CLIMATE RISK DISCLOSURES AND CORPORATE GOVERNANCE: NAVIGATING THE REGULATORY PARADIGMS IN POST GFC-INDIA

*Poorvag Desai**

Since the global financial crisis ('GFC') of 2007-08, the world has witnessed a strike increase in public demands related to climate risks and its management practices from companies. Eventually, through the compliance processes and pressures from various regulatory bodies and investors, companies have started integrating climate change into the aspects of their governance model, while putting out climate risk-related disclosures ('CRRD'). This paper focuses on this particular integration process, with a spotlight on India's economic and financial setting. Along with it, it recognises the link between environmental sustainability, company operations, and regulatory frameworks. This paper juggles between Indian and global landscapes, their progress, challenges, opportunities, and strategies in integrating disclosure frameworks in corporate facades, drawing ideas from the aftermath of the GFC. The integration process is examined via the lens of regulatory bodies, namely the Securities and Exchange Board of India ('SEBI') and the Reserve Bank of India ('RBI'). The research highlights the importance of standardised frameworks like the Task Force on Climate-related Financial Disclosures ('TCFD'), its awareness, and coordinated efforts to achieve resilience in the face of climate-related uncertainties.

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* Student, GLS Law College.

I. INTRODUCTION

Climate risk is financial risk. This is considered true when it is seen how climate and its adverse effects intertwine with various businesses and their internal governance system.[1] The world has witnessed a historic movement in consciousness towards environmental sustainability for more than the past two decades, and India is no exception.[2] Climate change, as seen through rising temperatures, irregular weather patterns, and environmental degradation, has uncovered a range of problems for businesses.

Recognising the link between business operations and the environment, including climate risk disclosures in corporate governance has been a key area,

[1] Stefano Battiston, Yannis Dafermos, and Irene Monasterolo, 'Climate risks and financial stability', (2021) 54(100867) Journal of Financial Stability <https://doi.org/10.1016/ j.jfs.2021.100867> accessed 12 December 2023.

[2] Aparna Madhu, 'Environment Consciousness and Growth of Renewable Energy in India', (2022) 4(1) Indian Journal of Law and Legal Research <https:// heinonline.org/HOL/ Landing LandingPage?handle=hein.journals/injlolw4&div=137&id=&page> accessed 5 December 2023.

particularly in the Indian setting.[3] India, an economy that is rapidly developing with a thriving industrial sector, is confronted with new environmental issues. The impact of climate change is evident, from the industrial centre to the agricultural landscapes, forcing an acute shift in how enterprises function. As the Indian government strengthens its commitment to sustainable development, firms are increasingly being inspected not only for their profit lines but also for their environmental commitments.[4]

II. UNDERSTATING CLIMATE RISK DISCLOSURES

The financial crisis of 2007-08 or the global financial crisis ('GFC') resulted in an increased demand for companies to be more transparent about their governance structures, strategy, and risk management methods in order to provide the context for their financial performance.[5] Various participants of financial markets such as investors, regulators and the general public raised concerns and started demanding decision-useful, climate-related information from companies.[6] Additionally, leading global organisations such as Climate Action 100+ and the Institutional Investors Group on Climate Change ('IIGCC') brought together investors and spread awareness to call upon companies to take action against climate change and expand their disclosures on climate-related information.[7] The demands for these information disclosures were certainly justified as these were useful not only for the country's interest but also for protecting the interests of investors, as it enables them to access consistent and comparable data which is needed to assess the performance of their portfolios and make investment decisions.

Climate risk-related disclosures ('CRRD') are considered extremely crucial, whether be it for investors' interest, state's interest, public interest, etc.

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[3] Irina Ivashkovskaya, Musa Uba Adamu, 'Corporate Governance and Risk Disclosure in Emerging Countries' (2021) 15(4) JCFR <https://doi.org/10.17323/j.jcfr.2073-0438.15.4.2021.5-17> accessed 27 November 2023.

[4] MoEFCC, Government of India, 'India's Long-Term Low-Carbon Development Strategy', (*UNFCCC, 2022*) <https://unfccc.int/sites/default/files/resource/India_LTLEDS.pdf> accessed 21 December 2023.

[5] Dick K. Nanto, 'The Global Financial Crisis: Analysis and Policy Implications' (*Congressional Research Service*, 2009) < https://sgp.fas.org/crs/misc/RL34742.pdf>.

[6]Avery Fellow, 'Investors Demand Climate Risk Disclosure' (*Bloomberg*, February 2013) <www.bloomberg.com/news/2013-02-25/investors-demand-climate-risk-disclosure-in-2013-proxies.html > accessed 20 November 2023.

[7] Dr. Michela Coppola, Dr. Julian Blohmke, 'Feeling the heat?' (*Deloitte Insights,* 12 December 2019) <https://www2.deloitte.com/us/en/insights/topics/strategy/impact-and-opportunities-of-climate-change-on-business.html> accessed 23 December 2023.

because they provide a thorough examination of the different environmental concerns that organisations face as a result of climate change. This includes identifying, assessing, and communicating risks linked with climate-related elements that affect a company's operations, financial performance, and sustainability activities thus indicating the importance and usefulness of these disclosures.

Furthermore, in a survey conducted by the Task Force on Climate-related Financial Disclosures ('TCFD'), 77% of the users when asked, whether disclosure of recommended information by organisations would be useful for them or not, responded to it to be 'useful'.[8] The particular impact of climate change on a company's future also invites a vast number of financial risks. For example, a 2019 survey[9] of 215 of the world's 500 largest companies, found nearly $1 trillion in reported financial risk from climate change.

The purpose of climate risk disclosures also involves negotiating the unique legal constraints and regional environmental vulnerabilities that impact how enterprises handle and report their climate-related risks. The disclosures aligning with financial risks entail identifying several types of climate risks, such as physical risks[10] (extreme weather), transition risks[11] (policy changes, technology shift), and liability risks[12] (possible legal and financial consequences). Various countries around the world have taken measures to address the issue of climate risk disclosures. Till, to this date, the following countries have already mandated or are about to mandate climate disclosures:

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[8] 'Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures' (*TCFD,* June 2017) <https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf> accessed 23 November 2023.

[9] 'World's biggest companies face $1 trillion in climate change risks' (*CDP*, 4 June 2019) <https://www.cdp.net/en/articles/media/worlds-biggest-companies-face-1-trillion-in-climate-change-risks> accessed 23 December 2023.

[10] ibid., 6 (Physical Risks).

[11] ibid., 5 (Transition Risks).

[12] 'Climate change's forgotten risks' (*Zurich,* 2 March 2021) <https://www.zurich.com/en/knowledge/topics/global-risks/climate-change-forgotten-risks>accessed 24 December 2023.

the US,[13] Belgium,[14] Canada,[15] Chile,[16] France,[17] Japan,[18] New Zealand,[19] Sweden,[20] United Kingdom,[21] Hong Kong,[22] Switzerland,[23] and Malaysia.[24] This necessitates India to take quick steps to mandate climate risk disclosures making itself parallel with other countries.

A. Importance of Transparency

The necessity of transparency in climate risk disclosures cannot be overstated. Transparent reporting is the foundation for building stakeholder trust and fostering investor confidence. A high level of CRRD also increases the credibility of applied accounting policies, plus reported earnings, reputation, and

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[13] 'SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors' (*U.S. Securities and Exchange Commission*, 21 March 2022) <https://www.sec.gov/news/press-release/2022-46> accessed 24 December 2023.

