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Scoring Sustainability Reports for Assessing Environmental and Social Dimension of Leading Energy Sector Companies

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ABSTRACT: The looming threat of climate change is increasingly placing the sustainability of businesses under scrutiny. The power sector in India offers a compelling context to explore the scope of ESG disclosures. The country heavily relies on coal, oil, and gas for extensive electrification, making it the world's fourth-largest emitter of pollution, releasing 2.65 billion metric tonnes of carbon into the atmosphere annually. In this paper an attempt has been made to review and analyse the Business Responsibility and Sustainability Reports of Energy sector companies in India. A distinction has also been made in public and private sector companies. Sustainability Reporting Maturity Model released by ICAI has been used to score the companies for the social and environmental indicators reported by them in the BRSR. It was found that although private sector companies are reporting the environmental indicators better, the public sector is leading in reporting social indicators. However, when it comes to overall performance, public sector companies outperform private sector companies.

KEYWORDS: Sustainability, BRSR, ESG, SRMM

1. INTRODUCTION

The idea of sustainability is commonly believed to have begun with the Brundtland Report titled "Our Common Future" from the United Nations World Commission on Environment and Development (UNWCED, 1987).

Following this, numerous nations have integrated sustainability principles into their programs and policies, both voluntarily and as mandatory measures. Day by day companies are paying more attention towards the environmental impact of their business practices because of the ever-increasing problem of climate change. The looming threat of climate change, primarily linked to the combustion of fossil fuels, is increasingly placing the sustainability of businesses under scrutiny (Shwet, 2021). Consequently, businesses are adopting policies, procedures, tools, and methodologies that exceed mere regulatory adherence, actively contributing towards the realization of sustainable societies (Henriques and Richardson, 2004). Through the implementation of a robust ESG (Environmental, Social, and Governance) model, companies can effectively minimize damage to the natural environment while enhancing their productivity (Karwowski & Raulinajtys-Grzybek, 2021). The responsibility of the energy sector to diminish the

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environmental impact of its operations holds greater significance as compared to any other sector (Gielen et al., 2019). Therefore, an attempt has been made in this paper to score the sustainability reports of leading energy sector companies in India so as to identify whether the companies are disclosing the environmental and social information properly

2. LITERATURE REVIEW

2.1 ESG Reporting and Energy Sector:

ESG reporting's significance is rising in Asia as investors increasingly perceive that companies adopting sustainable practices contribute positively to long-term value creation (Budsaratragoon & Jitmaneeroj, 2021). The energy sector relies on natural resources from the environment and often contributes to environmental exploitation and pollution, resulting in ecological and social imbalances. There's a paradox in how the energy sector is seen as socially responsible, prioritizing human health, social behavior, National stock exchange (NSE) and national cultural identity while simultaneously causing significant harm to the environment and public health (Kaur & Mittal, 2023). Recognized by entities like the Central Pollution Control Board in India, this sector is categorized as environmentally sensitive, alongside other industries (Jha & Rangarajan, 2020). Therefore, a regular strategy for mitigating environmental risks should be developed by the sector (Baldwin, 2021). These strategies deployed by the firms will help them in maintaining a competitive advantage in the long run (Mohammad & Wasiuzzaman, 2021).

The power sector in India offers a compelling context to explore the scope of ESG disclosures. The country heavily relies on coal, oil, and gas for extensive electrification, making it the world's fourth-largest emitter of pollution, releasing 2.65 billion metric tonnes of carbon into the atmosphere annually (Martina, 2022). It therefore becomes crucial to comprehend how Power Sector Companies tackle ESG concerns and assess the present status of ESG reporting within these firms.

2.2 Sustainability Reporting Guidelines

To meet ESG criteria, SEBI introduced the BRSR in May 2021. This framework aims to enhance disclosures on companies' ESG responsibilities in a more standardized, quantitative format, facilitating improved comparability (Dhameja et al., 2022). It applies to the top 1000 listed companies by market capitalization, replacing the Business Responsibility Reporting (BRR) framework. The BRSR addresses significant gaps that existed in the previous BRR, particularly its limitation in providing solely qualitative information (Gupta and Mittal, 2022; Lim, 2022).

