

Corporate Environmental Disclosure Practices in Sri Lanka: A GRI-Based Assessment

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Introduction

In the contemporary business environment, corporate responsibility transcends mere financial performance, encompassing social, environmental, and governance dimensions to meet the evolving expectations of stakeholders and maintain long-term organizational legitimacy (Gidage & Bhide, 2024). Corporate environmental disclosure (CED) has thus become a key tool for firms to communicate their commitment to sustainability, mitigate environmental risks, and demonstrate accountability to investors, regulators, and the wider society (Gerged, 2020). According to legitimacy theory, firms disclose environmental information to maintain societal legitimacy, and stakeholder theory emphasizes responding to the information needs of multiple stakeholders. International reporting frameworks, such as the Global Reporting Initiative (GRI), and emerging national standards like SLFRS S1 and S2, provide structured guidance for companies to present this information consistently and credibly (Sreseli & Sreseli, 2025).

In Sri Lanka, CED is still largely voluntary, which has led to huge variation in environmental disclosure practices among the listed companies on the Colombo Stock Exchange (CSE). According to the previous studies, indicated that from 2011 to 2012, 60% of companies disclosed environmental information through the annual report or sustainability report, with an average of 644 words per report (Jariya, 2015). Most of this information was found in CEO statements, vision and mission sections, or separate sustainability reports. Interestingly, unlike in many developed countries, larger Sri Lankan firms at the time weren't necessarily reporting more environmental details. Larger firms, in particular, appear to be increasingly proactive in sharing environmental information, recognizing both the reputational benefits and the growing expectations of stakeholders. Despite this positive trend, overall disclosure levels remain modest, and systematic empirical assessments of the current extent of CED in Sri Lanka are scarce. Most prior research has focused on narrow time frames, single industries, or limited determinants, leaving a clear gap in understanding how Sri Lankan companies currently report their environmental performance.

The primary objective of this study is to examine the current extent of CED among Sri Lankan listed companies from 2020 to 2024 using the GRI framework, while secondary objectives include identifying trends in disclosure over time, highlighting the most and least reported environmental items, and comparing current disclosure levels with past benchmark practices.

This study aims to fill this gap by examining the current extent of CED practices among Sri Lankan listed companies. By offering an updated assessment, it aims to add to the body of knowledge on sustainability reporting in emerging markets, while also providing useful guidance for policymakers, regulators, and managers who want to improve environmental transparency and accountability in the country.

Methodology

This study employed a quantitative research design to examine the extent of CED among companies listed on the CSE in Sri Lanka. The population of the study is 286 listed companies on the CSE as of 30th June 2025, from which 100 companies were randomly selected using simple random sampling to ensure unbiased representation across industries. Secondary data were collected from the annual reports of the selected companies for the period 2020 to 2024, providing a consistent and reliable dataset for analysis.

The extent of CED was assessed using content analysis based on the GRI framework (Appendix 1). A

total of 34 disclosure items were examined in each company's annual report. Each item was coded as disclosed (1) or not disclosed (0), and the total CED score for each company was calculated as the proportion of items disclosed out of 34, providing a standardized measure between 0 and 1.

To address the study objectives, descriptive statistics were used to examine the current extent of CED, time-series descriptive analysis was applied to identify trends in disclosure over the five years, and frequency analysis determined the most and least reported environmental items. Additionally, a one-sample t-test was conducted to compare the mean CED score against a benchmark of 15%, which was selected based on prior Sri Lankan studies reporting disclosure levels between 14.02% and 20% (Nimanthi & Priyadarshanie, 2020; Nuskiya et al., 2021).

H₀-The mean CED score for Sri Lankan firms (2020–2024) equals 0.15

H₁- The mean CED score for Sri Lankan firms (2020–2024) differs from 0.15

All statistical analyses were carried out using STATA software, ensuring assumptions of continuity, independence, and approximate normality were met. It is acknowledged that relying solely on annual reports may underestimate the actual extent of environmental initiatives, as additional disclosures may exist in standalone sustainability reports, corporate websites, or other CSR communications. Despite this limitation, this approach provides a sound basis for evaluating how Sri Lankan listed companies disclose environmental information and allows the study to address its primary and secondary objectives effectively.

Findings

Table 01. Descriptive Statistics

	Obs (N)	Mean	Std. Dev.	Variance	Skewness	Kurtosis	Min	Max	Median
CED	500	0.219	0.215	0.046	0.792	2.561	0	0.79	0.15

Constructed by Authors

Table 01 presents the descriptive statistics for CED among 500 Sri Lankan listed companies from 2020 to 2024, revealing a mean disclosure level of 0.219 (21.9%), indicating that, on average, Sri Lankan listed firms disclose less than one-quarter of potential environmental information based on the GRI framework. The median of 15% and positive skewness (0.792) suggest that most companies report limited information, while a few disclose extensively. The standard deviation (0.215) shows notable variation in reporting practices. Compared with the 2015–2019 mean of 14.02% (Nuskiya et al., 2021), this reflects a 7.9 percentage-point increase, signifying gradual progress. However, CED remains low relative to developed economies, highlighting the ongoing need for stronger regulatory enforcement and institutional support in Sri Lanka.