[14] Koen De Loose, 'Climate disclosure at banks – Risks are clear, but what are the opportunities?' (*KPMG*, August 2021) <https://shorturl.at/atJQ4> accessed 24 December 2023.

[15] Blair W. Keefe, and Tyson Dyck, 'Canada: OSFI Releases Draft Climate Risk Management Guidelines' (*Mondaq*, 10 June 2022) < https://shorturl.at/hDHNY> accessed 24 December 2023.

[16] 'Climate Risk Profile: Chile' (*The World Bank Group,* 2021) < https://rb.gy/7m1hmo> accessed 24 December 2023.

[17] 'A Brief Introduction to Climate Disclosure in France' (*CDP*) <https://shorturl.at/dnJY4> accessed 24 December 2023.

[18] 'Climate disclosures to become mandatory in Japan from April 2022' (*Fintech Global*, 12 October 2021) <https://shorturl.at/dDK15> accessed 24 December 2024.

[19]'Mandatory climate-related disclosures' (*Ministry for the Environment*, 18 January 2023) <https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/mandatory-climate-related-financial-disclosures/> accessed 24 December 2024.

[20] 'Sweden: Financial Sector Assessment Program–Technical Note on Supervision and Disclosure of Climate-Related Risks' (*International Monetary Fund*, 5 April 2023) <https://www.imf.org/en/Publications/CR/Issues/2023/04/05/Sweden-Financial-Sector-Assessment-ProgramTechnical-Note-on-Supervision-and-Disclosure-of-531875> accessed 24 December 2023.

[21] Gareth Rees, and Matthew Dunlap, 'A Step Down the Road: Mandatory TCFD-Aligned Disclosures' (*Morrison Forester, 27 January 2023)* <https://www.mofo.com/resources/insights/220127-mandatory-tcfd-aligned-disclosures> accessed 24 December 2023.

[22] Alun John, 'Hong Kong sets new climate disclosure rules, aligns with global standard' (*Reuters*, 17 December 2020) <https://www.reuters.com/business/sustainable-business/swiss-join-france-others-laying-out-climate-disclosure-timeline-2021-08-18/> accessed 24 December 2023.

[23] Brenna Hughes Neghaiwi, 'Swiss join France, others in laying out climate disclosure timeline' (*Reuters*, 18 April, 2021) < https://www.reuters.com/business/sustainable-business/swiss-join-france-others-laying-out-climate-disclosure-timeline-2021-08-18/> accessed 24 December 2023.

[24] 'Malaysia Issues TCFD Adoption Guide for Financial Institutions' (*ESG Investor*, 1 July 2022) <https://www.esginvestor.net/malaysia-issues-tcfd-adoption-guide-for-financial-institutions/> accessed 24 December 2023.

stockholder loyalty.[25] Transparent disclosures enable the stakeholders such as investors, regulators, and the general public to have a complete understanding of a company's true environmental effect. According to legitimacy, stakeholder, signalling, and agency theories, firms should report sufficient climate-related information that could meet stakeholders' needs in making their decisions and enhance the firm legitimacy.[26] [27] [28]

B. REGULATORY LANDSCAPE IN INDIA

In the Indian regulatory landscape, the integration of climate risk disclosures into corporate governance is witnessing a transformative phase. Regulatory bodies such as the Securities and Exchange Board of India ('SEBI') and the Reserve Bank of India ('RBI') have been at the forefront, introducing guidelines that mandate businesses, especially registered entities ('REs'), to disclose their environmental, social, and governance ('ESG') practices.[29] The Companies Act, 2013 (or 'The Companies Act')[30] further reinforces this commitment by mandating certain disclosures related to environmental responsibilities. For example, §134(3)(m) of The Companies Act[31] mandates companies to include a report by their Board of Directors on the conservation of energy, along with the annual financial statement. Additionally, India's National Action Plan on

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[25] Mohamed Samy El-Deeb, Tariq H. Ismail and Alia Adel El Banna, 'Does audit quality moderate the impact of environmental, social and governance disclosure on firm value? Further evidence from Egypt', (2023) 5(4) Journal of Humanities and Applied Social Sciences 293 <https://doi.org/10.1108/JHASS-11-2022-0155> accessed 3 December 2023.

[26] Graziana Galeone, Grazia Onorato, Matilda Shini and Vittorio Dell'Atti, 'Climate-related financial disclosure in integrated reporting: what is the impact on the business model? The case of Poste Italiane', (2023) 36(1) Accounting Research Journal 21 <https://doi.org/10.1108/ARJ-04-2022-0107> accessed 5 December 2023.

[27] Janet Luft Mobus, 'Mandatory environmental disclosures in a legitimacy theory context', (2005) 18(4) Accounting, Auditing & Accountability Journal 492 <https://doi.org/10.1108/09513570510609333> accessed 5 December 2023.

[28] Panayis Pitrakkos and Warren Maroun, 'Evaluating the quality of carbon disclosures, (2020) 11(3) Sustainability Accounting, Management and Policy Journal 553 <https://doi.org/10.1108/SAMPJ-03-2018-0081> accessed 5 December 2023.

[29] 'Business Responsibility and Sustainability Reporting Format' (*Securities and Exchange Board of India*, May 2021)< https://www.sebi.gov.in/sebi_data/commondocs/may-2021/Business%20responsibility%20and%20sustainability%20reporting%20by%20listed%20entitiesAnnexure1_p.PDF>accessed 3 December 2023.

[30] The Companies Act, 2013 (India).

[31] ibid., §134(3)(m).

Climate Change ('NAPCC') lays the groundwork for businesses to align their plans with national climate goals.[32]

C. Integration with Corporate Governance

Board oversight and accountability in the field of corporate governance plays a pivotal role in directing businesses towards different sustainable practices.[33] Along with the company's development, the actions should also align with the national and international sustainability goals. One of the examples of those actions is overseeing the development and implementation of robust climate strategies. Furthermore, effective board oversight includes regular monitoring,[34] planning,[35] and, when needed, the adjustment of policies[36] to recognise new climate risks.

D. Role of Stakeholders/Investors

Intertwining stakeholders/investors with corporate strategy can be highly advantageous for businesses. According to a WTW survey,[37] investors/lenders play the biggest role in the intention behind the companies to disclose climate-related risks. Engaging stakeholders/investors becomes essential to intersect environmental responsibility and corporate governance. This association enhances the credibility of CRRDs, and at the same time benefits the companies as there exists multiple perspectives in strategic decision-making.

Following the initiatives triggered by the GFC in the matter of essential information disclosures by companies, various global organisations have put forth certain frameworks. Maintaining consonance with it, companies can disclose their ventures and preventive measures to address the issue of climate change and fulfil the expectations of stakeholders and the general public. The

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[32] 'National Action Plan on Climate Change' (*PMO Archives*, 30 June 2008) <https://archivepmo.nic.in/drmanmohansingh/climate_change_english.pdf> accessed 5 December 2023.

[33] Richard Samans, and Jane Nelson, 'Corporate Governance and Oversight. In: Sustainable Enterprise Value Creation' (*Palgrave Macmillan Cham,* 2022) < https://doi.org/10.1007/978-3-030-93560-3_4).

[34] ibid., 115, para 3.

[35] ibid., 115, para 2.

[36] ibid., 115, para 1.

