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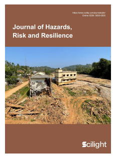

Article

Financing Resilience: Interventions & Recommendations to Restructure India's CSR Landscape for Risk Informed Sustainable Development

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This body of work critically evaluates the efficacy of India's mandatory Corporate Social Responsibility (CSR) regime, as a potential alternative financing mechanism for Disaster Risk Management (DRM). While the mandated framework demonstrates significant potential in *ex post* disaster response, relief, and recovery efforts, the study finds that fundamental structural and behavioural biases severely impede strategic investment in proactive *ex ante* Disaster Risk Reduction (DRR). Integrating established theoretical frameworks, specifically Institutional Theory and the Proximity & Signalling Bias, the analysis unpacks the root causes of the misalignment. Empirical evidence shows that CSR funds are disproportionately directed toward sectors offering easily quantifiable, high-visibility metrics (e.g., basic education and healthcare), critically neglecting highly vulnerable states and complex, long-term DRR needs. The study uses powerful visualisations to illustrate an investment gap to plug disaster risks through CSR funds. To bridge this structural gap and transform compliance-driven spending into strategic investment, the study proposes a set of integrated governance and policy imperatives. Key recommendations include multiple options, ranging from redefining 'disaster management' in Schedule VII, to establishing a tiered investment approach within companies for segregated *ex ante* and *ex post* financing or, implementing a Risk-Weighted Expenditure Support Programme (RWESP)**.** The RWESP establishes a new Public-Private Partnership (PPP) model, enforcing a data-driven investment strategy through co-funding from the State Disaster Mitigation Fund (SDMF) to incentivize high-risk, high-impact projects. Collectively, these policy reforms, coupled with an urgent reform of the reporting ecosystem to prioritize verifiable long-term impact, have the potential to transform the CSR mandate into a truly strategic, equitable, and sustainable instrument for national resilience building.

Keywords: corporate social responsibility in India; disaster risk management; climate action; alternate financing mechanism

1. Introduction: Contextualizing Statutory CSR and Disaster Risk Governance

1.1. The Global Imperative for Alternative Financing in DRM

The escalating impact of global hazards and climate change necessitates a substantial increase in public and private financing [1,2] dedicated to Disaster Risk Management (DRM) [3]. Traditional reliance solely on public sector budgets has proven inadequate to address both the vast requirements of preventative mitigation measures (*ex ante*) [4,5] and the massive capital needed for rapid response and recovery (*ex post*). In this environment, identifying and leveraging alternative financing mechanisms is paramount to building resilience [6–8], aligning specifically with the priorities set forth in the Sendai Framework for Disaster Risk Reduction (SFDRR).

1.2. India's Unique Mandate and the Evolution of CSR

India stands as the pioneering country to legally mandate corporate social spending through Section 135 of the Companies Act, 2013 [9]. This regulation applies to companies meeting specific financial thresholds (annual turnover of ₹10 billion or more, net worth of ₹5 billion or more, or net profit of ₹50 million or more). Such qualifying companies must allocate a minimum of 2% of their average net profit from the preceding three years toward CSR initiatives outlined in Schedule VII of the Act. This transition from a purely charitable practice, influenced by historical values such as Mahatma Gandhi's concept of trusteeship, to a codified legal requirement represents a dramatic governance shift [10,11]. The subsequent designation in 2019 of investments in "disaster management, including relief, rehabilitation, and reconstruction activities" as eligible CSR expenditure solidified CSR's role as a potential state-backed alternate financial tool in the realm of disaster management [12].

1.3. Need for the Study

1.3.1. Unpacking the Scope of Eligible CSR Investments

The mandated CSR framework in India extends beyond mere compliance; its holistic purpose is fundamentally aligned with achieving the global Sustainable Development Goals (SDGs) and fostering resilient, risk-informed sustainable development [13–17]. This alignment is critical because the core thematic areas of development covered by the 17 SDGs—such as eradicating poverty (SDG 1) and supporting sustainable cities (SDG 11)—overlap considerably with the goals of effective Disaster Risk Reduction (DRR), which again is aligned to the items specifically mentioned in Schedule VII of the Act. Schedule VII of the Act specifies the broad categories in which companies can utilise their CSR budget. These categories are listed as 12 items.

Comparative and descriptive alignments of these 12 items with SDGs and SFDRR Priorities and Targets have been illustrated in Table 1 below.

Table 1. Alignment of items on Schedule VII with SDGs and SFDRR.

No.	CSR Item Description (Original Schedule VII Wording)	Key SDG Alignment	SFDRR Priority Alignment	SFDRR Target Alignment
i	Eradicating hunger, poverty, and malnutrition; promoting healthcare & sanitation (incl. Swachh Bharat Kosh); safe drinking water.	SDG 1, 2, 3, 6	Priority 3 (Investing in DRR for Resilience) & Priority 2 (Strengthening Disaster Risk Governance)	Target A, B (Reduces mortality/affected people by addressing underlying health/poverty vulnerabilities.)
ii	Promoting education (incl. vocational skills) and livelihood enhancement projects.	SDG 1, 2, 3, 4, 5, 8	Priority 1 (Understanding Disaster Risk) & Priority 3 (Investing in DRR for Resilience)	Target B, D (Skills enhance livelihood resilience; education protects facilities.)
iii	Promoting gender equality, empowering women, facilities for senior citizens; reducing inequalities for backward groups.	SDG 1, 5, 10	Priority 2 (Strengthening Disaster Risk Governance) & Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target A, B (Reduces vulnerability of highly-affected groups; aligns with inclusive *Build Back Better*.)
iv	Ensuring environmental sustainability, ecological balance, conservation of natural resources (incl. Clean Ganga Fund).	SDG 6, 7, 9, 11, 13, 14, 15	Priority 1 (Understanding Disaster Risk) Priority 3 (Investing in DRR for Resilience) Priority 1 (Understanding Disaster Risk) & Priority 2 (Strengthening Disaster Risk Governance)	Target C, D (Reduces economic loss and damage by protecting ecosystems that provide critical services.)
v	Protection of National Heritage, art, and culture; public libraries; traditional arts.	SDG 4, 8, 11	Priority 3 (Investing in DRR for Resilience) & Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target D (Focuses on developing the resilience of important cultural infrastructure.)

Table 1. *Cont.*

No.	CSR Item Description (Original Schedule VII Wording)	Key SDG Alignment	SFDRR Priority Alignment	SFDRR Target Alignment
vi	Measures for the benefit of armed force veterans, war widows, and their dependents.	SDG 1, 3, 4, 8, 16	Priority 2 (Strengthening Disaster Risk Governance) & Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target A, B (Aids a vulnerable population segment, reducing overall exposure/mortality.)
vii	Training to promote sports (rural, national, Paralympic, Olympic).	SDG 3, 5, 8, 10	Priority 3 (Investing in DRR for Resilience) & Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target B (Promotes health and social cohesion, contributing to community resilience.)
viii	Contribution to PM's Relief Funds (for socio-economic development/welfare of weaker sections).	SDG 1, 2, 3, 4, 6, 9, 10, 15, 17	Priority 3 (Investing in DRR for Resilience) & Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target A, B, C (Direct investment/aid reduces loss, mortality, and economic impact on vulnerable groups.)
ix (a)	Contribution to incubators or R&D projects in science/tech/engineering/medicine.	SDG 8, 9, 11, 12, 13, 17	Priority 1 (Understanding Disaster Risk) & Priority 3 (Investing in DRR for Resilience)	Target G (R&D is crucial for creating and improving multi-hazard early warning systems.)
ix (b)	Contributions to public funded Universities; IITs; National Laboratories (like DRDO, CSIR) for SDG-aimed research.		Priority 1 (Understanding Disaster Risk) & Priority 2 (Strengthening Disaster Risk Governance)	Target G, E (Enhances capacity for risk assessment and informs national strategies.)
x	Rural development projects.	SDG 1, 2, 3, 4, 7, 9, 11	Priority 3 (Investing in DRR for Resilience) & Priority 2 (Strengthening Disaster Risk Governance)	Target C, D (Reduces economic damage and disruption of basic services in vulnerable rural areas.)
xi	Slum area development.	SDG 1, 2, 3, 4, 6, 7, 9, 11	Priority 3 (Investing in DRR for Resilience) & Priority 2 (Strengthening Disaster Risk Governance)	Target A, B, D (Directly addresses high vulnerability, mortality, and infrastructure damage in slum areas.)
xii	Disaster management, including relief, rehabilitation, and reconstruction activities.	SDG 1, 2, 3, 6, 9, 11, 13, 15	Priority 4 (Enhancing Disaster Preparedness for Effective Response and 'Build Back Better')	Target A, B, C, D (Directly addresses all four reduction targets through effective response and recovery.)

Source: Authors; developed based on work done by Manchanda et al., 2024 [18].

1.3.2. Understanding the Status Quo to Establish the Need for the Study

There is broad agreement that the pursuit of SDGs and the implementation of SFDRR are mutually reinforcing, with both frameworks aiming to reduce disaster risk and build resilience [19]. To explore the relationship between achieving SDGs and fostering disaster resilience, a Pearson's correlation test [20,21] was performed between the SDG Composite Scores for Indian states of 2019–2020 [22] and the Disaster Resilience Index calculated by the Government of India in 2018 [23].

As seen in Figure 1, the analysis confirms that states demonstrating stronger progress on the SDG Composite Score generally exhibit better disaster resilience. Also, it is interesting to note that there is a very weak correlation between SDG Composite Score and Vulnerability, which in a way confirms the theory that effective pursuance of SDGs should not increase vulnerabilities.

