 3)

CERTIFICATE COURSE ON ESG

Brochure

Sustainability Standards Board

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Behind every successful business decision, there is always a CMA

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, enrols 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 ach
- 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	**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 **ESG – the pathway to Sustainability** Introduction Conceptual framework Material ESG Issues Concept of ESG Maturity Challenges in implementing ESG	3 hours
2	**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	5 hours
3	**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** 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**	5 hours
4	**Product Life Cycle, Service Life Cycle and Life Cycle Assessment**	2 hours
5	**Overview of Laws relating to social security and Human rights** Labour-Employer relationship Training & Development Occupational Health & Safety Community Development & Public Policy	3 hours
6	**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. **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**	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

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Sustainability Standards Board

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Behind every successful business decision, there is always a CMA

SPECIAL ARTICLE

Green Jobs and CMAs

Part-III (Energy Sector)

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Practicing Cost Accountant
Thane

Energy mainly in the Form of Electricity is the backbone of our modern life. In India, coal-fired thermal power plants (CFTPP), is dominating in generation of electricity, though it contributes maximum to GHG. Through this part of the article, we try to highlight how Cost and Management Accountants (CMAs) can champion green job concepts in CFTPP through financial analysis for emission control, optimising fuel efficiency and fostering sustainability in operations. By leveraging their expertise, CMAs can drive strategic initiatives that balance economic feasibility with environmental responsibility, supporting India's transition to sustainable power generation.

In continuation of the article "Green Jobs and CMA" – in the month of September 2024, which covered the general concept on Green Jobs (GJ).

Green Jobs: Green jobs are jobs that help to preserve and restore the environment.

(Published in September 2024 "Sukhinobhavantu" Newsletter)

Green Jobs Part-II (Manufacturing Sector): Role of CMA-

1. CMAs use Environmental Management Accounting techniques to track and reduce the cost of impact on environment due to activities in manufacturing sector through optimised raw material usage and waste recycling.
2. By forecasting future cleanup costs, CMAs can assess and prevent costly environmental damage in future.
3. CMAs support sustainable supply chains and green financing, promoting eco-conscious partnerships and investments in low-carbon technologies.

(Published in October 2024 "Sukhinobhavantu" Newsletter)

Energy Sector:

Energy, particularly in the form of electricity, is essential in modern life. It powers nearly every aspect of our daily activities. From the basic necessities like lighting, heating, cooling to advanced technologies like communication, transportation, healthcare, data processing and industrial production etc, electricity is the driver to shape our modern world.

In India the source of electricity is mainly as below:

1. Fossil Fuel – 57%
2. Non-Fossil Fuel – 43%

Out of the total 57% of the Generation of Electricity from Fossil Fuel, 83% is Coal based. Coal Fired Thermal power plant (CFTPP) still a dominant source of power in India. Which contributes maximum pollution to the environment.

In the Year 2023-24 total Power Generation is 1,915 TWh* (approx.) in India. Out of which Coal Based is 47% i.e about 900 TWh.

Generation of one kWh (1 unit) of electricity from CFTPP emits 800gms of CO_2 (approx.). Hence in a year 720 million MT of CO_2 is released in air.

Again, generation of one kWh (1 unit) of electricity from CFTPP emits about 4 gms of SO_2. It means 3.6 (approx.) million MT of SO_2 is released in air.

Also, generation of one kWh (1 unit) of electricity from CFTPP emits about 1.5 gms of NO_x. It means 1.3 (approx.) million MT of NO_x is released in air.

(NO_x – Combination of nitric oxide (NO) and nitrogen dioxide (NO_2)

This is a significant share of emissions of CO_2, SO_2 and NO_x on India's greenhouse gas (GHG) emissions profile.

*TWh (Terawatt hour) = 10^9 KWh (Kilowatt hour).

Here, we emphasised on how GJs concepts can be applied on CFTPP.

Below are some specific areas and points how a CMA should cover to promote GJ and sustainability initiatives in CFTPP. By virtue of their expertise in financial management, cost control, and strategic planning they are empowered to contribute effectively to various initiatives aimed at reducing emissions of GHG and enhancing sustainability.

1. **Financial analysis of Implementation of Emission Control Technologies:**

   A detailed cost benefit analysis on implementation of advance technologies like-

   a. Carbon Capture and Storage (CCS) – A process of capturing carbon dioxide (CO_2) produced in CFTPP, transporting it, and storing it underground.

   b. Flue Gas Desulfurization (FGD) - A process that removes sulphur dioxide (SO_2) from flue gas produced in boilers.

   c. Selective Catalytic Reduction (SCR) - A technology used in power plants to reduce nitrogen oxides (NO_x) emissions.

   The analysis is done to evaluate the long-term financial viability and return on investment (ROI) by reducing regulatory penalties and improving environmental compliances. Though initial capital investment is high but in long run the potential savings and future viability will compensate the investment. It will be even beneficial especially when coupled with carbon credit incentives or subsidies.

   GOI, State Govt. and Regulators offered various subsidies and initiatives to encourage pollution reduction technologies in CFTPP including as mentioned above CCS, FGD, SCR etc. Although direct subsidies for FGD and SCR are less defined, the government / regulator offers financial mechanisms such as the Green Credit Program to encourage emission-reducing technologies.

   A CMA can do accurate cost capturing from the beginning by creating proper Works Breakdown Structure (WBS) of the project, by recognising all project-related costs, including borrowing cost (IndAS-23). And capitalise them properly as per IndAS-16 to apply various subsidies available.

   Funding Strategies: A CMA can identify and secure funding opportunities, such as grants and green financing, to support the implementation of above project with less borrowing cost.

2. **Fuel efficiency and optimisation:**

   A CMA can assess the cost-effectiveness of various types of coals, such as bituminous, washed, and imported coal, by evaluating their Gross Calorific Value (GCV) and costs. This helps in optimising the fuel mix for better emissions control (low emission) and economic efficiency.

A CMA is well versed that the fuel mix should align with the boiler's heat rate while being the most economical option based on the available fuel stock. By optimising this mix, a CMA can ensure efficient running of boiler and lower emissions of GHG while managing costs effectively. This approach balances performance with economic viability, enabling better operational decisions in electricity generation.

3. Sustainability in operation:

A CMA can play a vital role in promoting sustainability in operations, particularly within CFTPP, by focusing on operational best practices. How a CMA can contribute to achieving sustainability in operation are as below:

(Some Terminologies we will discuss relevant to the topics

Those who are not from Power Industry, we are mentioning some terminologies which are relevant to the topics.

Plant Load Factor (PLF): PLF is the measure of plant capacity utilisation. Means at what capacity the plant is running.

Example: If a generating plant with **IC (Installed Capacity) 500 MW** operates at its maximum capacity throughout the day (24 hours), then it can generate = 500 MW X 24 hrs = 12,000 MWh.

Suppose the plant is **operating at 450 MW** for 24 hours, then it will generate = 450 MW X 24 hrs = 10,800 MWh.

The PLF = 10,800 MWh **/**12,000 MWh = 0.90 (or **90%**)

Gross Calorific Value' or 'GCV' in relation to a thermal generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;

Station Heat Rate (SHR) is the amount of fuel used as input energy (kilo cals.) to generate one kilo watt hour (kWh) of electricity i.e Heat Rate = Thermal Energy In / Electrical Energy Out.

Efficiency – Boiler, Turbine & Generator

In a power plant heat rate can be measured from the summation of efficiency of three subsystem where *energy conversion is taking place*.

1. The boiler, where fuel heat is converted to steam energy.
2. The turbine, where steam heat is converted to mechanical rotational energy.
3. The generator, where rotational energy is converted into electrical energy

The efficiency of the boiler can be determined as follows: -

Boiler efficiency (η) = Heat Output / Heat Input X 100 (as %)

= Heat in Steam (Kcals) / Heat in Fuel Input (Kcals) X 100

The efficiency of any turbine and generator can be defined as its ability to convert the input energy into useful output energy which is expressed in the form of the following equation.

Efficiency (η) = Output / Input

Sub-critical thermal power plants can attain an efficiency of around 38%, compared with 41% by supercritical thermal power plants, while ultra-supercritical thermal power plants can reach up to around 44% efficiency.)

1. Measuring the operational efficiency:

Example:

Say, for a 500 MW CFTPP. Total energy delivered in period of 1 hr = 500 MWh. Taking efficiency = **37.96%** and 90% PLF.