[37] 'Lack of climate risk expertise and data seen as main obstacles for climate-related financial disclosure in India' (*WTW*, 6 December 2022) <https://www.wtwco.com/en-in/news/2022/12/lack-of-climate-risk-expertise-and-data-seen-as-main-obstacles-for-climate-related-financial> accessed 1 December 2023.

Climate Disclosure Project ('CDP'),[38] the Global Reporting Initiative ('GRI'),[39] and the TCFD[40] have gained massive awareness globally. It serves as a guidance for firms to comprehend the importance of disclosing their climate impact. The TCFD committee has mentioned that CRRD is crucial for financial markets since stakeholders and different users would understand how climate-related opportunities could affect the firm's future economic performance, as seen in its annual reports.[41]

III. TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES FRAMEWORK

The TCFD is a global organisation formed by the Financial Stability Board ('FSB')[42] to develop a set of recommended climate-related disclosures[43] that companies and institutions can use to more accurately inform investors, shareholders, and the public of their climate-related financial risks and consequences. In 2017, TCFD put forth 11 disclosure recommendations[44] that a company can voluntarily implement as soon as it recognises the risk and opportunities of climate change for its business. These recommendations revolve around the idea that climate change is a market externality and that the disclosure of climate risks by businesses can restore market discipline.[45]

The TCFD Final Report's guidelines offer an exhaustive framework for disclosing climate risk information in all significant aspects of business operations:

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38 'Climate Disclosure Projects: Climate Change' (*CDP*, 2000) <https://www.cdp.net/en/climate> accessed 24 December 2023.

39 'Global Reporting Initiative: Sustainable Reporting Guidelines' (*GRI*, 2002) <https://www.r3-0.org/wp-content/uploads/2020/03/GRIguidelines.pdf> accessed 24 December 2023.

40 'Final report: Recommendations of the task force on climate-related financial disclosures' (*TCFD*, June 2017) <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf> accessed 23 November 2023.

41 'Climate-related financial disclosures in mainstream entity reporting: good practices and key challenges' (*United Nations Conference on Trade and Development,* 2021) <https://unctad.org/system/files/official-document/ciiisard98_en.pdf> accessed 24 December 2023.

42 TCFD Final Report (n 40) 3, para 3.

43 TCFD Final Report (n 40).

44 ibid 14.

45 Chenet, H., Ryan-Collins, J. & van Lerven, F., 'Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy' (2021) 183 106957 Ecological Economics <https://doi.org/10.1016/j.ecolecon.2021.106957> accessed 3 December 2023.

- Starting with Governance,[46] businesses are urged to disclose the significance of top-level commitment by disclosing the oversight of climate-related risks and opportunities by their boards and management.

- Additionally, the aspect of Strategy[47] has been covered. Disclosures should explain how business strategies and financial planning are impacted by climate-related risks and opportunities, taking into account various climatic scenarios to ensure resilience.

- Risk Management[48] disclosures should stress the importance of proactive risk mitigation by outlining procedures for identifying, assessing, and integrating climate-related risks into overall risk management frameworks.

- Lastly, Metrics and Targets[49] disclosures should outline goals established to manage climate risks and opportunities, as well as performance against these goals, and provide pertinent climate-related data, such as greenhouse gas emissions.

The framework put forth by TCFD has been adopted by various countries and their governance model which has played a crucial role in assessing climate-related risks and disclosure strategies. This particular approach propagates openness and well-informed decision-making, which in turn, will allow the stakeholders to study a company's preparedness in handling climate-related challenges. Post the TCFD recommendations, it is crucial to understand the efforts undertaken by India in implementing a rather uniform disclosure framework in alignment with global standards such as the one outlined in this section.

IV. DEVELOPMENTS AND THE IMPACT OF NUMBERS IN INDIA

Development of CRRD in India is crucial to understand the state in which the country is in right now and the future steps and measures that are supposed to be taken for the efficient prevention of climate-related financial risks. Till now, there is no strict mandatory disclosure implementation for every single entity in India (except the top 1000 listed companies and regulated financial entities) but

[46] TCFD Final Report (n 40) 19, para 2.
[47] ibid 20, para 1.
[48] Ibid 21.
[49] Ibid 22.

as a general, it is something that is recommended as a voluntary action for the interest of various financial participants and national interest by providing a uniform disclosure framework. The state in which the country is right now is a result of a series of various guidelines, reports, papers, etc. developed throughout time, particularly the post-GFC decade and ongoing.

A. EVOLUTION OF CLIMATE DISCLOSURES IN INDIA

In July 2011, the Ministry of Corporate Affairs ('MCA'), Government of India released National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business ('NVG').[50] This national framework is essentially a set of nine principles[51] that offers businesses an understanding and approach to instil responsible business conduct for making them socially and environmentally sustainable.[52] The framework, being one of the first steps taken towards the direction of disclosures in India, proposed the idea of voluntary disclosure by businesses in their various ventures.[53] It targeted financial and non-financial firms, for the interests of investors and the general public. It provided a base template i.e. Business Responsibility Reporting ('BRR') Framework,[54] through which, specific information can be disclosed including significant risks, goals, and targets for improving performance.[55] Along with it, information related to materials,[56] water,[57] discharge of effluents,[59] GHG emissions,[59] etc. were supposed to be disclosed. The guidelines also included third-party assurance as a "leadership indicator" of the company's progress in implementing the principles.[58]

Eventually, in May 2021, SEBI released the new format for the Business Responsibility and Sustainability Report ('BRSR') with effect from the financial year 2022-23.[59] The BRSR framework works to encourage listed companies to adopt business practices that are sustainable in nature. It mandates the

[50] Ministry of Corporate Affairs 'National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business' (*MCA*, July 2011) <https://www.mca.gov.in/Ministry/latestnews/National_Voluntary_Guidelines_2011_12jul2011.pdf> accessed 5 December 2023.
[51] ibid 6, para 2.
[52] ibid 5, para 5.
[53] ibid 35.
[54] ibid 34.
[55] ibid 36, para 3.
[56] ibid 37, para 2.
[57] ibid 38, para 4.
[58] ibid 30, para 4.
[59] SEBI BRSR Format 2021 (n 29).

disclosures for the top 1,000 publicly listed companies on stock exchanges i.e., BSE and NSE, from the financial year 2022-23[60] and it was later extended to 2023-24[61] with expanded goals. It should be done in such a way that the disclosed information is aligned with their ESG performance.[62] Though the report does not directly adopt the recommendations given by TCFD, it has a major baseline for it. It is also a vital enforceable factor for environment-related disclosures and a way to assist the companies in disclosing such information.

On July 27, 2022, the RBI published a Discussion Paper[63] on climate risks and sustainable finance to obtain feedback from REs and stakeholders[64] on the proposals to address the financial risks arising from climate change and environmental degradation. The document outlined the RBI's strategy to lighten the impacts of climate change, based on best practices that are used globally[65] and the priorities that the nation has. One of the particulars covered in the paper is "Climate risk related financial disclosure and reporting for REs".[66] The framework given by TCFD and the disclosure recommendations were highlighted in the paper,[67] with the intention that REs may make climate-related disclosures aligned with TCFD recommendations. It is pertinent to note that, these are recommendations provided in a discussion paper and do not have any enforceability factor behind them. All actions associated with CRRDs were voluntary, on behalf of companies except those mandated by SEBI in the BRSR framework for the top 1,000 listed companies.