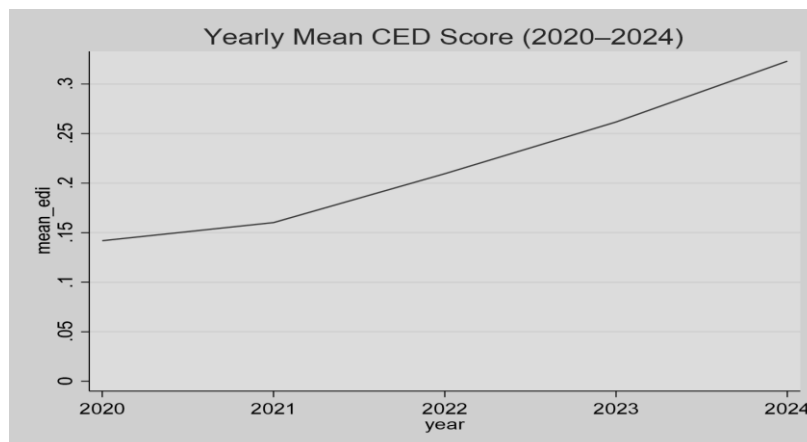


Figure 01. Longitudinal Trend of Corporate Environmental Disclosure among Sri Lankan Listed Companies (2020–2024)

Constructed by Authors

Figure 01 illustrates the upward trend in CED among Sri Lankan listed companies from 2020 to 2024. The mean CED score increased from 0.142 (14.2%) in 2020 to 0.323 (32.3%) in 2024, representing a 127% rise. Growth accelerated after 2021, reflecting firms' responsiveness to regulatory pressures, stakeholder expectations, and global sustainability standards. Compared with the 2015–2019 mean of 14.02% (Nuskiya et al., 2021), this indicates a shift from early-stage to moderate transparency, though CED remains below developed market levels.

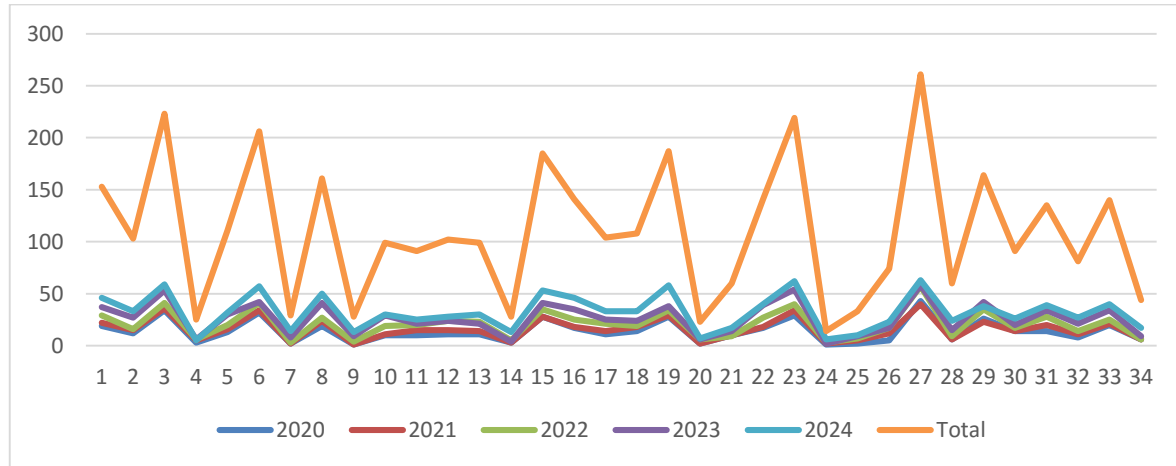


Figure 02. Year-wise and Cumulative Environmental Indicator Reporting Trends (2020–2024) Across 100 Companies

Constructed by Authors

Figure 02 presents both annual reporting trends for all 34 environmental indicators and cumulative reporting across five years. Year-wise trends show a general increase, particularly in Products and Services, Energy, and Effluents and Waste categories. The data reveal that Products and Services indicators, particularly extent of impact mitigation of products and services (Indicator 27, Total = 261, average = 52.2 per year), were the most consistently reported, followed by Energy consumption within the organization (Indicator 3, Total = 223, average = 44.6 per year) and total weight of waste by type (Indicator 23, Total = 219, average = 43.8 per year). In contrast, the least reported indicators include total number and volume of significant spills (Indicator 24, Total = 14, average = 2.8 per year), energy consumption outside the organization (Indicator 4, Total = 25, average = 5 per year), emissions of ozone-depleting substances (Indicator 20, Total = 23, average = 4.6 per year), and biodiversity-related measures such as IUCN red list species affected (Indicator 14, Total = 28, average = 5.6 per year). These trends indicate that companies prioritize operationally measurable and controllable metrics while underreporting indirect, rare, or complex environmental impacts, highlighting areas for improvement in comprehensive disclosure.

