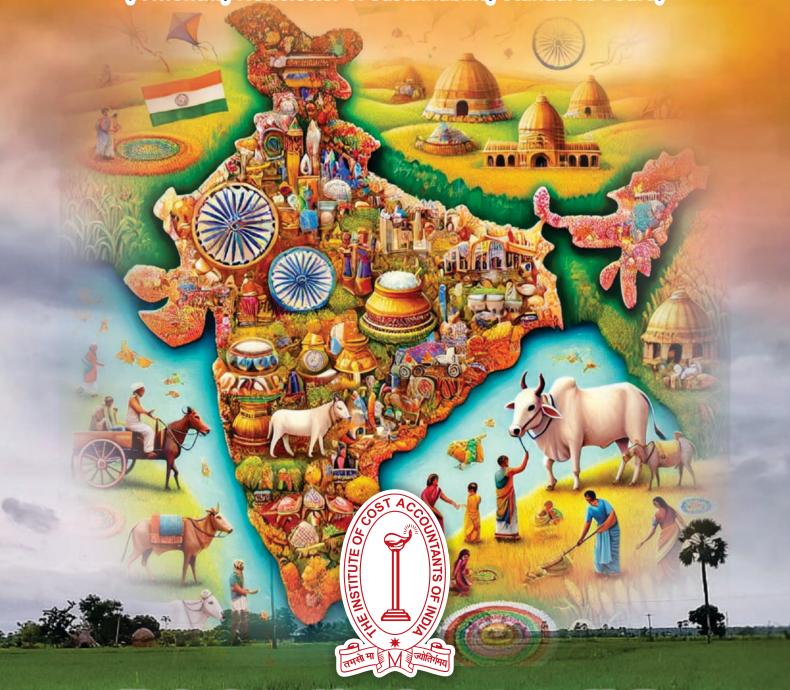
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(A Monthly Newsletter of Sustainability Standards Board)



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

"Let's go green to keep the world clean"

Dear Professional Colleagues,

At the outset, let me wish you a very Happy and Prosperous New Year 2025. Also, through this platform I convey my sincere greetings to all the ICMAI members and stakeholders on the occasion of Sustainability month.

I am delighted to inform you that on January 30,2025 SSB will be hosting the Sustainability Summit at Taj Mahal-Mansingh, New Delhi. Mr.Jean Bouquot, President, IFAC has kindly consented to be the Chief Guest. A galaxy of professionals having wide expertise in Sustainability will be addressing the audience. I am told that the registration will soon be closing, hence without further delay, I request you all to register for the event.

I am happy to convey here that a Mega Plantation Drive and Green walk was organised in Thane as a part of Sustainability month. Both the activities were attended in large numbers. During the plantation month, we were able to plant more that 130 saplings of 30 varieties. Needless to mention, the coming generations are going to be the real beneficiaries of the drive. The members also took Sustainability Pledge on the occasion of Sustainability month.

The details of webinars of *Vasudhaiva Kutumbakam* webinar series is finalised till March 2025. Stay in touch with ICMAI website and our newsletter to get more information in this regard.

It is with great sense of satisfaction that I am informing you that the SSB has prepared two exposure drafts viz. ICMAI Sustainability Standard ISS1 pertains to Sustainability Standard on General Requirements for Disclosure of Sustainability-related Information and ICMAI Sustainability Standard ISS2 Sustainability Standard for Climate risk disclosures. Both the drafts are hosted in ICMAI website for the public comments. SSB seeks your views / comments / suggestions on the Exposure Draft of standards latest by January 27, 2025 through email at ssb@icmai.in Request you to make a sincere attempt and share your views with us. Your views are very important to us.

We will interact again through this platform next month. Once again my new year wishes to all of you and hope that this year will really be a turning point in our personal and professional lives.

Yours Professionally, CMA (Dr.) Ashish P. Thatte January 25, 2025

SDGs and Goal Wise Status Report of Indian States

Part IV

CMA Arunabha Saha

Practising Cost Accountant
Thane

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 Gujarat, Haryana and Himachal Pradesh

SDG-1: NO POVERTY

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Head Count ratio as per the Multidimensional Poverty Index (%)	11.66	7.07	4.93	17.45	14.96
% of households with any unusual member covered by a health scheme or health Insurance	44.40	25.70	38.90	100.00	41.00
Persons offered employment as a % of person who demanded employment under- MGNREGA	99.74	99.81	99.96	100.00	99.74
% of population (out of total eligible) receiving social protection benefits under PMMVY	39.22	13.47	21.81	100.00	46.29
% of household living in kachha houses	1.70	0.90	1.60	-	4.60
SDG-1 Index score	75.00	67.00	71.00	100.00	72.00

Key Insights:

- Himachal Pradesh excels in poverty reduction (lowest headcount ratio) and providing Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) employment.
- Gujarat performs well in health scheme coverage and housing but lags slightly in Pradhan Manrti Matru Vandana Yojana (PMMVY) benefits.
- Haryana shows weaknesses in health coverage and social protection benefits under PMMVY.



SDG-2: ZERO HUNGER

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
% of beneficiaries covered under NFSA, 2013	91.84	100.00	77.80	100.00	99.01
% of children under 5 years who are underweight	39.70	21.15	25.50	13.30	32.10
% of children under 5 years who are stunted	39.00	27.50	30.80	23.70	35.60
% of pregnant women aged 15-49 years who are anaemic	62.50	56.40	42.20	25.20	52.20
% of women (aged 15-49 years) whose BMI below 18.5	25.20	15.10	13.90	7.76	18.70
Rice and wheat produced per unit area (3 years average) (kg/ha)	2,794.96	4,240.36	1,861.49	5,322.08	3,052.30
Gross value Added (constant price) in agriculture per worker (in lakhs/worker)	1.33	2.17	0.76	1.72	0.86
SDG-2 Index Score	41.00	75.00	53.00	100.00	53.00

Key Insights:

- Food Security: Gujarat has lower coverage under NFSA compared to India, while Haryana has higher coverage.
- Child Nutrition: Gujarat has higher rates of underweight and stunted children compared to India, while Haryana has lower rates.
- Women's Health: Gujarat has higher rates of anaemia and low BMI among women compared to India, while Haryana has lower rates.
- Agricultural Productivity: Haryana has higher agricultural productivity in terms of both yield and value added per worker.
- Overall SDG-2 Performance: Haryana has a significantly higher SDG-2 index score than both India and the other states.

SDG-3: GOOD HEALTH AND WELL-BEING

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Maternal Mortality Ratio (per 100,000 live birth)	57.00	110.00	Null	70.00	97.00
Under 5 Mortality Rate (per 1,000 live births)	24.00	33.00	24.00	32.00	25.00
% of children in the age group 9-11 months fully immunised	95.95	91.71	84.87	93.23	100.00
Tuberculosis case notification against target in %	101.27	80.86	97.51	87.13	100.00

HIV incidence per 1,000 uninfected population	0.03	0.07	0.02	0.05	-
Life expectancy	Null	70.50	69.90	70.00	73.63
Suicide rate (per 100,000 population)	19.20	12.70	12.60	12.40	3.50
Death rate due to road traffic accidents (per 100,000 population)	17.46	10.76	17.45	12.40	5.81
% of institutional deliveries out of the total deliveries reported	99.96	99.94	97.87	97.18	100.00
Monthly per capita out-of-pocket expenditure on health as a share of MPCE	9.00	9.50	10.40	13.00	7.83
Health worker density per 1,00,000 population	71.57	55.56	46.80	49.45	44.50
SDG-3 Index Score	79.00	95.00	73.00	77.00	100.00

Key Insights:

- Haryana leads in SDG-3 Index Score, life expectancy, and institutional deliveries but has significant challenges in maternal mortality and immunisation rates.
- Gujarat performs well in institutional deliveries, TB notifications, and health worker density but struggles with road traffic accident deaths and suicide rates.
- 3. **Himachal Pradesh** shows strength in HIV incidence and institutional deliveries but faces challenges in child immunisation and mortality due to road accidents.

SDG-4: QUALITY EDUCATION

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Adjusted Net Enrolment Rate in elementary education (class 1-8) (%)	89.00	97.70	100.00	100.00	96.50
Average annual dropout rate at secondary level (class 9-10)	17.90	5.90	1.50	7.67	12.60
Gross Enrolment Ratio in higher secondary (class 11-12) (%)	48.20	75.50	94.10	100.00	57.60
% of students in grade VII achieving at least a minimum proficiency level in terms of nationally declined learning outcomes to the pupils at the end of the grade	81.00	87.00	79.50	100.00	77.23
Gross enrolment Ratio in higher education (18-23 years)	35.80	24.00	33.30	50.00	28.40
% of persons with disability (15 years and above) who have completed at least secondary education	32.40	22.80	25.10	100.00	19.30
Gender Parity Index for higher education (18-23 years)	0.99	0.90	1.22	1.00	1.01



% of persons 15 years and above who are literate	94.40	82.80	80.60	100.00	76.70
% of schools with access to basic infrastucture (electricity and drinking water both)	99.93	99.04	98.64	100.00	88.65
% of Schools with computers	98.00	93.20	40.50	100.00	47.50
% of trained teacher at secondary level (class 9-10)	97.10	95.70	97.10	100.00	92.20
Pupil Teacher ratio at secondary level (class 9-10)	29.00	12.00	6.00	30.00	18.00
SDG-4 Index Score	88.00	77.00	77.00	100.00	61.00

Key Insights:

- All three states have room for improvement in reducing dropout rates and increasing Gross Enrolment Ratio.
- Addressing infrastructure gaps, especially in Himachal Pradesh, is crucial.
- Improving access to higher education for persons with disabilities is a priority in all states.
- Maintaining high levels of teacher training and addressing gender disparities in higher education are also important areas to focus on.

SDG-5: GENDER EQUALITY

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Sex ratio at birth	955.00	893.00	875.00	950.00	929.00
Ratio of female to male average wage/ salary earnings received among regular wage/salaried employees	0.62	0.81	0.71	1.00	0.76
% of ever married women aged 18-19 years who have ever experience spousal violence (physical/ sexual)	13.90	17.90	8.60	8.00	29.20
Ratio of the female to male Labour Force Participations Rate (15-19 years)	0.53	0.30	0.89	1.00	0.48
Proportion of women in managerial positions including women in board of directors, in listed companies (per 1,000 persons)	209.55	205.69	193.68	245.00	210.24
% of currently married women aged 15-49 years who have their demand for family planing satisfied by any modern method	70.90	75.00	77.30	100.00	74.10
% of female operated operational land holdings	25.69	16.49	14.76	50.00	13.96

% of women (aged 15-49 years) who owns a mobile phone that they themselves use	91.20	48.80	50.40	80.63	53.90
% of currently married women (aged 15-49 years) who usually participate in three household decisions	93.10	92.20	87.50	100.00	88.70
SDG-5 Index score	61.00	58.00	46.00	100.00	49.00

Key Insights:

- **Gujarat:** Performs better than India average on most indicators, especially in mobile phone ownership and operational land holdings.
- Haryana: Shows mixed performance but fares well in wage equality and household decisionmaking.
- **Himachal Pradesh:** Excels in spousal violence reduction and labour force participation but lags in managerial positions and mobile phone ownership.

SDG-6 CLEAN WATER AND SANITATION

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
% of rural household getting safe and adequate drinking water within premises thorugh PWS	100.00	100.00	100.00	100.00	75.75
% of rural population having improved source of drinking water	100.00	100.00	100.00	100.00	90.20
% of individual household toilets constructed against target	100.00	100.00	100.00	100.00	100.00
% of districts verified to be ODF	100.00	100.00	100.00	100.00	100.00
% of schools with functional girls toilets	98.00	97.60	98.60	100.00	94.70
Stage of ground Water extraction (%)	51.68	135.74	34.95	70.00	50.30
% of block/ mandals/ taluka over- exploited	9.13	61.54	-	-	11.23
SDG-6 Index score	98.00	80.00	90.00	100.00	89.00

Key Insights:

- 1. **Gujarat:** Performs exceptionally well in most indicators, meeting or exceeding the India average and coming close to the target in most cases.
- 2. **Haryana:** Faces significant challenges in groundwater management and over-exploitation, which pulls down its overall SDG-6 score.
- 3. **Himachal Pradesh:** Performs very well, especially in groundwater management and sanitation, and exceeds the India average in most indicators.



SDG-7: AFFORDABLE & CLEAN ENERGY

States	% of household electrified	% of LPG + PNG connections against mumber of households	SDG-7 Index score
Gujarat	100.00	98.29	88.00
Haryana	100.00	132.36	100.00
Himachal Pradesh	100.00	114.17	100.00
Target	100.00	100.00	100.00
India	100.00	96.50	96.00

Key Insights:

- **Gujarat:** Performs well in household electrification and LPG/PNG connections but falls short in the overall SDG-7 index score.
- Haryana: Excels across all indicators, with surplus LPG/PNG connections and a perfect SDG-7 index score.
- Himachal Pradesh: Also performs strongly, with surplus LPG/PNG connections and a perfect SDG-7 index score.

SDG-8: DECENT WORK AND ECONOMIC GROWTH

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Annual growth rate of GDP (constant prices) per capita (%)	7.29	6.55	6.22	7.00	5.88
Unemployment rate (%) (15-59 years)	1.80	6.40	5.00	2.90	3.40
LFPR (%) (15-59 years)	67.00	52.80	81.30	66.90	61.60
% of regular wage/ salaried employees in non-agricultural sector without any social security	61.50	53.40	32.80	-	53.90
% of households with any unusual number with a bank or post office	94.60	96.10	97.40	100.00	95.70
Number of functioning branches of commercial banks 1,00,000 population	12.84	17.98	23.89	21.27	11.75
Automated Teller Machines per 1,00,000 population	20.23	24.06	30.93	28.00	18.39
% of women account holders in PMJOY	51.12	49.86	52.24	50.00	55.63
SDG-8 Index score	76.00	68.00	88.00	100.00	68.00

SDG-9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
% of targeted habitations connected by all-weather raods under PMGSY	100.00	100.00	98.60	100.00	99.70
% of Share of GVA in Manufacturing to total GVA (current price)	35.34	19.94	28.92	25.00	14.34
Manufacturing employment as a % of total employment	23.77	16.09	6.93	19.66	11.42
% of Share of GVA in Services to total GVA (current price)	35.28	51.09	44.08	63.26	54.18
Services employment as a % of total employment	25.08	39.03	24.26	52.98	27.75
Innovation score as per the India Innovation Index	12.41	16.35	14.62	100.00	36.40
% of households that own at least one mobile phone	92.40	97.20	97.90	100.00	93.30
% of inhabited villages with 3G/4G mobile internet coverage	96.50	99.95	92.92	100.00	95.08
SDG-9 Index score	68.00	72.00	59.00	100.00	81.00

Key Insights

- Gujarat: Strong performance in manufacturing GVA and employment but lags in services, innovation, and SDG-9 index score.
- Haryana: Leads in mobile internet coverage and performs decently in services but struggles with 2. innovation and the SDG-9 index score.
- Himachal Pradesh: Strong performance in mobile ownership but lags in manufacturing employment, innovation, and SDG-9 index score.

SDG-10: REDUCED INEQUALITIES

States	Gini coefficient	% of seats held by women in PRIs	% of SC/ ST seats in State Legislative Assembly	Ratio (%) of female workers to male workers working as Prefessionals and Technical Workers	Rate of total crimes against SCs (per 1,00,000 SC population)	Rate of total crimes against STs (per 1,00,000 ST population)	SDG-10 Index score
Gujarat	0.19	49.96	21.98	50.70	31.40	3.70	69.00
Haryana	0.12	42.12	18.89	61.10	31.90	Null	73.00
Himachal Pradesh	0.14	50.13	29.41	70.50	12.10	1.00	80.00
Target	-	33.00		100.00	-	-	100.00
India	0.20	45.61	28.57	50.40	28.60	9.60	66.00



- 1. **Himachal Pradesh:** Excels in female representation, gender equality in professional roles, and low crime rates, achieving the highest SDG-10 index score.
- 2. **Haryana:** Strong performance in gender equality in professional roles but struggles with higher crime rates against SCs and low SC/ST representation.
- 3. **Gujarat:** Balanced performance, with decent gender representation and lower crime rates against STs, but lags in SC/ST representation.