Input = 500 X 90% X 860 kcal/ 37.96% = 10,19,494 kcal (1 kWh requires 860 kcal)

Let Calorific value of Coal = 3,300 kcal/kg

Coal requirement per hour = 10,19,494 / 3,300 = 309 MT

Let efficiency increased by 1% = **38.96%** coal requirement will be 301 MT

Yearly saving of usage of Coal by increasing 1% efficiency = 8 MT X 24 hrs X 365 days = **70,080 MT.** in a year.

Lifetime (assuming 30 years of life) savings in usage of Coal = 2.1 million MT due to increasing efficiency by 1%.

To calculate the average reduction of emission of CO_2, NO_x, and SO_2 due to less burning of 2.1 million MT of coal.

a. **Carbon Dioxide (CO_2)**:

On average, burning 1 MT of coal emits about **2.86 MT of CO_2**. *(The extra mass of the oxygen atoms is what makes the total weight of the CO_2 greater than the weight of the coal.)*

Therefore for 2.1 million MT of coal, CO_2 emissions = 2.1 million MT X 2.86 MT CO_2 = 6.01 million MT of CO_2

b. **Sulphur Dioxide (SO_2)**:

The average emissions for SO_2 from burning coal range from **1.5 to 4.5 grams of SO_2 per kWh**. Considering an average of about 2.5 g/kWh, SO_2 emissions will be = 2.1 million MT X 2.5 g/kWh = **42,000 MT of SO_2.**

c. **Nitrogen Oxides (NO_x)**:

The emission factor for NO_x from coal combustion is typically around **0.5 to 1.5 grams of NO_x per kWh generated**.

Assuming a typical efficiency and average of 1 g/kWh for calculations, this could yield about **10,500 MT of NO_x** per 2.1 million MT of coal burned.

2. **Auxiliary consumption.**

Example:

Assuming Auxiliary Power consumption as 8% running at 90% PLF

Estimated reduction in auxiliary power consumption = **0.3%**

For 500 MW Power Generating Unit savings in auxiliary power = 8% X 500 X 0.3%

= **0.12 MW**

Yearly savings = 0.12 X 365 X 24 X 90% = 0.95 Mus.

Coal requirement to generate 0.95 Mus:

1 kWh required 860 kcal of energy.

0.95 Mus = 0.95 GWh = 950 X 10^3 kWh X 860 kcal/kWh = 817 X10^6 kcal.

Assuming Calorific value of coal = 3,300 kcal/kg.

Coal consumption = 817 X 10^6 kcal / 3,300 kcal/kg = 24.76 X 10^4 kg = 247.58 MT.

Adjustment for plant efficiency by 35% (assuming).

Effective coal required = 247.58 / 35% = **707.36 MT**. in a year.

Lifetime (assuming 30 years of life):

a. **CO_2 emissions = 0.06 million MT.**
b. **SO_2 emissions = 425 MT.**
c. **NO_x emissions = 105 MT.**

These calculations will help management to clearly notice the value of boosting overall efficiency. Increasing overall efficiency to reduce coal usage, which has the dual effect of lowering costs of generation and reducing GHG emissions.

Future of Power (Electricity) Sector in India:

India's energy generation policy aims to reduce carbon intensity of its economy by less than 45% by the end of the decade. To compensate it India aims to install 500 GW of renewable energy capacity by 2030. India also aims to produce 5 million MT of green hydrogen by 2030, which will generate 125 GW of renewable energy.

Reduction of coal-based electricity generation by more than 50% in India by 2030 is challenging due to coal's established infrastructure and availability. It still supplies most of the nation's energy needs. Alternatives like renewable energy are expanding but are yet to prove its consistency, large-scale power generation and storage. Additionally, the transition requires significant investment and time to ensure a stable and reliable energy supply for India's growing demand.

Conclusion:

We encourage CMAs in the power sector to identify key areas where coal consumption can be reduced as part of promoting GJs. This could involve improving operational efficiency, optimising fuel use, and adopting cleaner technologies. Such steps not only lower GHG emissions but also support the sector's transition toward more sustainable energy practices. SB

ARTICLE-I

ESG Bonds: A Sustainable Investment Opportunity

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This paper explores the concept of ESG bonds, which are financial instruments designed to promote positive environmental, social, and governance (ESG) outcomes. It examines into the applications of ESG bonds, their key characteristics, and the advantages they offer to investors. The paper also highlights important considerations for investors when evaluating ESG bonds, such as ESG criteria, third-party verification, impact reporting, risk assessment, and liquidity. By understanding these aspects, investors can make informed decisions about ESG bonds and contribute to a more sustainable and ethical financial landscape.

Introduction

ESG bonds provide investors the same benefits as ordinary bonds, with the extra allure of helping to bring about positive global change. Income investors who value low volatility and the chance to allocate their funds for a better cause are drawn to these debt securities. Let's examine the world of ESG bonds, including their, applications, and methods for incorporating them into your investment portfolio.

A loan instrument that supports environmental, social, or governance objectives is known as an ESG bond. For instance, a firm may use ESG bonds to finance trash reduction, solar energy projects, or other environmental goals, or a municipality may use them to finance community development initiatives.

An ESG bond's issuer is the borrower, just like any other debt security, and the lender is the bondholder or investor. Interest is paid to bondholders by the issuer at predetermined periods; the rate is frequently fixed. Bondholders receive their money back when the bond matures and the issuer repays the principal.

Issuers of ESG bonds may be governments, corporations, or local governments. This also applies to conventional bonds. Most buyers of ESG bonds are institutional investors. Additionally, exchange-traded funds (ETFs) that track ESG bonds are a popular option for sustainable investment portfolios for retail investors.

Both conventional and ESG bonds often offer income and stability to an investment portfolio. Bonds are not subject to stock market fluctuations in value or repayment terms. Bond values, however, are susceptible to fluctuations in the current interest rate environment.

Bloomberg reports that the entire amount of "impact" bonds issued in 2023 was above $939 billion. This is 3% more than the previous year and just less than the $1.1 trillion in total issuance in 2021. According to the Institute of International Finance, by mid-2024, worldwide ESG debt had surpassed $6.5 trillion.

The application of ESG bonds

Sustainable efforts are financed via ESG bonds. The bond may be issued for general usage or to cover the cost of particular projects. The goal is decided upon before to the bond's issuance, giving investors flexibility over how their money is used. The objective of an ESG bond also determines the bond's classification. Four categories of ESG bonds are defined by investment research firm MSCI (MSCI -1.89%) and others:

Sustainability bonds: The money raised goes toward initiatives that benefit society or the environment.

Green bonds: Specific environmental projects are funded using the proceeds. This group includes blue bonds and climate bonds. Blue bonds are used to finance projects related to the sea, such sustainable fishing, whereas climate bonds are used to finance solutions to climate change and the transition to renewable energy.

Social bonds: The money raised goes toward specific initiatives having a social focus, such building more affordable homes.

Sustainability linked Bonds: The coupon rate is dependent on sustainability goals, although proceeds are still available for general use. Bondholders will be entitled to an extra rate if the issuer is unable to meet the targets.

Important Characteristics of ESG Bonds

Environmental Criteria: ESG bonds usually support initiatives that advance environmental sustainability, like sustainable agriculture, energy efficiency, renewable energy, and pollution prevention. The goals of these initiatives are to slow down global warming, preserve natural resources, and safeguard ecosystems.

Social Criteria: In addition to financial returns, ESG bonds may emphasize social issues such as community development, affordable housing, healthcare, and education. These initiatives seek to improve social cohesion, lessen inequality, and assist marginalized groups.

Governance Criteria: ESG bonds consider the governance practices of the issuing company. This includes accountability, transparency, and careful management. Investors are attracted to companies with strong governance frameworks and policies that fit with sustainable practices.

Advantages of ESG Bond Investing

ESG Integration: Investors can include social and environmental factors into their investment portfolios by utilizing ESG bonds. Funding sustainability-related projects can benefit investors both financially and in other ways.

Risk management: ESG criteria can provide important insights into an organization's long-term survival. Investors can assess and manage potential risks associated with evolving regulations, reputational issues, and climate change by purchasing ESG bonds.

Opportunities for Diversification: ESG bonds offer a way to diversify investments in addition to traditional fixed-income products. They provide exposure to sectors that encourage steady expansion, which helps counteract the risk in existing holdings and reduce portfolio risk overall.
Enhanced Reputation: By demonstrating their dedication to sustainability, issuers of ESG bonds can improve their standing in the market. This could draw in more investors and facilitate better access to funding on possibly advantageous conditions.