[60] 'Business responsibility and sustainability reporting by listed entities' (*Securities and Exchange Board of India*, 10 May 2021) <https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html> accessed 6 December 2023.

[61] 'BRSR Core - Framework for assurance and ESG disclosures for value chain' (*Securities and Exchange Board of India*, 12 July 2023) <https://www.sebi.gov.in/legal/circulars/jul-2023/brsr-core-framework-for-assurance-and-esg-disclosures-for-value-chain_73854.html> accessed 6 December 2023.

[62] ibid 1, para 3.1.

[63] Reserve Bank of India, 'Discussion Paper on Climate Risk and Sustainable Finance' (*RBI*, 27 July 2022) <https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/CLIMATERISK46CEE62999A4424BB731066765009961.PDF> accessed 6 December 2023.

[64] ibid 5, para 1.

[65] ibid 4, para 2.

[66] ibid 15.

[67] ibid 16, para 3.

Consequently, on February 24, 2024, the RBI released a Draft Disclosure Framework on Climate-related financial risks[68] which made climate-related disclosures mandatory for the REs. The framework outlined the thematic pillars of disclosures. These were four in number i.e., Governance, Strategy, Risk Management and Metrics and Targets in alignment with the TCFD recommendations. On 6 December 2022, the WTW, a global advisory and solutions firm, conducted a lengthy survey titled "State of Climate Risk in India"[69] and how Indian companies currently align with the recommendations of TCFD. This survey shows various progress and limitations faced by the businesses in the adoption of the TCFD framework.

B. SURVEY HIGHLIGHTS

According to the mentioned survey,[70]

- A substantial 82% of companies in India have engaged in board-level discussions and 73% have board-level or CEO oversight of climate risks.
- Half of the surveyed companies have committed to carbon emissions targets, with 43% aiming for net-zero carbon emissions by 2032.[71] This aligns with the regulatory push in 2021 when SEBI mandated ESG reporting through the BRSR.[72]
- Investors/lenders (75%) and regulators (64%) have emerged as the primary audience for CRRDs.[73]

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[68] 'Draft Disclosure framework on Climate-related Financial Risks, 2024' (*The Reserve Bank of India,* 24 February 2024) <https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=4393#F8> accessed 9 April 2024.

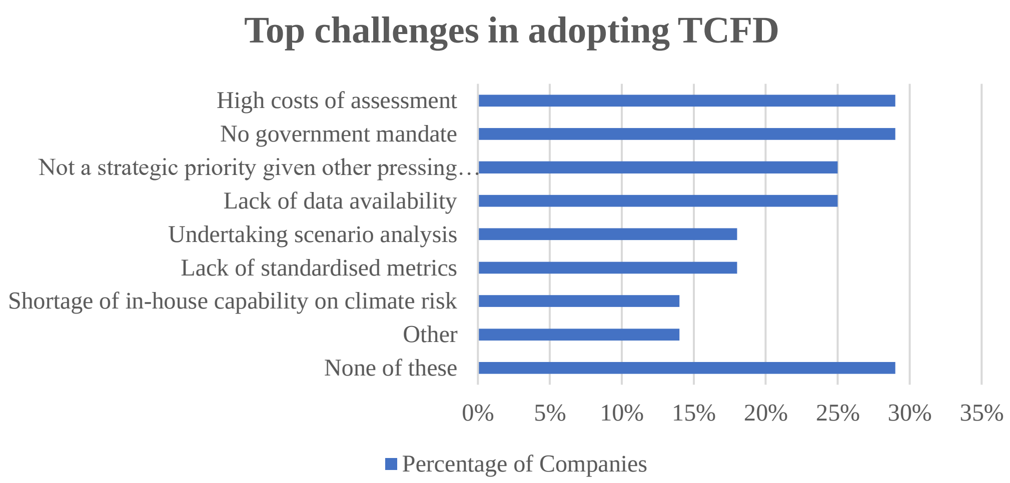
[69] 'State of Climate Risk in India' (*WTW*, 6 December 2022) <https://www.wtwco.com/en-in/insights/2022/12/state-of-climate-risk-in-india> accessed 3 December 2023 .

[70] ibid.

[71] ibid 7 (Commitments).

[72] SEBI BRSR Format 2021 (n 29).

[73] WTW Survey 2022 (n 69) 8.

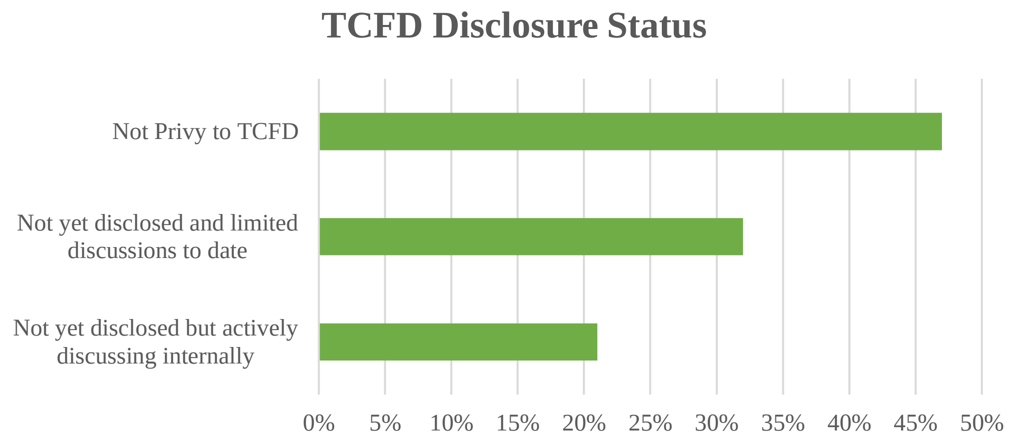


(Data taken from the WTW survey)[74]

However, despite its increasing importance, there were several limitations that turned out to be a major hindrance for companies for a wide-scale adoption of CRRDs. These were:

- High costs of assessment (29%), no regulatory mandate (29%), lack of considering it as a significant priority (25%), etc.[75].
- The study further revealed that companies need external support for TCFD reporting, especially in areas such as TCFD format and approach (39%), physical risk assessment (36%) and transition risk assessment (36%). This demonstrates the need for expertise in negotiating the intricacies of climate-related financial reporting.
- Furthermore, 43% are aware of TCFD and among them and only 21% are actively discussing it internally. Additionally, 47%, are not at all privy to TCFD showing a major lack of awareness.[76]

[74] WTW Survey 2022 (n 69).
[75] ibid 10.
[76] ibid 9 (TCFD Disclosure Status).



(Data taken from the WTW Survey)[77]

V. A GLOBAL SIGN: POSITIVE MOMENTUM IN CLIMATE RISK CLOSURE

Multiple emerging countries have taken steps to incorporate climate-related disclosures within the model of corporate governance. Certain countries have made the need for disclosures to be mandatory, while others are lenient (making the disclosures to be voluntary in nature).[78] Emerging countries involving mandatory disclosures[79] include South Africa, UAE, South Korea, etc. The companies listed in stock exchanges in these countries have to mandatorily disclose environmental data or sustainability reports. Whereas countries with voluntary and lenient[80] requirement include China, Mexico, etc. Companies, here, are encouraged but not required to disclose climate-related information.

The recent spike in the global arena for CRRDs indicates a good shift in knowledge and reaction to the severe effects of climate change on company operations. Data from the CDP Factsheet[81] and the comprehensive 2023 Status

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[77] ibid.