SDG-11: SUSTAINABLE CITIES AND COMMUNITIES

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
% of urban households living in kachha house	0.20	0.20	1.20	1	0.90
% of individual household toilets constructed against target SBM (U)	137.81	93.86	59.85	100.00	95.29
Deaths due to road accidants in urban areas (per 1,00,000 population)	6.79	17.51	44.13	7.05	12.68
% of wards with 100% door to door waste collection (SBM(U))	99.93	99.82	98.49	100.00	97.00
% of MSW processed to total MSW generated (SBM(U))	94.97	69.99	99.20	100.00	78.46
% of wards with 100% source segregation (SBM(U))	96.40	77.26	96.47	100.00	90.00
Installed sewage treatment capacity as a % of sewage generated in urban area	67.38	103.52	133.62	100.00	51.00
SDG-11 Index score	94.00	84.00	77.00	100.00	83.00

Key Insights

Gujarat:

- Excels in toilet construction (137.81%), low road accident deaths (6.79), and high door-to-door waste collection (99.93%).
- Leads in overall SDG-11 Index Score (94.00).

Haryana:

- Strong in waste collection (99.82%) and sewage treatment capacity (103.52%).
- Needs improvement in MSW processing (69.99%) and road accident deaths (17.51).

Himachal Pradesh:

- Top performer in sewage treatment capacity (133.62%) and MSW processing (99.20%).
- Lags in road accident deaths (44.13) and toilet construction (59.85%).

SDG-12: RESPONSIBLE CONSUMPTION AND PRODUCTION

Performance Indicators

States	Per capita fossil fuel consumption (in kg)	% use of Nitrogeneous fertiliser out of total NPK	Quality of hazardous waste recycled/ utilised to total hazardous waste generated (%)	Plastic waste generated per 1,00,000 population (MT/ Annum)	% of Bio Medical Waste (BMW) treated to total quantitiy of BMW generated	SDG-12 Index score
Gujarat	339.23	71.49	37.94	4.87	100.00	67.00
Haryana	341.95	76.58	78.32	6.32	100.00	71.00
Himachal Pradesh	271.79	68.35	50.41	0.84	100.00	78.00
Target	55.00	57.00	100.00	0.62	100.00	100.00
India	166.43	65.24	54.90	3.04	91.52	78.00

Key Insights

Gujarat:

- High per capita fossil fuel consumption (339.23 kg) and significant plastic waste generation (4.87 MT/annum).
- Needs improvement in hazardous waste recycling/utilisation (37.94%).

Haryana:

- High hazardous waste recycling/utilisation (78.32%) and plastic waste generation (6.32 MT/ annum).
- High nitrogenous fertilizer usage (76.58%).

Himachal Pradesh:

- Low per capita fossil fuel consumption (271.79 kg) and plastic waste generation (0.84 MT/annum).
- Moderate performance in hazardous waste recycling/utilization (50.41%)

SDG-13: CLIMATE ACTION

States	No. of human lives lost per 1 crore population due to extreme weather events	Disaster pre- paredness score as per Disaster Resilience Index	% of renewable energy out of total installed generation capacity (including allocated shares)	DALY rate attributable to air pollution (per 1,00,000 population)	% of industries complying with environmental standards	SDG-13 Index score
Gujarat	10.70	27.00	50.36	3,102.00	86.25	74.00
Haryana	1.06	19.50	30.99	3,928.00	98.50	68.00
Himachal Pradesh	471.93	23.00	96.14	2,318.00	99.78	52.00
Target	-	50.00	50.00	1,442.00	100.00	100.00
India	15.44	19.20	43.28	3,469.00	94.86	67.00



Key Insights

Gujarat:

- Relatively low human lives lost due to extreme weather events (10.70 per crore population).
- Strong renewable energy capacity (50.36%) and good industry compliance with environmental standards (86.25%).

Haryana:

- Low human lives lost due to extreme weather events (1.06 per crore population).
- High industry compliance with environmental standards (98.50%) but low renewable energy capacity (30.99%).

Himachal Pradesh:

- Exceptionally high renewable energy capacity (96.14%) and near-perfect industry compliance with environmental standards (99.78%).
- However, significantly high human lives lost due to extreme weather events (471.93 per crore population).

India Overall:

- Moderate renewable energy share (43.28%) and high industry compliance with environmental standards (94.86%).
- High DALY (Disability-Adjusted Life Years) rate due to air pollution (3,469 per 1,00,000 population).

Gujarat performs well with balanced metrics, while Himachal Pradesh excels in renewable energy but struggles with disaster preparedness. Haryana leads in disaster resilience but needs improvements in renewable energy adoption. National efforts must focus on reducing air pollution and enhancing renewable energy capacity.

SDG-14: LIFE BELOW WATER

Other than few sea facing states like Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu & West Bengal all other states are land lock. We have not considered the Life below water performance Indicators for comparison purpose.

SDG-15: LIFE ON LAND

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Forest cover as a % of total geographical area	7.61	3.63	27.73		21.71
Tree covered as a % of total geographical area	2.80	3.22	1.12		2.91
Combine of last two	10.41	6.85	28.94	33.00	24.62
% of area covered under afforestation schemes to the total geographical area	1.14	0.27	0.31	1.38	0.40
% change in carbon stock in forest cover	0.48	-2.25	2.26	-	1.11
% of degraded land over total land area	30.52	8.80	22.99	5.46	27.77
% of increase in area of desertification	-0.13	7.43	0.25	-	1.50
No. of cases under Wild life Protection Act per million hectares of protected area	3.00	30.00	8.00	-	16.00
SDG-15 Index score	76.00	65.00	78.00	100.00	75.00

Key Insights

Gujarat:

- Low forest cover as a percentage of the total geographical area (7.61%), but significant afforestation
 efforts (1.14% of total geographical area).
- Minimal increase in desertification (-0.13%) and a positive change in carbon stock (0.48%).

Haryana:

- Low forest cover (3.63%) and marginal afforestation efforts (0.27% of total geographical area).
- Negative change in carbon stock (-2.25%) and notable increase in desertification (7.43%).
- High wildlife protection activity (30 cases per million hectares of protected area).

Himachal Pradesh:

- High forest cover (27.73%) and combined forest and tree cover (28.94%) among the states.
- Positive carbon stock growth (2.26%) and relatively low increase in desertification (0.25%).
- Moderate wildlife protection activity (8 cases per million hectares of protected area).

Himachal Pradesh leads in forest cover and carbon stock growth, while Gujarat performs well in afforestation and desertification control. Haryana needs significant improvement in carbon stock and forest conservation. Nationally, efforts should focus on reducing land degradation and increasing forest cover to meet sustainability targets.



SDG-16: PEACE, JUSTICE AND STRONG INSTITUTIONS

Performance Indicators

Indicators	Gujarat	Haryana	Himachal Pradesh	Target	India
Murder per 1 lakh population	1.40	3.40	1.10	1.44	2.10
Cognizable crimes against children per 1 lakh population	23.70	67.30	34.40	-	36.60
No. of victims of human trafficking per 10 lakh population	0.17	0.67	1.75	-	4.37
No. of mission children per 1,00,000 child population	8.88	28.96	17.26	-	18.77
No. of courts per 1,00,000 population	2.46	2.82	2.62	4.25	1.91
Cases under prevention of Corruption Act and related sections of IPC per 10 lakhs population	2.48	8.21	8.20	0.30	3.00
Chargesheeting rates of IPC crime	89.80	43.30	82.90	100.00	71.30
% of children under 5 years whose birth was registered	97.50	95.10	97.90	100.00	89.10
% of population covered under Aadhar	92.60	101.56	104.98	100.00	95.47
SDG-16 Index score	87.00	87.00	85.00	100.00	74.00

Key Insights

- **Haryana** consistently shows higher rates of violence and crime-related indicators (murder, crimes against children, corruption cases).
- **Gujarat** generally performs better than the national average and has the lowest rates in several categories (murder, human trafficking, mission children).
- Himachal Pradesh has the high rates in human trafficking and mission children, while also having high rates of corruption cases.

Composite Score of the States Gujarat, Haryana and Himachal Pradesh: (2020-21 & 2023-24)

	2020-21			2023-24			
	Gujarat	Haryana	Himachal Pradesh	Gujarat	Haryana	Himachal Pradesh	
SDG-1	66	69	80	75	67	71	
SDG-2	46	58	52	41	75	53	
SDG-3	86	72	78	79	95	73	
SDG-4	52	64	74	88	77	77	
SDG-5	49	43	62	61	58	46	
SDG-6	93	80	85	98	80	90	
SDG-7	94	100	100	88	100	100	
SDG-8	64	59	78	76	68	88	
SDG-9	72	66	61	68	72	59	
SDG-10	64	68	78	69	73	80	
SDG-11	87	81	79	94	84	77	
SDG-12	50	77	77	67	71	78	
SDG-13	67	51	62	74	68	52	
SDG-15	61	48	68	76	65	78	
SDG-16	82	71	73	87	87	85	
Rank	10	14	2	9	13	2	

In the 2023-2024 SDG India Index, Haryana was ranked 13th. The state's score was 72

SDG-Specific Performance:

- SDG-2 (Zero Hunger): Haryana demonstrated the most significant improvement, with a score of 75 in 2023-24 compared to 58 in 2020-21.
- SDG-5 (Gender Equality): All states showed improvement, although they still lag behind other SDGs.
- SDG-7 (Affordable and Clean Energy): All three states achieved 100% in both years, indicating significant progress in clean energy adoption.
- SDG-16 (Peace, Justice, and Strong Institutions): All three states showed improvement, with scores ranging from 82 to 87 in 2023-24.

Conclusion:

Overall, the states of Gujarat, Haryana, and Himachal Pradesh have made progress in achieving the SDGs, but there is still significant room for improvement. By focusing on targeted interventions, datadriven decision-making, and collaboration, these states can accelerate their progress towards a more sustainable and equitable future. 🚓

Sustainability **A Global Outlook**

Abu Dhabi launches carbon tracking program to propel climate action

The Environment Agency - Abu Dhabi stated that it unveiled an international standard measurement, reporting, and verification program to tackle carbon emissions and bolster climate action. The initiative is designed to lay the foundation for a carbon pricing mechanism to decarbonize highemission industries.





China's Trina Solar achieves new world record for solar module efficiency

Trina Solar, a prominent Chinese solar technology company, a ground-breaking achievement in solar module efficiency, according to Reuters. Laboratory tests revealed that the company's large surface area n-type fully passivated heterojunction, or HJT, modules had reached a conversion efficiency of 25.44 percent.





CIF Capital Markets Mechanism raises 2. \$500M in debut green bond issue

The Climate Investment Funds Capital Markets Mechanism announced that it raised \$500 million through its inaugural bond issuance, marking a significant step in mobilizing private capital for climate action and sustainable development.



Abu Dhabi Mobility launches digital tool to boost maritime ESG goals

Abu Dhabi Mobility, formerly known as the Integrated Transport Centre, announced that its partnership with Abu Dhabi Maritime, part of AD Ports Group, to launch a new digital tool aimed at helping stakeholders meet their ESG goals. The tool allows maritime businesses and organizations to measure their standing in national and international ESG metrics.



GE Vernova to power Japan's Renewable ambitions through Aomori Wind Farms

GE Vernova, the energy division of General Electric that it will supply 14 of its highcapacity onshore wind turbines for two major renewable energy projects in northern Japan. The 4.2-megawatt, 117m turbines will power the Iwaya and Shitsukari wind farms in Higashidori, Aomori Prefecture, as part of a collaboration with Eurus Energy, one of Japan's leading renewable energy developers.



Microsoft helps global Food Network to slash emissions across 54 countries

Tech giant Microsoft announced that The Global Food Banking Network has successfully used its sustainability platform to reduce emissions and optimize operations across 777 food banks in 54 countries.





Standard Chartered, Apollo partner on \$3 billion infrastructure and energy transition financing

Apollo Global Management and Standard Chartered PLC have entered into a strategic partnership to accelerate financing for infrastructure and renewable energy projects worldwide. The partnership leverages Apollo's sustainable investment platform, Apollo Clean Transition Capital (ACT Capital), and Standard Chartered's cross-border banking expertise.

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Italy, Albania, and UAE Sign €1 Billion deal for Adriatic Renewable Energy Link

Italy, Albania, and the United Arab Emirates (UAE) have signed a ground breaking €1 billion (\$1 billion) agreement to construct a subsea energy interconnection across the Adriatic Sea. This project will import renewable energy and bolster the region's energy infrastructure.

Read More.....

Trump signs executive order directing U.S. withdrawal from the Paris Climate **Agreement**

President Donald Trump signed an executive order Monday directing the United States to again withdraw from the landmark Paris climate agreement, dealing a blow to worldwide efforts to combat global warming and once again distancing the U.S. from its closest allies.



10. Australian Government commits \$1.24 Billion for green aluminium production

The Albanese Labor Government is investing a record \$2 billion into Australia's aluminium sector, aiming to secure jobs and boost the industry's future. This plan focuses on producing cleaner, more reliable aluminium while promoting economic growth in regional areas.

Sustainability **Indian Context**

Shriram Finance launches green business vertical to bolster clean economy

Chennai-based Shriram Finance announced that the consolidation of its green finance initiatives under a new vertical. Shriram Green Finance, will focus on financing sustainable projects, including electric vehicles, battery charging stations, renewable energy products and energyefficient machinery.

Read More.....



Breakthrough in nitrogen use efficiency promises greener farming practices

Scientists in India have unveiled a method to enhance crop yields while reducing reliance on nitrogen fertilizers, achieving a breakthrough that could reshape global agriculture. According to the New Delhibased National Institute of Plant Genome Research, lowering nitric oxide, or NO, in plants significantly improved nitrogen uptake and nitrogen use efficiency, or NUE, in rice and Arabidopsis, a model plant often used in scientific studies.

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Siemens showcases sustainability-driven innovations in Industrial AI at CES 2025

German technology major Siemens revealed a bold vision for the industry's future, anchored by advancements in artificial intelligence, digital twin technology, and immersive design.

According to a statement, the company is bringing industrial AI directly to the shop floor with the new Siemens Industrial Co-pilot for Operations, facilitating quick decision-making for shop floor operators and boosting productivity.

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MahaKumbh 2025 embraces sustainability with green initiatives

In line with the Union government's announcement of a 'green' mela, this year's MahaKumbh will feature a range of eco-friendly initiatives aimed at reducing the environmental impact of the massive gathering.

The Uttar Pradesh government has rolled out several measures to ensure the event is as sustainable as possible. Key initiatives include the complete ban on single-use plastics, the promotion of biodegradable products, and the use of solar power for lighting and other energy needs.

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AM Green and DP World partner to export green ammonia, methanol globally

Hyderabad-based AM Green stated that it has partnered with Dubai's DP World, a global port and logistics firm, to develop infrastructure to export 1 million tons per annum each of green ammonia and methanol.

According to the statement, this collaboration will significantly enhance global decarbonisation efforts by enabling seamless exports to key consumption markets.





Google to purchase 100,000 tons of carbon credits from Indian Biochar initiative by 2030

Google has partnered with Indian supplier Varaha to buy 100,000 tons of carbon credits through 2030. The credits come from biochar, a charcoal-like substance produced by converting agricultural waste into a CO2sequestering material.

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Sustainability takes centre stage at Maha 7. Kumbh 2025 with 'Maidaan Saaf' initiative

The Coca-Cola India and its foundation, Anandana, has collaborated with the PHD Rural Development Foundation (PHDRDF) and Prayagraj Mela Authority (PMA) to spearhead sustainability initiatives at Maha Kumbh 2025. This collaboration focuses on creating a social and environmental impact by championing innovative solutions for waste management and recycling.

Read More.....



Kerala to extend carrying capacity studies to more destinations to promote eco-friendly tourism practices

The Kerala government will extend the carrying capacity studies to more destinations to promote eco-friendly and sustainable tourism practices that protect Kerala's natural beauty.

The government is also committed to positioning Kerala as a premier global destination by operationalising the Heli Tourism Policy approved in 2024, creating new avenues for aerial tourism.



SEBI Relaxes on timeline for review of ESG **Rating on BRSR publication**

Promote ease of doing business, markets regulator SEBI on Friday provided relaxation in the timeline for review of ESG rating following the publication of Business Responsibility and Sustainability Reporting (BRSR). ESG Rating Providers (ERPs) will carry out a review of the ESG ratings upon the occurrence of or announcement/ news of such material developments immediately, but not later than 10 days of occurrence of the said event.



10. IIM-Bangalore introduces its first hindi MOOC course on ESG and sustainability in business

IIM Bangalore has introduced its first Massive Open Online Course (MOOC), titled 'From Theory to Practice: Implementing ESG and Sustainability in Business,' hosted on Swayam, a Government of India initiative designed to provide free, high-quality education across diverse subjects. The course will be imparted in Hindi language.





Sustainability Standards Board



ICMAI THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

Headquarters:

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

Delhi Office:

CMA Bhawan, 3 Institutional Area, Lodhi Road, New Delhi - 110003

Behind every successful business decision, there is always a CMA



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

CMA

About The Institute

he 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
- hours online coaching

Online Examination for 100 marks

- Multiple Choice Questions 70 questions, 1 mark each
- Ĉase 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.