Aspects to Take into Account for ESG Bond Investors

Investors should evaluate and incorporate these bonds into their investment portfolios with a few crucial points in mind. In order to maximize the return on their sustainable investments, investors should take these factors into account.

Respect for ESG Objectives

Evaluating an ESG bond's compatibility with an investor's particular ESG objectives and beliefs is crucial. The project's effects on the environment and society, the issuer's sustainability framework, and the openness of reporting and disclosure should all be considered by investors. Investors

can make sure that their investments have a significant impact by choosing bonds that closely match their ESG objectives.

Reputation and Certification

Investors ought to seek out ESG bonds that conform to established certification programs and guidelines. Additional reassurance regarding the bond's legitimacy and compliance with sustainability standards can be obtained by purchasing bonds accredited under frameworks like the Sustainability Bond Guidelines, Social Bond Principles, or Green Bond Principles. Investors can distinguish initiatives that truly have an impact from those that might not adhere to strict ESG criteria with the use of certification. We'll go into further detail on these following.

Profile of Risk and Return

ESG bonds are risky investments like any other, therefore buyers should carefully consider the risk and return profile. Take into account elements including the issuer's creditworthiness, the feasibility of the particular project, and the general state of the market. ESG bonds have the potential to yield competitive financial returns, but in order to make wise judgments, it's critical to evaluate the degree of risk involved in each investment.

Impact Assessment and Disclosure

ESG bond efficacy evaluation requires transparent and trustworthy impact measurement and reporting. Investors want to assess the reporting procedures of the issuer, the accessibility of impact measurements, and the process of verification employed to guarantee the precision of data disclosed. Enough impact reporting enables investors to monitor and hold issuers responsible for the social and environmental effects of their investments.

The act of diversification

Investors should consider distributing their ESG bond holdings among a number of sectors, geographical areas, and project types. Diversification helps control risk in addition to acquiring a larger range of sustainable possibilities. Bonds that promote a variety of causes, such as renewable energy, social development, and sustainable infrastructure, give investors the opportunity to support several facets of sustainability while also potentially enhancing portfolio performance.

Having Conversations with Issuers

Investors can effectively promote good change by actively engaging with issuers. Investors have the power to push for the implementation of reputable certification programs, better reporting, and more robust ESG practices. Investors can voice their expectations, promote openness, and help to further enhance ESG bond market standards by having conversations with issuers.

ESG Inclusion in Overarching Plan

ESG bonds ought to be analyzed in the larger framework of a shareholder's entire investment plan. Along with other sustainable investment strategies including impact investing, shareholder engagement, and ESG-themed funds, investors can investigate combining ESG bonds. ESG factors are integrated into the investment decision-making process when a comprehensive strategy is used.

Conclusion

The phrase "environmental, social, and governance" (ESG) bonds refers to a group of green, social, and sustainable development bonds. ESG bonds, also called green bonds or sustainable bonds, are debt instruments issued by governments, corporations, and other institutions to fund projects that improve governance, the environment, and society. By purchasing these bonds, investors can support initiatives that deal with social issues, climate change, and sustainable business practices. SB

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ARTICLE-II

The Role of Sustainable Procurement in Sustainable Development

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Sustainable procurement integrates environmental, social, and governance considerations into purchasing decisions, aiming to minimize environmental impact and maximize social and economic benefits. Whereas sustainable development satisfies current needs without jeopardizing the ability of future generations to fulfill their own. Achieving sustainable development necessitates the balance of three essential components: economic growth, social inclusion, and environmental protection. This paper provides an overview of the role of sustainable procurement in promoting sustainable development and evaluates the associated challenges. The paper concludes that sustainable procurement is essential for achieving long-term sustainable development, as it supports the creation of resilient communities, economies, and ecosystems. By integrating sustainable procurement practices, organizations can future-proof themselves against evolving market dynamics and regulatory requirements, securing a competitive advantage in an increasingly sustainability-focused global marketplace.

Introduction

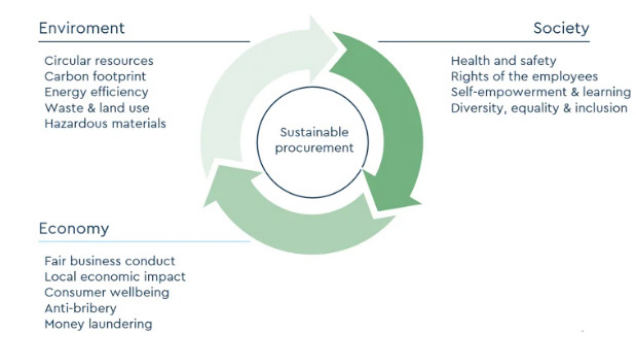
Sustainable procurement involves incorporating environmental, governance, and social aspects of corporate responsibility into the procurement process and decision-making while also meeting stakeholder expectations. The goal is to minimize environmental impact and maximize positive social outcomes. On the other hand, Green procurement involves selecting goods and services that have a minimal negative impact on the environment. The rising demand for recyclable materials, energy-efficient solutions, and sustainable technologies is encouraging businesses to adopt environmentally responsible practices. In green procurement, the focus is more on the environmental consequences of purchasing decisions than on the cost. This approach evaluates the environmental impact of a product throughout its entire life cycle (GEP, 2016). Sustainable development satisfies current needs without jeopardizing the ability of future generations to fulfill their own. Sustainable development requires coordinated efforts to create an inclusive, sustainable, and resilient future for both people and the planet. Achieving sustainable development necessitates the balance of three essential components: economic growth, social inclusion, and environmental protection. These components are interdependent and vital to the well-being of individuals and societies. This paper aims to give an overview of the role of sustainable procurement for sustainable development. The paper also evaluates the challenges associated with sustainable procurement. The author collected information from different website sources, journals, and books with the objective of providing a comprehensive overview of the role of sustainable procurement for sustainable development.

Sustainable Procurement Concept

Eco-friendly procurement primarily emphasizes environmental factors. Often referred to as

"green sourcing" or green procurement. This approach focuses on replacing one material with a more environmentally friendly alternative. However, sustainable procurement goes beyond just environmental considerations. Organizations are now adopting a more comprehensive approach to sustainability, integrating environmental, social, and economic factors. These considerations begin before entering into business relationships and continue through the entire supply chain management process. Many procurement leaders are increasingly recognizing their role in driving positive change by implementing sustainable procurement (Environment U.N, 2020). Figure 1 shows the triple bottom line of sustainable procurement.

Figure 1: Sustainable Procurement



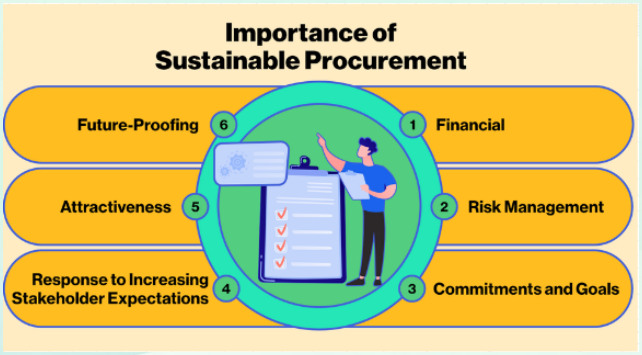
Source: Sievo.Com

Figure 1 highlights sustainable procurement as a process that integrates environmental, economic, and social factors. On the environmental side, it emphasizes the importance of circular resources, reducing carbon footprints, enhancing energy efficiency, minimizing waste and land use, and managing hazardous materials. From an economic perspective, sustainable procurement promotes fair business conduct, supports local economic impact, ensures consumer well-being, and combats unethical practices such as bribery and money laundering. On the social front, it focuses on health and safety, protecting employee rights, fostering self-empowerment and continuous learning, and promoting diversity, equality, and inclusion. Figure 1 further shows the interconnectedness of these three pillars, illustrating that sustainable procurement requires a comprehensive approach that balances environmental, economic, and social considerations.

Importance of Sustainable Procurement in Sustainable Development

Figure 2 highlights the importance of sustainable procurement by presenting six key benefits that include financial, risk management, commitments and goals, stakeholder expectations, attractiveness, and future-proofing. Sustainable procurement practices can lead to financial savings by optimizing resource use, reducing waste, and managing supply chain costs more efficiently. It also plays a crucial role in risk management by minimizing exposure to potential disruptions, regulatory non-compliance, and reputational damage, ensuring that organizations remain resilient in a rapidly changing environment.

