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A Study of CSR Practices and Environmental Sustainability Initiatives of Major Industries in Rajasthan

Mohit Sharma[1*] | Dr. Pradyumna Sharma[2]

[1]Research Scholar, School of Commerce & Management, Career Point University, Kota, Rajasthan, India.
[2]Research Supervisor, School of Commerce & Management, Career Point University, Kota, Rajasthan, India.

[*]Corresponding Author: mohitsharma2311@gmail.com

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Abstract

Rajasthan has some of India's biggest mining, oil and gas, cement, and textile industries, each having to adhere to the mandatory Corporate Social Responsibility (CSR) guidelines stipulated in section 135 of the Companies Act of 2013. This study looks at the four leading companies in the industries mentioned above—Hindustan Zinc Limited (Mining), Cairn Oil & Gas/Vedanta Limited (Oil & Gas), Shree Cement Limited (Cement), and RSWM Limited of the LNJ Bhilwara Group (Textile)—in terms of CSR expenditure and environmental sustainability practices. Using the sustainability reports and CSR reports of these companies in addition to literature on the topic, it is observed that the amount spent on CSR varies greatly among the different industries and even within an industry: Hindustan Zinc Ltd reports an expenditure of ₹273.45 crore in FY2024-25 while Shree Cement Ltd spends ₹51.34 crore on CSR in FY2023-24, while Cairn Oil & Gas's multistate CSR expenditure decreased from ₹25.53 crore in FY2021-22 to ₹10.26 crore in FY2024-25. Similar variations have been seen in environmental initiatives: Sewage treatment and land restoration by Hindustan Zinc, Water positivity and renewable energy by Shree Cement and water conservation by RSWM through its Zero Liquid Discharge project.

Keywords: *Corporate Social Responsibility, Environmental Sustainability, Rajasthan Industries, Hindustan Zinc, Shree Cement, Cairn Oil & Gas, RSWM, Companies Act 2013.*

Introduction

Rajasthan is one of the most industrially prominent states in India, being the location of India's largest integrated zinc-lead-silver producer, majority of India's private crude oil production, many of the biggest cement plants in India, as well as one of India's oldest textile manufacturers. With the implementation of CSR spending as mandated under Section 135 of the Companies Act, 2013, the companies operating in these industries have come up with increasingly more comprehensive CSR reports and disclosures that can be used as evidence for analyzing CSR activities of large industries operating within a particular state.

It is also an unusual case study for the environmental aspects of CSR in particular due to Rajasthan's status as a water-stressed state with high levels of aridity, but at the same time housing water-intensive mining, cement, and textile manufacturing, along with being India's leading state in terms of renewable energy development, where installed capacity of renewables amounts to 30.31 GW, with 24.55 GW of it being solar power (thus becoming the first Indian state where solar power takes more than half of installed power capacity) (Global Energy Monitor, 2024; NBM&CW, 2024).

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The goal of this paper is to compare how four companies representing the major industrial sectors of Rajasthan, namely mining & metals (Hindustan Zinc Limited), oil & gas (Cairn Oil & Gas and Vedanta Limited), cement (Shree Cement Limited) and textiles (RSWM Limited of the LNJ Bhilwara Group) report their CSR spending and environmental initiatives. This comparison is to provide insights into any trends in terms of CSR practices and environmental initiatives when comparing companies in different sectors of Rajasthan.

This comparative analysis of the companies' CSR practices is important since, in general, CSR in India is considered either in the context of aggregates at the national level or individual companies. However, by keeping the state constant and varying the sector, this paper will identify sector-specific patterns of CSR practice that cannot be identified by analyzing CSR practices of the companies on a national scale or in the case of an individual company.

Literature Review

However, the academic literature regarding the topic of CSR of the industry in the Rajasthan State is limited and insufficient considering the extent of the industry in the State, but there is a number of works focusing on the topic. One of the works analyzing CSR practices of the company Shree Cement is published in the journal named "Inspira Journal of Commerce, Economics & Computer Science". This work compares the amount of money that was spent by Shree Cement in FY2017-18 and FY2018-19 on their CSR practices and concludes that the firm did not spend as much as it was expected according to their annual CSR budget which should be around ₹36.17 crore.