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Syllabus of the ESG Course

	Oynabas of the Lou oburse	
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	3 hours
	ESG - the pathway to Sustainability Introduction Conceptual framework Material ESG Issues Concept of ESG Maturity Challenges in implementing ESG	
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	5 hours
	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	
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.	5 hours
	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	

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3



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



Syllabus of the ESG Course

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

Contact for further queries

Course Coordinators

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

Sustainability Standards Board



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Green Jobs and CMAs

Part-V (Transport and Tourism)

CMA Arunabha Saha

Practicing Cost Accountant
Thane

The global tours and transport sector significantly contributes to the economy while simultaneously posing environmental challenges, including greenhouse gas emissions, resource depletion, and pollution. Green initiatives in this sector focus on promoting sustainability, reducing the environmental footprint, and creating eco-friendly employment opportunities. Cost and Management Accountants (CMAs) play a pivotal role in these initiatives by ensuring cost efficiency, sustainability analysis, and long-term strategic planning. By adopting these strategies, nations are transforming transportation and tourism, building a future that prioritises environmental conservation and economic growth.

Green Transportation: Driving Sustainability

1. Eco-Friendly Transportation

Electric and Hybrid Vehicles (EVs)

Globally, countries are transitioning to EVs to reduce carbon emissions.

Role of a CMA: CMAs can analyse the lifecycle costs of EV manufacturing, assess return on investment (ROI) in EV infrastructure, and provide cost optimisation strategies for battery production and maintenance processes.

In India, the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) initiative has facilitated the growth of EV hubs in Tamil Nadu and Gujarat. Tata Motors' EV plant in Gujarat is a prime example, employing thousands while contributing to India's carbon neutrality goals. Similarly, the Indian government's National Electric Mobility Mission Plan (NEMMP) aims to create jobs in the production of electric vehicles (EVs) and their supporting infrastructure.

Public Transport Enhancement

Public transport investments, like metro projects in Delhi, Bengaluru, and Mumbai,

drive green initiatives and generate jobs in construction, operation, and maintenance. The Delhi Metro, for instance, creates employment while reducing pollution, benefiting public health. Similarly, Pune's e-bus program supports sustainable mobility and job creation in manufacturing, operations, and infrastructure management.

Role of a CMA: CMAs can assess costbenefit analysis for public transport projects, evaluate funding mechanisms, and monitor operational efficiency to ensure sustainable and cost-effective transport systems.

2. Adoption of Renewable Energy

Solar-Powered Vehicles and Charging Stations Solar-powered EV chargers are emerging as a promising alternative, providing clean electricity to power electric vehicles.

Indian Oil Corporation (IOC) has established solar-powered EV charging stations across several cities, integrating renewable energy into its infrastructure. IOC's charging station at the Rajarhat fuel outlet in Kolkata operates entirely on solar energy, promoting sustainable mobility and supporting the growing adoption of electric vehicles in India.



Role of a CMA: CMAs can estimate the financial viability of solar installations, track energy savings, and measure the carbon offset benefits achieved through renewable energy adoption.

In India, solar-powered charging stations in cities like Kochi enhance the EV ecosystem, generating jobs in renewable energy installation and maintenance.

Biofuels for Fleet Operations

Brazil's ethanol-based fuel systems are globally renowned for their environmental benefits. India is following suit with biofuel blending programs, promoting green initiatives and creating jobs in biofuel research and production.

Role of a CMA: CMAs can develop cost structures for biofuel production, analyse government incentives for blending programs, and ensure compliance with financial and sustainability regulations.

The Government of India has set ambitious targets for ethanol blending in petrol, aiming for 20% blending by 2025-26, up from the earlier target of 2030.

Sustainable Tourism: A Green Future

3. Carbon-Neutral Travel Packages

Carbon-neutral travel packages are travel options that produce a net zero amount of carbon dioxide. To create carbon-neutral tours, the total carbon footprint of the trip, including transportation, accommodation, and activities are calculated. Then offset emissions by investing in renewable energy, reforestation projects, or purchasing carbon credits while promoting eco-friendly practices throughout the journey.

Role of a CMA: CMAs can calculate carbon footprints for travel packages, manage offsetting budgets, and ensure financial accountability in sustainability programs.

The Responsible Tourism Society of India (RTSOI) aims to promote eco-friendly tourism practices that protect the environment, support local communities, and preserve cultural heritage.

4. Eco-Tourism Development

Eco-tourism development involves creating nature-focused tourism that minimises environmental impact, supports local



communities, and promotes environmental education.

Role of a CMA: CMAs can assist in budgeting for eco-lodge construction, monitor operational costs, and recommend sustainable pricing models to attract responsible tourists.

India's Himachal Pradesh eco-tourism circuit focuses on cycling and walking trails, creating employment in heritage promotion and ecolodge management.

Innovations in Green Infrastructure

5. Smart Mobility Solutions

Singapore's Al-powered public transport optimisation enhances efficiency and reduces emissions.

Role of a CMA: CMAs can develop cost models for integrating AI and IoT in transport, track cost reductions through optimisation, and ensure scalability of smart mobility solutions.

In India, smart city projects like Indore's pedestrianisation initiative foster employment in mobility management and public space design.

6. Energy-Efficient Transportation Hubs

India's energy-efficient transport hubs include Ahmedabad's Sabarmati Multi-Modal Transit Hub, powered by solar energy and integrating rail, metro, BRT, and road transport, and the Delhi Metro, which uses LED lighting, solar panels, and lightweight coaches to enhance sustainability.

Role of a CMA: CMAs can assess energy efficiency investments, track operational savings, and report on financial performance tied to green infrastructure development.

Kochi International Airport in Kerala is the first airport in India to run entirely on solar power Chennai Airport's solar energy integration exemplifies India's push towards energy-efficient infrastructure, employing specialists in renewable energy.

Technology-Driven Solutions

7. Optimised Logistics and Fleet Management

Amazon's global commitment to EV logistics creates roles in fleet management and driver training.

Role of a CMA: CMAs can design cost-effective fleet management strategies, optimise fuel consumption budgets, and analyse the ROI of logistics operations.

Amazon India's EV delivery fleet promotes sustainable logistics, generating green jobs across urban regions.

8. Digital Platforms and Smart Ticketing

A digital platform for smart ticketing enables users to purchase tickets electronically via smartphones or devices, eliminating the need for physical tickets.

Role of a CMA: CMAs can track savings from reduced paper use, evaluate costs for digital platform development, and ensure financial sustainability in ticketing solutions.

IRCTC, UTS, airline ticketing apps, metro rail ticketing, RedBus, Chalo-BEST, Uber, and Ola in India are leading the way in paperless operations by enabling digital ticketing and seamless transactions. These platforms contribute to efficient, eco-friendly, and convenient travel experiences.

Conclusion

Green initiatives in transportation and tourism present a transformative opportunity to align environmental conservation with economic development. CMAs act as enablers, ensuring financial efficiency, compliance, and sustainability in implementing these initiatives. By fostering innovative policies, embracing renewable energy, and engaging communities, nations like India can lead the green environment revolution. As Mahatma Gandhi aptly stated, "The future depends on what we do in the present." Embracing these opportunities today ensures a sustainable, equitable, and prosperous tomorrow for generations to come.

Inventory Management and Sustainability Exploring the Relationship Between Inventory Management, and Social, Economic and **Environmental Sustainability**

CMA Anuradha M. Dhavalikar **Practicing Cost Accountant** Pune

This paper aims to explore the evolution of ancient ways of storing food to the modern-day inventory management, and its relationship with sustainability, tracing the storage or inventory from being an essential tool for the survival of the hunter-gatherers, to the modern-day storage of value in the form of crypto currencies on the blockchain. It discusses the impact of inventory on the society, the economy, the businesses, and on the environment. The data used in this paper is based on the web-based data resources that are freely available, such as government portals, published research papers and other new articles and publications of repute. The author has conducted a literature review and simple analyses to arrive at the conclusions. She has considered commonplace item of mass consumption, as cases that explain multiple facets of the problem at hand – establishing the relationship between the sustainability of the society, economy, and the environment. For this study, foodgrains in India (more specifically, wheat and rice), have been considered from the agriculture sector. The industrial sector has been represented by two large FMCG companies in India. The value added by labor across the economy and the service sector stocks or inventories are outside the scope of this study. The study reveals a complex relationship between the nature of the item of inventory, its use and importance in the human life-cycle, the availability of the inputs and wherewithal to produce or manufacture it, and the economic, social, and environmental factors affect consumption or storage decisions. The author concludes that the implementation of advanced inventory management systems contributes towards fulfillment of corporate responsibility for social and environmental sustainability. The social and cultural evolution of the nation and the businesses encourage mindful consumption and are the key to arrest wastages, reduce costs, conserve resources, and ensure an equitable chance for survival and sustainability.

Inventory and Sustainability

Storing food is common to all forms of life, be it plants, animals, birds, fish, or even insects, since time immemorial. The food storage is essential for the survival of the species in periods of shortages. These periods were usually caused by annual, cyclic, and natural events. Over the millennia, the materials stored, their quantities, methods, and management have evolved. While plants, insects, birds, and animals have evolved slowly, humans have seen exponential progress in this area. Much more aggressive storage of food and other resources have led to imbalances in the environment as well as the society. There are the "Haves" and "Have-nots," and the "Have-too-much," in the modern world. Each class displays radically different characteristics, behavioral patterns, and sensitivities. The technology, art and science of inventory management has come far away from the origins, from the storage of food by the hunter-gatherers, to the modern day crypto-currency storage on the blockchains. It now appears to be an essential aspect of our existence. It seems to be a necessary evil. Today, we



pause for a few moments and explore the thought that Inventory (and its management), the very tool of human survival, may have unwittingly transformed into a harbinger of a hastened destruction of mankind, and all life on earth.

The Beginning

All life forms have evolved with their ways of storing food. For example, plants like potatoes and yams store food in their roots and tubers. Some bear fruits and nuts, such as mangoes and coconuts. Insects such as ants and honey bees store food for their larvae. Animals like polar bears that hibernate during winters, store food in the form of body fat. Others, like dogs and wolves bury their left-overs for later use. Birds lay eggs that contain enough food to sustain their young ones till they hatch. It is believed that when human beings discovered the controlled use of fire, they first started preserving meats and fruits by smoking, roasting, drying, salting and other such means. The preserved food was used during the periods where no food was available to be gathered. After humans started cultivating land, about 12000 years ago, they started storing excess produce in silos and later in granaries. Stored grains could be exchanged for other goods, through barter system. The exchange value depended on the suitable matching of demands for the available goods. With the advent of money, goods could be exchanged for money without waiting for a suitable matching of the market players. Hence, the value could be stored more easily, for a longer time. Goods that could be stored longer could be kept in store till they fetched better prices, and money could be held till the prices of the desired goods fell to an expected level. What to store and how much to store was a matter of judgement of the individual sellers. Then, people started producing enough to be able to store for the future. Thus, the journey of inventory began.

Inventory Management in Ancient India

The ancient cities of Harappa, Mohenjo-Daro and Kalibangan had elaborate granaries that could store large quantities of grains for their growing populations, especially to meet the demand during times of scarcity due to floods, droughts and so on. They were planned and built with burnt bricks and ventilated to maintain the quality of the grain over the years. They were equipped with suitable access for storage and removal, and loading and unloading bays. The port city of Lothal had storehouses for goods that were traded between the Indus Valley and the Sumerians. Elaborate arrangements were made to collect and store rain-water from the storm-drainage systems found in the ancient ruins. It is interesting to note, however, that the Indus Valley Civilization declined, despite the elaborate planning of resources, long-term storage of food, water, and other essential items. One of the factors that caused its decline is said to be natural calamities, such as floods and droughts, and major environmental changes, such as the drying up of the rivers.

स्खिनोभवत्॥

Inventory Records

As per Wikipedia, the Harrapan or Indus Valley Civilization used a language script (a corpus of symbols) that has not been deciphered to date. Hence, any records of the inventory management, if maintained, have not been understood by the modern civilization.

The Modern-Day Inventory Management

The origins of the modern inventory management systems can be traced to large-scale production of parts of the weapons used to equip large armies. The armies required standardized parts, that were made with precision, were interchangeable, and were stored in the armory for immediate replacement and/or repair. Later, in the 18th century, the inventions meant to improve the quality, standardize the products, and reduce human efforts, helped to produce goods at a large scale, lead to the need to maintain an assured flow of material to the factories. The mass-produced goods needed to be stored in convenient and safe locations for transfer to different markets for sale. The focus shifted from maketo-order to make-to-stock, especially for manufactured items of mass consumption, such as textiles, books, utensils, soaps, toothpaste, and so on. The marketing strategies for these items also changed from pull to push, where the manufacturers made to estimated demands and set out to sell the stocks aggressively to the consumers. Some of the well-known resulting marketing wars are Coca-Cola vs. Pepsi, Hertz Rent-a-Car vs. Avis, McDonalds vs. Burger King, Apple vs. Microsoft, Audi vs. BMW, and back home, Amul vs. Kwality Walls.

Reasons of Holding Inventories

Inventories are created for varying reason, depending on the nature of the unit or entity holding it, the current environment in which it operates, its estimate of the future consumption and supply conditions, the nature of the items being stocked, and the importance attached by the entity to those items. We may list out some of the better understood reasons for holding stocks as under:

- Meeting demand during the time lead time for further procurement or production, 1.
- 2. Market intervention through holding or selling for stabilizing prices,
- Balancing the production between peak demand and off-peak demand periods and seasonal variations,
- 4. Availing quantity discounts and other bulk-buying benefits offered by the sellers,
- 5. Preparing to meet any expected future emergency such as supply-chain disruptions or unexpected situations such as natural calamities, war, and political unrest,
- Making speculative gains from selling the stocks at hand during bullish markets, and
- Ensuring continuous availability of scarce inputs or inputs that have a long replenishment cycle, for continuous flow of production.

While each of these reasons is valid and needs to be taken into consideration for creating stock of goods or commodities, entities need to make decisions on the quantities to be stocked and make efforts, prepare infrastructure, and spend on proper storage arrangements as well.

Analysis & Findings

The overall cause of increasing inventories needs to be ascertained in the Indian context. As per the UN Data, India is home to over 1,457,425,002 persons, which is about 17.78% of the world population. The land area of India is 32.9 lakh square kilometres, which is about 2.4% of the total surface of the world. This results in a population density of population density is 434.6 people per square kilometre. India is home to about one-fourth of the world's undernourished people. The Government of India (GOI) provides free foodgrains to the marginalized households through the Public Distribution System. Besides the stocks maintained by the GOI, private players also maintain stocks of foodgrain, to meet

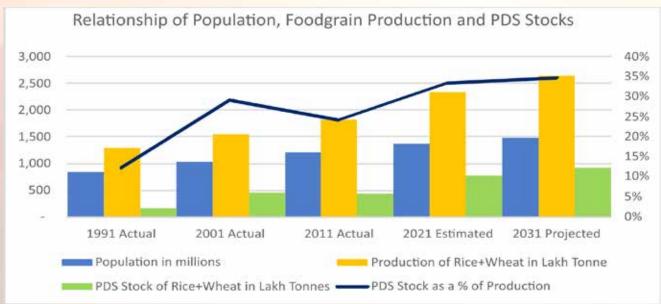


the needs of the rest of the society, which is not entitled to this facility. Housing is an important socioeconomic factor. The housing market in India is typically divided into a high-demand-low-supply of affordable housing, and a high-supply-limited-demand for high-end housing. Only an inventory of unsold and unoccupied houses is caused by this market condition. The manufacturing and services sectors are dominated by private players. There are a few industries that are under the control of the regulators at the national level. The prices, demand-supply, and stocks in the unregulated sectors are determined by market forces. The economic, developmental, and geographic diversity in the Indian markets causes imperfections and imbalances in the inventory management policies and actions. These have a deep impact on the society, economy, and the environment.