Figure 2: Importance of Sustainable Procurement



***Source**: Freely Available on the Internet*

Additionally, sustainable procurement aligns with an organization's sustainability commitments and goals, such as reducing carbon emissions or supporting fair labor practices. It helps organizations respond to growing stakeholder expectations for ethical and environmentally responsible behavior, enhancing their overall attractiveness to customers, investors, and employees. By adopting sustainable procurement, organizations can future-proof themselves, maintain long-term access to resources, adapt to evolving regulations, and secure a competitive advantage in markets that increasingly prioritize sustainability.

Linkages between Sustainable Procurement and Sustainable Development

Sustainable procurement and sustainable development are closely linked, as both aim to promote environmental, social, and economic well-being.

1. **Environmental Impact**

   - **Sustainable Procurement**: Involves selecting products, services, and suppliers that minimize environmental damage. This may include choosing goods with lower carbon footprints, recyclable materials, or suppliers who follow sustainable practices (Public Procurement, 2024.).
   - **Sustainable Development:** Promotes the responsible use of natural resources to ensure long-term environmental health. Sustainable procurement supports this by reducing resource consumption, waste, and pollution.

2. **Economic Benefits**

   - **Sustainable Procurement**: This can lead to cost savings through increased efficiency, reduced waste, and lower energy use. It also encourages innovation and market development for sustainable products.
   - **Sustainable Development**: Aims to build resilient economies by balancing growth with resource conservation. Sustainable procurement practices can help businesses adapt to market changes, regulatory requirements, and consumer preferences, contributing to sustainable economic development.

3. **Social Equity**

   - **Sustainable Procurement**: Encourages fair labor practices, ethical sourcing, and social responsibility. It promotes fair wages, safe working conditions, and community engagement.
   - **Sustainable Development**: Focuses on improving the quality of life for all, reducing inequality, and promoting social justice. By adopting sustainable procurement practices, organizations contribute to these goals by supporting fair trade, ethical labor, and community well-being.

4. **Regulatory Compliance and Risk Management**

   - **Sustainable Procurement**: Helps organizations comply with environmental, social, and governance (ESG) regulations, reducing the risk of legal penalties, reputational damage, and supply chain disruptions.

- **Sustainable Development**: Involves creating policies and frameworks that guide sustainable practices across sectors. Sustainable procurement is one way for organizations to align with these policies and manage risks associated with unsustainable practices.

5. **Long-term Value Creation**

- **Sustainable Procurement**: Focuses on creating long-term value by investing in sustainable products, services, and relationships with suppliers.
- **Sustainable Development**: Aims to ensure long-term prosperity without compromising future generations' ability to meet their needs. By integrating sustainable procurement, organizations help build more sustainable communities, economies, and ecosystems.

Challenges of Sustainable Procurement

1. **Lack of Knowledge**

Consumers and businesses may not be aware of sustainable practices, which can lead to the continued purchase and sale of unsustainable products. Suppliers may also be reluctant to change their practices if they don't understand sustainable procurement. This problem can occur at various levels of an organization, including procurement management teams unsure of the best approaches to take and shareholders who may not fully understand the advantages that sustainable procurement offers (6 Challenges of Sustainable Procurement | Dryden Group, 2024).

2. **Limited Internal Resources**

Time, funding, and other resources are crucial to achieving optimal outcomes from sustainability initiatives. Procurement teams require time to learn the processes needed to implement sustainable sourcing and purchasing practices effectively.

3. **Higher Cost**

Sustainable procurement normally can cost 10–30% more as compared to normal procurement.

4. **External Factors**

Government funding and cultural differences can pose obstacles to sustainable procurement. Various external circumstances also present challenges to sustainable procurement, such as government funding, cultural support, and political climate. Some cultures may be more receptive to sustainability initiatives and may receive additional support from their governments and political leaders to promote environmentally friendly practices (6 Challenges of Sustainable Procurement | Dryden Group, 2024)

5. **Technological Limitations**

Green technology may not be mainstream yet, and companies may not be financially stable enough to invest in it. Many procurement managers and departments discover that they require a different set of tools or technologies to effectively make their procurement processes more environmentally friendly (What Is a Green Procurement Policy? | Green Business Benchmark, 2021).

6. **Supplier Selection**

Choosing sustainable suppliers can be difficult because it involves a complex decision-making process that considers different objectives and priorities.

7. **Other Challenges**

It includes a lack of clarity, information, capacity, incentives, and support for implementation. However, addressing these challenges can help build sustainable procurement processes that contribute to long-term environmental and social benefits.

Conclusion

Sustainable procurement is a vital component in achieving sustainable development, as it integrates environmental, economic, and social considerations into purchasing decisions, aligning them with the broader goals of sustainability. By adopting sustainable procurement practices, organizations can minimize their environmental impact, support social equity, and contribute to economic growth, all while meeting the increasing expectations of stakeholders. This approach not only supports an organization's sustainability commitments but also enhances its attractiveness to customers, investors, and employees and secures a competitive advantage in markets that prioritize sustainability.

However, implementing sustainable procurement comes with challenges, including a lack of knowledge, higher costs, and external factors like government policies, technological limitations, and complex supplier selection processes. Overcoming these obstacles requires a concerted effort from businesses, governments, and consumers to build capacity, provide incentives, and foster a greater understanding of sustainable practices. By addressing these challenges, organizations can develop procurement processes that generate long-term environmental, social, and economic benefits, ultimately contributing to a more inclusive, sustainable, and resilient future. SB

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19th Webinar

Overview of Green Battery Concepts and Its Future in Enhancing Sustainability in India

October 25, 2024 from 4 to 5: 15 p.m.

CMA (Dr.) Aditi Dasgupta

CMA Chandrashekhar Chincholkar

As India advances toward sustainability, green batteries hold immense potential and scope to reduce fossil fuel dependence, particularly in high-impact sectors like transportation and energy. To explore this transformative technology, the Sustainability Standards Board of the Institute of Cost Accountants of India , on 25th October, 2024, organised the 19th *Vasudhaiva Kutumbakam* webinar on the topic "Overview of Green Battery Concepts and Its Future in Enhancing Sustainability in India" . CMA Chandrashekhar Chincholkar addressed the participants. The presentation covered various aspects of the green battery ecosystem and its potential to transform India's sustainability and energy landscape.

The speaker discussed the historical evolution of environmental governance, emphasizing global and Indian efforts such as the Stockholm Conference, Sustainable Development Goals (SDGs), and initiatives like the Paris Agreement. India's regulatory framework, including the Business Responsibility and Sustainability Reporting (BRSR) guidelines, was highlighted as a critical step towards integrating sustainability into business practices. He further outlined the challenges and opportunities in the green battery sector, including the importance of localizing supply chains, promoting battery recycling, and addressing environmental concerns linked to lithium mining and cobalt sourcing. He emphasized the potential of technologies like battery management systems and the need for innovation to reduce lifecycle carbon emissions.

A vision for India's energy transition was shared, targeting 500 GW of renewable energy by 2030 and emphasizing the role of green batteries in achieving this goal. The economic impact of scaling up battery production and the critical role of electric mobility in meeting India's transportation and energy needs were underscored. Examples like vehicle-to-grid (V2G) solutions and the use of green batteries in electric buses and other vehicles were discussed as vital components of India's future energy strategy. The presentation concluded with an optimistic outlook on India's efforts to develop a robust green battery industry, reduce import dependency, and align with the principles of a circular economy, all while supporting the country's ambitious goals for sustainability and energy self-reliance.

In conclusion, the speaker responded to the queries raised by the participants. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI delivered the concluding remarks and proposed Vote of Thanks.

20th Webinar

Independence through financial literacy- A route to achieve UN's Sustainable Development Goals

November 8, 2024 from 4 to 5: 15 p.m.

CMA (Dr.) Aditi Dasgupta

Ms. Priya Subbaraman

Financial Literacy is the first step towards economic development and growth of nation. Considering the significance, United Nations has also highlighted the importance of Financial Literacy. Financial literacy empowers individuals with knowledge to foster economic independence, reduce poverty, and promote sustainable growth, aligning with the UN's vision for resilient, inclusive societies.

The SSB of ICMAI, as its constant endeavour of promoting Financial Literacy and enhancing sustainability organised a webinar on " Independence through financial literacy-A route to achieve UN's Sustainable Development Goals" on Friday November 08, 2024 as a part of the *Vasudhaiva Kutumbakam* webinar series. Ms. Priya Subbaraman, Co-founder and Director of Dhiraa Skilldev Foundation, was the guest speaker.