Company Sustainability reports present the most thorough information about environmental practices. The sustainability reports of Hindustan Zinc are published annually starting from the fiscal year 2015-16. They mention the presence of CSR activities in seven thematic areas and include environmental activities such as building of a 20 MLD sewage treatment plant at Eklingpura, Udaipur (₹170 crore investment) and a 60 MLD sewage treatment plant supporting Udaipur city, and biodiversity activities like MOU with the Rajasthan Protected Area Conservation Society for creating the 369 hectares Baghdarrah Crocodile Conservation (Hindustan Zinc Limited, 2024; Vedanta Limited, n.d.).

For the oil and gas industry, Cairn Oil & Gas' sustainability reporting includes CSR activities around Barmer along with environmental goals based on Vedanta's group level net-zero targets; their FY2023-24 report includes a capex of ₹74 crore on emission-reducing activities, and also a reduction of nearly 229,000 tonnes of CO2 equivalent emissions in the previous four years (Cairn Oil & Gas, Vedanta Limited, 2025).

For the cement industry, Shree Cement's disclosures and third-party ESG ratings include the company being more than eight times water positive, as well as being one of the most adopters of renewables in the cement industry with more than 60% renewables in energy consumption in line with its commitment to the RE100 global initiative (India CSR, 2025; CareEdge ESG Ratings Limited, 2024).

For the textiles sector, RSWM's sustainability reports include a Zero Liquid Discharge programme that has led to more than 23 lakh kilo litres of water savings per year, apart from large-scale recycling of PET bottles and biofuel usage in boilers (MediaBrief, 2024; Perfect Sourcing, 2025).

Combining the existing literature and company information suggests that corporate social responsibility and practices related to sustainability in environmental management are considerable in terms of their absolute value; however, these practices vary significantly from industry to industry in terms of the theme, reporting framework, and the growth trends of spending on corporate social responsibility over time.

Research Methodology

The research for this paper adopts a comparative case study design involving secondary sources taken directly from the annually published corporate social responsibility reports, sustainability reports, Business Responsibility and Sustainability Reports (BRSR) and investor reports of four companies that have been chosen to represent the important industries in Rajasthan; these are Hindustan Zinc Limited (mining and metals, Udaipur-based), Cairn Oil & Gas, Vedanta Limited (oil and gas, Barmer operations), Shree Cement Limited (cement, Ajmer-based), and RSWM Limited (textiles, flagship firm of the Bhilwara-based LNJ Bhilwara Group). The reason for choosing these four firms is that each one of them is amongst the largest players in its own industry in Rajasthan, besides publishing comprehensive and detailed corporate social responsibility and environmental reporting information in at least the past two to four years.

The data have been directly extracted from the most recent CSR annual reports, sustainability reports or BRSRs of each firm, complemented with CSR news coverage of firms in India (India CSR, The CSR Universe, Perfect Sourcing) only to verify or contextualize figures that have already been disclosed by companies through their official reports. In cases where the spend on CSR activities or the environmental metrics for the company were provided for more than one fiscal year, this paper has considered the trend, rather than the specific data point because the former provides a better representation of a CSR program which varies with project cycle. No data in this paper have been extrapolated or estimated.

Table 1: Companies and Sectors Examined

Company	Sector	Primary Rajasthan Location	Data Years
Hindustan Zinc Limited	Mining & metals (zinc, lead, silver)	Udaipur, Rajsamand, Chittorgarh	FY2023-24, FY2024-25
Cairn Oil & Gas, Vedanta Limited	Oil & gas exploration/production	Barmer	FY2021-22 to FY2024-25
Shree Cement Limited	Cement manufacturing	Ajmer (Beawar)	FY2019-20, FY2023-24, FY2025-26
RSWM Limited (LNJ Bhilwara Group)	Textiles (yarn, fabric, fibre)	Bhilwara	FY2023-24, FY2024-25

Sector-Specific Findings

Hindustan Zinc Limited. Being the largest integrated zinc manufacturer in India with mining and smelting operations primarily based in Udaipur, Rajsamand, and Chittorgarh, Hindustan Zinc incurred CSR expenditure worth ₹269 crore in FY2023-24 that impacted 1.91 million people and ₹273.45 crore in FY2024-25 impacting 2.3 million lives under seven thematic areas (Hindustan Zinc Limited, 2024, 2025). Its environmental efforts revolve largely around water stewardship in water-stressed Rajasthan: a sewage treatment plant (20 MLD) built with company funding in Eklingpura (worth ₹170 crore) and one (60 MLD) helping out Udaipur city enable the company to fulfill 30% of its water needs through treated sewage (Vedanta Limited, n.d.; India CSR, 2025). With regards to land and biodiversity, it has restored 1,105 hectares and planted 8.5 lakh saplings since 2020 and signed an MoU for the development of the 369-hectare Baghdarrah Crocodile Conservation Reserve (India CSR, 2025).