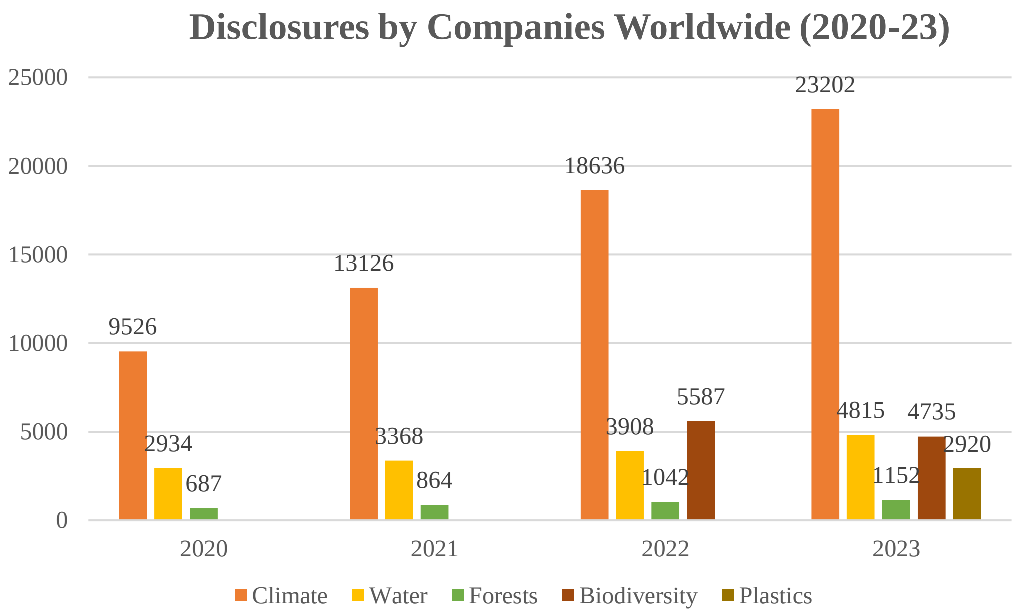
[78] 'Part 3: Recommendations and case studies for regulators and financial institutions in emerging economies' (*UNEPFI*, December 2023) <https://www.unepfi.org/wordpress/wp-content/uploads/2023/12/Part-3-Emerging-Economies-Climate-Risks-and-Best-Practices.pdf> accessed 11 November 2024.

[79] 'Emerging Markets Insights: Sustainability Disclosure Regulations', (*Osmosis IM*, January 2024) <https://www.osmosisim.com/uploads/2024/01/5587e904faf4542b7c4ac14fa15d580c/emerging-markets-sustainability-disclosure-regulations-final.pdf> accessed 11 November 2024, 3-7.

[80] ibid 3-7.

[81] 'CDP 2023 disclosure data factsheet' (*CDP*) <https://www.cdp.net/en/companies/cdp-2023-disclosure-data-factsheet#2023trends> accessed 20 December 2023.

Report and Surveys conducted by TCFD[82], provides a promising picture of increased transparency in recognising climate-related risks and opportunities. A new report from a G20 advisory body[83] highlights a significant increase of 26% in companies' disclosure of climate-related risks and opportunities between 2020 and 2023.



(Data taken from CDP Factsheet)[84]

The data from the CDP Factsheet on State and trends of disclosure in 2023 shows a major rise in total number of disclosures by companies every single year. This is a big feat and a giant positive momentum considering the global perspective. While appreciating this good trend, it is important that India keeps itself aligned with global standards. It is crucial for India to maintain worldwide competitiveness by adhering to these international criteria. To achieve positive standards, the major challenges need to be addressed first, along with the opportunities and strategies to eradicate them.

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[82] 'TCFD 2023 Status Report' (*TCFD*, October 2023) <https://assets.bbhub.io/company/sites/60/2023/09/2023-Status-Report.pdf> accessed 20 December 2023.

[83] "Sharp rise in companies' climate-related risk disclosure: G20 report' (*Business Standard*, 12 October 2023) <https://www.business-standard.com/companies/news/sharp-rise-in-companies-climate-related-risk-disclosure-g20-report-123101201441_1.html> accessed 20 December 2023.

[84] 'CDP 2023 disclosure data factsheet' (*CDP*) 78 <https://www.cdp.net/en/companies/cdp-2023-disclosure-data-factsheet#2023trends> accessed 20 December 2023.

VI. COMPLEXITIES, CHALLENGES, AND OPPORTUNITIES

Sustainability, risk management, and corporate strategy emerge as leading forces in the field of climate responsibility, closely supported by the finance department. These units are taking the helm in identifying climate-related financial risks and opportunities. What strikes out, is the significance of a collaborative strategy, in which diverse functions collaborate to handle the complexities of climate-related transition,[85] physical,[86] and liability risks[87]. This joint effort not only aids in comprehending the financial implications but also in securing the required capital to support measures for an organisation's climate journey. However, difficulties loom big in the middle of these proactive attempts, pointing to shortcomings in the present approach to climate risk management.

As time changes, along with it, facades of different aspects of corporate governance changes. It is important for businesses to understand the risks associated with climate change and the potential financial impacts related to it.[88] For example, if extreme weather goes to a severe level, then revenue will decrease as the capability to produce will decrease.[89] Preferences of consumers get shifted towards low-carbon options as awareness increases, this leads to a loss in revenue as there is a decrease in demand for those products.[90]

A. THE ISSUE OF TRUTHFULNESS AND ACCURACY OF THE DISCLOSURES

Making a governance system succeed calls for proactively addressing every single challenge that is perceivable along with opportunities. One of the related challenges is the truthfulness and accuracy of the disclosed information. When firms are encouraged to voluntary disclose information related to climate risks, they may cherry-pick only the most favourable aspects or positive items for disclosure.[91] This can be one of the reasons why investors haven’t been able to

[85] Transition Risks (n 13).
[86] Physical Risks (n 12).
[87] Liability Risks (n 14).
[88] ‘TCFD Workshop: Session 1 – Fundamentals and overview of TCFD’ (*Task Force on Climate-related Financial Disclosures*, February 2022) <https://assets.bbhub.io/company/sites/60/2022/02/TCFD-Fundamentals-Workshop.pdf> accessed 6 December 2023.
[89] ibid 11.
[90] ibid.
[91] Julia Anna Bingler, Mathias Kraus, Markus Leippold & Nicolas Webersinke, ‘Cheap talk and cherry-picking: What ClimateBert has to say on corporate climate risk disclosures’ (2022) 47

avoid major climate-related financial losses such as those associated with the global examples of bankruptcies in the US coal industry[92] and PG&E's sudden collapse of the share price.[93] This result, on the prima facie, may need strict action against the companies performing such misleading practices but this would require the adjudicators to obtain certain expertise that it does not presently have.[94]

B. THE LACK OF A UNIFORM CORPORATE GOVERNANCE MODEL

Along with the present challenges, another particular one that has arisen is the lack of a globally accepted corporate governance model. Different countries operate on different governance models such as block-holder systems (US),[95] dispersed shareholder models (UK, India),[96] [97] Keiretsu (Japan),[98] Chaebol (S.Korea),[99] etc. Thus, the absence of a global uniform governance model makes it difficult to design an effective global climate risk disclosure framework. The effectiveness of a disclosure framework may vary based on the governance model of a particular country. Thus, it becomes the responsibility of the particular government of that country to align the global disclosure framework with the country's governance model.