Ms. Priya Subbaraman highlighted the importance of financial literacy and its role in achieving Sustainable Development Goals (SDGs). She emphasized that financial knowledge is essential for individuals to make informed decisions, avoid financial scams, and optimize their savings and investments. Financial literacy, she advocated, goes beyond personal finance; it is a critical factor in poverty reduction, economic growth, and societal well-being. The speaker is of the view that many people, especially women and low-income groups, often lack basic financial knowledge, which limits their economic potential and exposes them to exploitative lending practices.

Ms. Priya also suggested that financial education should start early, ideally in the school pedagogy, to cultivate an understanding of wealth management and career planning. She also highlighted the importance of financial inclusion, where government initiatives like bank account accessibility have played a role but require enhanced awareness and practical tools. She pointed out that business houses and institutions can contribute by promoting transparency and financial products suited to customers' needs. She also stressed that greater financial literacy leads to increased economic resilience, reduced inequality, and a healthier economy overall.

Following the talk, the session transitioned to an engaging Question and Answer segment, where Ms.Priya addressed all queries with immense clarity. The participants had the benefit of relearning some basic principles, but with modern and vital examples as per the changing context.

CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI concluded the proceedings and proposed vote of thanks. The participation in the webinar was exemplary.

21st Webinar
Achieving Sustainability in BFSI Sector- The Road Map

November 22, 2024 from 4 to 5: 15 p.m.

Shri Aditya Vyas

CMA Dibbendu Roy

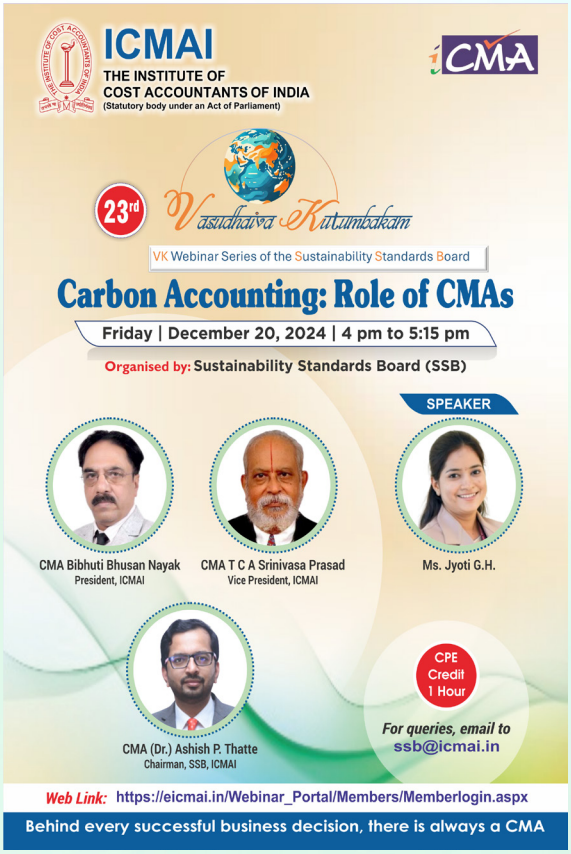
Shri Aditya Vyas, Assistant Vice-President, STCI Primary Dealer Limited was the speaker for the webinar on the topic " Achieving Sustainability in BFSI Sector". He started the deliberation about the various Sustainability Development Goals which the United Nations has mandated. Further, he deliberated the impact the climate change and global warming impacts to the growth and development of the country. He further stated the various activities the organizations undertake in the field of sustainability. He further explored the various steps to be undertaken to arrest the growth of pollution and protect the environment.

RBI draft disclosure framework was stated at length and climate risk impact in sustainable finance was covered in detail during the deliberation. He added that SEBI, IRDAI and RBI has to work in unison to protect the interest of the stakeholders.

He further added that Climate risk is the most important aspect which will impact the financing of banks and the mechanism of green financing to the sectors where funding has to be undertaken.

The taxonomy of various risks that are to be undertaken like credit risk, market risk, liquidity risk and business continuity risk were elaborately discussed with relevant examples.

CMA Dibbendu Roy, Additional Director proposed Vote of Thanks.



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The Art of Everyday Etiquette

Usha Ganapathy Subramanian
Practicing Company Secretary
Chennai

Whether it is the workplace or our social and personal lives, making meaningful connections with people around us is a basic human need. We want our interactions to be mindful, respectful and warm, and to demonstrate calmness and confidence. This makes us think how to navigate a new situation, what to say and how to do things in a manner that is comfortable to those we are interacting with. Each situation has its own etiquettes, a set of acceptable practices and behaviour, that can guide us towards more fulfilling interactions and relationships. In this new series of articles, we explore how to navigate the workplace and the society by drawing wisdom from generally accepted etiquettes, and understand the ethical base for the practices.

E-mail Etiquette

In this edition of the new series, let us explore the aspects to be kept in mind while sending and receiving e-mails. We often rely on e-mails for professional and workplace communication and also for communicating with our service providers like banks, insurance companies and utility companies. Drafting effective e-mails is one of the skills that not just comes in handy, but also helps forge deeper connections.

Nature of the mail

Firstly, the recipient and the nature of e-mail must be had in mind. The way we write depends on whether it is a personal communication or a professional one or of any other nature. If it is personal and addressed to near and dear ones, the tone could be informal. If it is a professional one, the language and tone needs to be formal. If it's any other circumstance, it is better to adopt a formal tone to err on the side of caution.

Clear purpose

The next is having in mind the purpose of the communication clearly – whether it is to pass on requested information, make a request, communicate an idea or elicit some specific actions. With this in mind, a subject line should be crafted with clarity and brevity in about five to seven words. The subject line will determine the urgency with which the mail will be read. It should sufficiently highlight the nature of the mail. One must also refrain from pressing unnecessary urgency where it is not warranted.

Salutation and Closing

The next important aspect is the salutation. An appropriate salutation based on formality must be chosen. If the mail is addressed to a peer or wherever addressing by name is appropriate, following the word "Dear", the recipient's name may be used. This conveys warmth too. Using the second name or surname preceded by Mr. or Ms. is suitable for professional contexts. In certain contexts and cultures, even when the recipient's name is known, it is considered polite to address by "Sir" or "Madam", depending on the context. Where a more personal tone is preferred, addressing by the first name will be suitable. In very formal mails like those addressed to the judiciary or those holding ranks in the military or to the heads of institutions or heads of States, this will require a different approach. Depending on the preferred salutation, instead of the word "Dear", the word "Respected" will be more appropriate. This will also determine the closing line – whether to end with something formal like "Yours sincerely or faithfully" or with something less formal like "With Warm Regards" or "Thanks and Regards" or "With Regards".

Structured Content

The e-mail must be clearly structured and to the point. A brief enquiry about the well-being of the recipient may be in order, especially if reconnecting after some time. The purpose of

the mail must be clearly stated. For example, it could start with "I am writing to convey/express/inform…" in case the mail is the first one to a particular recipient. Adding the context is necessary; for example, "Following our discussions on Tuesday…" or "In respect of the audit of M/s. ABC Private Limited for the financial year 2024-25." If the mail we are drafting is in response to an earlier mail from the intended recipient, this may not be necessary. Often thanking the recipient for their mail or information or content may be in order. This will add a touch of warmth and respectfulness to the mail. The contents of the mail must be given clearly and concisely, and if necessary, using bullet points or a numbered list. In a professional context, verbosity or artistic expression is not required. The e-mail must be as simple as possible in order that it conveys the information quickly. Ambiguous phrases or overly long e-mails must be avoided. The contents must be proof-read before sending. A stitch in time can save even a hundred here. We must be conscious of any confidential or sensitive information in the contents and have regard to the privacy and legal aspects surrounding them.

Attachments

If any attachments are mentioned in the body of the mail, it must be ensured whether they are attached and whether they are the intended attachments. The attachments must be clearly labelled in such a manner that the recipient can clearly identify its contents, and where necessary, the sender of the document.

Eliciting response

Most importantly, what is required or requested to be done by the recipient must be added – like, "Kindly let me know further in this regard," or "I request you to kindly send the requested information at the earliest." These are not standard phrases but must be adapted to suit the occasion, "at the earliest" may be replaced with "at a time convenient for you" or even without mentioning the urgency as the circumstance permits. In case no response is received, a polite follow-up in a way respectful of the recipient's time and efforts may be made.