Cairn Oil & Gas, Vedanta Limited. The largest private onshore oil fields operator in the Indian state of Barmer, Cairn Oil & Gas's CSR spending, taking into account its business operations in Rajasthan, Gujarat, Assam, and Andhra Pradesh, has been showing a downward trend despite the company's unchanged commitment to community projects: from ₹25.53 crore in FY2021-22, to ₹16.2 crore in FY2022-23, ₹14.63 crore in FY2023-24, and ₹10.26 crore in FY2024-25 (Cairn Oil & Gas, Vedanta Limited, 2022, 2023, 2025). As for environmental measures, Cairn Oil & Gas, Vedanta Limited, has reported that in FY2023-24, they invested ₹74 crore towards reducing emissions and ₹66.09 crore in decarbonizing and saving energy, helping to reduce CO2-equivalent emissions by an estimated 229,000 tonnes over the past four years, as well as the goal of achieving Net Zero Carbon by 2030 (Cairn Oil & Gas, Vedanta Limited, 2025; EQ Magazine, 2024).

Shree Cement Limited. Being located in the state of Rajasthan in the district of Ajmer, the company spent ₹40.47 crore on corporate social responsibility for FY2019-20, a 30% growth compared to the previous fiscal year and reaching ₹51.34 crore in FY2023-24 (Shree Cement Limited, 2020; The CSR Universe, 2024). In an academic case study performed earlier, there was an indication that in at least one fiscal year considered (probably FY2017-18), the real amount of the money spent by Shree Cement Limited on corporate social responsibility had been below their statutory obligations, which were approximately ₹36.17 crore (Inspira Journal of Commerce, Economics & Computer Science, n.d.). From the perspective of sustainability within the industry, Shree Cement is seen as a leading company due to being water positive by a factor greater than eight and having more than 60% of energy used from renewable sources as an RE100 member, having their CareEdge ESG ratings increased from 70.8 to 73.8 (India CSR, 2025; CareEdge ESG Ratings Limited, 2024; ScanX, 2025).

RSWM Limited (LNJ Bhilwara Group). As the leading textile company under the LNJ Bhilwara Group in Bhilwara, RSWM sustainability reporting pays particular attention to water conservation and

circular economy practices, owing to the historical link between the textile-dyeing industry and water pollution in Bhilwara. Its FY2023-24 report highlights the use of zero liquid discharge technologies that save about 23.37 lakh kilolitres of water annually, reprocessing of about 1,830 million PET bottles into 51,850 MT of recycled polyester fibre, and 800,000 tonnes per year of CO2 emission reduction due to energy efficiency (MediaBrief, 2024). RSWM's FY2024-25 report shows 22.3 lakh kilolitres of water saved by 100% recycling of treated wastewater, 101.76 million kWh of renewable energy from solar and wind power consumption, and 2.44 lakh beneficiaries of CSR initiatives (Perfect Sourcing, 2025), while the company separately reports an overall three-year investment of ₹84 crore in water management technology (KKN Live, 2025).

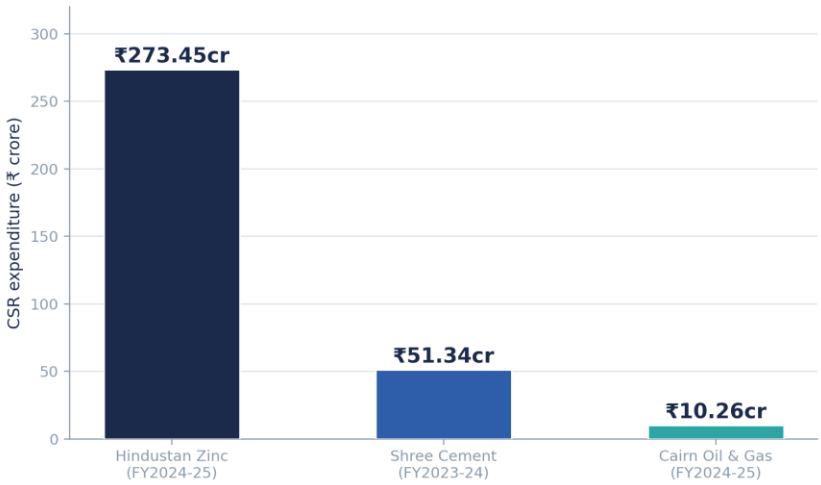
Table 2: Reported Environmental Sustainability Initiatives by Company