It should be noted that parameters like Risk Assessment, Prevention and Mitigation, Risk Governance and Disaster Preparedness (*ex ante* measures) are very strongly correlated with Disaster Resilience Index, even more than Disaster Response, Relief, Recovery and Reconstruction (*ex post* measures). Therefore, the path of pursuance of disaster resilience should inherently and logically encompass more *ex ante* measures. But interestingly, the correlogram reveals that SDG composite Score has a stronger correlation with Disaster Response than with Risk Assessment or Prevention and Mitigation. These evident mismatches suggest that when even when CSR is theorised as a potential financial tool for resilient and sustainable development, the desired holistic contribution is not fully materializing in reality.

This body of work posits that more can and must be done to unlock CSR's strategic power. The current ecosystem suffers from a prevalent focus on reactive managing disasters rather than proactive, ex ante DRR, stemming from the persisting misinterpretation of the field as being limited to robust disaster response, relief and recovery capabilities rather than foundational preventive and mitigative measures. This gap is compounded by severe regional and sectoral biases too. Consequently, the core focus of this study is threefold: (a) to conduct a rigorous analysis of what is happening with CSR funds in the context of disaster management, providing evidence through critical case studies such as the 2018 Kerala floods; (b) to systematically identify why it is happening by introducing and integrating established theoretical frameworks such as Institutional Theory and Proximity Bias to explain the persistent allocation gaps; and (c) to formulate concrete, scientifically grounded policy recommendations on how it can be improved, specifically through governance enhancements and strategic reporting mechanisms

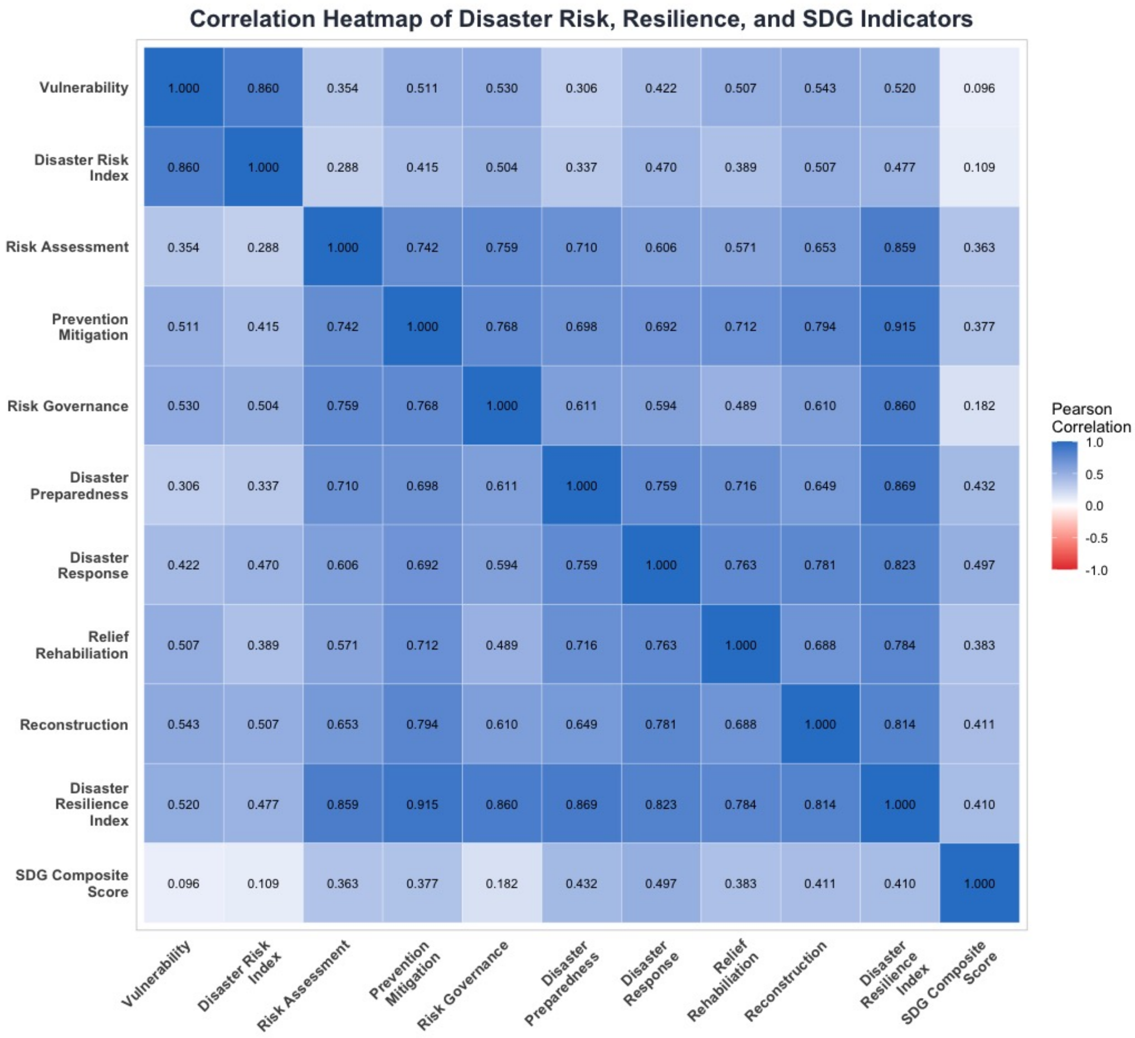

Figure 1. Correlation of Composite SDG Scores with different parameters.

2. Probing the CSR Landscape through Disaster Risk Management Lens

2.1. Sector-wise Expenditure of CSR Spending

Schedule VII lists 12 areas for CSR spending, but a careful study of sector-wide spending in the past indicates a preference toward selected areas like education, health, rural development, and environmental sustainability as seen in Figure 2.

While it might be a common inference that investment in these sectors should ideally strengthen disaster risk reduction processes, but a definitive confirmation demands further investigations.

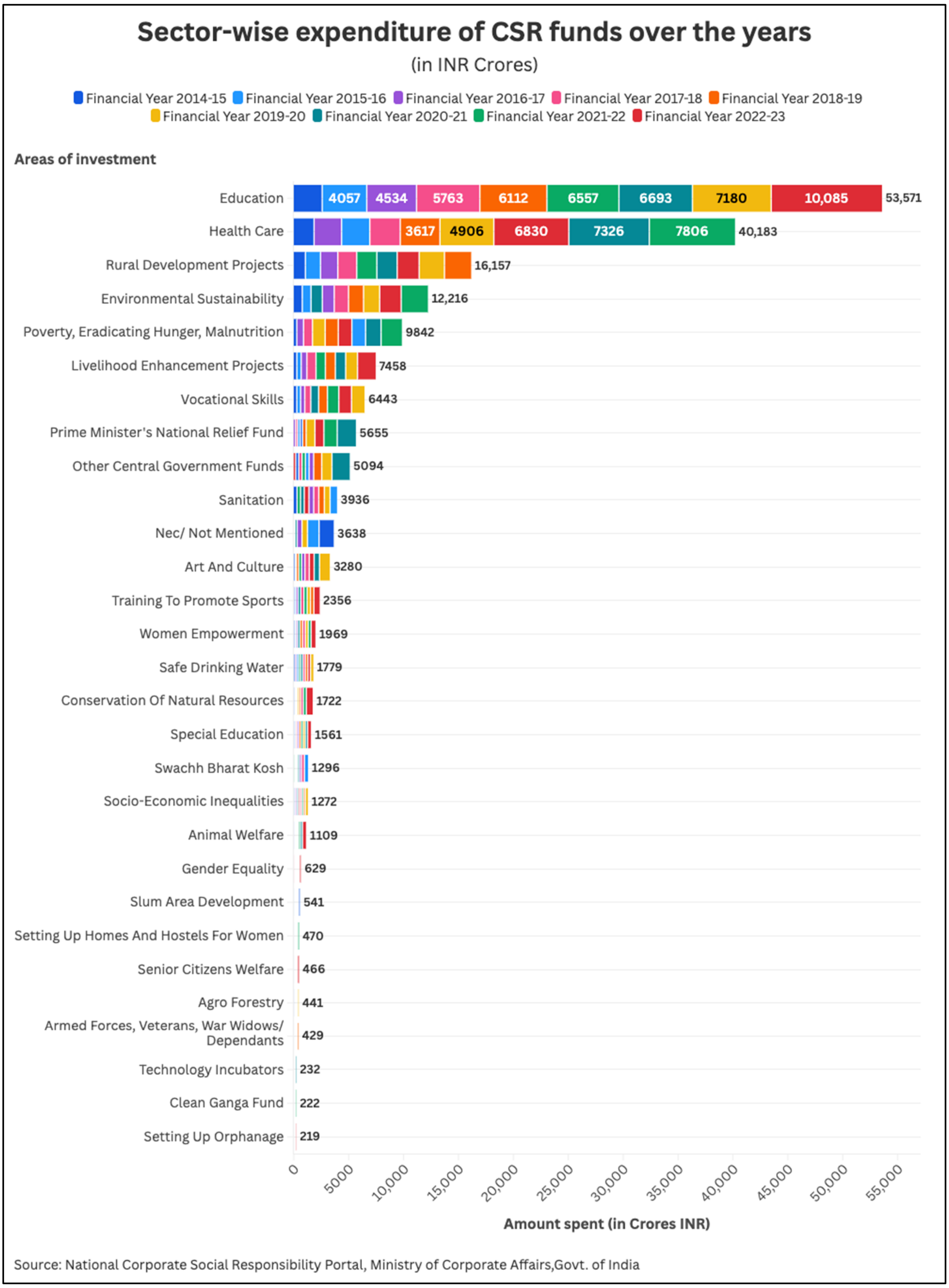

Figure 2. Sector-wise expenditure of CSR Funds over the years (in INR Crores) *(INR is Indian Rupee)*.