C. THE ISSUE OF NAVIGATING THE INFORMATION MAZE

In the existence of unclear and inconsistent information, the efforts of investors

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102776 Finance Research Letters <https://doi.org/10.1016/j.frl.2022.102776> accessed 7 December 2023.

[92] Adele C. Morris, Noah Kaufman & Siddhi Doshi, 'The Risk of Fiscal Collapse in Coal-Reliant Communities' (*Brookings*, July 2019) <https://www.brookings.edu/wp-content/uploads/2019/05/Morris_Kaufman_Doshi_RiskofFiscalCollapseinCoalReliantCommunities-CGEP_Report_FINAL.pdf> accessed 20 December 2023.

[93] Russell Gold, 'PG&E: The First Climate-Change Bankruptcy, Probably Not the Last' (*The Wall Street Journal*, 18 January 2019) <https://www.wsj.com/articles/pg-e-wildfires-and-the-first-climate-change-bankruptcy-11547820006> accessed 20 December 2023.

[94] Anik Bhaduri, 'Taking the Heat: (Non) disclosure of Climate Change Risks in India', (2021) 42(3) Business Law Review 152 <https://doi.org/10.54648/bula2021021> accessed 15 December 2023.

[95] ibid.

[96] ibid.

[97] 'Corporate Governance in India' (*ecgi*) <https://www.ecgi.global/content/corporate-governance-india> accessed 24 December 2023.

[98] Hakob Hakobyan, 'Japanese model of corporate governance' (*Enlight*, 28 September 2017) <https://enlightngo.org/language/en/post/20274> accessed 24 December 2023.

[99] Il Chong Nam, 'Corporate Governance in the Republic of Korea and Its Implications for Firm Performance' (*Asian Development Bank*, July 2004) <https://rb.gy/uol6q1> accessed 24 December 2023.

increase. Investors incur large fees in order to obtain decision-useful information related to investing capital into innovative and resilient enterprises. Investors, for example, may contract with third-party intelligence and data providers to obtain increased climate risk data. This method may turn out to be beneficial for wealthy investors but at the same time, too expensive for small investors. This is a huge market injustice neglecting small investors' rights. On a case-by-case basis, investors must incur the expense of undertaking extra verification directly with enterprises or with third-party technical help. This procedure is time-consuming for both investors and businesses.

D. Underscoring the Threat of Climate Change

A major issue pertaining to climate change and its risks is, underscoring its threat, by companies, banks, etc. On July 27, 2022, RBI released a survey[100] on Climate risk and sustainable finance. Major highlights of this survey included, the banks' attitude of underscoring and being oblivious to climate change and its threats and considering it a material threat rather than a major financial threat.[101] It also highlighted that foreign banks are way ahead compared to public and private sector banks in terms of climate-related risks, their understanding, and the measures to prevent them.[102] This evident gap calls for immediate action, with the need for increased awareness and execution of strong measures within the entities along with regulatory interventions.

VII. STRATEGIES FOR COUNTERING THE CHALLENGES: THE WAY FORWARD

In order to chart a road towards a more resilient and sustainable future, multiple strategic approaches that tackle the inherent issues of implementing CRRDs, and at the same time considers aspects of that specific corporate governance model, are required to be undertaken by the entities, such as those mentioned hereinafter.

A. Imperatives Regarding Awareness of CRRDs

[100] 'Report of the Survey on Climate Risk and Sustainable Finance' (*Reserve Bank of India*, July 2022) <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/SURVEYCLIMATERISK3DB3ABB0E087445797BF79BC940AEFC6.PDF> accessed 19 December 2023 (RBI Survey).

[101] ibid 23, para 2.

[102] ibid 24, para 2.

Leading industry practices in India reflect a growing commitment to sustainable and responsible business conduct. As highlighted by the WTW survey[103], companies are increasingly recognizing the imperative to integrate climate considerations into their operations. The push towards carbon emissions commitments, with half of the companies' setting targets,[104] aligns with the regulatory landscape, as mandated by SEBI's ESG reporting framework.[105] However, the data on which, collectively further work is supposed to be done is the awareness about TCFD. 43% are aware of TCFD and among them, only 21% are actively discussing it internally while 32% have limited discussions to date. A staggering 47% are not at all privy to TCFD showing a significant lack of awareness.[106] A major point is not a single percentage of surveyed companies have disclosed in alignment with TCFD which calls for urgent enforceability.

Widespread awareness of climate risk disclosures is critical for firms that want to participate in climate risk disclosures since there can be no initiation by corporations without information. An integrated strategy for awareness about the contextualised advantages of climate risk assessments and opportunities, as well as the consequences of climate inactivity, can aid in obtaining the necessary buy-in on climate risk management and reporting. Another way is through statutory enforceability behind the disclosures and making it mandatory as other countries have done it.[107]

It is important for entities to recognise the direct and indirect benefits[108] that come with implementing and integrating the CRRDs into their governance model. Some of them include improving capital availability by increasing investors' and lenders' trust in the company's assessment and management of climate-related risks. Furthermore, the entities disclosing proactively may gain a competitive edge, by brand perception and customer loyalty. It is pertinent to note that this adoption helps meet current disclosure standards, such as those put on by regulatory bodies (such as SEBI and RBI) for reporting important information in financial filings, more efficiently. Additionally, it increases

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[103] WTW Survey 2022 (n 69).

[104] Commitments (n 71).

[105] SEBI BRSR Format 2021 (n 29).

[106] TCFD Disclosure Status (n 76).

[107] US (n 13), France (n 17), Japan (n 18), New Zealand (n 19), UK (n 21).

[108] 'FAQ' (*TCFD*) <https://www.tcfdhub.org/faq/> accessed 24 December 2023.

knowledge and understanding of climate-related risks and opportunities, leading to better risk management and strategic planning.

Physical climate risks scored the lowest among perceived climate-related risks, according to the WTW survey,[109] indicating the need for building awareness of the physical impacts of climate-driven events and disasters. One of the examples can be the existence of multiple imported coal-based thermal plants in India which are at or near coastal areas. These are susceptible to massive physical risks of climate change through rising sea levels and the increased severity of extreme weather events, such as cyclones or floods.[110] This is a potential source of credit risk not only for those companies but also for banks' lending to such plants. Thus, recognising such risks through targeted awareness and taking specific steps towards its prevention can build resilience towards climate risks.

B. Leveraging Expertise to Overcome Challenges

Some of the major obstacles to climate risk disclosures are lack of expertise and data.[111] Businesses need to go hand in hand with various experts which can be a massive assistance to them in closing the disparity and removing obstacles for climate risk disclosures. According to the survey, sustainability, risk management, corporate strategy, and finance function are the top units that take the helm to address climate-related risks and opportunities, thus experts related to those fields can better assist the companies in bridging the gap and making a solution of obstacles when introducing CRRDs.

Additionally, they can provide insights into various settings where the companies need external support through targeted advisory and technical guidance on understanding and assessing climate risks and opportunities and embedding them in systems. Major external support needed by the companies is in the areas of TCFD format and approach, physical risk assessment, and transition risk assessment.[112] Thus, experts can play a major role in assisting companies in those areas through the operational understanding of TCFD

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[109] WTW Survey 2022 (n 69) 8.