Company	Key Environmental Initiative	Reported Outcome
Hindustan Zinc	Sewage treatment & water reuse	>30% of water requirement met via treated sewage
Hindustan Zinc	Land restoration & biodiversity	1,105 hectares restored; 8.5 lakh saplings since 2020
Cairn Oil & Gas	Emission reduction capex	~229,000 tCO2e reduced over 4 years; Net Zero target 2030
Shree Cement	Water stewardship	Water positive >8 times (replenishment vs. withdrawal)
Shree Cement	Renewable energy (RE100)	>60% of operational energy from renewable sources
RSWM (textiles)	Zero Liquid Discharge	22.3-23.37 lakh KL water conserved annually (FY24-FY25)
RSWM (textiles)	Circularity (PET recycling)	~1,830 million PET bottles recycled annually into fibre

Comparative Data and Figures

Figure 1 presents the comparison of CSR expenditures among the three firms where there is a single comparable figure of rupees for their respective reporting years. While the CSR expense of Hindustan Zinc in fiscal year 2024-25 amounting to ₹273.45 crore is over five times that of Shree Cement in fiscal year 2023-24 of ₹51.34 crore, it is also more than twenty-five times that of Cairn Oil & Gas in fiscal year 2024-25 of ₹10.26 crore; however, these figures cannot be considered comparable, because the CSR expenses of Cairn span four states and not just Rajasthan.

Figure 1. CSR Expenditure of Major Rajasthan-Based/Operating Companies, Latest Reported Year



Sources: Hindustan Zinc (2025); Shree Cement/CSR Universe (2024); Cairn Oil & Gas (2025). Figures are not directly comparable: Cairn's CSR spans Rajasthan, Gujarat, Assam & Andhra Pradesh.

Figure 2 shows the trend of CSR expenditure made by Cairn Oil & Gas over four successive financial years wherein there is a consistent decline in expenditure from ₹25.53 crores in FY2021-22 to ₹10.26 crores in FY2024-25, indicating a decline of almost 60% within three years. This is significant because this trend is contrary to the general understanding that expenditure on CSR in compliance with Section 135 is in line with profit-based formulae, although the company itself does not give an explanation for the same.

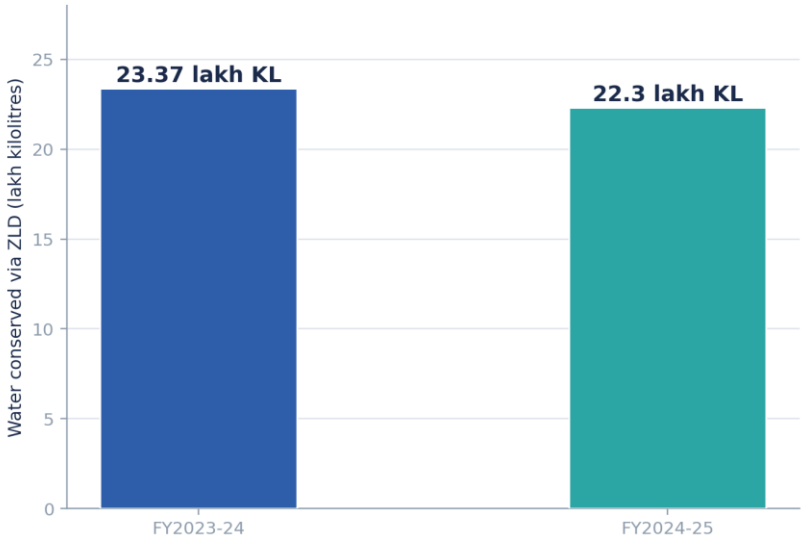
Figure 2. Cairn Oil & Gas (Vedanta) CSR Expenditure Trend, FY2021-22 to FY2024-25 (Rajasthan, Gujarat, Assam & AP)



Source: Cairn Oil & Gas, Vedanta Limited, CSR/Sustainability Report Summaries, FY2022-FY2025.

Figure 3 indicates the amount of water that has been saved by RSWM under Zero Liquid Discharge during the two most recent years that data have been published by the organization, indicating stability in saving the water at a very high level (23.37 lakh kilolitres in FY2023-24 & 22.3 lakh kilolitres in FY2024-25).

Figure 3. RSWM (LNJ Bhilwara Group) Water Conserved via Zero Liquid Discharge, FY2023-24 vs. FY2024-25



Source: RSWM Limited Sustainability Reports, FY2023-24 and FY2024-25 (LNJ Bhilwara Group).