2.2. State-Wise Expenditure of CSR Spending

A detailed analysis of the CSR spending across the states of India reveals a skewed preference towards certain states over the years. Interestingly, over 80% of CSR funds are directed toward highly industrialized states with significant gross state domestic product (GSDP), such as Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Gujarat, Uttar Pradesh, Rajasthan, Maharashtra, and Karnataka, as highlighted in the RBI Report of 2022 [18], as revealed in Figure 3.

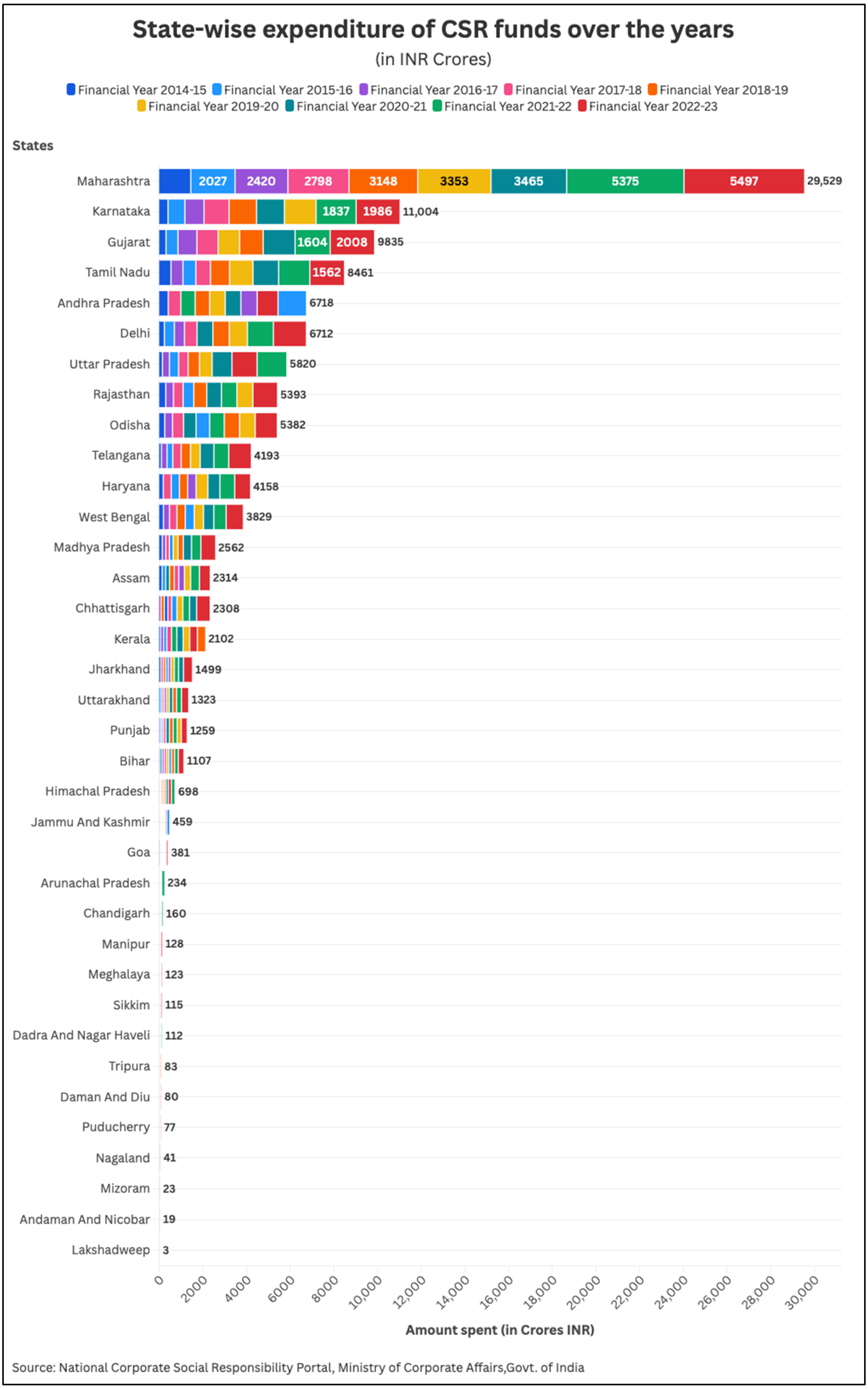

Figure 3. State-wise expenditure of CSR Funds over the years (in INR Crores).

Since the Resilience Index was calculated in 2018 [23], it would be logical to analyse the CSR expenditures till 2018–2019 and the contemporary SDG Scores to understand the intersections better. A comparative analysis reveals that the top 5 recipient states of CSR funds are also the top 10 performers in terms of pursuing SDGs and also the top 3 states with greater resilience. For example, Maharashtra was the top recipient of CSR funds and it proved to be the 3rd front-runner in terms of SDG pursuance as well as resilience building. Similarly, Tamil Nadu was the 5th highest recipient of CSR funds and it proved to be the 2nd front-runner in terms of SDG pursuance as well as resilience building. Gujarat was the 4th highest recipient of CSR funds and it proved to be 9th in terms of SDG pursuance and the best state in resilience building

2.3. Corporate Engagement in CSR Spending

A detailed review of corporate engagement in CSR activities identifies that private sector companies have always engaged more than the public sector units, as illustrated in Figure 4.

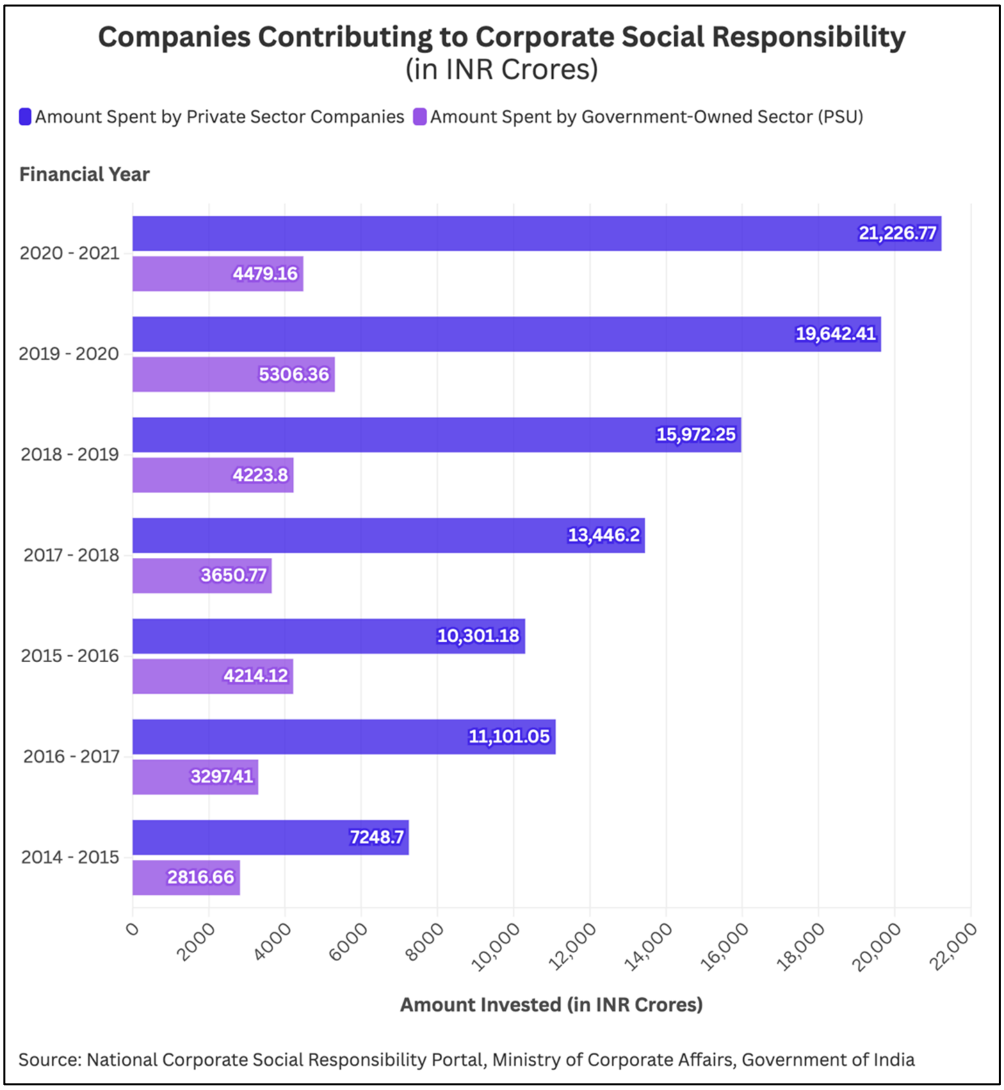

Figure 4. Type of companies contributing to CSR.

Additionally, Reliance Industries Ltd. (Mumbai, India), usually functioning through the Reliance Foundation, and the Tata conglomerate, working as the Tata Sustainability Group (TSG) (Maharashtra, India), emerge as the top engagers in the CSR game through the contributions as seen in Figure 5.