The Growing Demand and Rising Inventories in India

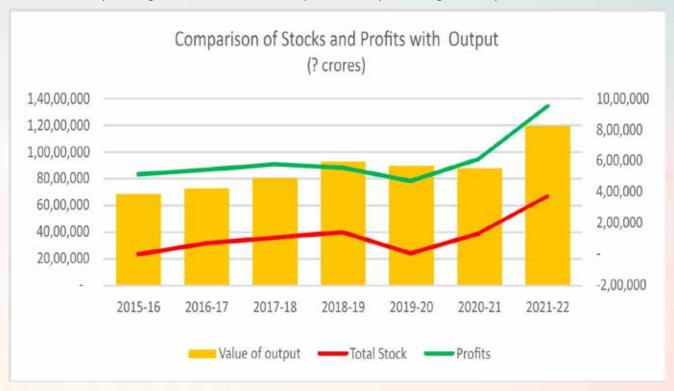
The population in India has been growing at a rapid pace. Soon, India will be the world's most populous country with the youngest demography. The greater the number of people, greater the need for food, clothing, housing, education, entertainment, communication, and healthcare. The chart given below shows the actual and projected population of India and the production of foodgrains (wheat & rice), and the stock of rice and wheat held in the Public Distribution System (PDS), by the Government of India. Foodgrains being essential items in nature, they are subject to government interventions. These market interventions by the government in turn impact the wholesale prices of the commodities and cascade into impact on the stocking decisions of the traders, retailers, and households. Thus, in the case of foodgrains, their supply depends on several factors such as local weather conditions, availability of water, climate change, availability of warehousing and transport infrastructure. And so on. These are not always within the control of the producers (farmers). The controllable factors may be the use of appropriate farming techniques, good quality seeds, maintaining soil quality, adequate irrigation, and timely control of pests and invasive plant species.

We explore the relationship of agricultural sector stocks with the production of food grain, and the rising population of India. The chart compares how the government policy on food stocks vary with the rising population, and how agricultural output is optimized to meet the current consumption and food security needs of the country.



Note: The Census figures are taken from the Census Data published by the Government of India till 2021. The chart considers the actual and estimated agricultural data published by the Reserve Bank of India in its Handbook of Statistics on Indian Economy. All figures for the year 2031 have been extrapolated using the MS Excel Forecast Sheets function.

Increase in the inventories of the industries can be seen from the Annual Survey of Industries, conducted by the National Sample Survey Office, and published by the Ministry of Statistics and Program Implementation. The following chart traces the increase in output and inventories over the years. Barring the dip in output due to Covid-19, we see that there is a continuous rise in production, and the corresponding increase in stocks and profits as a percentage of output.



Note: The stock, profits and output in Rupee terms have been compared for better visualization.

The stocking policy of the manufacturers, traders, retailers, and consumers are different for different types of goods. For example, in the pharmaceutical industry, the manufacturer of bulk drugs supplies output to other formulations manufacturers. The stocking policy of the bulk drug manufacturer is likely to take into consideration the continuous and assured supply of raw materials, the process time, the variations in demand of the B2B customers, the life-span (expiry date based) of the ingredients and the manufactured drug, the seasonal impact on the output and sales, and so on. The maker of formulations will balance his supplies and production, and maintain stocks based on projected sales, estimated process time, estimated distribution channel time and quantity requirements in the near future, and the shelf-life of the formulation. The distributor of the formulations made from this bulk drug will maintain stocks of the formulations based on the estimated demand by the retailers in the region, the estimated consumer base, the alternatives available and the preference of the medical practitioners while prescribing medicines. A regular consumer of the medicine will base his or her stock decision on the frequency of consumption, ease of availability, availability of disposable income for creating a stock, and estimated future health conditions.

Impact of Inventory on Socio-Economic Sustainability

One of the main reasons for maintaining stocks in the Industrial Sector is to ensure smooth functioning of the entire value-chain, from the inputs to the ultimate consumer. Other factors could be to control the prices of the goods, aimed to avoid losses, and optimize profits for the period. Storing current output for expected future profits carries risks and opportunities. Achieving the precarious balance between the current and future opportunity and risks is the tightrope walk that every entity goes through while determining the quantity and holding period of inventory. The outcome of efficient inventory management, is obviously, a continuous availability of the goods at known prices. The first



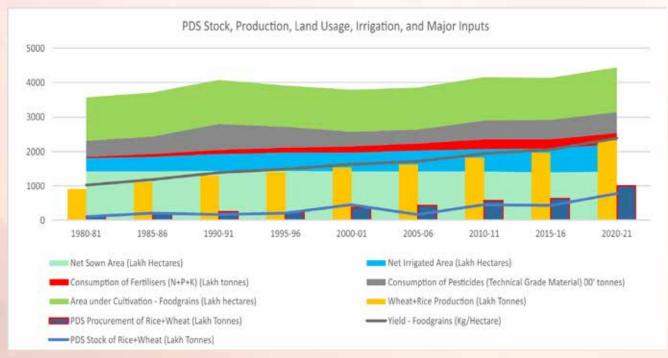
level of outcome is developing the ability to control market prices through market interventions. The second level of impact that is now becoming apparent is the sense of security and 'Atmanirbharta' (self-sufficiency or self-reliance) created as a society or nation.

Impact of Inventory on Resource Consumption

The inputs or resources used for producing the inventories are drawn from the current period, and they are used in the future periods. Therefore, it is important to plan inventory in such a way that the non-renewable or scarce resources are not unnecessarily locked up in the form of non-essential products in the inventory.

Agriculture sector in India

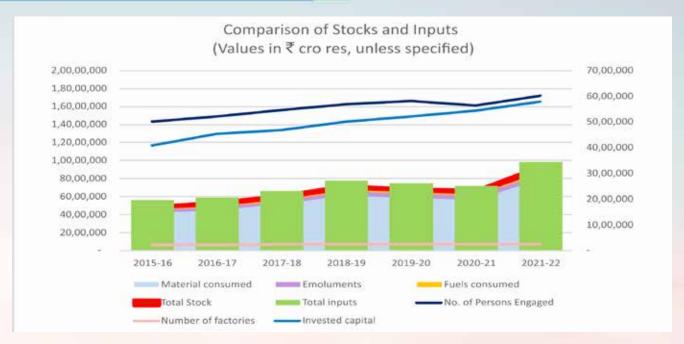
In the agricultural sector, the inputs include land, water, seeds, labor, fertilizers, and pesticides. The climatic conditions have a profound impact on the use of water, fertilizers, and pesticides. As climate change progresses, determining its impact on the output and corresponding changes required to the inputs is becoming increasingly complex. Land being a scarce resource, needs carefully planned utilization. Each region, state and even district has its own ecosystem that is favourable for certain crops only. With the growing number of mouths to feed, it is becoming increasingly difficult to have a balanced crop pattern across the entire nation. The following chart shows the complexity of the relationship between the production of foodgrains and the utilization of resources.



The chart indicates a more-or-less level usage of land area for cultivation, with increased use of irrigation, fertilizers (N-P-K) and pesticides, for achieving more output. Further, we can see the impact of stocking policy of the various governments with the relationship between production, PDS procurement, and stocks.

Industry sector in India

The Industry Characteristics such as investment, number of factories, emoluments, fuel, material, expenses such as rent, etc. are input to produce certain output levels and then store through the closing stock. Thus, a large portion of the currently available resources are locked for future consumption of that good.



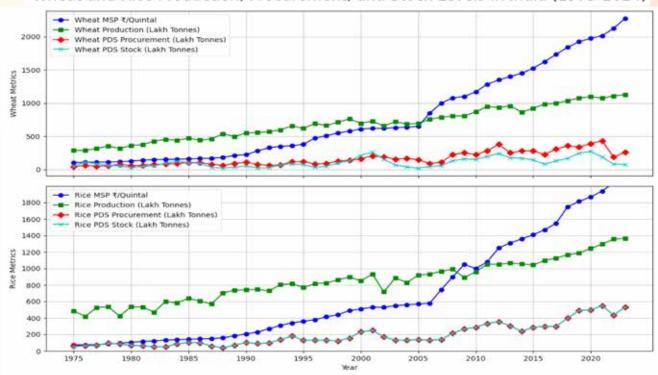
The chart indicates how the value in stock accounts for a major portion of the total input costs for the period. Directly variable inputs such as materials, fuel, and labor account for a large portion of the total cost. The value is locked in the inventory.

Measuring the Socio-Economic Impact Agriculture Sector

Indicators of Inventory Management in the Agricultural Sector

The Minimum Support Price (MSP) movements of rice and wheat, and the uptake and stocks in the PDS over the years have been collated from the Reserve Bank of India's (RBI) Handbook of Statistics on the Indian Economy. The chart shows the increasing production of the foodgrain, the rising PDS procurement, and the corresponding PDS stocks, and the MSP rising at a greater incline than any other factor.

Wheat and Rice Production, Procurement, and Stock Levels in India (1975-2024)





The sharp rise in the MSP seems to indicate that the demand for wheat and rice through the PDS has risen sharply as compared to the production, till the year 2005. Thereafter, the sharp rise in MSP is not fully explained by the gap between the slopes of PDS procurement and the production of the foodgrains. It also appears that the year's crop of rice procured has been stored for distribution through the PDS in the next year. A search of the related government policies and schemes (released through the Press Information Bureau) reveals that the National Food Security Act, 2013 was passed, increasing the entitlement of foodgrains to 5 kg per person per month, the One Nation One Ration Card (ONORC) scheme was launched and adopted by many states, and the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) was launched in response to Covid-19 pandemic, which lead to an increase in the procurement through PDS. Further, massive efforts were made to digitize the entire system from end-to-end – from ration cards, to ePOS devices (electronic Point-of-Sale devices) at the Fair Price Shops, and to e-procurement. Therefore, PDS stocks were managed more efficiently and transparently.

Measuring the Inventory Management Sentiment in the Agricultural Sector

A VADER Sensitivity Analysis for the PDS system (as a whole) yielded the following result:

Search Text	Negative Score	Neutral Score	Positive Score	Compound Score
The PDS has significantly improved food security in rural areas.	0.00	0.59	0.41	0.67
Many people still face issues with accessing PDS benefits.	0.00	0.76	0.25	0.38
The PDS has reduced hunger and malnutrition in our community.	0.18	0.82	0.00	-0.25
There are still many inefficiencies and corruption in the PDS system.	0.00	1.00	0.00	0.00
The recent improvements in PDS distribution have been very effective.	0.00	0.58	0.42	0.69
People are generally satisfied with the quality of foodgrains provided.	0.00	0.76	0.24	0.42
There is a need for better transparency in the PDS operations.	0.00	0.78	0.23	0.44
The government's efforts in enhancing the PDS are commendable.	0.00	1.00	0.00	0.00
Some regions still suffer from irregular supply of foodgrains.	0.30	0.70	0.00	-0.54
The PDS has contributed to a feeling of self-sufficiency as a nation.	0.00	0.88	0.12	0.13

The overall socio-economic impact of PDS Inventory can be inferred as follows:

- 1. Always ensuring "food for all," or Food Security,
- 2. Reducing the economic burden on the poor by tackling food inflation through market operations,
- 3. Better nourishment and improved health in the economically weaker sections of the society though improved dietary intake throughout the year,
- Assured and equitable access to foodgrains that are a necessity, by reaching even the remotest corners of the country all through the year needs to be worked on, as there is a negative sentiment on this count.
- The PDS system improvements required to handle the higher stock levels have led to increase in the infrastructure and operations, which, in turn, have increase employment opportunities, and
- An elevated level of confidence as a nation, coming from the reduced dependence on external sources to meet the basic needs of the people.

A VADER Sentiment analysis for the impact of agricultural stocks in the economy reveals the following scores:

Phrase	Negative	Neutral	Positive	Compound
The traders and middlemen stock foodgrains in excess of demand in India,	0.1200	0.8800	0	-0.1280
Large stocks of foodgrains with traders and middlemen in India cause wastages,	0	1	0	0
The inefficiencies of the Public Distribution System in India is inefficient and wastes foodgrains,	0	1	0	0
Excessive stock of agricultural produce is bad for the economy in India	0.2410	0.7590	0	-0.5423

Here, the sentiment for level of stocks of foodgrains is mildly negative and the impact on the economy is strongly negative. The other two statements appear to be considered factual.

A detailed survey of the above needs to be conducted with a cross section of the society across the entire geography of the country to substantiate these inferences.

Industry Sector

Indicators of Inventory Management in the Industry Sector

For ease of understanding, we will now take up one industry within this sector, and compare the changes in inventory with the changes in the financial metrics of the companies and some socioeconomic factors affecting them.

The FMCG has many multi-brand large companies that impact the markets significantly. For this paper, let us observe the inventory levels and profitability of two giants, namely Hindustan Unilever Limited (HUL) and ITC Limited (ITC). We can also observe the market prices of their equity on BSE, as a reflection of the investor-sentiment.

Measuring the Impact of Inventory Management in the Industry Sector

We begin with Hindustan Unilever Limited. The multi-brand multi-national company has the leverage of global sourcing and scale of operations. It has more than 80 manufacturing facilities spread across the geography. Its products include personal and home care, food and beverages, and other consumer goods.

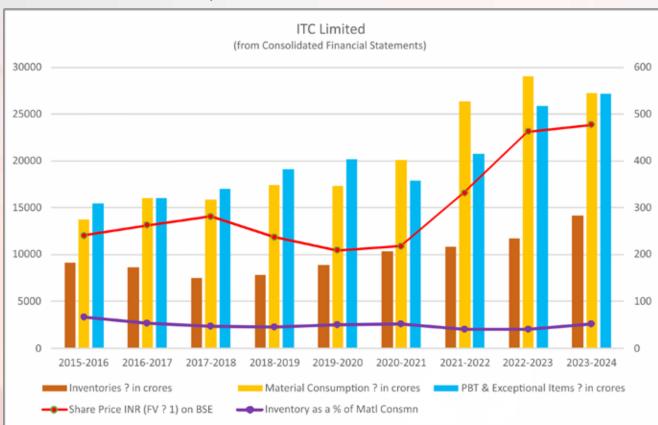


Note: The information has been drawn from the HUL portal, from the published annual reports.

The data exhibits the following characteristics:

Correlation coefficient of Share Price and PBT	0.88
Correlation coefficient of PBT and Inventory	0.89
Correlation coefficient of Inventory and Material Consumption	0.94
Correlation coefficient of PBT and Inventory as a % of Material Consumption	-0.71
Correlation coefficient of PBT and Material Consumption	0.96

A similar exercise for ITC Limited reveals a very different picture. ITC is present across 6 sectors in India, namely, Tobacco, FMCG, Hotels, Paper Products and Packaging, Agri-business, and IT. This mix of sectors has affected its inventory as well as the financial metrics.



Note: The information has been drawn from the Annual Reports on the BSE website.

Correlation coefficient of Share Price and PBT	0.87
Correlation coefficient of PBT and Inventory	0.83
Correlation coefficient of Inventory and Material Consumption	0.85
Correlation coefficient of PBT and Inventory as a % of Material Consumption	-0.50
Correlation coefficient of PBT and Material Consumption	0.89

The correlation coefficients of the above data for ITC show a lower correlation between the inventory and profitability, and that between PBT and material consumption as compared to HUL. It is interesting to note that the inventory level as a proportion of material consumption is high in ITC as compared to HUL.

The share prices of HUL appear to be far higher than those of ITC, even though both have the same face value (₹ 1/-). This indicates strong correlation between the profitability, inventory levels, and the stock market prices for HUL (Adj. R-square = 0.738) and a moderately strong relationship between the same elements for ITC (Adj. R-square = 0.669).

The overall socio-economic impact of inventory in businesses such as HUL and ITC can be summarized as follows:

- Maintaining continuous supply of goods and services irrespective of seasonality or cyclic nature of inputs and/or production,
- 2. Buffering against price fluctuations of inputs,
- Tool for control of selling prices of the goods and services,
- 4. Increasing the geographic reach and depth of the FMCG market,
- 5. Locking up the working capital of the society and other scares resources in creating large stocks of non-essential items, and
- 6. Aggressive selling of non-essentials to keep the flow continuous and the supply-chain pipelines unclogged, resulting in unhealthy consumerism.

These are sample companies drawn from a large data set. A more systematic and structured study needs to be conducted to gain insights into the macro level impact in India.

Impact of Inventory Management on Environmental Sustainability

Environmental sustainability and inventory management are closely linked. The line of distinction between the true need to store essentials to meet near-term shortfalls, and the tendency to hoard is very thin. Something that is apparently essential to one person or city or nation, may be an excess or wastage for another. For example, the use of tissue papers is considered essential in the Western culture. In a country like India, where the culture and weather conditions are favourable, hand drying with towels or other re-usable materials is considered more efficient, and the use of tissue papers a wastage of natural resources.

Indicators of the Impact of Inventory Management on Environment

Global Warming and Climate Change, Natural Resource Depletion, Environmental Degradation are the key factors that indicate the impact of inventory management on the environment.