In further developments, the Sustainability Reporting Standards Board of The Institute of Chartered Accountants of India had developed Sustainability Reporting Maturity Model based on MCA Committee Report. SRMM offers the possibility to assess the individual position of each corporation complying with BRSR norms. It provides a scoring model wherein BRSR reports of corporates can be analysed for the level of sustainability reporting in which they are operating. The model provides a scoring mechanism for Business Responsibility and Sustainability Reports and a company can achieve a maximum total of 300 score. However, since the BRSR is in a generic form that is applicable to all the sectors, some parameters might be there which are not relevant for a specific sector. In such cases, the total applicable score will be reduced accordingly (ICAI, 2022).

3. OBJECTIVES

The objective of the study is as follows:

i. To score the sustainability reports of leading energy sector companies with respect to the environmental and social indicators reported by them.

ii. To compare the environmental and social dimension of sustainability reporting of leading public and private energy sector companies in India.

4. METHODOLOGY

For the purpose of analysis four leading energy sector companies as per market capitalization have been taken, two each from the public and private sector. Adani Group and Tata Power with a market cap of 2.01 lakh crores and 1.07 lakh crores respectively are taken from the private sector. NTPC (National Thermal Power Corporation) and NHPC (National Hydroelectric Power Corporation) with a market cap of 2.86 lakh cores and 65.19 thousand respectively are taken from the public sector. In order to maintain consistency, it was ensured that all the companies have reported both leadership as well as essential indicators. The values of market capitalisation is taken as on 14th December, 2023.

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The Business Responsibility Sustainability Reports (BRSR) for the year 2022-23 in respect of these companies has been analysed. SRMM guidelines have been used to score and analyse the information related to environmental and social indicators in these reports. The total score obtained by the company was then converted into percentage scores (by dividing the score obtained with the maximum possible score) which were compared for further analysis. Principle wise list of environmental and social indicators in the BRSR reports is presented in table 1.

As per the SRMM guidelines, the maximum possible score that a company in the energy sector can obtain for environmental indicators is 77 (46 for essential indicators and 31 for leadership indicators). Although the total applicable score for environmental indicators is 49 and 32 respectively for essential and leadership indicators, Essential indicator 2.4 (with max. possible score of 3) related to Extended Producer Responsibility (EPR) and Leadership indicator 2.5 (with maximum possible score of 1) related to reclaiming of packaging material is not applicable to companies in the energy sector owing to the nature of products and services offered by them. For instance, Electricity is exhausted once consumed, so Extended Producer Responsibility will not be applicable for power sector companies.

Similarly, the maximum score for social indicators as per SRMM is 93 (69 for essential indicators and 24 for leadership indicators). Although, none of the companies in the data set was eligible to carry out the Social Impact Assessment as per the applicable land acquisition laws for the projects undertaken by them during the reporting period. Social Impact Assessment (SIA) is required for acquisition of land by government for its own use, hold and control or by public- private partnership or by private acquisition for public purpose. The SIA carries a total of 6 points in SRMM (5 points for essential indicator and 1 point for leadership indicator). Therefore, the final applicable score of Social Indicators after necessary reduction will become 87 (64 for essential and 23 for leadership indicators).

5. DATA ANALYSIS AND INTERPRETATIONS

The total scores obtained by the company on environmental indicators reported by them in the BRSR reports as per SRMM Guidelines is represented in the table 2. Principe 2 and 6 together represent the environmental indicators of BRSR. On analysis of BRSR reports, it was found that Tata Power leads in reporting of environmental indicators as it has got the maximum score of 87% for essential indicators.