[110] Shantanu Srivastava, 'How Reserve Bank of India can play a role in building resilience against climate risks' (*UNDRR Prevention Web*, 26 July 2022) <https://www.prevention web.net/news/how-reserve-bank-india-can-play-role-building-resilience-against-climate-risks> accessed 20 December 2023.

[111] Obstacles for TCFD (n 37).

[112] WTW Survey 2022 (n 69) 11.

reporting and requisite support for assessing physical, transition, and liability risks. It is crucial to note that integrating expertise for combating such disclosure difficulties goes hand in hand with the concept of third-party assurance as a "leadership indicator" as recommended in the 2011 NVGs by the MCA.

One of the major obstacles as mentioned before is awareness about climate disclosures. An enabling regulatory and peer-driven environment is required to increase awareness. Along with it, the adoption of specialised governance strategies and frameworks for climate-related disclosures when assisted by experts based on company baseline/model, as well as benchmarking against peers, can aid in the systematisation of climate governance and disclosure procedures.[113]

C. Specific Strategies

Companies by conducting climate risk landscape reviews, involving investors, regulatory requirements, and consumer demand, can successfully anticipate stakeholder demands on 'climate-entity intersection risks' information. For setting carbon emissions commitments, companies can set Science Based Targets ('SBT')[114] (a way for the entities to detail emissions reduction targets) to reduce emissions and to have a proper goal in place. Additionally, most companies may be less ready at this stage to report Scope 3 emissions (indirectly responsible, sources not owned or controlled by companies) or concentrations of credit exposure to carbon-related assets. For such, they should start chalking out a plan to obtain relevant information such as by collecting emission data from their customers.[115]

Businesses start looking into different strategies through which they can align themselves well, with the changing times.[116] These strategies can lead them to potential positive financial impacts. For example, moving to more efficient

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[113] ibid.

[114] José Carlos Sá, Afonso Carvalho, Luís Fonseca, Gilberto Santos & José Dinis-Carvalho, 'Science Based Targets and the factors contributing to the sustainable development of an organisation from a Literature review to a conceptual model' (2023) 29(3) (Journal Name) 241-253 <https://doi.org/10.30657/pea.2023.29.28> accessed 20 December 2023.

[115] RBI Discussion Paper (n 63) 20, para 1.

[116] Michael Beer, Sven C. Voelpel, Marius Leibold & Eden B. Tekie, 'Strategic management as organizational learning: Developing fit and alignment through a disciplined process' (2005) *38*(5) Long Range Planning 445 <https://doi.org/10.1016/j.lrp.2005.04.008> accessed 6 December 2023.

buildings increase the value of fixed assets,[117] use of lower emission sources of energy leads to satisfying the needs of consumers and their preferences plus the affecting factor due to changes in the cost of carbon gets reduced.[118]

Integrating climate-related Key Performance Indicators ('KPIs') into executive and board compensation can be a critical step[119] as also mentioned in the SEBI-BRSR 2023 circular.[120] This effort is extremely crucial, as it has to be made sure that the considerations for climate risks and their implications reaches every nook and cranny of the decision-making process of the company, for the purpose of building a giant culture of climate disclosures.

Multiple companies with less experience may be required to disclose information aligning with national standards. It is important for those particulars to begin by considering and disclosing how climate-related issues may be relevant in their current governance, strategy, and risk management practices. Going ahead, integrating a wider suite of explicit climate considerations, including additional physical and specific transition risks can provide an effective entry point for identifying, assessing, and managing climate-related risks.[121] It is important for regulatory bodies to let new companies disclose TCFD-aligned information in a phased manner to help them get accustomed to the nuances of climate reporting.

D. STANDARDISING GLOBAL FRAMEWORKS WITH THE NATIONAL MODEL

One of the main issues that hinders effective disclosures, is the existence of multiple global frameworks.[122] Though in the prima facie, it may seem to be a good thing as there exists multiple frameworks that a company can adopt, but such a positive is altered when the difficulty of comparing factor arises. It is important for businesses to adapt to the same framework for disclosures as this would help improve the consistency and comparability of disclosures with their counterparts locally or globally. Because of its practicality, TCFD is regarded as

[117] 'Fundamentals and Overview of TCFD' (*TCFD*, May 2021) <https://rilastagemedia.blob.core.windows.net/rila-web/rila.web/media/media/pdfs/committee%20documents/sustainability/20210510_1600-tcfd-overview.pdf > accessed 6 December 2023.
[118] ibid.
[119] Obstacles for TCFD (n 37).
[120] SEBI 2023 Circular (n 61).
[121] TCFD Final Report (n 40) 41.
[122] CDP (n 38), GRI (n 39), TCFD Final Report (n 40).

the finest framework that a corporation may use.[123] Thus, adopting TCFD and aligning it with national interest and the country's governance model can be a critical step. The next part outlines the needed coordinated efforts of regulatory bodies in intertwining the global frameworks with the domestic corporate governance model.

E. THE ROLE OF THE REGULATORY BODIES; RBI AND SEBI

A major step that can be taken by businesses is doing scenario analysis, as suggested by TCFD.[124] These analyses are undertaken by the entities to assess the potential business implications of climate-related risks and opportunities. These are hypothetical constructs and give an idea of what kinds of action that can be taken at the time of a particular climate event.

RBI having the supervisory role can foresee and help combat climate-related risks. Banks worldwide are navigating climate stress tests[125] and scenario analysis[126] to better understand the risks related to climate. These are preventative measures through which companies and authorities can better identify their shortcomings related to climate-related risks. For example, the European Central Bank ('ECB') conducted a climate risk stress test. This test provided the particular result in a rise in carbon costs, along with floods and droughts, which will result in losses of at least $71.1 billion for the Eurozone's largest banks in 2022.[127] This stress test turned out to be a major success in the end, as it foresighted this particular threat. Climate-related extremes caused

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[123] 'What is the TCFD?' (*IBM*) <https://www.ibm.com/topics/tcfd> accessed 24 December 2023.

[124] TCFD Final Report (n 40) 25.

[125] "The evaluation of a financial institution's financial position under a severe but plausible scenario. The term "stress testing" is also used to refer to the mechanics of applying specific individual tests and to the wider environment within which the tests are developed, evaluated and used within the decision-making process." [As taken from 'Climate-related financial risks' (*Basel Committee on Banking Supervision*, April 2021) <https://www.bis.org/bcbs/publ/d518.pdf> accessed 9 April 2024.]

[126] "Scenario analysis is a tool that is used to enhance critical strategic thinking. A key feature of the scenarios analysed is to explore alternatives that may significantly alter the basis for "business-as-usual" assumptions. Accordingly, they need to challenge conventional wisdom about the future." (As taken from 'Climate-related financial risks' (*BCBS*, April 2021) <https://www.bis.org/bcbs/publ/d518.pdf> accessed 9 April 2024).

[127] '2022 climate risk stress test' (*European Central Bank*, July 2022) <https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.climate_stress_test_report.20220708~2e3cc0999f.en.pdf> accessed 25 December 2023.

economic losses of assets estimated at €52.3 billion in 2022 for Europe.[128] Along with Europe, several other worldwide banks such as those in France, the UK, China,[129] Malaysia,[130] Finland,[131] etc. have conducted or are planning to conduct scenario analyses and stress tests to understand the resilience of their financial systems to climate risks.