GHG Emissions:

Though agriculture appears to be a green activity, it too has a carbon footprint and its own share of Greenhouse Gas (GHG) and Nitrous Oxide (NOX) emissions, which second only to the emissions from the Energy sector. Agricultural GHG and NOX emissions need to be controlled, while maintaining the productivity of the land cultivated and optimizing output. According to the Approach Paper titled "Greenhouse Gas Emission from Indian Agriculture: Trends, Mitigation and Policy Needs," by the team of researchers from the Indian Agricultural Research Institute, New Delhi, in 2010, global agriculture contributed about 11% (5,677 MT $\rm CO_2$ eq.) to the total global GHGs emission (50,101 MT $\rm CO_2$). India contributed about 5% (2,691 MT $\rm CO_2$ eq.) to the total global GHGs emission. The share of Indian agriculture was about 7% (403 MT $\rm CO_2$ eq.) of emission of GHGs from global agriculture. The paper identifies the drivers of GHG and NOX emissions in agriculture as follows:

"The major drivers of global agricultural change and the resultant GHGs emissions include increase in population, need of food and energy security, onset of globalization and liberalization, increase in per-capita income, changes in food consumption and dietary trends, shortage of water and labor, technological developments, climate change, and evolution of carbon markets in world."

The development and adoption of cost-effective farming techniques that sequester the carbon generated from farms and fix nitrogen in the soil are being promoted by the Ministry of Agriculture and Farmers' Welfare, Government of India, through various schemes such as the National Mission on



Natural Farming (NMNF). In addition to this, an optimization of the stock of foodgrains is required, so that high-yield farming for food security and the prevention of environmental damage due to the high-yield farming are in equilibrium.

Measuring the Impact of Inventory Management on Environmental Sustainability

The extent of current use of scare natural resources, the level and the mix of the output that is inventorised cause a long-term impact on the environment. The consumption of energy, chemicals, minerals, soil, water, air, and environmental stability are important factors that affect the environment. It is very difficult to correlate the GHG emission data available at the country-level and the contribution of the various sectors. The measurements follow different methods, technology, level of detail, and are tuned to the requirement of the specific projects.

Agriculture

The following table shows how the impact of PDS stocking policy on the use fertilizers, in terms of the proportion of produce that is stored applied to the consumption of fertilizers for the output for the year:

Proportionate Share (Hypothetical) of PDS Stock in Agri Inputs - Fertilizers

Year	2018	2019	2020	2021	2022
Net Sown Area (Lakh Ha)	1387.70	1384.40	1399.00	1415.40	1410.10
Area Under Cultivation of Wheat+Rice (Lakh Ha)	738.07	729.81	764.27	779.89	768.59
Area of Wheat+Rice (% of Net Sown Area)	53%	53%	55%	55%	55%
Consumption of Fertilisers (N+P+K) (lakh tonnes)	265.90	273.80	293.70	325.40	298.00
Wheat+Rice Production (Lakh Tonnes)	2745.87	2819.01	2943.61	3050.15	3039.88
PDS Stock (Lakh Tonnes)	432.50	567.50	738.50	772.30	740.30
% of PDS Stock to Wheat+Rice Production	16%	20%	25%	25%	24%
Net Sown Area attributable to PDS Stock as %	8%	11%	14%	14%	13%
Proportionate Share (Hypothetical) of Fertilizers Consumed for PDS stock (Lakh Tonnes)	22.28	29.06	40.25	45.40	39.56

Note: The data on area, production, and yield was obtained from the UPAg dashboard (UPAg, 2025).

The impact of the use of fertilizers in terms of Methane and NOX released in the air are not easily ascertainable. They may be calculated using a few thumb-rules, as provided by the United Nations.

Industry Sector

The Industrial Sector's share of GHG and NOX emissions come mainly from the Energy sector, which is also the highest contributor in India. The energy consumption by the industrial sector has been the target area for reduction of the carbon footprint. The energy intensity data published by the Ministry of Statistics and Programme Implementation, Government of India gives the provisional energy intensity of the Industrial sector in India at 0.00654 toe/000′rupees in the year 2022-23. In energy intensity terms, toe/000′rupees stands for tonnes of oil equivalent (toe) per 1,000 rupees. In terms of toe/₹ crore, it amounts to 65.40 toe/₹ crore Lower the intensity, higher the energy efficiency of the economic value produced. A look at the energy intensity of HUL, as per its BRSR report of the year 2023-24, the energy intensity in Gigajoules per ₹ crore for the previous year (2022-23) is 63. This roughly translates to 1.5047 toe/ ₹ crore (based on the standardized energy conversion factor of 1 Gigajoule (GJ) = 0.02388 tonnes of oil equivalent (toe) used by international organizations such as the

International Energy Agency or IEA, and the World Bank). The corresponding figure for ITC Limited was 381 Gigajoules/₹ crore, or 9.1 toe/₹ crore.

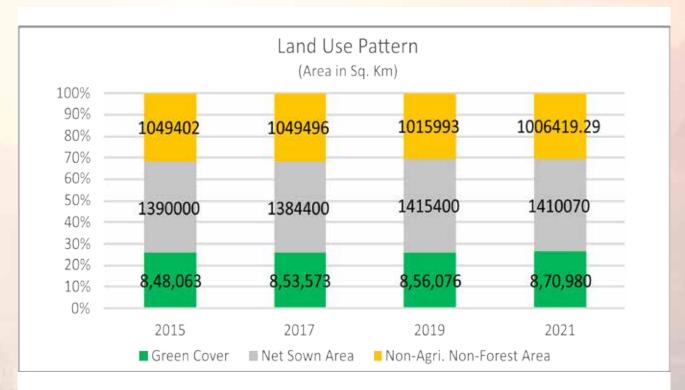
Besides the production of goods, their storage and transport involve the consumption of energy. Thus, the energy consumption of the entire value chain is affected by the volume of inventory. The impact of energy efficient operations (manufacturing, packing, logistics, warehousing, domestic storage), the use of renewable or clean sources of energy at each stage, and the increasing FMCG inventories due to changing buying patterns and Q-Comm start-ups like Blinkit, Zepto, Swiggy Instamart, Bigbasket, Amazon Fresh, Flipkart Minutes, Dunzo Daily, M-Now (Myntra), etc., for insights into the inventory volumes and its environmental impact.

The other major cause of industrial GHG and NOX emissions is the use of plastics. These are especially important, as they are essential packing material, for the longevity and ease of transportation of the stocks of goods. Though many FMCG companies claim to have reduced the use of plastics, or shifted to re-cycled plastic materials for packing, their claims are not supported by third-party assured quantitative details. Therefore, this paper has not considered the impact of plastic on the climate, because of the inventory policies of the manufacturers.

Land and Water

Land

Land is a limited resource, and it has competing uses in housing, agriculture, industry, infrastructure, and forestry. The Forest Survey of India, Ministry of Environment Forest and Climate Change, (FSI) publishes periodic reports on the forest coverage. A comparison of the Net Sown Area, as per the Ministry of Agriculture and Farmers' Welfare with the FSI survey data reveal that while the forest land has been slowly showing a mild growth in the dense forests, the scrub lands and open forests show a mixed pattern. This is because of the shifting cultivation in the North-Eastern states affecting the satellite imagery in the period of survey. The Southern states of Tamil Nadu, Karnataka, Kerala, Andhra Pradesh, Haryana Odisha, and Uttar Pradesh show better performance of social afforestation efforts and Government action. The following chart shows the overall picture:





Note: The Non-Agricultural, Non-Forest use of land includes land used by industries, households, and unused land. It is the remainder of the total geographic area, after deducting green cover area and agricultural area. The green cover area includes dense, medium, and open forests, and scrub lands.

According to the Constitution of India, land and building is a subject matter of the State List. Forests are the subject matter of the Concurrent List. It is only recently that the Government of India has created a digital inventory of forests. The agricultural land records are also being digitized by many of the State governments. A complete inventory of land assets will be helpful in planned use of this limited resource, and help achieve the country's commitments towards the UN Sustainable Development Goals.

Water

Fresh water is a scarce resource. Agriculture and Industries both depend on the fresh water from rivers, lakes, ground water and rains. The pattern of consumption of water varies from sector to sector, for different geographic areas, and the development level of the area. In agriculture, the dependence on rain water is gradually giving way to irrigation. The availability of water, irrigation techniques, nature of crops, number of times the farm areas are sown, the geographic locations, local regulations, and traditional or modern methods of farming are the major factors influencing the consumption of water. Within the industrial sector, it varies according to the nature of goods or services produced, location of the facilities, technologies used, operational efficiencies, regulations, and adoption of global best practices.

In addition to the efficient usage of water, water pollution due to agricultural and industrial activities are to be considered. Keeping the ground water clean, unpolluted, and replenished is an important part of environmental sustainability. Building large stocks of water in the form of lakes, underground reservoirs, overhead tanks etc. are ways of storing water for dealing with the seasonal shortages of water. However, if such stocks are made by drawing ground water, it will lead to inequitable distribution of ground water, and allow inefficient use go unnoticed, as the users get a sense of security of supply throughout the year. The National Water Informatics Centre (NWIC) of the Government of India has prepared a water resources project report, created a spatial inventory of the various water resource structures in India. Water too is a State List subject. Therefore, not all states have adopted the National Water Policy, 2012. As per the information given by the Minister of State for Jal Shakti, Shri Bishweswar Tudu in a written reply in Lok Sabha on 23rd March 2023," As per the latest assessment (2022), the Annual Extractable Ground Water Resource is 398 BCM. The Annual Ground Water Extraction for all uses is 239.16 BCM, out which 208.49 BCM (87%) has been utilized for agriculture activities." Here, BCM stands for Billion Cubic Meters. In the analysis of the central regulatory framework to counter agricultural water pollution was discussed by the National Law School of India University (n.d.). According to this study, the agricultural runoff contains agrochemicals, organic matter, drug residues, sediments and salts. This polluted the surface water bodies that it flows into, and the ground water reservoirs, as it seeps underground. The study observes that there are several regulations to control industrial water pollution, but not much has been talked about agricultural and civic water pollution in the legal framework. This needs to be remedied. A small saving in the agricultural sector will improve the availability and safety of water throughout the country.

The BRSR reports for the year 2022-23 published by HUL and ITC reveal that their water intensity is 21.4 KL/₹ crore and 197 KL/₹ crore respectively. The total volume of water consumed was 2.796 and 9.300 billion KL respectively. As per the National Commission on Integrated Water Resources Development, Government of India, the sectoral water demand will be as under:

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6.1.3 The following table 6.1.1 indicates the estimated water demand in India for different sectors.

Table 6.1.1 Projected Water Demand in India (By Different Use)										
Sector Water D Standing Sub-Committee of MOWR				Demand in BCM(Billion Cubic Meter) NCIWRD						
	2010	2025	2050	2010		20	2025		2050	
				Low	High	Low	High	Low	High	
Irrigation	688	910	1072	543	557	561	611	628	807	
Drinking Water	56	73	102	42	43	55	62	90	111	
Industry	12	23	63	37	37	67	67	81	81	
Energy	5	15	130	18	19	31	33	63	70	
Other	52	72	80	54	54	70	70	111	111	
Total	813	1093	1447	694	710	784	843	973	1180	

Source: Basin Planning Directorate, CWC, XI Plan Document.
Report of the Standing Sub-Committee on "Assessment of Availability & requirement of Water for Diverse uses-2000"

Note: NCIWRD: National Commission on Integrated Water Resources Development

BCM: Billion Cubic Meters MOWR: Ministry of Water Resourses.

Measurement of the Impact of Inventory Management on Environment

A VADER Sentiment analysis of the impact of agriculture on the environment reveals the following scores:

Phrase	Negative	Neutral	Positive	Compound
Agricultural output in India is very low as compared to its land usage,	0.1660	0.8340	0	-0.3384
Agriculture in India uses way too much water,	0	1	0	0
Agriculture in India causes air and water pollution and land degradation,	0.2540	0.7460	0	-0.5267
There should be strict laws on the pollution and wastage of resources caused by agriculture	0	1	0	0

The predominantly neutral scores indicate that the statement 1, and perfectly neutral scores for 2, and 4 indicate that these are considered factual, and not much sentiment is attached in the social media. There is negative sentiment for statement 3, highlighting the pollution caused by agriculture in India. These statements can be applied to the policy of maintaining stocks of agricultural produce, which influences the cultivation and use of resources.

The impact of the inventories on the environment needs to be measured in terms of the volume, value, and the nature of inventory (essential/ non-essential, in environmental terms). No study appears to have analyzed this aspect of production (made-to-stock) with the environmental impact so far. A detailed design for the identification of environmental impact, the root causes, and the linkages of the causes to inventory management needs to be prepared.

The overall impact of agricultural and industrial inventories on the environment may be summed up in qualitative terms as follows:

- Preponement of consumption of natural resources for maintaining inventories of non-essential goods may not be in line with the SDG of the country, as we cannot assume the availability of these resources for the future generations.
- The inventory management of essential items needs careful analysis and planning, as it has a major impact on the environment in terms of land use, water use, and air water and soil pollution.
- The Reduce-Reuse-Recycle policy varies across the sectors and industries. There is a burden of control on some sectors, while others waste resources. Rationalization is necessary.



4. The skewed inventory policies of the private players in the supply-chain caused by the market imperfections causes unnecessary production of non-essential goods and services, and depletes resources.

Conclusions and The Way Forward

Merely blaming the rising population for the rising inventories and the corresponding environmental degradation is not sufficient in handling the impact of inventory management on the society, economy and environment. The key factors generating the impact within each sector need to be identified and controlled.

Proper efforts need to be taken to plan the logistics, storage facilities and accurate real-time information of the inventories at the macro and micro levels. Digitization of the Inventory Management Systems plays an important role in cutting wastes, reducing inventories, ensuring timely and qualitative availability of goods and services. While the large players, like the GOI and the multi-nationals in the private sector have the resources and the expertise in implementing modern and effective inventory management systems, a vast majority of businesses in India are micro, small, and medium enterprises that are unaware of the importance of robust and real-time inventory management systems and cannot afford extensive digitization.

At the Governmental level, the inventorisation of natural resources such as land, forests, water resources, microecosystems, minerals, wind, solar energy are necessary for effective conservation and rationing of these resources over the rising demand from each sector is required at the national level. Most of the environmental factors fall in the scope of the State List or the Concurrent List. This hinders a uniform inventory management policy for the country and builds inequalities in the supply and consumption.

The use of cost effective and efficient production and manufacturing technology and knowhow needs to be embedded in the entrepreneurial culture of the country. Each new business should be aware of the socio-economic and environmental impact of its operations. Prudent adoption of technology should be encouraged through making such technologies available at reasonable prices, creating a pool of essential intellectual property that can be freely accessed by small businesses, and

Another major factor that has a bearing on the inventory levels in all the sectors of the economy is that of rising consumerism. There is a major cultural shift from storing only seasonal essential items in the households and purchasing locally available goods and services for the non-essential items, to a buy-whenever you-need has led to creation of buffer stocks at various levels of the supply-chain. While there is some level of government regulation on the stocks of foodgrains with middlemen and traders, the inventories of industrial output are left to the market forces. This is a drain on the economy as well as environment. Efforts need to be made to increase the awareness of the consumers on a mission mode, to reverse the trend.

Urgent and concerted action by the government, the private players and the communities is required for Inventory Management to mitigate the social, economic and environmental risks and reverse the adverse impact, where feasible.

To quote from Dr. Manmohan Singh's speech at the International Workshop on Green National Accounting for India on April 5, 2013, "Often, economic policies designed to promote growth have been implemented without considering their full environmental consequences, presumably on the assumption that these consequences would either take care of themselves or could be dealt with separately. There is evidence to suggest that such policies may actually result in a net decrease in human well-being. Even though it is not easy to quantify this concept. Globally, environmental degradation is manifesting itself through the loss of fertile soils, desertification, decreasing forest cover, reduction of fresh water availability, and an extreme loss of bio-diversity. These are serious consequences, and it has become clear today that economic development must be environmentally sustainable."

This paper is concluded with a quote from Dr. Singh's speech at that workshop, where he says with his firm belief in the India Story, "I believe India can and should take a leadership role in clarifying the concept of sustainable development."

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The Impact of Regulatory Uncertainty on Corporate Social Responsibility

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Sustainability and ethical business practices have become integral to corporate operations, with Corporate Social Responsibility (CSR) playing a central role. However, the constantly evolving and unclear regulatory environment significantly impacts CSR initiatives. This paper explores how regulatory uncertainty influences CSR efforts, focusing on the effects of shifting government policies, inconsistent enforcement, and changing stakeholder expectations on corporate strategies. While some organisations take proactive measures to enhance their reputation and reduce risks, others adopt a cautious approach, prioritising compliance over innovation. By reviewing existing research and real-world examples across industries, this study highlights the importance of flexibility, stakeholder collaboration, and transparency in navigating uncertain regulatory landscapes. The findings offer valuable insights for businesses, policymakers, and stakeholders to promote sustainable development and ensure CSR efforts align with long-term goals, even in the face of regulatory ambiguity.

Introduction

Corporate Social Responsibility (CSR) has become an essential part of modern business strategy, going beyond its earlier role as a purely philanthropic activity. With growing attention on sustainability and ethical governance, organisations are increasingly expected to integrate social, environmental, and economic responsibilities into their core operations. However, the regulatory environment in which businesses operate often presents significant challenges, particularly when marked by uncertainty.

Regulatory uncertainty arises from frequent policy changes, vague guidelines, inconsistent enforcement, or unpredictable government decisions. Such uncertainty creates a complex landscape for businesses, influencing their decision-making and shaping the scope and focus of their CSR activities. While some companies view CSR as a proactive measure to manage risks and build trust with stakeholders, others adopt a cautious approach, limiting their efforts due to

concerns over future regulatory developments or financial constraints.

In the Indian context, where regulatory policies are dynamic and often industry-specific, the impact of uncertainty on CSR is particularly evident. The Companies Act of 2013, which mandates CSR spendingfor certain firms, highlights the regulatory push towards social responsibility. However, ambiguities in implementation, reporting, and evaluation often leave companies struggling to align their CSR efforts with both regulatory requirements and societal needs.

This study seeks to explore the relationship between regulatory uncertainty and CSR practices, examining how businesses adapt to an unpredictable regulatory environment. Through a review of literature and industry examples, the research aims to highlight the challenges, opportunities, and strategies that can help organisations balance regulatory compliance with their commitment to meaningful CSR initiatives.

Section 135 of Companies Act 2013 – MandatingCorporateSocialResponsibility

In India, Corporate Social Responsibility (CSR) is governed by the provisions of the Companies Act, 2013, specifically under Section 135 and the rules made thereunder, i.e., the Companies (Corporate Social Responsibility Policy) Rules, 2014.

- 1. Applicability: As per Section 135(1), CSR provisions apply to every company, including its holding or subsidiary, that meets any of the following criteria during the immediately preceding financial year: Net worth of ₹500 crore or more, or Turnover of ₹1,000 crore or more, or Net profit of ₹5 crore or more.
- 2. CSR Committee: Companies meeting the above criteria are required to form a CSR Committee under Section 135(2). This committee is responsible for formulating and recommending the CSR policy, including the amount to be spent on CSR activities.
- 3. CSR Spending: According to Section 135(5), companies must spend at least 2% of their average net profits made during the three immediately preceding financial years on CSR activities. If a company fails to spend this amount, the Board must provide reasons for not spending in its report.
- 4. Schedule VII: CSR activities must align with the themes listed in Schedule VII of the Act. These include activities related to eradicating hunger, promoting education, ensuring environmental sustainability, protection of national heritage, and contributions to the PM's National Relief Fund, among others.
- 5. Reporting: Under Section 135(4), companies are required to include a report on CSR activities in their annual report. The report must specify the details of CSR projects, expenditures, and reasons for underutilisation, if any.
- 6. Penalty for Non-compliance: As per the Companies (Amendment) Act, 2019, failing to spend the prescribed CSR amount and not transferring the unspent amount to a designated fund can lead to penalties. These

include a fine of ₹50,000 to ₹25,00,000 on the company and imprisonment of up to three years or a fine on officers in default.

Further Amendments related to handling unspent CSR funds

The regulations concerning unspent Corporate Social Responsibility (CSR) funds were amended through the Companies (Amendment) Act, 2020, which came into effect on 22nd January 2021. The amendment mandates specific actions for handling unspent CSR amounts:

- The unspent amount related to ongoing CSR projects must be transferred to a designated account called the "Unspent CSR Account" within 30 days from the end of the financial year. This amount is required to be utilised for the ongoing project within the next three financial years. If not utilised within this period, the amount must be transferred to a fund specified in Schedule VII of the Companies Act.
- Unspent CSR Amount for Non-Ongoing Projects: In cases where the unspent amount is not linked to any ongoing project, it must be transferred to a fund specified in Schedule VII (such as the Prime Minister's Relief Fund or other notified funds) within six months from the end of the financial year.
- Penalties for Non-Compliance: Noncompliance with these provisions is treated as a civil offence and will be charged with penalties prescribed for both the company and its officers in default.

Unravelling India's CSR Regulatory Framework

The primary government body responsible for regulating CSR activities in India is the Ministry of Corporate Affairs (MCA). It oversees the implementation of the Companies Act, 2013, which mandates CSR spending for specific companies.

The MCA ensures compliance through various mechanisms, including:



Scrutiny of Annual Reports: The MCA reviews the annual reports submitted by companies, which include details of their CSR activities, expenditure, and impact assessments.

Monitoring and Enforcement: The MCA has the authority to take action against companies that fail to comply with CSR regulations, which may include penalties and other legal measures.

Promoting Transparency and Accountability: The MCA encourages companies to disclose their CSR initiatives and their impact on society.

By enforcing these regulations, the MCA plays a crucial role in ensuring that companies fulfil their social responsibilities and contribute to sustainable development.

The Mechanism of CSR Evaluation in India

While CSR activities are mandated for certain companies in India, the effectiveness of their implementation and the accuracy of reported impact can vary. Here's a breakdown of the primary mechanisms used for evaluation:

 Self-Assessment and Reporting: Companies are required to conduct self-assessments of their CSR activities. They prepare annual reports detailing their CSR initiatives, expenditure, and claimed impact. These reports are submitted to the Registrar of Companies (RoC).

- 2. RoC Scrutiny: The RoC reviews these annual reports, but the depth of their scrutiny can vary. While they verify the accuracy of reported expenditures, the actual impact assessment of the CSR activities often relies on the information provided by the companies themselves.
- 3. Independent Audits: While not mandatory for all companies, some opt for independent audits. However, the choice of auditors and the extent of their scrutiny can influence the reliability of the evaluation.
- 4. Government Oversight: The Ministry of Corporate Affairs (MCA) oversees the regulatory framework for CSR. However, resource constraints and the sheer number of companies can limit the extent of their direct oversight.
- 5. Public Scrutiny and Feedback: Public scrutiny can play a role, but its effectiveness often depends on media coverage, activism, and public awareness. Feedback mechanisms are in place, but their impact can be limited by various factors.
- 6. Impact Assessment: While some companies conduct impact assessments, the quality and rigor of these assessments can vary. The methodology used, data collection, and analysis can influence the accuracy of the results.

7. Collaboration with NGOs and Civil Society Organizations: Collaborations with NGOs can enhance the impact of CSR initiatives, but the effectiveness of these partnerships can depend on various factors, including the capacity of the NGOs and the level of transparency from the companies.

While these mechanisms are in place, ensuring the accurate evaluation of CSR activities remains a challenge. Factors like the quality of self-assessments, the rigor of independent audits, and the effectiveness of government oversight can influence the overall impact of CSR initiatives in India.

The Darker Side of CSR: Misuse in India

Corporate Social Responsibility (CSR) was introduced with the noble intention of driving positive social and environmental change. However, in India, a darker side to CSR has emerged. Some companies have exploited loopholes in the system to misuse these funds for personal gain or other illicit activities.

One common tactic is the creation of fictitious NGOs or trusts. These shell organizations are used to siphon off CSR funds, often without any genuine social impact. A particularly alarming modus operandi involves companies issuing cheques to trusts for education, healthcare, or environmental projects. However, after deducting a commission, these trusts return the majority of the funds to the company officials, effectively converting white money into black. Middlemen often facilitate these transactions, further worsening the problem.

Inflating project costs is another common method. By exaggerating expenses, companies can divert excess funds for personal benefit or other business purposes. In some cases, funds are directly misappropriated or used for non-CSR activities.

The lack of transparency and accountability complicates the problem. Poor record-keeping and inadequate auditing create opportunities for misuse. Public disclosure, while mandated, is often not rigorously enforced, allowing companies to escape scrutiny.

The Growing shadow of corruption in CSR Implementation

The recent fake CSR funds scam in Bengaluru has exposed significant flaws within the Corporate Social Responsibility (CSR) framework in India. The CCB's investigation, which led to the arrest of five individuals on December 12, 2024, highlights the alarming prevalence of corruption and misallocation of funds that undermine legitimate charitable efforts.

Major Flaws Emerging from the Bengaluru Fake CSR Funds Scam

Widespread Misappropriation of Funds: It has been reported that a staggering 65% of CSR funds are misallocated. Companies often divert these funds for personal gains, far removed from their intended social welfare objectives.

Lack of Transparency: The mechanisms for reporting and auditing CSR expenditures are inadequately regulated, allowing room for misreporting and the evasion of accountability. Many companies exploit these weaknesses to present a façade of compliance while neglecting their real responsibilities.

Manipulative Practices: The scammers in the Bengaluru case employed ingenious schemes to exploit trust, using staged video calls and counterfeit currency to deceive charitable trusts. This reflects a broader issue where unethical behaviour is enabled by a lack of vigilance and oversight.

Evasion of CSR Obligations: Numerous firms are reported to be exploiting loopholes in the current CSR regulations, choosing not to fulfil the mandatory spending requirements. This raises serious questions about the effectiveness of existing laws and their enforcement.

Disconnection from Community Needs: Companies often focus on initiatives that improve their public image rather than addressing genuine community needs. This superficial engagement leads to a shallow impact on social issues, failing to contribute to meaningful change.

Inadequate Measures Against Fraud: The absence of strong punitive measures for those who perpetrate fraud under the guise of CSR

contributes to a culture of impunity. Current regulations do not sufficiently deter unethical practices, allowing corrupt individuals to continue exploiting the system.

The findings from the Bengaluru scam serve as a cautionary tale about the systemic shortcomings in CSR implementation. Without immediate and decisive corrective actions, these flaws will continue to erode the potential of CSR as a valuable tool for societal improvement, ultimately hindering progress towards genuine social welfare.

Critical Gap in CSR Oversight

Despite the Companies Act, of 2013, mandating significant corporate social responsibility (CSR) spending, there's a persistent gap in effectively monitoring and evaluating how these funds are used in India.

Key Research Gaps

- Weak Monitoring Mechanisms: The systems for real-time tracking and evaluating CSR activities are inadequate.
- Opaque Reporting: Companies often don't provide detailed information about their CSR projects, making it difficult to assess their impact.
- 3. Limited Independent Scrutiny: While independent audits are encouraged, they're not mandatory for all companies. This limits external oversight.
- **4. Subjective Impact Assessment**: The assessment of CSR impact often lacks standardized methods, making comparisons difficult.

Implications of Ineffective Monitoring

Misuse of Funds: Without strict monitoring, there's a risk of funds being misused or used for purposes not aligned with CSR goals.

Diminished Social Impact: Inefficient use of CSR funds can hinder the achievement of desired social and environmental outcomes.

Erosion of Public Trust: Lack of transparency and accountability can erode public trust in corporate social responsibility.

Conclusion

The dynamic and often unclear regulatory landscape significantly affects the effectiveness of Corporate Social Responsibility (CSR) initiatives. While India's Companies Act of 2013 has played a crucial role in institutionalizing CSR, it also reveals ongoing issues related to implementation, monitoring, and transparency. Regulatory uncertainty discourages innovation and long-term commitment to CSR activities among businesses. Additionally, instances of fund misuse and weak oversight mechanisms highlight the need for a more robust and transparent framework.

To navigate these challenges, businesses should adopt flexible strategies, such as collaborating with stakeholders, enhancing transparency, and implementing proactive compliance measures. Policymakers should focus on strengthening monitoring systems, requiring independent audits, and standardizing impact assessments to promote accountability and meaningful engagement. Addressing these gaps will not only improve the effectiveness of CSR initiatives but also help align corporate objectives with broader societal and environmental needs, thereby ensuring long-term sustainable development.

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24th Webinar CMAs: Strategists of Sustainability

January 3, 2025 from 4 to 5:15 p.m.



CMA Amit A. Apte



CMA Dibbendu Roy

CMA Amit A. Apte, Director, Levare Consultants Private Limited & Former President, ICMAI was the presenter for the 24th Webinar of the *Vasudhaiva Kutumbakam* on the topic of CMAs: CMAs: Strategists of Sustainability. The webinar started with the speaker stating about the sustainability development goals and the India's preparedness for the goals. He stated the regulatory framework of India including the pathway of BRSR as per the SEBI's timeline. He also stated the CSR and exhibited the futuristic trends in this sphere. He thereafter started the role of CMAs since the 1920s and how it changed with the change of business with the growth of technology and environment. He thereafter provided a glimpse why the CMAs are positioned as a unique force both in the decision support tool and as an implementation support. The speaker set the tone of the challenges in the present scenario and how to cope up with the advent of solutions to mitigate such challenges and providing solutions on such problems.

The implementation roadmap was depicted with assessment, planning, implementation, review and adapt. He stated that the value creation through sustainability of both the financial and non-financial benefits. He presented few case studies covering the manufacturing industry, service industry and public sector. The Companies covered in his case studies were conglomerates including Tata Steel and Infosys and covered municipal corporation. The challenges, role of CMAs and the results were covered. He thereafter provided the various sustainability India data including ESG date, Sustainability Investment trend, Green Finance Trend and Market Opportunities. He finally presented the various improvements in the parameters with sector wise data stating the manufacturing, services and sector like FMCGs. He highlighted the achievements made in water conservation, recycling, reduction in carbon footprint, green building adoption, waste management of the entire gamut of Indian market. He concluded with key takeaways of the webinar.

There were Question and Answers session where the faculty answered the queries placed by the participants. The webinar was well attended by members and other participants from across the country. The webinar was concluded with vote of thanks by CMA Dibbendu Roy, Additional Director and Secretary of Sustainability Standards Board.



25th Webinar

How Leasing can help companies achieve **Circular economy & Sustainability?**

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



Shri Paresh Upasani



CMA Dibbendu Roy

The Sustainability Standards Board, ICMAI organized the 25th Webinar on the topic of "How Leasing can help Companies achieve Circular Economy & Sustainability "on January 24, 2025. Shri Paresh Upasani, Partner Business Manager, Hewlett Packard Enterprise Financial Services was the speaker. The webinar started with the evolution of the sustainability movement from the year 1962 and upto 2016. He stated the SDG goals and explained various terminologies of sustainability. The speaker thereafter deliberated on the circular economy and challenges of procurement in digital transformation. He further iterated on the mechanism of leasing and how it leads to circular economy.

He showcased the various elements of eco-friendly and pocket friendly strategies of shifting to OPEX and measuring both the savings of cost savings of opex over capex, total carbon dioxide emission savings and the circular economy report the over. Finally, he concluded with the sustainability pledge of professionals to comply for safeguarding the environment.

There were interesting Q & A session and the webinar ended with vote of thanks to the speaker.





CPE Credit 1 Hour

Web Link:

https://eicmai.in/Webinar_Portal/Members/Memberlogin.aspx

Announcement

SSB is happy to commence an exclusive section called Ask your Psychologist from February 2025. Senior Psychologists having dealt with professionals will address one or two pertinent queries raised by readers. Readers who have any specific queries may write to us at ssb@icmai.in The queries will be selected on "First Come; First Serve Basis"

Plantation Drive

Plant a tree, grow a legacy

The Sustainability Standards Board of ICMAI organised a Mega Plantation Drive on January 12,2025 at Thane. During the drive more than 125 plants were planned. Many trees including Sita Ashoka, Bakul, Arjun, Amla, Mahua, Ambemohar, Koshta Koligen, Ashwagandha, Marwa, Shathavari Rosemary and many were planted during the occasion.

CMA (Dr.) Ashish P. Thatte, Chairman, Sustainability Standards Board inaugurated the plantation Drive. He opined that trees are the lungs of the earth. During the inaugural address Dr. Thatte spoke about the activities of the Board and its commitment towards society in promoting various sustainability aspects. He said that the efforts taken today will benefit the centuries to come.



Thereafter he initiated the plantation drive. The team who worked behind the plantation drive explained the significance of all the saplings and its importance in maintaining the eco system. The drive was attended in large numbers including the members of ICMAI, prominent personalities, senior citizens etc.

Along with other trees, Dr.Thatte planted a sapling on behalf of CMA (Dr.) Aditi Dasgupta, who is part of SSB team. He fondly remembered the enthusiasm of Dr. Dasgupta in all the activities of the Board and wished her a speedy recovery and to resume the activities at the earliest.

The drive was successfully held as a result of a month-long planning under the leadership of CMA Arunabha Saha, Secretary, Thane Chapter of ICMAI. ICMAI officials paid visit to the plantation location after ten days and observed that the saplings planted are properly taken care of.

Undoubtedly the residents and ICMAI will remember and cherish the Plantation Drive for a long time.

The Green Walk at Thane: A Resounding Success and an Inspiring Initiative

The Green Walk, organised in collaboration with the Sustainability Standards Board (SSB) - ICMAI and the CMA Thane Chapter, has been a remarkable event, leaving a lasting impression on all who participated and witnessed it.

CMA (Dr.) Ashish P. Thatte, Chairman of the Sustainability Standards Board of ICMAI, inaugurated the event with an engaging and thought-provoking speech that resonated with the spirit of the initiative. He highlighted the role of individuals and ICMAI in promoting green initiatives, stressing that collective action is the key to creating a sustainable future.

Dr. Thatte's speech concluded on a powerful note as he led the participants in a **Sustainability Pledge**. The pledge, taken with raised hands and resolute hearts, underscored the commitment of everyone present to:

- Conserve energy and water.
- Reduce, reuse, and recycle wherever possible.
- Minimise electricity wastages
- Protect and preserve natural resources.
- Spread awareness about sustainable living practices.
- Act as responsible stewards of the environment for future generations.

This heartfelt moment set the tone for the Green Walk, inspiring participants to embody the values of sustainability in their daily lives.



Before the walk commenced, **T-shirts bearing the logos of our Institute and SSB-** *Vasudhaiva Kutumbakam* (The World is One Family) were distributed to all participants. This thoughtful gesture symbolised the unity of purpose and the global vision underpinning the event. The T-shirts served as a proud reminder of the Institute's commitment to sustainability and inclusiveness.

The event's success was made possible by the outstanding efforts of SSB and Chapter officials under the leadership of CMA Arunabha Saha, Secretary – Thane Chater of ICMAI. Their tireless efforts ensured



that every detail was taken care of, creating a seamless and memorable experience for all involved. Equally noteworthy was the unwavering support of CMA Ratnakar A. Deshpande, Chairman of the Thane Chapter.

The active involvement of all the participants demonstrated the strength of collaboration within the CMA community.

The walk spanned a 3-kilometer route, with participants demonstrating utmost discipline, adhering to guidelines set by the local police station, and proceeding silently without slogans. Instead, they carried colourful placards showcasing meaningful messages about sustainability in various Indian languages. These multilingual placards reflected the diversity of the participants and helped communicate the message to a broader audience.

The procession caught the attention of local residents, who observed with enthusiasm and actively engaged in the spirit of the event. The nearby community members were seen smiling, waving, and even discussing the messages on the placards, creating an atmosphere of shared environmental consciousness.

The initiative brought together participants from all walks of life, including children, adults, and senior citizens, all united by their commitment to protecting the environment. The event successfully promoted awareness about sustainable living and highlighted the collaborative efforts of the CMA fraternity and the Thane residence.

It was truly heartening to witness people of all ages walking together, advocating for a greener, healthier future. Their collective effort stood as a powerful reminder of the strength of unity and the impact of thoughtful initiatives. The Green Walk showcased the dedication of the **CMA Thane Chapter** to fostering meaningful change and inspiring others to join the cause of sustainability.

Let this event be the beginning of many more impactful endeavours aimed at building a sustainable and eco-friendly world. Together, we can pave the way for a brighter, greener future for generations to come.

Report on Sustainability Month Celebration Bengaluru Chapter

The Bengaluru Chapter of the Institute of Cost Accountants of India kickstarted its Sustainability Month celebrations on 4th January 2025 with an insightful session on the theme "Building a Resilient Future - The Criticality of BRSR Reporting." The event witnessed the active participation of members, students, and industry experts who were eager to gain a deeper understanding of Business Responsibility and Sustainability Reporting (BRSR).

The session was led by CMA Vivek Mishra, a renowned expert in sustainability reporting. He highlighted the importance of BRSR in achieving corporate resilience and sustainable growth. The session focussed on introduction to BRSR Reporting, Criticality for Organizations, Role of CMAs in BRSR Implementation, Case Studies and Best Practices, Interactive Q&A Session and conclusion.

The session concluded with CMA Mishra encouraging professionals to stay ahead in sustainability reporting to contribute to



India's environmental, social, and governance ecosystem. He reiterated that incorporating sustainable practices is no longer optional but a necessity to build a resilient future.

The Bengaluru Chapter Chairman CMA (Dr.) Abhijeet S Jain, CMA Rajesh Devi Reddy, Secretary and CMA Santosh G Kalburgi, Treasurer-PF Chairman expressed gratitude to CMA Vivek Mishra for his valuable insights and to all participants for making the event an engaging and thought-provoking experience.



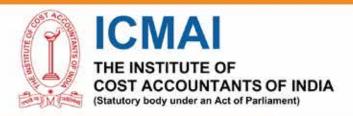
Colloquium on "Driving Sustainability through GIFT IFSC"

INX, India's first ndia International Exchange (Subsidiary of BSE) The collaboration with Institute of Cost Accountants of India (ICMAI) through its Sustainability Standards Board (SSB) under the aegis of International Financial Services Centres Authority (IFSCA) organised a Colloquium on "Driving sustainability through GIFT IFSC" on Friday, 24th January, 2025 at Grand Mercure, Gift City, Gandhinagar, Gujarat. CMA (Dr.) Ashish P. Thatte, Chairman of SSB, ICMAI and CMA Ashwin G. Dalwadi,



Immediate Past President of ICMAI delivered the welcome address. The Pre-Lunch session focussed on the Sustainable Ecosystem at GIFT IFSC and the role of India INX in facilitating ESG – labelled securities. There was also a panel discussion on the efforts and initiatives on the Green Growth front towards Sustainable Future, which was moderated by Shri Pradeep Ramakrishnan, Executive Director, IFSCA. In the Post-Lunch session, CMA A. Sekar, Practising Company Secretary & Member of SSB, ICMAI gave an overview of the Global & Indian Sustainability Reporting framework and a brief touchdown on ESG KPIs. In the post lunch session, there was a panel discussion on "The Economics of Sustainability", which was moderated by CMA Pradnya Chandorkar. CMA A Sekar as one of the panelists highlighted the potential of the CMA professionals to play an active role in Sustainability. The Colloquium ended with a vote of thanks proposed by Mr. Abhineet Panwar, IFSCA. It was attended by about 120 delegates which included CMAs and various industry representatives. The event was also live streamed on Youtube.







Sustainability Standards Board organizing Sustainability Month in January, 2025

(Sustainability Summit)

30th January, 2025 from 10 am to 5 pm (IST)

Venue:

Taj Mahal, Mansingh-I Taj Mansingh Hotel Rd, South Block, Man Singh Road Area, New Delhi-110011



CMA Bibhuti Bhusan Nayak President, ICMAI



CMA T C A Srinivasa Prasad Vice President, ICMAI

Chief Guest



Mr. Jean Bouquot President, IFAC



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

CPE: 4 hours

For queries, email to ssb@icmai.in

Behind every successful business decision, there is always a CMA

About the Institute:

The Institute of Cost Accountants of India is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, enrolls students for its courses, provides coaching facilities to the students, organises 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 are increasingly contributing toward the management of scarce resources and apply strategic decisions. This has opened up further scope and tremendous opportunities for cost accountants in India and abroad.

After an amendment passed by Parliament of India, the Institute is now renamed as "The Institute of Cost Accountants of India" from "The Institute of Cost and Works Accountants of India". This step is aimed towards synergising with the global management accounting bodies, sharing the best practices which will be useful to large number of transnational Indian companies operating from India and abroad to remain competitive. With the current emphasis on management of resources, the specialized knowledge of evaluating operating efficiency and strategic management the professionals are known as "Cost and Management Accountants (CMAs)". The Institute is the largest Cost & Management Accounting body in the world, having approximately 5,00,000 students and 1,00,000 members all over the globe. The Institution headquartered at Kolkata operates through four regional councils at Kolkata, Delhi, Mumbai and Chennai and 116 Chapters situated at important cities in the country as well as 11 Overseas Centres. It is under the administrative control of Ministry of Corporate Affairs, Government of India.



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

"The CMA 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."

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

Sustainability Standards Board

Permanent Invitees

CMA Bibhuti Bhushan Nayak

President

CMA T.C.A. Srinivasa Prasad

Vice President

Chairman of Board

CMA (Dr.) Ashish P. Thatte

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(in alphabetical order)

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Dr. Aditi Halder (GRI India Nominee)

CMA Avijit Goswami

CMA Harshad Shamkant Deshpande

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CMA (Dr.) V. Murali

CMA Ven<mark>kateswaran Ramakri</mark>shnan

(SEBI Nominee)

CMA Vinayranjan P.

Secretary to the Board

CMA Dibbendu Roy

REGISTRATION

9:30 am to 10:00 am

The event will be graced with Technical deliberations to be provided by Mr. Jean Bouquet, President, IFAC and also Indian counterparts from various regulators like SEBI and Ministry of Corporate Affairs. CMA Venkateswaran Ramakrishnan, General Manager, SEBI and Member SSB,ICMAI will be speakers along with Ms. Priyaa Subbraman, Co-founder and Director of Dhiraa Skill Foundation

Registration on first come first serve basis.
For registration please mail to ssb@icmai.in

The link for payment of fees is as follows: https://eicmai.in/OCMAC/SSB/SSB.aspx

PARTICIPATION FEE:

For Members: Rs. 500 +18% GST

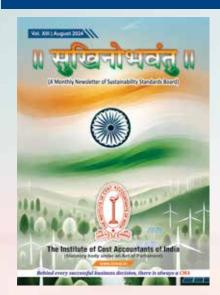
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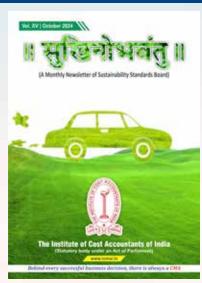
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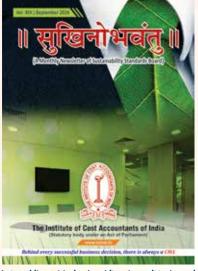
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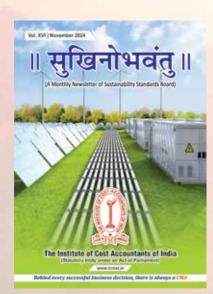
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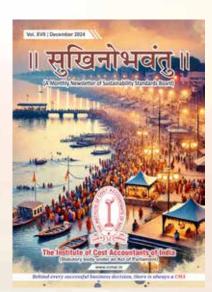
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Ecological Preservation at Sabarimala-Interweaving Faith and Sustainability in Pilgrimage Sites

Usha Ganapathy Subramanian

Practicing Company Secretary Chennai

n the Southern parts of India, the months of November to January is the season of the annual pilgrimage to Sabarimala, where the hilly forest region witnesses millions of pilgrims thronging the Pamba River and the temple. The Sabarimala hill is located in the Western Ghats in the Pathanamthitta district of Kerala. The temple that is the seat of the pilgrimage is nestled within 18 hills in the Periyar Tiger Reserve, a biodiversity hotspot.

Given the huge footfall, the environmental footprint of the annual pilgrimage needs to be managed. Spirituality must be intertwined with environmental responsibility to preserve the indigenous flora, fauna and the water bodies. Most concerns revolve around waste management, crowd management, preserving the water bodies and managing human-wildlife interaction.

Waste Management Practices

In many places in India, devotees usually like to carry their own offerings to the temple. In the days of yore, there was no question of nonbiodegradable offerings because plastics had not infiltrated our daily lives to the extent they do now. Now, plastics and other non-biodegradables give rise to pollution of all kinds - air, water and soil. Biodiversity is endangered as the animals that consume plastics or are exposed in some way to plastics meet a fatal end. Many species of flora and fauna face significant distress due to plastics.

In Sabarimala, the huge pilgrim footfall calls for robust waste management practices. Singleuse plastics have been prohibited within the pilgrimage area. The Kerala High Court has ordered that the Irumudikettu (the two pouches of offerings and other things that pilgrims carry to the temple) should not contain single-use plastics. Recently, guidelines have been issued regarding the items that are allowed to be carried and those that are prohibited. Pilgrims have also been requested not to carry some offerings like incense sticks, camphor and rose water; these often come with plastic containers or wrappers. The official guidelines for biodegradable offerings are set to give waste management and ecopreservation efforts a boost.

Huge amounts of flowers are offered by the visitors. These too are discarded later leading to waste management concerns. Now the volume of the flower offerings is capped. Deliberations are on to recycle these into incense sticks and other items.

Waste segregation practices for dry and wet waste are followed, and visitors are required to use the bins alone for waste disposal. Punyam Poonkavanam is an initiative that involves the collective efforts of the authorities including police, voluntary organizations and devotees in ensuring cleanliness and environmental preservation. The Kerala Government has also implemented a 'Green Protocol' to enforce ecofriendly guidelines during the pilgrimage season.



Water Quality

Increased footfall in Pamba River results in bacteria, detergents and other pollutants. The Kerala State Pollution Board had conducted a study on the river's pollutant levels and found some parameters beyond the permissible limits. Efforts to conserve the River Pamba are also taken by organisations. Pilgrims are directed not to use soap or oils while bathing or discard things in the river. There is a water sewage treatment plant set up.

Bio-conservation efforts

The Periyar Tiger Reserve has surveillance systems to monitor wildlife movements and to prevent human-wildlife conflicts, especially during peak pilgrimage seasons. Efforts also include involving the tribal communities in biodiversity preservation while empowering them. This serves both as a preservation of their traditional knowledge on biodiversity and as a means of recognising their role in preserving their home terrain.

Development plans

Recently, the State Government has approved a development plan of over Rs.1,333 crores under the 'Master Plan for Sabarimala'. This includes immediate interventions as well as a road map for the future. The initiative includes

pilgrim facilities, environmental conservation and crowd management aspects, among others. Further, there are plans to adopt solar energy by installing solar panels in the buildings in the area. This is expected to reduce electricity bills. These are some of the measures taken by the authorities and organisations involved. As more awareness on sustainability unfolds, initiatives to preserve nature will become second-nature to the pilgrims, keeping in line with the true spirit of faith and harmony.

Faith and Sustainability

Even as the environment continues to degrade, economicdisparities widen and social expectations burgeon, and the daily grind becomes harder to bear and more people turn to spirituality and faith for succour and guidance all over the world. Our traditions and rituals embed sustainability not just from an ecological perspective but from a mental and spiritual perspective too. Many pilgrimage sites and occasions in India and across the world – be it Sabarimala, Mecca or the Vatican - find the need to combine faith and sustainability on a practical level, and are taking action to adopt more eco-conscious pilgrimage practices. In the days to come, visits to sacred places will be ones that inspire adoption of sustainable practices back home too.

Maha Kumbha & Sustainability

CMA Arunabha Saha

Practicing Cost Accountant
Thane

Introduction

The Maha Kumpna iviera, coloridate years across four sacred locations in India – he Maha Kumbha Mela, celebrated every 12 Haridwar, Prayagraj, Nashik, and Ujjain-is not just a religious gathering but a cultural and philosophical marvel. Millions of pilgrims gathering for the event, stands as a testament to India's ancient wisdom, communal harmony, and sustainability principles. The Maha Kumbha, inspired by the ancient myth of the Samudra Manthan, offers valuable lessons on balance, harmony with nature, and respect for the environment. These lessons are crucial for addressing today's environmental problems. It offers valuable lessons in sustainability, both in terms of community living and environmental consciousness. This article digs into the philosophical origins of the Maha Kumbha and its sustainable practices, demonstrating how these ideas continue to inspire solutions for today's pressing ecological issues.

The Mythological Foundation of Maha Kumbha

The origins of the Maha Kumbha are deeply embedded in the Samudra Manthan story from Hindu mythology. Here is a detailed look at this epic tale:

- The Search for Amrita: The Devas (gods) and Asuras (demons) sought Amrita, the nectar of immortality, to gain eternal power. Recognising the need for cooperation, they decided to churn the cosmic ocean together.
- 2. The Churning Process: Using Mount Mandara as the churning rod and Vasuki, the king of serpents, as the rope, they churned the ocean. The process yielded both treasures and challenges, including the deadly poison Halahala, which Lord Shiva consumed to save the universe.
- **3.** The Divine Nectar's Journey: When Amrita finally emerged, a dispute arose over its distribution. Lord Vishnu, in his Mohini avatar,

ensured the nectar reached the Devas. During the struggle, a few drops of Amrita fell at four locations—Haridwar, Prayagraj, Nashik, and Ujjain—making them sacred.

This mythological narrative underscore's themes of collaboration, sacrifice, and the delicate balance between good and evil principles that resonate strongly with the idea of sustainability. The Maha Kumbha celebrates these values, symbolising purification, renewal, and harmony.

Sustainability Practices at the Maha Kumbha

The Maha Kumbha Mela exemplifies sustainable living in ways that are both traditional and innovative. These practices offer valuable insights for tackling modern ecological challenges. Recognising the immense environmental impact of such a large-scale event, organisers and participants have taken several innovative steps to minimise their ecological footprint. Some of the key sustainability initiatives implemented at the Maha Kumbha as below:

1. Resource Optimisation

- Water Conservation: The event's rituals revolve around rivers, highlighting the importance of water as a sacred and finite resource. Efforts are made to prevent pollution and maintain river cleanliness.
- Energy Efficiency: Temporary settlements use energy-efficient lighting, including solar-powered solutions, reducing the overall carbon footprint.

2. Waste Management

- Segregation and Recycling: Waste generated during the event is meticulously segregated into biodegradable and nonbiodegradable categories. Recycling initiatives further reduce landfill dependency.
- Composting: Organic waste from food



preparation and consumption is converted into compost, promoting a circular economy.

 Plastic-Free Zones: The Maha Kumbha often enforces strict bans on single-use plastics, encouraging the use of sustainable alternatives.

3. Sustainable Food Systems

- Local Sourcing: Ingredients for meals are sourced from local farmers, reducing transportation emissions and supporting regional agriculture.
- Nutritional Value: Meals are designed to be nutritious, simple, and energy-efficient to prepare, ensuring sustainability in both health and resources.
- Reusable and Biodegradable Serveware:
 The use of traditional leaf plates and bowls minimises waste and promotes ecofriendly dining.

4. Eco-Friendly Infrastructure

Temporary accommodations are constructed using renewable materials like bamboo, jute, and cloth. These structures are dismantled and reused post-event, leaving minimal ecological footprints.

5. Sustainable Transportation:

- Public Transportation: Encouraging the use of public transportation to reduce carbon emissions.
- Electric Vehicles: Promoting the use of electric vehicles and bicycles for shortdistance travel.

6. Community-Centric Living

The Mela fosters a spirit of coexistence and collective living. Millions of people share limited resources harmoniously, demonstrating the feasibility of low-impact, high-density living.

Green Maha Kumbha: A Step Towards Eco-Revival

To accommodate the enormous gathering of approximately 40 crore people at the Maha Kumbha Mela, extensive measures have been undertaken to ensure fresh oxygen and clean air for all attendees. Key initiatives include:

 Beautified Entry and Exit Routes: Routes linking the Maha Kumbha Mela to the city have been adorned with ornamental plants, creating a refreshing and scenic environment for visitors.

High-Density Oxygen Forest: A unique oxygen forest is being developed in Saraswati Hi-Tech City, designed to function as both an oxygen bank and a city forest. This initiative aims to enhance air quality and serve as a green lung for the city.

3. **Massive Tree Plantation Drive:**

- 1.5 lakh saplings have been planted on the Mela campus and across Prayagraj to boost greenery and air purification.
- 10,000 saplings are being planted along the Ganga River, with efforts to beautify areas such as Pakka Ghat, Jhunsi, Arail, and Phaphamau.
- 2,500 saplings are being planted in the Karchana range, connecting the urban areas of the Maha Kumbha Mela to the Hi-Tech City.
- 3,000 Arjun plants are being planted along the left bank of the Ganga River to improve the riverbank's ecosystem and provide shade.

These measures ensure a healthier and more sustainable environment for the millions attending this grand event, while also contributing to longterm ecological balance in the region.

Experience the Ganga in a New Light at Maha Kumbha Mela 2025

Devotees attending the Maha Kumbha Mela 2025 in Prayagraj will have the unique opportunity to explore the historic city from the deck of hydrogenpowered mini-cruise ships. These eco-friendly ships will operate on the Ganga River, connecting Prayagraj and Kashi (Varanasi), offering a blend of comfort and sustainability.

Each cruise ship is equipped with modern amenities, including a pantry, bio-toilets, comfortable seating, and a spacious open deck providing a 360° panoramic view of the majestic riverbanks. This initiative not only enhances the visitor experience but also underscores the commitment to environmentally sustainable tourism.

The Maha Kumbha Meal: Nourishing **Millions Sustainably**

One of the most awe-inspiring aspects of the Maha Kumbha is its ability to provide meals to

millions of attendees daily. These mass meal services, known as Bhandaras, are a remarkable exercise in logistics, resource management, and sustainability:

- Inclusivity at Its Core: The Bhandaras serve food to everyone without discrimination, fostering equality and social cohesion.
- Community Participation: Volunteers from diverse walks of life come together to prepare and distribute meals, showcasing the power of collective effort.
- 3. **Eco-Friendly Practices:** Traditional cooking methods are employed, and meals are served on biodegradable plates made from leaves, ensuring minimal environmental impact.

Relevance of Maha Kumbha Philosophy in Modern Sustainability

The principles embodied in the Maha Kumbha are timeless, offering profound lessons for modern sustainability initiatives. Here's how its philosophy can align with contemporary ecological goals:

Reverence for Nature

The Maha Kumbha's emphasis on sacred rivers and natural elements reminds us of the need to treat the environment with respect. Modern sustainability efforts can draw inspiration from this perspective, advocating for a shift from exploitation to stewardship.

Minimalism and Self-Sacrifice

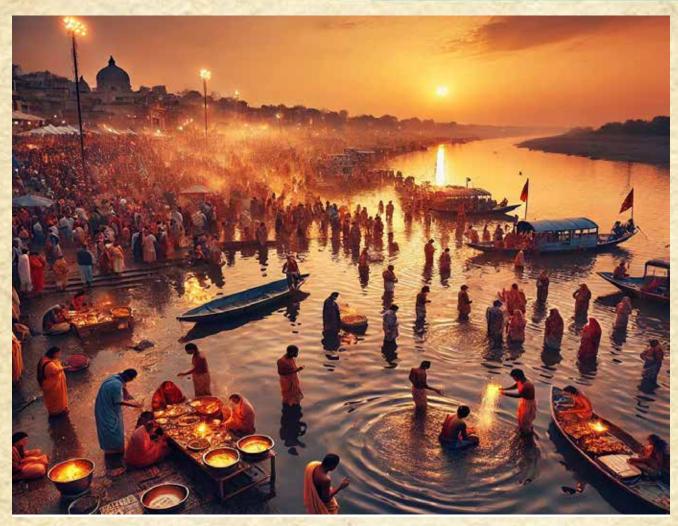
The simple lifestyle promoted during the Maha Kumbha encourages reduced material consumption. In a world grappling with overconsumption and waste, this philosophy advocates for mindful living and prioritising spiritual and intellectual growth over material wealth.

3. **Circular Economy Practices**

From composting organic waste to using biodegradable materials, the Maha Kumbha can demonstrate circular economy principles. These practices can inform modern waste management systems and sustainable product designs.

Cultural Integration in Sustainability

By embedding ecological practices within cultural and spiritual contexts, the Maha



Kumbha ensures widespread acceptance and participation. This approach can be instrumental in promoting sustainability in diverse communities worldwide.

5. Simple Living, High Thinking

The minimalist lifestyle promoted during the Maha Kumbha resonates with the idea of reducing material consumption. It encourages people to focus on spiritual and intellectual growth rather than material accumulation.

Challenges and Opportunities

While the Maha Kumbha sets an excellent example, it also faces challenges that modern practices can address:

- Overcrowding: Managing millions of attendees requires advanced crowd control measures, such as AI-based monitoring and predictive analytics.
- Resource Strain: Local resources often come under immense pressure. Integrating

- renewable energy sources and efficient water management systems can mitigate this.
- Environmental Impact: Despite eco-friendly practices, the event's scale can lead to pollution. Enhanced waste treatment facilities and stricter enforcement of sustainable policies are needed.

Conclusion

The Maha Kumbha Mela is more than a religious gathering; it is a living example of India's ancient wisdom and its potential to address modern challenges. By intertwining mythology with practical sustainability, the Maha Kumbha offers a framework for harmonious coexistence with nature. In an era of climate crises and resource depletion, the event's principles—reverence for nature, collective effort, and minimalism—are more relevant than ever. As we strive for a sustainable future, the Maha Kumbha's philosophy serves as both a guide and an inspiration.

"Where the sacred meets sustainability: A new way to witness the Maha Kumbha"

General Aspects of Maintaining Documents at Workplaces

Usha Ganapathy Subramanian

Practicing Company Secretary Chennai

In this edition of the series, let us explore the aspects to be kept in mind on maintaining data and documents at workplaces.

Introduction

Well-maintained documents reflect a diligent and organized workplace. Respect for details matters and having the right information at the right time matters both for everyday efficiency and in emergency. It minimizes errors and helps in continuity of workflow. Proper documentation is required for several aspects of legal and regulatory compliance as well. Further, it forms the evidence of exercise of due diligence. Misfiled or misplaced documents often cause friction, blame games, and waste of time and energy. Organizations that can maintain documents well are able to maintain workplace harmony and enjoy better stakeholder trust.

Organization and Accessibility

It is not just important to record information and prepare documents, but they should be easily retrievable. For this, standard and clear labelling and filing norms are required for every department and a master policy for document organization is required at the central level. This is applicable for both physical and digital files, more so for the latter.

For physical files, labelling of files and folders and using colour-coding will be useful. Sensitive folders must be stored in a secure cabinet. Each cabinet and each shelf should represent a specific category and subcategory of documents. In essence, each paper and each file must have its "home".

For digital files, broad categories like finance, HR, operations, etc. must be decided upon before drilling down into the constituent folders and sub-folders. For example, Operations Vertical Name ➤ Client Name ➤ Financial Year ➤ Document Type and so on. Hierarchies must be clearly spelt out in the form of standard operating procedures and hierarchy charts. This enables better coordination and collaboration among teams and departments.

Consistent naming conventions for files are necessary - for example, the "ClientName_ DocumentType_YY-MMM-DD" (year, first three letters of month and day format). Words in names of files can be separated using a consistent underscore or hyphen or blank space. The date format given above helps the file explorer application to sort files by date.

Version Control

Documents often undergo changes especially when they are accessed by multiple personnel. The final document must be designated as the "official" or "final" version and kept in a separate folder marked accordingly. This will serve as the single source of truth. And in case of bigger organizations, these may be maintained centrally on cloud along with version control tools. If advanced version control tools are not available. a disciplined system of adding version numbers and dates in the file name must be followed. For example, Risk Management Manual v1. If a more complex version numbering system is used, for example, 1.1, 1.2, and so on, what constitutes a change at the decimal level and what constitutes a change at the whole number level must be defined. In case of important documents like policies and procedures or agreements, a separate log of the versions, the changes made, persons making and authorising the changes, etc. must be maintained.

Collaboration etiquette

When team members work together on the same file, it is necessary to highlight what edits have been made. Built-in collaboration tools like track changes in MS Word are very useful in this regard. Generally, no changes should be made unless the track changes mode is on. Wherever suggestions or further inputs are given, they can be inserted in comments.

Data Privacy and Confidentiality

Access controls must be in place to ensure that individuals or teams can access only that information relevant to their work. Other information must be shared on a strictly "needto-know" basis. Role-based access controls using login and strong passwords must be in place for digital files and folders. Wherever necessary, multifactor authentication may be required – like both the login password and an OTP may be required. Documents containing sensitive personal data must be handled with utmost care in order to comply with privacy laws and confidentiality requests of stakeholders. If necessary, they may be encrypted. For physical documents, security checks, locks, security cameras and access cards must be used for areas containing sensitive files. Logs of who accessed along with time and signature must be maintained. Cabinets should be locked. Sensitive papers no longer needed should be shredded or otherwise destroyed once their utility ends.

Retention Period and Archiving

For some documents, retention periods are spelt out by law: for example, for companies, books of accounts must be maintained for a minimum of eight financial years and minutes should be maintained permanently. There could also be industry standards, client requirements and organisation policies that spell out document retention periods. Files no longer in active use but still needed for legal purposes, can be archived. In case of physical documents, they can be sent to a separate location or separate cabinets marked as archives. In case of digital files, a directory may be kept for archiving old files. When the legal retention period elapses, the files may be securely destroyed with the permission of the appropriate authority. Maintaining records of



the files with the details of the file, details of the person destroying and the person authorising the destruction is important. The schedule for retention periods and archiving must be easily accessible to everyone.

Regular Backups

Automated backups of digital files must be enabled to prevent loss of data due to system crashes, natural disasters or cyber-incidents. Backup copies could be stored in secure cloud servers or in offsite or both depending on the significance of the documents.

Training and Empowerment

Every team member should be encouraged to take ownership of their share of document management. Document management manuals should be made available and charts should be pasted at relevant locations or work desks. Periodic housekeeping sessions for reviewing folder structures and file names, reviewing documents for archival or destruction is needed. Employees who maintain impeccable documentation may be recognized and rewarded to motivate others.

In a nutshell

Maintaining documents effectively is not an administrative chore; it is a vital part of professional diligence and etiquette. The way documents are managed speaks volumes about the workplace culture. By adopting thoughtful document management practices, businesses and employees can demonstrate reliability and efficiency.

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

What does one feel after planting a tree, using their bare hands to fill up the mud and give it water?

We have experienced many times that this activity is so satisfying in itself and immediately makes us feel grounded as we bond with Mother Earth! It feels like your EARTHING is complete.

Plantations are therefore a very divine activity which heals you as soon as you invest in healing Earth. Instant Returns are indeed guaranteed.

When you take a tree and plant it with prayers for Mother Earth to take it in her care and nurture and nourish you know that the tree/ plant will be fulfilled.

But we have stopped planting trees or allowing our children play in mud which is extremely necessary to bring up grounded and emotionally happy children.

And yet we must revert and revive our planet Earth which we have collectively damaged.

Understanding our Panch Mahabhutas or The Five Elements that govern our planet, Earth and Water of these Five Mahabhutas actually can put out Fires!

So if we deplete our planet of Mud and Water, there will be more Fires and as they rage through, burn everything that comes in their way.

We must restore our planet slowly back to normalcy and in turn it will continue to heal us.

When you give Love you will receive Love many times over!

Once you start caring about your planet and take necessary action to nurture and prevent damage, surely you have evolved as a Human being.

Bharat has a rich culture focused on Human evolving to be a Spiritual Being and walk on the path of Liberation or Moksha!



The heritage of Bharat describes many trees as a part of our rich tradition to be sacred and help us in our overall personal growth!

These are planted to bring accomplishments in our life, happiness, luck, provide protection and also provide protection from erosion, ecological disturbances and give us good health.

In Bharat we consider many trees as Dev Vrukshas.

The sacred nature of trees sends divine energy to us and helps to protect our ecology!

Also each one of us have a special tree or plant which belongs to the nakshatra we were born in and if you have that particular tree in your vicinity, it will keep sending you loving energy.

In the next article we shall elaborate on nakshatras and the tree/ plant belonging to them and how they enhance our living.

Let us enjoy understanding the values of Trees

Purvi Dalal Tree Analyst Thane

Tree time

20 facts about trees you might not know



t takes around 450 mature trees to offset the annual emissions of one person In very round numbers, a typical mature tree can absorb around 22kg carbon dioxide per year. The carbon footprint of a typical person in the UK is around 10 tonnes of carbon dioxide every year. In theory, this means that it takes around 450 mature trees to offset the yearly emissions of one person in the UK.

Source: https://www.cpre.org.uk/discover/facts-about-trees/





Five questions on sustainability

1.	Review of the ESG rating pursuant	to publication of BRSR by the rated entity shall be carried ou
	immediately, but not later than	of the publication of the BRSR

- ESG debt securities issued pursuant to the IFSCA (Issuance and Listing of Securities) Regulations,
 2021 are labelled as "green," "social," or "sustainability" or ______ securities
- 3. Hydrogen powered transportation in India faces three key barriers in the form of Infrastructure gaps, High ______ costs and Technological maturity.
- 4. The Cross Border Adjustment Mechanism (CBAM) will gradually replace the EU's _____ allowances mechanism over a nine-year period from 2026 to 2034.
- 5. Some non-EU companies will also be covered by the EU's Corporate Sustainability Reporting Directive (CSRD), if they generate revenue over _____ on the EU market.

No winners for the quiz of December 2024 edition

CORRECT ANSWERS OF PREVIOUS QUIZ

1.	Listed entity
2.	Perfect
3.	Value Chain
4.	Whole Life Costing
5.	1st October, 2025

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 February'2025 edition. The articles should be relevant and original. The article should clearly cover/depict the scope, opportunity and potential for cost accountants. It should not exceed 2200 words and references/ sources are to be given wherever required. It should reach us latest by February 14, 2025, by email to ssb.newsletters@icmai.in The right for selection of articles vests with SSB. Decision of SSB will be final and binding.

Please write to us at ssb.newsletters@icmai.in

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