The common trend among all three graphs is that companies that have been selected in this study are showing increased or higher CSR and environmental spending, whereas the CSR spending of the oil and gas company has been falling despite the fact that the company continues to spend on the environment to reduce emissions. It is also evident that CSR spending by itself is not enough to determine the environmental spending of a company, as there is some environmental expenditure (e.g., emission reduction capex) that is excluded from CSR.

Discussion

Based on the evidence analyzed in this paper, there seem to be three major conclusions that can be drawn regarding CSR and environmental sustainability practices within Rajasthan's main industries. Firstly, in terms of the scale of CSR and environmental investments, the amounts are significant: ₹273.45 crore CSR investments for the fiscal year 2024-2025 made by Hindustan Zinc, and water-positive and renewable energy approach adopted by Shree Cement are strong proof that at least some of Rajasthan's biggest companies have managed to integrate CSR and environmental sustainability into their core operations.

Secondly, it seems like the industry that each of the companies belong to is one of the key factors influencing the exact environmental initiatives that are being implemented. For example, Hindustan Zinc and RSWM, both located in the water-stressed area in the center of Rajasthan, have chosen water stewardship (sewage treatment for Hindustan Zinc and zero liquid discharge for RSWM) as their major initiative; Cairn Oil & Gas focuses on emission management and decarbonization capital expenditure, and Shree Cement on both water positivity and renewable energy.

Third, not all CSR expenditure trajectories are upward, and the decline in CSR spending at Cairn Oil & Gas for four consecutive years serves as a useful reality check on the supposition that CSR expenditure by the major industrial players in India always rises. Given that it is impossible to verify, without independently checking the definition of CSR boundary used by each company, whether this decrease in expenditure indicates either a true reduction in community spending or merely a reallocation of expenditure from CSR to other categories of expenditure (such as environmental capital expenditure), this finding is important.

One shortcoming of this type of comparison is that it relies exclusively on figures disclosed by companies and not independently verified; furthermore, the four companies used as examples were chosen specifically because of the completeness and consistency of the disclosure process, not through random or systematic selection of the sample from all the companies eligible to perform CSR activities in Rajasthan. Therefore, the findings should be viewed as an illustration of a comparison between some of the best known industry leaders in terms of transparency of their CSR practices, not as a sample of such practices in Rajasthan.

Recommendations

Table 3: Recommendations for CSR and Environmental Sustainability Practice in Rajasthan

Recommendation	Rationale	Relevant Audience
Standardize CSR and environmental-capex reporting boundaries	Cairn's declining CSR spend alongside rising emission-reduction capex suggests reporting categories affect year-on-year comparability	Company Boards / MCA
Benchmark water stewardship across all water-intensive sectors	Hindustan Zinc and RSWM both report strong water programs; comparable metrics would aid sector-wide benchmarking	Industry Associations
Publish multi-year CSR trends, not single-year snapshots	Single-year figures (e.g., Shree Cement FY2017-18 under-spend) can misrepresent a longer-term pattern	Company Sustainability Teams
Extend RE100-style renewable commitments beyond cement	Shree Cement's >60% renewable energy adoption is comparatively advanced; other sectors have room to follow	Mining, Oil & Gas, Textile Sector Leaders
Link local CSR spend explicitly to Rajasthan-specific outcomes	Cairn's multi-state reporting makes it difficult to isolate Rajasthan-specific CSR impact	Companies Operating Across Multiple States

Conclusion

In this paper, the disclosures made by four leading organizations operating in Rajasthan regarding their CSR and environmental sustainability have been compared. The finding indicates significant but inconsistent investments: while Hindustan Zinc and Shree Cement have invested in increasing CSR expenditure along with demonstrating solid environmental performance such as efficient water management, land reclamation, and renewable energy generation, the CSR investment made by Cairn Oil & Gas has declined in four successive years, despite having increased expenditure on environmental matters. Furthermore, the water conservation initiative taken by RSWM has matured into a high-performing project.

The results of the research point to the fact that the implementation of CSR and environmental sustainability activities in Rajasthan's major sectors is just as much influenced by the specific environmental constraints for each individual sector as any general tendency of investment in CSR activities across all sectors. In order to further improve the environmental sustainability performance of the state's industrial economy, there is a need for better standardization and comparability of the CSR spending and environmental capital expenditure of companies in order to fully comprehend such tendencies as the reduction in Cairn's CSR expenditure.

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