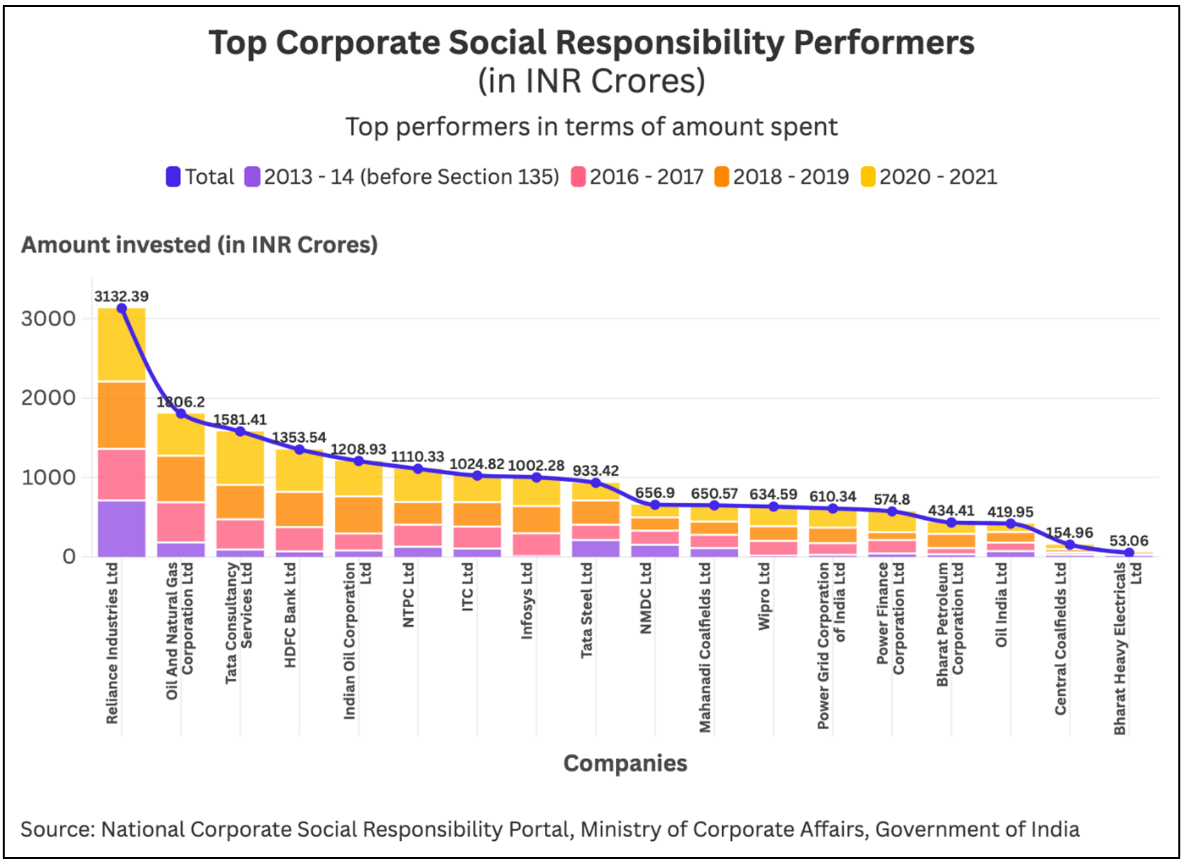

Figure 5. Top CSR performers in terms of the amount invested by means of CSR.

An analysis of the Reliance Foundation's Annual CSR Reports from 2014 to 2018 reveals substantial investments in areas such as rural transformation (including livelihoods), health sector strengthening, urban renewal, and disaster response. These initiatives align with the Sendai Framework's Priority 3, which emphasizes strengthening disaster resilience on the ground. Meanwhile, the Tata Sustainability Group has proactively revised its CSR guidelines to ensure that disaster risk reduction (DRR) principles are integrated across all their CSR activities. This shift signifies an increasing corporate focus on embedding DRR into broader development objectives [24].

3. Explaining the Patterns of CSR Investment: Identifying Gaps towards using CSR Funds as Alternative DRR Finance Mechanism

The observed patterns of CSR fund allocation—geographically constrained and sectorally concentrated—are not random choices but are strategic responses driven by internal corporate motivations, external regulatory and stakeholder pressures, typical and parochial interpretation of risk-informed development.

3.1. Explaining Corporate Behavior via Institutional Theory

The framework of Institutional Theory tends to explain how CSR practices evolve under regulatory mandates in India [25–27]. Institutional Theory posits that corporate behavior is shaped less by rational economic choice and more by the need for legitimacy within its social, political and regulatory environment. This drive for legitimacy leads to isomorphism, where firms adopt similar structures and practices. In the context of India's mandatory CSR, this pressure manifests through three mechanisms, which collectively drive the observed resource concentration.

Coercive isomorphism stems from formal governmental and regulatory pressure, namely the Section 135 mandate itself, which compels compliance. However, since the regulation is broad on where to invest, it only ensures spending occurs, not strategic allocation. This pressure successfully ensures capital mobilization but inherently creates tension between simple legal compliance and true strategic societal impact [28]. Firms spend the mandated amount but often anchor their actual expenditure around the 2% minimum without integrating CSR into core business strategy. Normative isomorphism arises from professionalization, local communities, media, and NGOs. This pressure drives project selection toward socially expected and accepted areas. When companies engage implementation agencies, such as NGOs, this reliance creates a self-reinforcing loop where project selection is optimized for external legitimacy and operational ease, rather than tackling complex, structural vulnerabilities. This tendency aligns with the concept of isomorphism—imitating successful competitors or conforming to institutional standards—to achieve economic and social fit. In conditions of uncertainty—such as how to spend on a novel area like DRR—companies mimic the behavior of successful or large peer companies—mimetic isomorphism. If industry leaders prioritize high-visibility, localized projects, others follow, creating a powerful, collective skew in allocation.

These isomorphic pressures combine to concentrate investment in high-visibility, low-complexity areas, validating the theory's fit with the current status quo of compliance-driven, rather than impact-driven. All of these put together is a huge impediment towards utilising CSR for risk-informed development; until and unless the essence of risk-informed development becomes a part of the business strategy, as seen in case of TSG [24], investment in CSR would always be limited to injecting funds into eligible areas as mandated by Schedule VII, based on conveniences like ease of implementation, socio-political incentive [29,30], external coercion [31,32], greater visibility through quantitative metrics [33] etc.

3.2. Proximity Bias and Signaling Theory: The Geography of Giving

While Institutional Theory explains the push toward common behavior, the Proximity and Signalling Biases specify the resulting misallocation of resources, particularly away from vulnerable states and complex DRR initiatives. Proximity bias suggests that investing in projects geographically close to their operational headquarters or major market centers because it is easier owing to the existing networks, fosters goodwill among local populations and provides positive motivation for employees hailing from the same region [32,34–36]. This strategic choice reduces implementation risk and complexity, as companies can directly oversee projects, which is particularly relevant in areas where implementation feasibility is high. It is only in case of disaster responses that corporate engagements are seen going beyond the usual territories of operation.

This phenomenon is further reinforced by signaling bias. Signalling Bias dictates a strong preference for sectors that are easily measurable, offer rapid completion, and provide high public visibility; characteristics essential for effectively signalling compliance and goodwill to regulatory bodies and stakeholders. CSR serves as a signal of a firm's commitment and moral character to its critical stakeholders (e.g., local regulators, employees, consumers) [32]. A project implemented nearby provides a stronger, clearer, and more immediate signal than one undertaken in a remote, unfamiliar zone. Consequently, corporate decision-making prioritizes visible, local investment, fostering short-term visible outputs.

Interestingly, ex ante DRR projects (e.g., policy integration, capacity building, climate-proofing infrastructure) are often high-complexity, low-visibility, and yield non-quantifiable returns in the short-term, making them poor signalling mechanisms. This is exactly the case as seen in Figure 6, observed investment gap between disaster risk index [23] and CSR allocation in different states.

Empirical evidence strongly confirms this dual bias. The analysis of CSR spending, as captured in the CRISIL CSR Yearbook 2024 [37], shows a significant and sustained concentration of CSR funds, companies and projects in a few clusters of states. Companies headquartered in the industrial hubs of Maharashtra and New Delhi dominated the CSR landscape, together accounting for 61% of the CSR spend and nearly half of the company headquarters. This concentration occurred despite these two regions accounting for just short of a third of the total projects implemented. A second cluster of five states accounted for over a quarter of the spend and a third of company headquarters and projects. The high concentration of corporate headquarters in these seven states/union territories perhaps best explains the skew in spending, as the remaining states accounted for barely a tenth of the spend, a fifth of the company headquarters, and just over a third of the projects implemented.

Additionally, the allocation of funds overwhelmingly in favoured sectors like Education and Health, which offer established project models, clear metrics (e.g., number of students, clinic capacity), and positive media visibility, regardless of a region's specific, underlying disaster risks. This is precisely the pattern predicted by the Signalling Bias.