Using CC and BCC

In case the mail is being sent in response to an earlier mail that has several participants marked in carbon copy (CC), the reply carrying the response to the original mail must ideally be marked to all the original participants. This is best when the information impacts or involves all recipients, avoiding confusion and ensuring clarity. 'Reply' must be used when it is something minor or clarificatory in nature, which is not necessary to be read by everyone in the original e-mail thread. This is courteous and saves everyone time. Carbon copy is used to keep people informed without expecting a reply from them.

Blind carbon copy (BCC) should be used with caution. It protects privacy by hiding e-mail addresses from recipients, especially for large groups, mass announcements, or sensitive

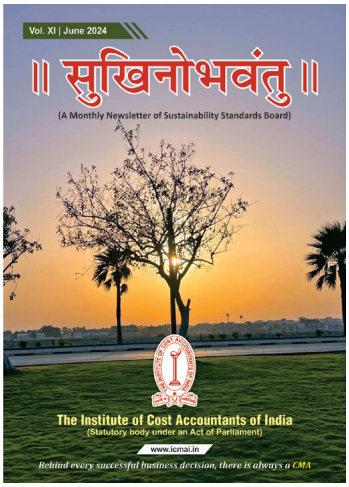
situations where privacy is a priority. However, it is not desirable for regular and small group conversations or internal team messages. Using BCC can come across as being secretive or as an attempt to hide sharing of information with certain persons. BCC is usually unnecessary and may cause confusion or misunderstandings if others are unaware who is in the loop. CC is generally more transparent. Keeping recipients visible (using CC) promotes openness and professionalism. Hidden recipients can create confusion and mistrust among those visible in the e-mail.

Conclusion

Having a systematic approach to writing mails can save time and reflect respect and consideration for the recipient's time and efforts. E-mails can even become the foundation for strong connections and foster trust and camaraderie among people. And they need not be perfect. What is perfect for one may not be for the other. They just need to spring from a place of warmth and respect. SB

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

Past Issues of *Sukhinobhavantu*



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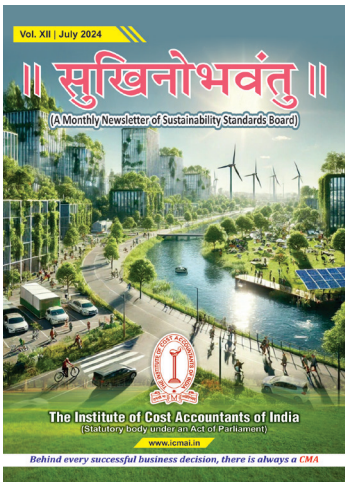

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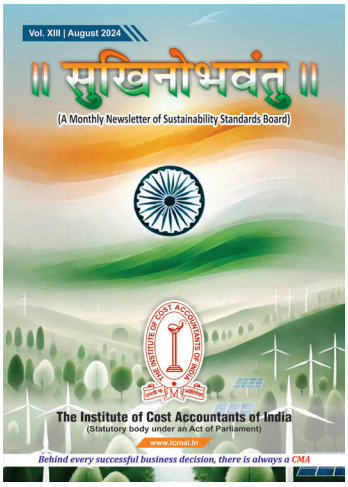

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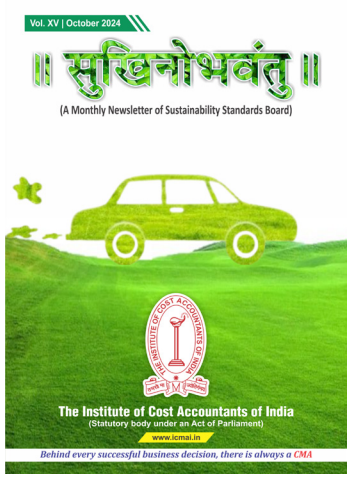

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Airplane Boneyards and Sustainability

CMA (Dr.) Aditi Dasgupta
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Airplane boneyards, or aircraft graveyards, are designated areas where decommissioned airplanes are stored, maintained, dismantled, or recycled. Often located in dry desert regions, these boneyards serve as key facilities in the sustainable management of aviation resources, allowing valuable aircraft components to be preserved, repurposed, and recycled. Here is a closer look at how airplane boneyards function, their role in sustainability, and the challenges and innovations within this sector.

Primary Functions of Airplane Boneyards

Aircraft boneyards serve several roles beyond mere storage for retired planes. Key functions include:

- **Temporary Storage:** Some planes are held in storage temporarily, especially in times of reduced demand. For instance, during economic downturns or the COVID-19 pandemic, many planes were grounded. With careful preservation, including draining fluids, covering engines, and towing the planes periodically, these aircraft can remain in a state ready for quick recommissioning.
- **Parts Harvesting:** Many aircraft in boneyards are "parted out" or dismantled for valuable components. This process allows engines, avionics, and other parts to be salvaged for use in operational aircraft. By harvesting reusable parts, airlines reduce manufacturing costs and environmental impacts associated with producing new components.
- **Recycling and Disposal:** Aircraft that are no longer viable for reuse or parts harvesting are eventually dismantled and recycled. Boneyards facilitate the recovery of metals like aluminium and titanium, which can be recycled for new uses, such as in construction or manufacturing. This recycling conserves resources and significantly reduces the environmental cost associated with mining new materials.

Environmental Benefits and Sustainability Goals

Aircraft recycling in boneyards aligns with several sustainability objectives, helping to reduce waste and lower the industry's carbon footprint. Key aspects include:

- **Waste Reduction:** Aircraft are constructed from valuable materials, including metals and composites. Recycling these materials reduces the demand for mining and manufacturing new metals, both of which have significant environmental costs. For instance, aluminium recycling uses up to 95% less energy than producing new aluminium from raw materials.
- **Carbon Emission Reduction:** Reusing parts reduces the carbon emissions associated with manufacturing new ones. The energy saved by recycling metals and repurposing components translates to a lower carbon footprint for the aviation industry.
- **Circular Economy:** Boneyards support a circular economy by extending the lifecycle of materials. This approach minimizes waste by keeping materials in use longer, maximizing their value, and reducing the need for new resources.

Challenges in Sustainable Aircraft Recycling

Despite the environmental benefits, sustainable practices in airplane boneyards face several challenges:

- **Material Composition:** Modern aircraft are increasingly built with advanced composite materials, such as carbon fiber. While these materials enhance aircraft performance, they are difficult to recycle, as composites cannot be melted down and reused as easily as metals.
- **Regulatory Barriers**: Recycling and disposal practices are subject to regulatory standards, which vary across countries. Harmonizing these standards on an international level could facilitate more efficient recycling and encourage broader adoption of sustainable practices.
- **Economic Viability:** The dismantling and recycling of aircraft is labor-intensive and costly. Balancing the environmental goals of recycling with economic feasibility remains challenging for the industry.

Innovations in Aircraft Recycling

Advances in technology are helping to overcome some of the challenges in aircraft recycling:

- **Automated Dismantling:** The introduction of robotics and automation streamlines the dismantling process, making recycling faster and more cost-effective. Automated dismantling also improves safety and reduces the labor costs associated with breaking down aircraft manually.
- **Chemical Recycling of Composites:** New chemical recycling methods are being developed to address the difficulties associated with composite materials. By breaking down carbon fiber composites into reusable forms, chemical recycling could enable these materials to be repurposed, reducing their environmental impact.
- **Lifecycle Tracking:** Technologies like RFID and blockchain can track parts and materials through their lifecycle. This traceability could simplify the recycling process by helping ensure that parts meet regulatory standards and can be reused or recycled when needed.

Environmental and Community Considerations

Aircraft boneyards are strategically located in dry climates to reduce corrosion, particularly in desert regions such as the Mojave Desert in California, where conditions are ideal for long-term storage. These sites must also prioritize environmental safety, managing the disposal of hazardous materials and protecting surrounding ecosystems.

Environmental management practices are essential for preventing contamination, such as handling hazardous fluids like aviation fuel and hydraulic oils with care.

Furthermore, aircraft boneyards can positively impact local communities, providing jobs through recycling activities and even becoming tourist attractions. Some boneyards draw aviation enthusiasts, who come to observe the planes or learn about the industry's history and commitment to sustainability.

Future of Sustainable Aircraft End-of-Life Management

As the aviation industry grows and more aircraft reach the end of their operational lives, airplane boneyards are set to play an increasingly important role in sustainable aviation. Collaboration between airlines, recycling companies, and regulators will be essential to establishing boneyards that are equipped to handle a growing influx of retired aircraft in an environmentally responsible way.