Table 1: **Environmental and Social Indicators in BRSR Report**

Principle No.	**Description of Principle**	**Relevant Indicators**	**Type Indicator**
Principle 2	Business have a responsibility to offer goods and services that are both safe for consumers and sustainable for the environment.	Sustainable SourcingReusing/Recycling Extended Producer Responsibility Life Cycle Assessment	Social
Principle 3	Businesses ought to prioritize and uphold the welfare of every employee.	Measures for Well-Being ofemployees Retirement Benefits Accessibility of workplace Retention rate of employeesGrievance Redressal Mechanism Training to employees Health and Safety Measures	Social
Principle 5	Businesses should uphold andadvance human rights.	Human Rights IssuesMinimum Wages	Social
Principle 6	Businesses should honour and strive to safeguard and restore the environment.	Energy Consumption Water Withdrawal Zero Liquid DischargeGHG Emissions Waste Management Practices Environmental Impact Assessment	Environmental
Principle 8	Businesses should advocate for fair and inclusive growth as well as equitable development.	Social Impact AssessmentRehabilitation and Resettlement activities	Social

Source: Author's Compilation from BRSR Reporting Guidelines

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Table 2: Principle Wise Score of Environmental Indicator of Different Companies

Principle	Adani Power		Tata Power		NTPC		NHPC		Leading Company	
	Essential	Leadership	Essential	Leadership	Essential	Leadership	Essential	Leadership	Essential	Leadership
Principle2 (12+11) [a]	**2** (17) *	**0** (0)	**12** (100)	**5** (45)	**12** (100)	**2** (18)	**3** (25)	**0** (0)	Tata Power NTPC	Tata Power
Principle 6 (34+20) [a]	**30** (88)	**16** (80)	**28** (82)	**14** (70)	**26** (76)	**13** (65)	**21** (62)	**13** (65)	Adani Power	Adani Power
TOTAL (46+31) [a]	**32** (69)	**16** (52)	**40** (87)	**19** (61)	**38** (83)	**15** (48)	**24** (52)	**13** (42)	Tata Power	Tata Power

[a] Highest Possible score as per SRMM Guidelines for Essential and Leadership Indicators respectively.
* The value in the parenthesis represents the percentage score obtained by the company.

Tata Power also leads in reporting of leadership indicators with a score of 61%. Some of the reasons that Tata Power is leading in reporting of environmental indicators are as follows:

- Tata Power has 44% of capex investments in specific technologies to improve environmental and social impacts of products and processes whereas other companies have either not reported the percentage or it is less than 25%.
- Life Cycle Assessment has been done and reported only by Tata Power whereas other companies have either not reported at all or have stated that they are in the process of conducting LCA.
- Environmental Impact Assessment has been carried out by an external agency in Tata Power and the results are also reported in public domain, whereas other companies have done either of the two.

The total scores obtained by the company on social indicators reported by them in the BRSR reports as per SRMM Guidelines is represented in the above table. Principle 3, 5 and 8 of the BRSR together represent all the social indicators in BRSR. The analysis revealed that NTPC leads in reporting of both essential as well leadership social indicators. It has a score of 84% in essential indicators and 91% in leadership indicators. Some of the reasons that NTPC is leading in reporting of social indicators are as follows:

- Except NTPC and NHPC, Companies have not maintained social security data like health insurance, maternity benefits, day care facilities provided to workmen.
- Data for input materials sourced from within the district or neighbouring districts is not available for Tata Power, Adani Group and NHPC.

Table 3: Principle Wise Score of Social Indicator of Different Companies

Principle	Adani Power		Tata Power		NTPC		NHPC		Leading Company	
	Essential	Leadership	Essential	Leadership	Essential	Leadership	Essential	Leadership	Essential	Leadership
Principle 3 (40+9) [a]	**32** (80)	**6** (67)	**28** (70)	**6** (67)	**36** (90)	**9** (100)	**35** (87)	**9** (100)	NTPC	NTPC NHPC
Principle 5 (14 +6)[a]	**13** (93)	**6** (100)	**12** (86)	**3** (50)	**12** (86)	**5** (83)	**12** (86)	**5** (83)	Adani Power	Adani Power
Principle8 (10+8) [a]	**3** (30)	**4** (50)	**3** (30)	**5** (63)	**6** (60)	**7** (88)	**6** (60)	**5** (63)	NTPC NHPC	NTPC
TOTAL (64+23) [a]	**48** (75)	**16** (70)	**43** (67)	**14** (61)	**54** (84)	**21** (91)	**53** (83)	**19** (83)	NTPC	NTPC

[a] Highest Possible score as per SRMM Guidelines for Essential and Leadership Indicators respectively.
* The value in the parenthesis represents the percentage score obtained by the company.