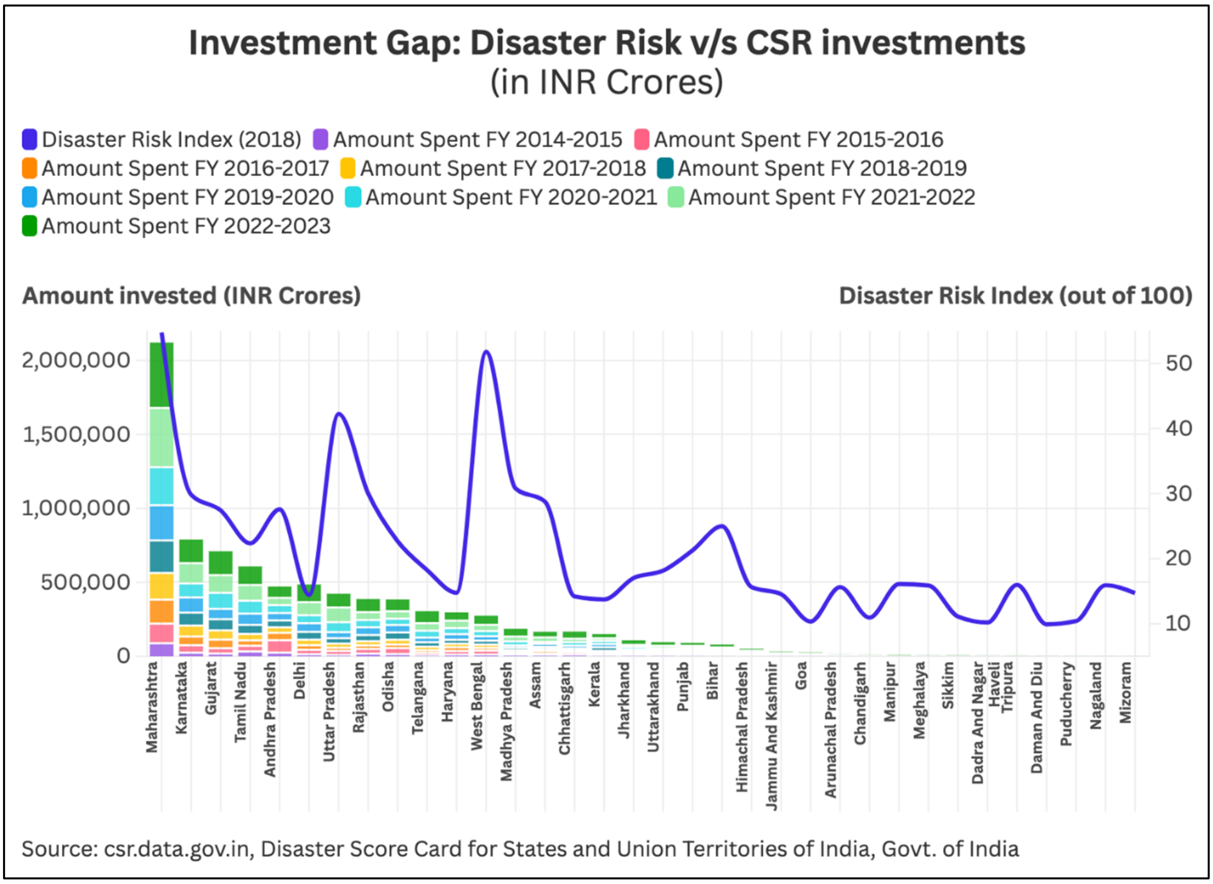

Figure 6. Investment gap: CSR Investment v/s Disaster Risk Index.

3.3. The Measurability Constraint and Sectoral Concentration

The high preference for sectors like education, healthcare, and environmental sustainability is also a function of signaling and cognitive biases. These sectors offer clear, objective frameworks, making CSR activities straightforward to implement and, crucially, yielding tangible, easily measurable outcomes. This reliance on quantifiable results, which are easily reportable, reinforces the prioritization of accountability metrics [33] over assessing broader, complex social impact. This emphasis on the measurable reflects a corporate cognitive bias, such as optimism bias, where managers may overestimate project effectiveness if metrics are simple, or confirmation bias, favouring familiar, low-risk investments. **DRR, which requires long-term, complex interventions like policy advocacy through vulnerability & risk assessment, suffers under this constraint because its impact is often non-linear and difficult to quantify in a single fiscal cycle, thus remaining perpetually underfunded by mandatory CSR.**

3.4. Ex Post Performance: CSR as a Disaster Response and Recovery Finance Tool

To obtain a comprehensive understanding of CSR's performance as an alternative DRM-FM, it is essential to analyse its function in both *ex post* response and recovery and *ex ante* disaster risk reduction.

Investment in disaster response, relief, and recovery—now explicitly mandated under the 2019 Ministry of Corporate Affairs (MCA) notification [12] —predates this policy clarification, as demonstrated by the substantial mobilization during the 2018 Kerala floods.

The total recovery needs for Kerala were estimated at $4400 million USD (INR 30,764.8 Crores), including a specific requirement of $117 million USD (INR 818.06 Crores) for targeted sectors of education and health. The subsequent fiscal year, 2018–2019, recorded the highest inflow of CSR funds to Kerala during the 2016–2021 period, even surpassing the response seen during the COVID-19 period. A total of $248.53 million USD (INR 1761.58 Crores) in CSR funds was directed toward Kerala in that year. The visual illustration can be seen in Figure 7.

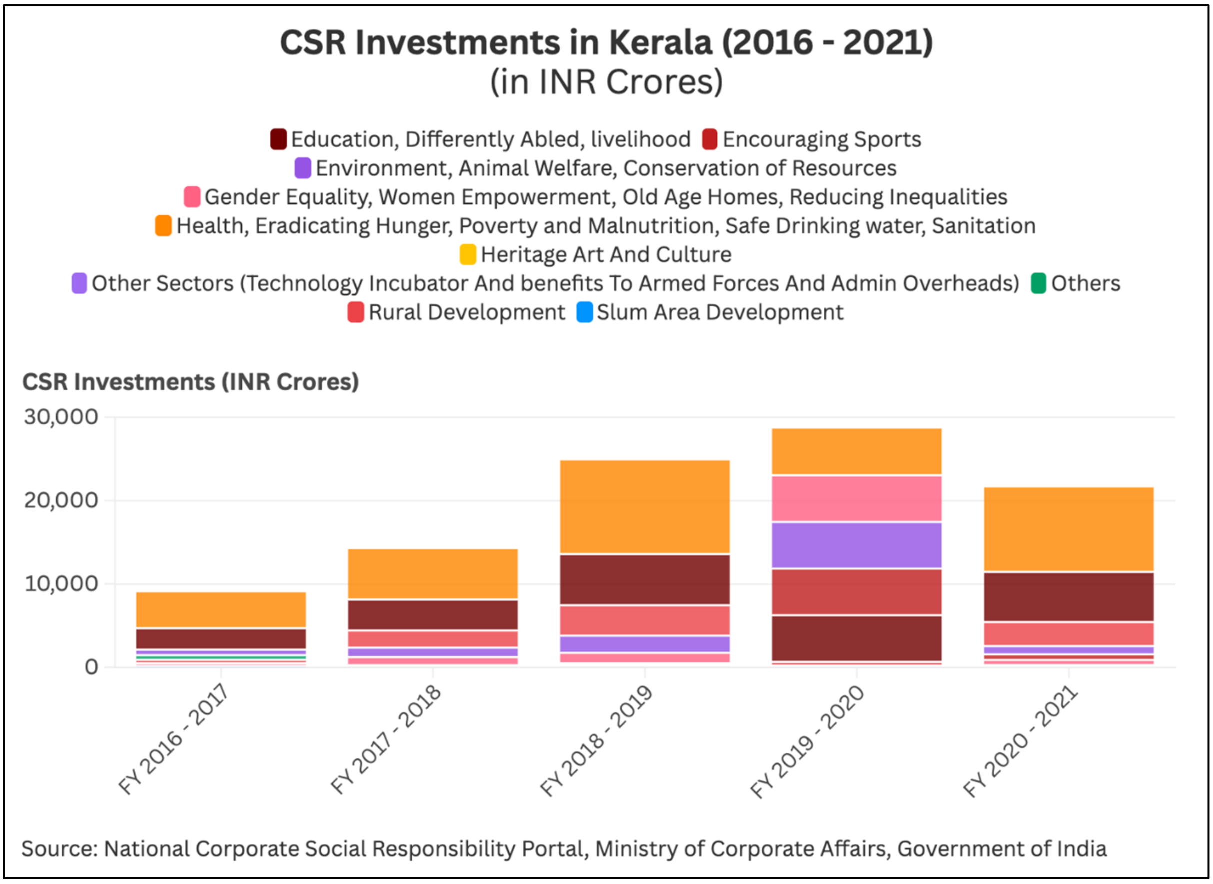

Figure 7. CSR investments in Kerala.

The COVID-19 pandemic, while representing the largest single-event CSR mobilization in India's history, is deemed unsuitable for analyzing the default institutional and behavioural biases (Proximity and Signalling Bias) that govern typical CSR investments. This is primarily because the government, through a series of policy modifications, deliberately altered the incentive structure and reduced the voluntary nature of the spending. Policy modifications explicitly allowed CSR funding to be channelled into pandemic-related activities [38], including preventive health care, sanitation, ex gratia payments, and quarantine facilities, in addition to contributions to the PM CARES Fund and State Disaster Management Authorities. Subsequent tax modifications permitted a 100% tax deduction for pandemic-related donations and allowed for the carry-forward of surplus spending. These incentives substantially mitigated the signalling cost usually associated with non-local or non-traditional CSR projects, effectively overriding the standard proximity bias observed in steady-state investment patterns. The pandemic represented a universal, national crisis that nullified the need for corporate search costs and location bias, forcing engagement across all regions.

While the corporate sector's spending on health-related initiatives and contributions to national funds during the pandemic validated the potential for rapid financial redirection under explicit government direction, the fundamental behavioural patterns that drive everyday CSR decisions were temporarily suspended. The massive 65% drop in total CSR spending in 2020–2021 compared with 2019–2020 [18], despite the pandemic crisis, further highlights the unusual and non-replicable nature of the COVID-19 response. It is also to be noted that these investments in improving the health infrastructure were one off interventions with no plan of sustenance.

Another example is the state of Assam which is well known for its seasonal and annual floods. The 2022 floods in Assam were some of the most devastating that the state has ever seen, with over 5.5 million people affected. Many corporates, through their foundations, launched intensive response and relief activities like the Tata Sustainability Group [39] and the Adani Foundation [40].

The scale of financial mobilization following the Kerala floods (2018) or the Assam floods (2022) validates the potential of mandatory CSR as a rapid, alternative financial supplement for post-disaster recovery efforts. This success confirms that high-visibility, acute disasters generate sufficient institutional pressure (normative and media-driven) to temporarily displace the typical proximity bias, forcing companies to respond strategically to such crises. However, the analysis of this *ex post* deployment must be critically assessed.