Airplane boneyards are integral to the sustainable management of aviation resources, allowing decommissioned aircraft to be stored, repurposed, and recycled in ways that minimize waste and lower environmental impact. As the aviation industry continues to evolve, boneyards are expected to become even more central to sustainability efforts, reducing the carbon footprint of aviation and promoting responsible resource management.

Airplane Boneyards in India

Although India lacks large-scale, dedicated boneyards like those found in the American deserts, there are facilities and instances where retired aircraft are temporarily stored or dismantled. For example, during the COVID-19 pandemic, Bengaluru Airport temporarily became a boneyard, with several aircraft grounded due to travel restrictions. Additionally, decommissioned aircraft in India have been salvaged for parts or scrapped, such as a retired B737 from Indian Airlines dismantled and sold for scrap in Kolkata. These examples reflect the growing importance of aircraft storage and recycling infrastructure in India as its aviation industry expands. SB

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FEATURE

Sustainability Practices in Cricket Stadiums in the World

CMA Dibbendu Roy
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Kolkata

Cricket is a religion in the sub-continent and once we think about cricket inherently the hype and hoopla of a stadium comes into our mind. We have seen that over the years a lot of changes has occurred in the cricket stadiums across the globe where the protection of environment has been considered of a paramount importance.

We would be delving deep on the measures and the activities undertaken by few prominent cricket stadiums in the area of sustainability and the road ahead seems promising for sustaining the environment with proper measures to reduce the carbon footprint.

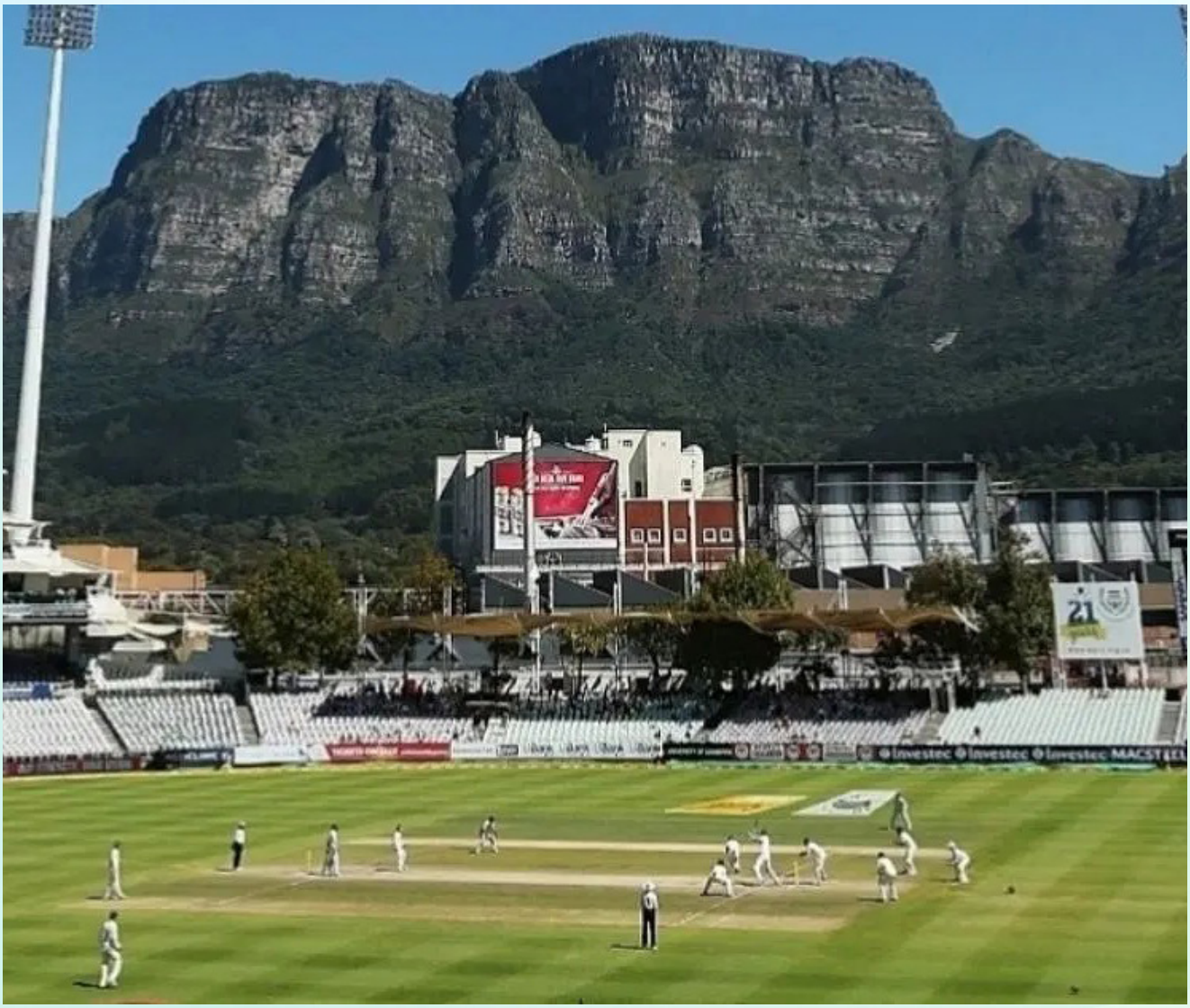
Lords which is the mecca of cricket at United Kingdom and has a wide legacy of various battles fought by the Englishmen against the cricketing world. We have seen that many measures have been undertaken by the Marylebone Cricket Club (MCC) the owner of Lords Cricket Stadium for embracing the culture of sustainability. The Lords stadium uses wind energy to cater to the electricity needs of the stadium. It also encourages plastic free stadiums by inserting water refill stations.

The Club has initiative several measures focusing on waste, water, energy and biodiversity so that it reaches the goal as a pioneer in the sphere of sustainability in cricket.

MCC has made significant headway over the past 13 years regarding its sustainability activities and emissions reduction. MCC's progress thus far is to correlate its current position and planned projects with its emissions reduction and net zero targets. By becoming a signatory of the UN Sports for Climate Action Framework and partnering with Net Zero Group (NZG), MCC aims to reduce its operational carbon footprint by 100 percentages by 2030, if not earlier. This includes Scope 1 natural gas and Scope 2 electricity, with any residual emissions, being offset to become carbon neutral. The objective is to become net zero carbon, as defined, by the Science Based Targets Initiative (SBTi) for Scope 1, 2 and 3, with the target of achieving this by 2040.

The Melbourne Cricket Club (MCC) in Australia is in the process of achieving carbon neutrality. The MCG is powered by 100 percent renewable electricity saving 12,000 tonnes of CO2 each year which is enough electricity to power the MCG light towers for nearly six years or 835 homes annually. The waste is recycled via 1800 recycling bins and more than 25 waste diversion streams. Approximately, 30 tonnes of organic waste is composted on site and 250,000 plastic bags have been recycled into plastic bollards. A wastewater treatment plan has created sustainable supply for the MCG and Yarra Park grounds reducing potable water usage by 50 percentages. The MCC's ultimate goal is to achieve net zero by 2040.

The Board of Cricket Control of India (BCCI) has mandatory put a ban in usage of plastics in all cricket stadiums in India thus encouraging protection of environment. The waste is put to landfills and recycled and thus encouraging the



circular economy.

Eden Gardens at Kolkata has taken various measures to encourage sustainability like waste management, rainwater harvesting and recycling of food waste into organic matter.

Further, Chinnaswamy Stadium at Bengaluru uses solar energy for electricity needs of running the stadium and uses biogas plant to recycle the food waste.

Chepauk Stadium at Chennai follows the green protocol of three Rs- reduce, reuse and recycle. Wankhede Stadium at Mumbai uses various sustainability measures like using sustainable materials, rainwater harvesting, energy efficient lighting, develop accessible infrastructure, promote public transportation and many other mechanisms of sustainable practises.

The International Cricket Council (ICC) has a defined plan in the field of sustainability and it has practised since 2023 in the Cricket World Cup. It includes usage of renewable energy, encouraging net neutral matches, decarbonisation plan, monitoring of emissions and digitizing resource usage, recycling of plastic usage, public transportation and many others. SB

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Environmental Sustainability in ancient Egypt

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Ancient Egypt's extraordinary longevity, spanning nearly 3,000 years, was rooted in its sustainable practices and deep connection to the environment. The Nile River, central to their existence, provided irrigation, fertile soil, and resources necessary for agriculture, while also serving as a vital transportation route. Annual floods of the Nile were revered and scientifically managed through canals and dams to optimize its benefits and mitigate risks like droughts or excessive flooding.