RBI is part of the Network for Greening the Financial System ('NGFS'),[132] a network of 114 central banks and financial regulators whose goal is to expedite the expansion of green financing and make suggestions for central banks' roles in climate change. NGFS has developed four standardised climate scenarios that central banks can use as a starting point.[133] As other banks have already run climate tests using scenarios from NGFS, RBI can adopt the same strategy. Recent development indicates that RBI is already planning to conduct stress tests for climate vulnerability since early 2023.[134]

A major step was taken by RBI on February 24, 2024, by issuing a Draft Disclosure Framework on Climate-related Financial Risks, 2024[135]. This framework is supposed to be mandatorily adopted and implemented by the REs which includes Scheduled Commercial Banks ('SCBs'), Tier-IV Primary (Urban) Cooperative Banks ('UCBs'), All India Financial Institutions ('AIFIs') and Top and Upper Layer Non-Banking Financial Companies ('NBFCs'). The framework points out four thematic pillars of disclosure which include Governance, Strategy, Risk Management and Metrics and Targets, as in

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128 'Economic losses from weather- and climate-related extremes in Europe' (*European Environment Agency*, 6 October 2023) <https://shorturl.at/bcBQ6> accessed 25 December 2023.

129 'China central bank warns of default risks after climate stress test' (*Reuters*, 18 February 2022) <https://shorturl.at/cehtT> accessed 25 December 2023.

130 'Discussion Paper on the 2024 Climate Risk Stress Testing Exercise' (*Central Bank of Malaysia*, 30 June 2022) <https://www.bnm.gov.my/-/dp_2024_crst> accessed 25 December 2023.

131 'New stress-testing framework to assess the capital adequacy of Finnish banks' (*Bank of Finland Bulletin*, 4 May 2021) <https://shorturl.at/eDQW7> accessed 25 December 2023.

132 'Reserve Bank of India Commits to Support Greening India's Financial System- NGFS' (*Reserve Bank of India*, 3 November 2021) <https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR1143C536C455B25F432EBFDB176983F3D777.PDF> accessed 25 December 2023.

133 'NGFS Climate Scenarios for central banks and supervisors - Phase IV' (*NGFS*) <https://www.ngfs.net/en/ngfs-climate-scenarios-phase-iv-november-2023> accessed 25 December 2023.

134 'RBI Planning for Stress Testing for Climate Vulnerability' (*Outlook India*, 26 July 2023) <https://shorturl.at/dtv29> accessed 25 December 2023.

135 Draft Disclosure Framework 2024 (n 68). 'Draft Disclosure framework on Climate-related Financial Risks, 2024' (*RBI*, 28 February 2024) <https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=4393> accessed 25 December 2023.

alignment with the TCFD recommendations. In the pillar of Strategy, the need to detail the resilience of REs in different climate scenarios has been taken, by conducting specific scenario analysis.

1. The Way to Ensure Compliance with the RBI's 2014 Draft Disclosure Framework

The specific compliance can be undertaken by blueprinting the four thematic pillars as outlined in the framework. Under those pillars, certain actions need to be undertaken such as defining the governance structure responsible for overseeing climate-related risks and opportunities by specifying the roles and responsibilities of various bodies of these entities. By incorporating the required crew, specialising and competent enough in these aspects of disclosures of the specific areas can be a crucial step.

By performing an internal assessment within the corporate model, can help the entities in understanding the shortcomings in combating the climate risks and its disclosures. Additionally, conducting scenario analysis, as outlined in the framework, can also be a major step. Climate risk assessment can be incorporated in the overall risk management framework of the entity. Ensuring data collection capability and setting time-bound targets can be another major step for REs.[136]

2. Additional Steps Required for Other Sectors: Coordination of Regulatory Bodies (SEBI and RBI)

The BRSR framework serves as a major component for disclosing quantitative indicators on sustainability-related factors (ESG parameters) as mandated by SEBI. The steps taken by RBI may turn out to be a crucial factor in developing a CRRD-inducing environment for the financial sector. The ambiguity exists in other vital sectors, where BRSR comes into play. For example, in the Energy Sector, the CRRD disclosure level is moderate.[137] Such is the state of similar sectors. While BRSR focuses on wider ESG practices and their disclosures, TCFD focuses on CRRD. Thus, it will be imperative to align BRSR with major global practices such as TCFD.

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[136] 'Embracing climate-resilience: A new era of disclosure for Indian financial entities' (*pwc*) <https://pwc.to/48ROzRh> accessed 9 April 2024.

[137] S.G. Maji, N. Kalita, 'Climate change financial disclosure and firm performance: empirical evidence from Indian energy sector based on TCFD recommendations', (2022) 17(4) SBR <https://doi.org/10.1108/SBR-10-2021-0208> accessed 11 November 2024.

As the recent developments show the RBI aligning its Draft Disclosure Framework for climate-related financial risks with the TCFD recommendations, the SEBI may follow the identical steps in aligning the TCFD recommendations with the BRSR framework for the listed entities. This could be achieved through coordinated efforts by the RBI and SEBI to progressively mandate CRRDs across various other sectors, integrating these requirements as a part of their BRSR framework. These coordinated efforts have to keep the national corporate governance model in mind while taking such steps. Thus, the scope of BRSR may be expanded from just the top 1000 listed entities to various other medium or smaller-sized entities, post the BRSR-TCFD nexus implementation.

Better coordination and intertwining TCFD (which includes scenario analysis) with the national frameworks, by the regulatory authorities for propagating CRRDs can turn out to be a critical step for firstly, the financial sector (as the steps taken by RBI through the draft 2024 framework) and secondly, for the sectors of the top 1000 listed entities (if SEBI aligns BRSR with TCFD or with base RBI 2024 framework). If this step turns out to be a major success, its effective implementation can serve as a model for adoption in various other sectors furthering the ease of CRRDs.

VIII. CONCLUSION

The landscape of climate risk disclosures within corporate governance poses both an opportunity and a challenge for businesses in India and the world. This paper, by exploring both global and Indian landscapes, shows extensive strategies that can be adopted in eradicating the challenges. Through major recognition, further transparency is material and expected. As in the absence of it, the road further is plagued with difficulties, along with a lack of a globally accepted governance model and the existence of multiple frameworks. This paper highlights the concerted efforts needed to navigate the complexities of CRRD, such as raising awareness in particular ways, expert bonding, aligning frameworks with national interest, and collaboration between regulatory bodies.

This paper brings attention to the major concern regarding the adoption of TCFD in India, i.e. pivotal issue of awareness. The strategies to counter these challenges require a multifaceted approach such as fostering an environment conducive to competition and adherence with statutory enforceability. This paper also details out the required direction to be taken after the availability of information, by aligning the disclosures with existing frameworks, through collaborations with various stakeholders including investors, regulators, and experts in bridging knowledge and data availability gaps. Additionally, the paper underscores the importance of the collaborative effort of regulatory bodies such as SEBI and RBI in promoting the progress of CRRDs by:

1. Intertwining the framework of TCFD with the BRSR report.

2. Conducting scenario analyses and stress tests in alignment with NGFS.

As the nation progresses, the effectiveness of these efforts will be assessed by two factors, first, the actual impact on lowering climate-related risks while building a more sustainable future, and second, firms' adherence to disclosure norms. Indian enterprises that embrace this nexus may not only avoid dangers but also contribute to a more resilient and sustainable national economy. For companies that need to thrive in the Indian business scene, including climate issues in the corporate governance system, is no longer an option but a strategic must.