The very need for such massive *ex post* mobilization highlights the systemic failure of ex ante Disaster Risk Reduction (DRR) investment, which remains the central problem of this research. Crucially, the subsequent allocation of these recovery funds tended to revert to the established sectoral biases (education and healthcare), even in a post-disaster context. This suggests that corporate response prioritizes easily manageable and high-visibility recovery projects (e.g., rebuilding schools and clinics) rather than complex, long-term systemic recovery needs such as resilient housing or ecological restoration.

3.5. Systemic Impediments to Ex Ante DRR Financing

3.5.1. Impediments stemming from Conceptual Ambiguity

A correlation between the SDG Composite Scores for Indian states (2019–2020) and the Disaster Resilience Index (Figure 1) from the Disaster Score Card [23] generally indicates a positive correlation; stronger development progress correlates with better resilience. This invariably means that when a state pursues the sustainable development pathway, it inherently cultivates resilience. But this 'resilience' is an amalgamation of 7 components [23]—Risk Assessment, Risk Prevention and Mitigation, Risk Governance, Disaster Preparedness, Disaster Response, Disaster Relief and Rehabilitation and Disaster Reconstruction. The first three components accrue to DRR, while the later components, together, accrue to managing disasters or, disaster management.

A more rigorous dissection demonstrates that states which are not good performers on the SDG metrics, usually lack the DRR components like risk assessment or integration of prevention and mitigation measures (e.g., Nagaland). However, if such states exhibit better resilience, then it is driven by the disaster management pillars (e.g., Uttar Pradesh, Assam).

This is primarily indicative of two important things. First, although the avenues demarcated in Schedule VII conceptually embraces the principles of disaster risk reduction, the true essence of it is only limited to managing disasters. This is evidenced by the fact that even latest Annual Reports of leading foundations (e.g., Reliance Foundation) mentions disaster preparedness and management but not disaster risk reduction. The parochial interpretation of the field of disaster management to merely managing disasters is pervasive and is, in some way, proving to be an impeccable impediment in moving towards risk-informed progress from measurable social impact.

The second point is about understanding that there is a scope of building disaster and climate resilience by ensuring that the core principles of DRR like disaster and climate risk assessment, prevention and mitigation through anticipatory actions etc. are integrated into the favoured avenues of investment. The government does not have the financial bandwidth to do all the groundwork for effective and efficient DRR and this is where the engaging corporate houses can take turns. While such a step would supplement and complement government-aided DRR work, giving wider visibility to the corporates, it would also require them to boldly move away from short-term quantified metrics rooted in social impact only.

3.5.2. Governance Gaps in Implementation: The Short-Term Focus

46% of total CSR expenditures funnelled through NGOs, trusts, and societies [18]. While NGOs offer expertise and local presence, they are typically driven by the need to secure continued funding by producing measurable, visible, short-term outcomes. This aligns perfectly with the rising trend of flashing metrics (the Measurability Constraint), creating a self-perpetuating cycle where short-term results are prioritized over the reduction of deep-rooted vulnerabilities. This short-term focus, driven by the trendy skill of over-reporting success through metrics, lacks the long-term foresight essential for building sustainable resilience.

3.5.3. The Engendering Process: Governance as a Resilience Lever

The analysis of board-level governance mechanisms suggests a promising route for overcoming thematic biases. A study [41] revealed that companies with female chairs of their CSR committees demonstrated a substantial 200% increase in spending dedicated to initiatives reducing gender inequality, rising from 14% (FY 2016–2017) to 42% (FY 2018–2019).

This "engendering process" demonstrates that diversity at the board level governance acts as a potent structural lever. Diverse perspectives shift thematic priorities away from traditional, low-risk, tangible projects (health/education) toward complex, transversal social issues like inequality, inequity etc. Given that disasters disproportionately impact different genders, integrating gender budgeting into CSR is not merely a social objective but a necessary strategy for mitigating critical vulnerabilities, thereby strengthening community resilience and equity. This finding highlights that regulatory tweaks focusing on board composition may be more effective in driving thematic change than solely amending the list of eligible activities (Schedule VII).

4. Strategic Tweaks: How to leverage CSR for DRR?

The realization of CSR's full potential as an *ex ante* DRR financing mechanism requires concrete policy interventions that strategically counteract existing impediments in the CSR landscape.

4.1. Reframing Language in Schedule VII & Company-Level Regulatory Enhancements

The explicit inclusion of "disaster management" in Schedule VII must be revised to mandate a differentiated investment strategy, moving beyond a parochial, response-only perspective. This is a complex task and would require legal amendments and is arguably a long-shot.

However, without overburdening the engaging corporates with mandatory impositions, what the corporates can, in turn, do is adopt a tiered allocation system, within their company's CSR framework. This system would require companies to dedicate a minimum, defined percentage of their annual CSR expenditure specifically to **Category A: Proactive DRR Projects** (Risk Assessment, Prevention, Mitigation etc.). The remainder would be available for **Category B: Disaster Management** (Response, Relief, Rehabilitation).

Alternatively, companies can develop guidelines to integrate and mainstream DRR principles into all activities undertaken within the ambit of Schedule VII, as done by the TSG [24]. These refinements might steer the investments routes towards long-term, strategic outcomes, inclusive of elements of DRR, which are currently neglected due to their low visibility and complex measurability.

Adopting a tiered allocation system or following a guideline is within the ambit of decision of the CSR Board of a corporate and hence can be easily undertaken, if the corporate is so interested.

4.2. Leveraging BRSR Reporting for Ex-Ante DRR Disclosure

The National Guidelines on Responsible Business Conduct (NGRBC), a revised and updated version of the National Voluntary Guidelines on the Social, Environmental, and Economic Responsibilities of Business, were introduced by the Ministry of Corporate Affairs in March 2019. Aligned with the SDGs, the NGRBC mandate publicly traded companies to report their adherence to nine principles through the Business Responsibility and Sustainability Report (BRSR). Developed by the Securities and Exchange Board of India (SEBI) in 2021 [42], the BRSR serves as a comprehensive reporting framework that encourages listed companies to disclose their responsible business and sustainability practices. This reporting structure encompasses various components, including environmental, social, and governance (ESG) disclosures, providing investors and stakeholders with valuable insights into a company's sustainability achievements and accountable business practices. By promoting transparency and accountability, the BRSR encourages businesses to engage more deeply with their stakeholders, considering factors beyond financial performance, such as social and environmental impacts.

This shift in focus can foster a more responsible and sustainable business environment, ultimately contributing to the mobilization of CSR investments for Disaster Risk DRM initiatives. However, this is limited to the listed companies only and again, it comes down to the basics—this would require the decision-makers, the project designers & implementers to understand the nuances of integrating DRR into projects.

4.3. Bridging the Investment Gap with Data-Driven Incentives

The visual evidence presented in Figure 6 highlights the significant misalignment between states with high Disaster Risk Indices and the actual level of CSR investment. This investment gap requires data-driven mechanisms to ensure the usage of CSR funds for holistic risk-informed development.

The current CSR landscape incentivizes low-risk, high-visibility and proximal projects (Signalling and Proximity Bias). To structurally redirect CSR funds toward high-risk, vulnerable states and strategic *ex ante* DRR projects, we propose implementing a Risk-Weighted Expenditure Support Programme (RWESP).

RWESP could be designed to establish a new model for Public-Private Partnership (PPP), creating mutual stakeholding by leveraging state financial resources (via the State Disaster Mitigation Fund, SDMF) to co-fund strategically aligned corporate DRR and climate action interventions. This moves beyond compliance to foster collective resilience building, a step ahead of models like UNDRR's ARISE [43].

The National Disaster Management Authority (NDMA) or an equivalent technical body, must establish a dynamic, transparent and publicly accessible State/District Risk Index (SDRI)**,** similar to the one developed in 2018 [23]. This index must disaggregate vulnerability, risk and resilience based on a composite measure of finer parameters like what increases the exposure of the state / district to hazards, what makes it more vulnerable—poverty, lack of infrastructure quality, ecological degradation etc. Based on the SDRI, districts/states will be assigned a Co-Funding Credit, as illustrated in Table 2.

Table 2. Co-Funding Credit based on SDRI Category.

SDRI Category	Example CM	Policy Rationale
High-Risk/Highly Vulnerable	25% of Corporate Investment	Maximum incentive to correct Proximity Bias and address critical vulnerability hotspots.
Medium-Risk	10% of Corporate Investment	To encourage engagement in moderately vulnerable areas and prevent capital flight to low-risk zones.
Low-Risk/Industrialized	0%	Standard CSR compliance, no additional support.

With this context, consider a company intending to spend ₹20 million (INR). If the company intends to invest in a high-risk/highly vulnerable area as per the SDRI and its project is—the company would receive 25% additional co-funding from the State Disaster Mitigation Fund (SDMF), as shown in Table 3.

a. aligned with the state disaster mitigation fund guidelines
b. aligned with the long-term disaster risk reduction and climate action aspirations of the state / district disaster management authority

Table 3. Scenario based depiction of RWESP.

Investment Scenario	Spending Location (SDRI)	Strategic Alignment	Corporate Spend (in INR)	SDMF Co-funding (in INR)	Total Project Value (in INR)
Scenario A (Status Quo)	Low-Risk	Basic Education	₹10 million	₹0	₹10 million
Scenario B (RWESP Alignment)	High-Risk (e.g., Coastal Odisha)	Aligned with SDMF/DDMA (e.g., Early Warning Systems)	₹10 million	₹2.5 million	₹12.5 million

In Scenario B, the company spends the same ₹10 million (which counts fully towards their statutory obligation), but the project's total impact and financial value are boosted by 25% through the government partnership. This co-funding, however, would be made available only if the project is a long-term intervention such that year-on-year impact based assessments can be made.