The Egyptians' sustainable approach extended to all aspects of life, including architecture, trade, and daily practices. Locally sourced materials, such as limestone for pyramids and sandstone for monuments, minimized environmental strain and reduced transportation costs. Resources were utilized efficiently, with no wastage, and surplus materials were repurposed. Fishing practices, hunting, and animal husbandry were conducted in ways that preserved biodiversity and ecological balance.

Religious beliefs and cultural customs reflected their respect for nature. The Nile was worshipped as sacred, and pollution of its waters was considered a sin. Deities like Hapi symbolized fertility and abundance, while structures like the Great Sphinx underscored their reverence for animals. Even the shapes of bread and pyramids were connected, reflecting the integration of nature and culture.

Their advancements in geology and resource management, including mining gold and crafting from natural materials like chalk and faience, showcased their ingenuity. Natural boundaries, such as deserts, provided protection and influenced settlement patterns. Camels facilitated trade across deserts, while the Nile's south-to-north flow and opposing winds enabled efficient two-way navigation.

Ultimately, ancient Egypt's harmonious relationship with the environment, supported by innovative practices and reverence for natural elements, allowed it to thrive as one of history's most enduring civilizations. SB

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Minimalism as a cure to consumerism and a path towards sustainability

Usha Ganapathy Subramanian
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Introduction

"Simplicity is the ultimate sophistication" said Leonardo da Vinci[1] – the genius behind the works like the Mona Lisa and the Vitruvian Man, and a renowned sculptor, scientist, engineer, and architect. The terms 'simplicity' and its modern counterpart 'minimalism' aren't all about austerity or denying oneself the goodness of life. It is more about acquiring, cherishing and holding on to only those things that are meaningful to us, or that serve a purpose to us and those around us. The rest of the things do not matter and must not be allowed to clutter our homes, workplaces or our minds.

What makes us buy?

Today's purchases are often impulsive rather than driven by intention or planning. A lot of times what catches the eye sits in the shopping basket and comes home with us., Shopping – whether online or offline, has transcended its functional role and has evolved into something that gives a dopamine surge our brains crave. Our brains begin to justify the impulse purchases as "reward for working hard", "a little something for myself", "this is so unique that I must buy now, or I will be missing out," or "it's on sale!" or any number of other excuses and justifications to get that dopamine rush. This is enabled by the availability of higher disposable income that hasn't been assigned a meaningful purpose yet. The allure of marketing and the ease of one-click buying only

add to this. This behaviour when repeated even twice or thrice engraves deep pathways in the mind that make it hard to break the habit.

Graceful consumption patterns of the past

Looking back at our past as recounted by our parents and grandparents, shopping used to be a functional chore. Shopping for provisions used to be a well-budgeted, frugality-laden, fully intentional, monthly or weekly process. These days, the invasion of quick-delivery apps has obviated the need for monthly grocery shopping leaving both the groceries and our budgets prey to randomness.

Purchases during festival times used to be a tradition and something that the entire family looked forward to. That may be true even now, but the sacredness of those practices is lost because that is not the only time new things are brought into our homes. Shopping happens anytime, any day.Time-tested traditions and habits built over generations die a slow death with

1 https://www.goodreads.com/quotes/9010638-simplicity-is-the-ultimate-sophistication-when-once-you-have-tasted

the randomness and impulsiveness of purchases these days. Things keep getting accumulated, remain half-used or even unused, never living out their potential in full. Things are rarely appreciated and admired for their longevity or craftsmanship. They ultimately end up in landfills.

The Solution – Intentional Living and Minimalism

In order to maintain a clutter-free, intentional and inspiring space requires a complete change in our mindset. With intentional living, only those things that are truly functional or truly meaningful to us enter our homes. Something doesn't just get purchased just because it is the trend in the market or because something is on sale. It may even help to imagine that we are the purchase manager for an organization and that we are accountable for our decisions. Let there be spreadsheets, presentations, and what not on our budgets and purchases with our families or even for ourselves. After all, it is our hard-earned money that is going to be spent.

Ironically enough, these days many products are sold with the "minimalism" tag. However, it must always be remembered that "minimalism is a way of life, not a product."

Repair, maintain, reuse, repurpose

Intentional living and minimalism involve truly appreciating the work and the resources that go into the things that come to our possession. Keeping things in a respectful and grateful manner is required. Things must be kept neatly organized, cleaned periodically in an appropriate manner, in order that they last longer. This way, the rate at which landfills get filled up will come down.

Wardrobe management

Wardrobe is one place where often one finds too many stuffs but "nothing to wear." Purchasing things with intention, having a capsule wardrobe with a few staples in neutral colours, donating or repurposing unused pieces of clothing can immensely help the wardrobe finally breathe and also declutter the mind.

Sanctity of the kitchen

When it comes to kitchen, cleanliness and functionality must be focussed than any other factor. Somethings may look beautiful but may seldom be used. If they cannot be let go, they must be redirected to a place where aesthetics has a function of its own, like a display shelf, an accent wall, etc. Meal planning and mindful eating both are necessary to ensure zero wastage of vegetables, fruits and cooked food. Alongside, locally produced food ingredients maybe given preference for better health and to support local producers, while bringing a sense of simplicity to our choices.

Digital decluttering

How often do we revisit the photos that were clicked on random occasions? Yet they occupy precious memory in our devices just because deleting is time-consuming. Organizing digital documents systematically, unsubscribing from unwanted emails, and limiting app usage and screen time, and enjoying the moment than capturing it, promote mental clarity. Every information the brain comes across will be processed to make sense of it and reconcile with what it already knows, and hence, these days with information overload, building boundaries around what information we expose ourselves to becomes a necessity.

Takeaways

Mindful spending and consumption will ensure that our hard-earned money is spent on things that truly deserve the price we pay. It will promote a sustainable lifestyle not just for us but will certainly have a ripple effect on the environment and the economy. With lesser consumption of unnecessary commodities, which are incidentally usually polluting or resource-heavy too, the damage on the environment will lessen. Moreover, as things are valued more, they will command a better price that will likely be distributing fairly to everyone in the value chain, reducing the disparities in income. Minimalism is a clear choice towards greater mental clarity and a life driven by values and purpose. Let us internalise da Vinci's 'simplicity' in our journey towards a sustainable future. SB

The Maldives, a nation of around 1,200 islands with most land averaging just one meter above sea level, faces an existential threat from rising sea levels. Erosion, intensified storms, and floods have disrupted the natural balance, prompting innovative solutions. The Maldives Floating City (MFC), a public-private partnership approved in 2022, offers a futuristic answer. Designed by Dutch Docklands and Waterstudio, the floating city mimics brain coral, blending ecological conservation with modern living.

Situated in a 200-hectare lagoon near Malé and just ten minutes from the airport, MFC is planned as a sustainable, adaptable community with colorful low-rise buildings and floating structures. It will include residential units, hotels, shops, schools, a hospital, and government facilities, all connected by canals, with no cars allowed. The city's design emphasizes environmental harmony, using artificial coral reefs to promote marine life and solar energy for power. Homes, starting at $250,000, come with legal title deeds and offer residence permits for non-nationals. Up to 20,000 people could eventually call MFC home, marking it as a model for future floating urban developments.

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

SUSTAINABILITY QUIZ RAPID FIRE ROUND

Five questions on sustainability

1. The Annual Report pursuant to the POSH ACT is required to be submitted by the Internal Committee to the _____ and the District Officer.
2. _____ with relevant interested parties is a critical element of ESG related issues.
3. _____are strategic tools used by organizations to identify and prioritize the most significant ESG issues that can impact the organization and its interested parties
4. Wind Energy currently accounts for around ____% of the total installed capacities of the renewable energy mix.
5. _____ is a process that converts non-recyclable Waste into usable energy.

WINNERS	
Sl. No.	**Names**
1.	CMA Bidyut Basu
2.	CMA Thirumoorthi V.

Congratulations to the Winners!

CORRECT ANSWERS OF PREVIOUS QUIZ

1.	Belem Para, Brazil
2.	National Institute of Wind Energy (NIWE) – Chennai
3.	Guwahati Railway Station
4.	ONE SUB ONE WORLD ONE GRID
5.	Net Zero

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 December'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 December 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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