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- NTPC has the maximum score in rehabilitating employees who have suffered from high consequence work related injury and it also has a maximum number of resettlement projects as compared to other companies.
- Both NTPC and NHPC are procuring more than 20% of their supplies from marginal and vulnerable groups, whereas both the Private sector companies are only procuring less than 1%.

Table 4: Comparison Between Public and Private Sector

Company Name	Essential Indicator	Leadership Indicator	Total
Adani Power	80	32	112
Tata Power	83	33	116
Average Score (Private Sector Companies)	**81.5**	**32.5**	**114**
NTPC	92	36	128
NHPC	77	32	109
Average score (Public Sector Companies)	84.5	34	118.5

Total scores obtained by the companies from both environmental and social indicators is considered in the above table. Average score obtained by companies in the public and private sector is considered for comparison purposes.

The results of the analysis revealed that NTPC and NHPC belonging to the public sector are better off in reporting both environmental and social indicators as their average score is greater as compared to the average score of Adani Power and Tata Power belonging to the private sector.

6. CONCLUSION

The analysis of BRSR reports, focusing on social and environmental indicators, has revealed significant facts about the companies included in this research study.

Tata Power has implemented a robust mechanism for the sustainable sourcing of materials, achieving 100% non-fuel input sustainability. The company is also advancing in conducting Life Cycle Assessments for products like solar panels. However, their BRSR reporting could be improved. Currently, the company lacks data on worker well-being, health issues, and retirement facilities. Additionally, less than 60% of employees receive training in health and safety, and no high-consequence work-related injury rehabilitations have been reported. Despite advanced measures in environmental sustainability, Tata Power has considerable progress to make.

In contrast, Adani Power's comprehensive report covers all social and environmental indicators. Unlike Tata Power, it hasn't conducted Life Cycle Assessments nor reported sustainably sourced inputs. However, the company excels in maintaining worker well-being data, with over 80% of employees trained in health, safety, and skills upgrading. Independent assessments are conducted for environmental indicators, and projects in ecologically sensitive areas are disclosed.

NTPC's BRSR report indicates ongoing Life Cycle Assessments. The company details reuse, recycling, and safe disposal practices, and provides extensive social benefits, including health and accident insurance, and daycare facilities for all workers. All plants and offices undergo health and safety assessments. Its environmental reporting is extensive, with a Zero Liquid Discharge policy and independent third-party assessments for all operations, including those in ecologically sensitive areas.

NHPC's BRSR report is detailed, though it lacks information on Life Cycle Assessments and product disposal under Principle 2 Leadership indicators. While it reports on employee well-being and safety, less than 30% of workers receive health and skill training. The company assesses all plants and offices for working conditions, but lacks independent environmental operation assessments.

The introduction of BRSR has accelerated sustainability reporting in India, compelling companies to justify their actions. Analysis of public and private energy sector companies shows progress in ESG indicator reporting, but reaching Level 4 of SRMM is still a challenge. Large corporations like Tata Power, Adani Group, NTPC, and NHPC are in various stages of data compilation on critical aspects such as Life Cycle Assessments and CSR project beneficiaries. In this study, Tata Power leads in environmental reporting, while NTPC excels in social indicators. However, public sector companies generally outperform in both areas.

To enhance BRSR, companies should attend to finer details in all indicators, including compiling social security data for workers and assessing social aspects of value chain partners. Additionally, focusing on procuring raw materials from vulnerable society sections, potentially as part of CSR initiatives, could enhance BRSR scores.

7. LIMITATION AND FUTURE SCOPE:

The present study has been taken up for the energy sector with limited set of companies. Only environmental and social indicators from the BRSR report are considered for the analysis. The study relates to BRSR reports of one particular year only. Future studies can be conducted on other sectors as well such as Iron and Steel, Pharmaceuticals, Agriculture etc., a comprehensive study comparing different sectors can also be carried out. Longitudinal studies can also be carried out in future to track the progress of companies with respect to reporting several parameters in BRSR reports.

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