This Risk-Weighted Expenditure Support Programme transforms the compliance calculus into a public-private investment mechanism. It provides companies with a dual benefit—full CSR credit plus the enhanced visibility and impact of delivering a large, strategically validated project in partnership with the state, becoming key drivers of resilience building in critical areas.

While such programmes could ensure that CSR capital flows strategically to where it is most needed for resilience building, the associated legal amendments and cross-ministerial / departmental negotiations can encounter bureaucratic bottlenecks, making practical implementation improbable and hence the tiered allocation system proposed in Section 5.1 is more feasible. It is important to remember that the bottom-line of adopting such a system is to move towards an objective, data-driven approach of project selection and design that can overcome the non-strategic, internalized biases of corporate decision-makers.

5. Conclusions and Recommendations

The mandatory CSR framework in India has unequivocally established its role as a critical alternative source of finance in DRM, proving highly effective in large-scale ex post disaster response and recovery mobilization. However, the analytical findings confirm that there are intrinsic structural biases, which perpetuate a critical underinvestment in proactive, long-term ex ante DRR. To realize CSR's potential as a truly strategic mechanism for risk-informed sustainable development, the study recommends (Figure 8):

1. Mandating Strategic Capacity Building: To overcome the pervasive gap in proactive investment, wide-scale capacity building is imperative for both corporate decision-makers and legislative authorities. This effort must shift the focus to how core DRR principles can be structurally integrated into CSR projects within the ambit of the areas mentioned in Schedule VII projects. This would essentially mean the capacity building institutes like the National Institute of Disaster Management (NIDM) and other state level institutes pick up this much needed task.
2. Embracing Data-Driven Investment: The observed misalignment between risk profiles of states and CSR funding flow demands a strict shift toward data-driven investment strategies. By rigorously utilizing objective data, the government can strategically close the chronic investment gap, if a system like the risk-weighted expenditure credit system is used, or, individually companies can adopt similar strategies internally. Such targeted capital channelling will complement and supplement core national and state-level DRR efforts, conferring tangible benefits and accountability to engaged corporations.

3. Shifting Accountability from Metrics to Impact: The current prioritization of easily quantifiable, short-term metrics inadvertently underserves the critical need for long-term structural change, often minimizing the importance of sustained societal intervention. Corporate entities must transition their focus away from demonstrating short-term "numbers" toward articulating the narrative of long-term social impact, the quantifiable and qualitative changes resulting from sustained resilience-building efforts. This philosophical shift moves beyond fleeting achievements toward verifiable, enduring societal transformation.
4. Leveraging the Ongoing 'Engendering' Process: The proven efficacy of the engendering process within corporate governance, where board diversity drives thematic expansion toward complex issues like inequality & inequity, must be leveraged explicitly for DRR. Decision-makers should actively encourage diversity to mandate the integration of gender-sensitive and inclusive DRR principles. Innovative project models, such as the provision of parametric insurance mechanisms for working women, exemplify how robust board-level governance can translate into targeted, resilient social safety nets that directly address gender-based vulnerabilities exposed during extreme events.
5. Revising the Reporting Ecosystem: To support a commitment to long-term impact, the CSR reporting mechanism should be critically adjusted. Reporting requirements should mandate the disclosure of verifiable impact observed over time and require longitudinal analysis, rather than relying on instantaneous, metric-based goals which can lead to unintended consequences and "tick-box" compliance. This alignment, particularly through the Business Responsibility and Sustainability Report (BRSR), is crucial for incentivizing sustained corporate engagement and institutional accountability for systemic resilience.

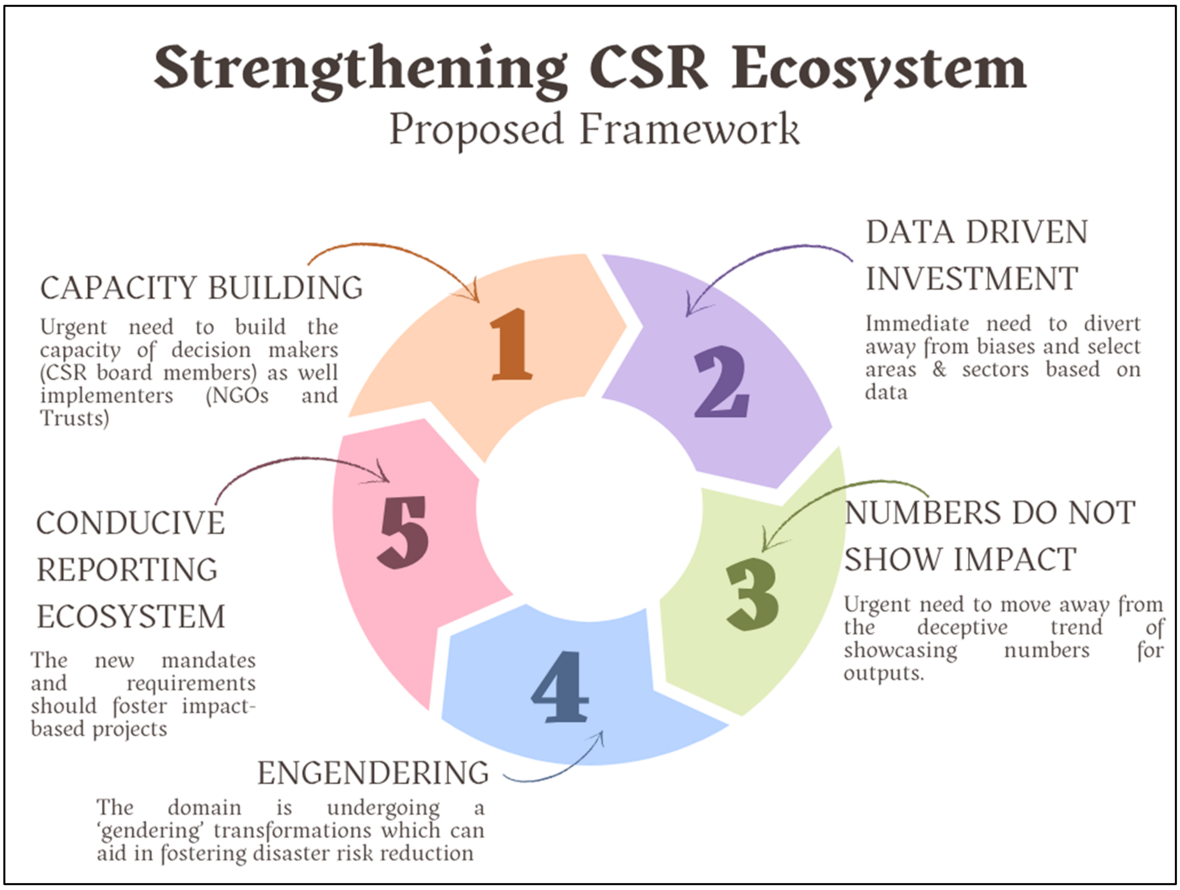

Figure 8. A framework to strengthen the CSR Ecosystem.

By implementing these recommendations, there is a chance that India can fully leverage its unique, pioneering mandate, transforming corporate social responsibility from a merely reactive source of post-disaster finance into a powerful, sustainable and strategic global model for long-term disaster risk reduction.

6. Limitations and Way Forward

This body of work is characterized by several inherent limitations that shape its findings and scope. Primarily, the study relies on a Disaster Resilience Index calculated in 2018 [23], which may not fully capture the rapid shifts in state-level resilience or more recent disaster data. Furthermore, the authors deliberately exclude the COVID-19 pandemic from their behavioural analysis, noting that government-driven policy shifts temporarily suspended the standard institutional and behavioural biases, such as proximity and signaling bias, that typically govern corporate CSR spending. The study also highlights a significant measurability constraint, acknowledging that current reporting frameworks struggle to quantify the non-linear, long-term impacts of proactive DRR compared to the easily counted metrics of education and healthcare. Additionally, the focus on the Business Responsibility and Sustainability Report (BRSR) limits the analysis of advanced reporting to listed companies, potentially overlooking the unique challenges and contributions of unlisted firms.

Despite these limitations, this work builds significant traction for continuing this research by providing a robust theoretical and empirical foundation for a way forward. By integrating Institutional Theory and Signaling Bias, the study moves beyond describing the funding gap to explaining why it exists, creating a platform for more targeted behavioural interventions. The proposed Risk-Weighted Expenditure Support Programme (RWESP) serves as a novel public-private partnership model that incentivizes investment in high-risk zones through data-driven co-funding. Furthermore, the study identifies board-level diversity as a powerful structural lever, suggesting that future research could explore how corporate governance can overcome thematic biases to prioritize complex issues like climate resilience. Ultimately, these strategic recommendations shift the discourse from mere compliance to strategic, risk-informed investment, providing a clear roadmap for transforming India's CSR mandate into a sustainable instrument for national resilience.

Author Contributions

R.K. conceived the idea and developed it. T.G. assisted in data mining and analysis. Both authors have read and agreed to the published version of the manuscript.

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This study utilized publicly available data and therefore did not require ethical review or consent.

Informed Consent Statement

Not applicable.

Data Availability Statement

All the data used and analysed in this study are publicly available. Specific links to datasets would be provided on request.

Conflict of Interest

The authors have no relevant financial or non-financial interests to disclose. The authors have no conflicts of interest to declare that are relevant to the content of this article. Both authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. The authors have no financial or proprietary interests in any material discussed in this article.

Use of AI and AI-Assisted Technologies

No AI tools were utilized for this paper.

References

1. Timilsina, G.R. Financing Climate Change Adaptation: International Initiatives. *Sustainability* **2021**, *13*, 6515. https://doi.org/10.3390/su13126515

2. Hong, H.; Karolyi, G.A.; Scheinkman, J.A. Climate Finance. *Rev. Financ. Stud.* **2020**, *13*, 1011–1023. https://doi.org/10.1093/rfs/hhz146.
3. Guan, P.; Zhang, J.; Payyappalli, V.; et al. Modeling and Validating Public-Private Partnerships in Disaster *Management. Decis. Anal.* **2018**, *15*, 55–71. https://doi.org/10.1287/deca.2017.0361.
4. Perazzini, S.; Gnecco, G.; Pammolli, F. A Public–Private Insurance Model for Disaster Risk Management: An Application to Italy. *Ital. Econ. J.* **2022**, *10*, 225–267. https://doi.org/10.1007/s40797-022-00210-6.
5. Schneider, R. Extreme events require new forms of financial collaboration to become more resilient. *Environ. Syst. Decis.* **2023**, *43*, 544–554. https://doi.org/10.1007/s10669-023-09944-9.
6. Linnerooth-Bayer, J.; Hochrainer-Stigler, S. Financial instruments for disaster risk management and climate change adaptation. *Clim. Change* **2015**, *133*, 85–100. https://doi.org/10.1007/s10584-013-1035-6.
7. Baltas, K.; Fiordelisi, F.; Mare, D. Alternative Finance after Natural Disasters. *Br. J. Manag.* **2021**, *33*, 117–137. https://doi.org/10.1111/1467-8551.12516.
8. Villalba-Romero, F.; Liyanage, C. Using financial instruments and PPP schemes for building resilience to natural disasters. *Strength. Disaster Risk Gov. Manag. Disaster Risk* **2021**, 47–57. https://doi.org/10.1016/b978-0-12-818750-0.00005-2.
9. Ministry of Corporate Affairs, Government of India. 2013. The Companies Act. Available online: https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/acts.html?act=NTk2MQ== (accessed on 10 January 2026).
10. Nagwan, S. Evolution of Corporate Social Responsibility in India. *IJLTEMAS* **2014**, *III*, 164–167.
11. Kanji, R.; Agrawal, R. Models of Corporate Social Responsibility: Comparison, Evolution and Convergence. *IIM Kozhikode Soc. Manag. Rev.* **2016**, *5*, 141–155. https://doi.org/10.1177/2277975216634478
12. Ministry of Corporate Affairs, Government of India. 30 May 2019. Available online: https://www.mca.gov.in/bin/ebook/dms/getdocument?doc=NzY2NA==&docCategory=NotificationandCirculars&type=open (accessed on 10 January 2026).
13. Mishra, L. Corporate social responsibility and sustainable development goals: A study of Indian companies. *J. Public Aff.* **2020**, *21*, e2147. https://doi.org/10.1002/pa.2147.
14. Poddar, A.; Narula, S.; Zutshi, A. A study of corporate social responsibility practices of the topBombay Stock Exchange500 companies in India and their alignment with theSustainable Development Goals. *Corp. Soc. Responsib. Environ. Manag.* **2019**, *26*, 1184–1205. https://doi.org/10.1002/csr.1741.
15. Nair, R.; Viswanathan, P.; Bastian, B. Reprioritising Sustainable Development Goals in the Post-COVID-19 Global Context: Will a Mandatory Corporate Social Responsibility Regime Help? *Adm. Sci.* **2021**, *11*, 150. https://doi.org/10.3390/admsci11040150.
16. Kanji, R.; Agrawal, R. Exploring the use of corporate social responsibility in building disaster resilience through sustainable development in India: An interpretive structural modelling approach. *Prog. Disaster Sci.* **2020**, *6*, 100089. https://doi.org/10.1016/j.pdisas.2020.100089.
17. Kanji, R.; Agrawal, R. Building a society conducive to the use of corporate social responsibility as a tool to develop disaster resilience with sustainable development as the goal: an interpretive structural modelling approach in the Indian context. *Asian J. Sustain. Soc. Responsib.* **2019**, *4*, 1–25. https://doi.org/10.1186/s41180-019-0025-7.
18. Manchanda, S.; Rahut, D.; Sonobe, T. *Exploring the Interlinkages Between Corporate Social Responsibility and the Sustainable Development Goals: A Case Study of India*; Asian Development Bank Institute: Tokyo, Japan, 2024. https://doi.org/10.56506/GOHL1975
19. Peters, K.; Peters, L. Terra incognita: The contribution of disaster risk reduction in unpacking the sustainability–peace nexus. *Sustain. Sci.* **2021**, *16*, 1173–1184. https://doi.org/10.1007/s11625-021-00944-9.
20. Maini, R.; Clarke, L.; Blanchard, K.; Murray, V. The Sendai framework for disaster risk reduction and its indicators-where does health fit in? *Int. J. Disaster Risk Sci.* **2017**, *8*, 150–155.
21. Schober, P.; Boer, C.; Schwarte, L.A. Correlation coefficients: Appropriate use and interpretation. *Anesth. Analg.* **2018**, *126*, 1763–1768.
22. NITI Aayog. SDG India Index & Dashboard 2019–2020. Available online: https://niti.gov.in/sites/default/files/2020-07/SDG-India-Index-2.0.pdf (accessed on 4 January 2026).
23. National Disaster Management Authority, Government of India. *Disaster Score Card for States and Union Territories of India*; National Disaster Management Authority, Government of India: New Delhi, India, 2018; Volume 1.
24. Tata Sustainability Group. 2023. Mainstreaming Disaster Risk Reduction in Corporate Social Responsibility. Available online: https://www.tatasustainability.com/pdfs/Resources/Mainstreaming_Disaster_Risk_Reduction_in_CSR.pdf (accessed on 10 January 2026).
25. Aggarwal, V.; Jha, A. Pressures of CSR in India: An institutional perspective. *J. Strategy Manag.* **2019**, *12*, 227–242. https://doi.org/10.1108/jsma-10-2018-0110.

26. Manogna, R.L.; Mishra, A. Does institutional ownership and internationalization affect corporate social responsibility in emerging economy firms? An empirical evidence from India. *J. Asia Bus. Stud.* **2020**, *15*, 345–358. https://doi.org/10.1108/jabs-12-2019-0361.
27. Nair, A.; Bhattacharyya, S. Mandatory corporate social responsibility in India and its effect on corporate financial performance: Perspectives from institutional theory and resource-based view. *Bus. Strategy Dev.* **2019**, *2*, 106–116. https://doi.org/10.1002/bsd2.46.
28. Ramakrishna, K.; Eunice, B. The Landscape of CSR in India: Challenges and Prospects Ahead. *Int. J. Multidiscip. Res.* **2024**, *6*, 1–8. https://doi.org/10.36948/ijfmr.2024.v06i04.25535.
29. Subramaniam, N.; Kansal, M.; Babu, S. Governance of Mandated Corporate Social Responsibility: Evidence from Indian Government-owned Firms. *J. Bus. Ethics Springer* **2017**, *143*, 543–563.
30. Sood, A; Arora, B. *The Political Economy of Corporate Responsibility in India*; Technology, Business and Society Programme; United Nationsl Research Institute for Social Development: Geneva, Switzerland, 2006.
31. Prasad, A.; Holzinger, I. Seeing corporate social responsibility (CSR) through a postcolonial lens. *J. Bus. Ethics* **2013**, *117*, 191–205.
32. Dharmapala, D.; Khanna, V. The impact of mandated corporate social responsibility: Evidence from India's Companies Act of 2013. *Int. Rev. Law Econ.* **2018**, *56*, 92–104.
33. Chatterjee, B.; Kanade, R. *Corporate Social Responsibility in India: A Review of Emerging Trends*; Springer: New Delhi, India, 2023.
34. Pareek, V.; Sharma, R.; Sen, A.; et al. 2020. What Drives Location Preference for Corporate Social Responsibility (CSR) Investments in India? In Proceedings of the 3rd ACM SIGCAS Conference on Computing and Sustainable Societies, Guayaquil, Ecuador, 15–17 June 2020. https://doi.org/10.1145/3378393.3402263.
35. Prasad, A. *Corporate Social Responsibility in India: A Review of Emerging Trends*; Oxford University Press: New Delhi, India, 2014.
36. Bhattacharya, C.B.; Sen, S.; Korschun, D. Using corporate social responsibility to win the war for talent. *MIT Sloan Manag. Rev.* **2008**, *49*, 37–44.
37. Crisil Foundation. 2024. Uneven States: For More Effective Altruism, Need Much Better Distribution. Available online: https://www.crisil.com/content/dam/crisilcom2-0/our-analysis/reports/corporate/2025/01/uneven-states.pdf (accessed on 5 December 2025).
38. Sundar, P. Covid Has Pushed CSR Deeper into Corporate Consciousness. The Hindu Business Line. 2020. Available online: https://www.thehindu businessline.com/opinion/indias-csr-a-work-in-progress/article 32561479.ece (accessed on 10 January 2026).
39. Tata Sustainability Group. Flooded with Relief. 2022. Available online: https://www.tata.com/newsroom/community/assam-flood-relief-response (accessed on 5 December 2025).
40. CSRBOX. Adani Foundation Supports Flood-Hit Communities in Assam. 2022. Available online: https://csrbox.org/Impact/description/India_CSR_news_Adani-Foundation-supports-flood-hit-communities-in-Assam_1914 (accessed on 5 December 2025).
41. KPMG India. India's CSR Reporting Survey 2019. 2020. Available online: https://assets.kpmg.com/content/dam/kpmg/in/pdf/2020/02/india-s-csr-reporting-survey-2019.pdf (accessed on 31 October 2025).
42. Securities and Exchange Board of India (SEBI). Business Responsibility and Sustainability Reporting by Listed Entities. 2021. Available online: https://www.sebi.gov.in/legal/circulars/may-2021/ business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html (access on 10 January 2026).
43. ARISE. 2015. Available online: https://www.ariseglobalnetwork.org/ (accessed on 5 December 2025).