Table 02. Shapiro–Wilk Test for Normality for Corporate Environmental Disclosure

Variable	N	W	V	Z	p
CED	500	0.937	21.292	7.352	<0.001

Constructed by Authors

Table 2 presents the results of the Shapiro–Wilk test for normality of the CED scores, which indicated a slight deviation from normality ($W = 0.937$, $p < 0.001$). Despite this, the one-sample t-test is considered robust due to the large sample size ($n = 500$). The mean CED score in the sample was 0.219 (SD = 0.215; 95% CI: 0.200–0.238), which is significantly higher than the reference value of 0.15 ($t(499) = 7.19$, $p < 0.001$). This suggests that, on average, Sri Lankan firms disclosed a higher level of environmental information than the benchmark used in prior studies.

Table 03. One-Sample t-Test for Corporate Environmental Disclosure

Variable	N	Mean	Std. Dev.	Std. Err.	95% CI	t	df	p (two-tailed)
CED	500	0.219	0.215	0.00962	0.200–0.238	7.19	499	<0.001

Constructed by Authors

When compared to previous research, the observed mean CED of 21.9% is slightly higher than the 20% reported by Nimanthi and Priyadarshanie (2022) and considerably higher than the 14% reported by Nuskiya et al. (2021) for the period 2015–2019. These results indicate a gradual improvement in environmental disclosure practices among Sri Lankan listed companies. Whereas the level of disclosure practices in Sri Lanka is relatively low compared with the developed countries, for example, studies from the United States and the United Kingdom report mean CED levels of 81.8% and 64%, respectively (Matisoff et al., 2013; Barbu et al., 2014). This highlights that while progress has been made, Sri Lankan firms are still in the early stages of comprehensive environmental reporting.

Conclusion

This study examines CED practices among Sri Lankan listed companies from 2020 to 2024 using the GRI framework. Findings indicate a gradual improvement in disclosure, with the mean CED score rising to 21.9%, compared to 14.02% reported in 2015–2019 (Nuskiya et al., 2021). Time-series analysis shows a steady upward trend, with the mean CED score increasing from 14.2% in 2020 to 32.3% in 2024, representing a 127% rise. Indicator-level analysis reveals that operationally measurable metrics, such as energy consumption, product impact mitigation, and waste management, are consistently reported, while indirect or complex environmental impacts remain underreported.

Despite this progress, overall CED levels remain low compared to developed countries such as the UK and the USA, highlighting the need for stronger regulatory frameworks, standardized reporting practices, and improved corporate governance.

The limitations of this study include its focus on listed companies only, reliance on annual reports, which may not capture all environmental initiatives, and the assessment of disclosure quantity rather than quality. Future research could expand the scope to non-listed companies, evaluate the quality and impact of environmental disclosures, and examine the influence of regulatory changes and corporate governance on CED practices. Overall, although Sri Lankan firms demonstrate measurable progress in environmental reporting, substantial scope remains for further alignment with international standards and for advancing sustainability transparency.

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Appendix 01. Environmental Disclosure Indicators

Category	No.	Disclosure Indicator
Materials	1	The material is used by weight or volume by the organization
	2	Percentage of recycled input materials used by the organization
Energy	3	Energy consumption within the organization
	4	Energy consumption outside of the organization
	5	Energy intensity
	6	Reduction of energy consumption
	7	Reduction in the energy requirements of products and services
Water	8	Total water withdrawal by sources
	9	Water sources significantly affected by the withdrawal of water.
	10	Percentage and total volume of water recycled and reused
Biodiversity	11	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas
	12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas
	13	Habitats protected or restricted.
	14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by the level of extinction risk
Emissions	15	Direct greenhouse gas (GHG) emissions
	16	Energy indirect greenhouse gas (GHG) emissions
	17	Other indirect greenhouse gas (GHG) emissions
	18	Greenhouse gas (GHG) emissions intensity
	19	Reduction of greenhouse gas (GHG) emissions
	20	Emissions of ozone-depleting substances (ODS)

	21	NOx, SOx, and other significant air emissions
Effluents and Waste	22	Total water discharge by quality and destination
	23	Total weight of waste by type and disposal method
	24	Total number and volume of significant spills
	25	Weight of transported, imported, exported, or treated hazardous waste under the Basel Convention, and % shipped internationally.
	26	Identity, size, protected status, and biodiversity value of water bodies and habitats significantly affected by discharges and runoff
Products and Services	27	Extent of impact mitigation of the environmental impacts of products and services
	28	Percentage of products sold and their packaging materials that are reclaimed by category
Compliance	29	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations
Transport	30	Significant environmental impacts of transporting products, materials, and the workforce
Overall	31	Total environmental protection expenditures and investments by type
Supplier Environmental Assessment	32	Percentage of new suppliers screened using environmental criteria
	33	Significant actual and potential negative environmental impacts in the supply chain, and actions taken
Environmental Grievance	34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms.