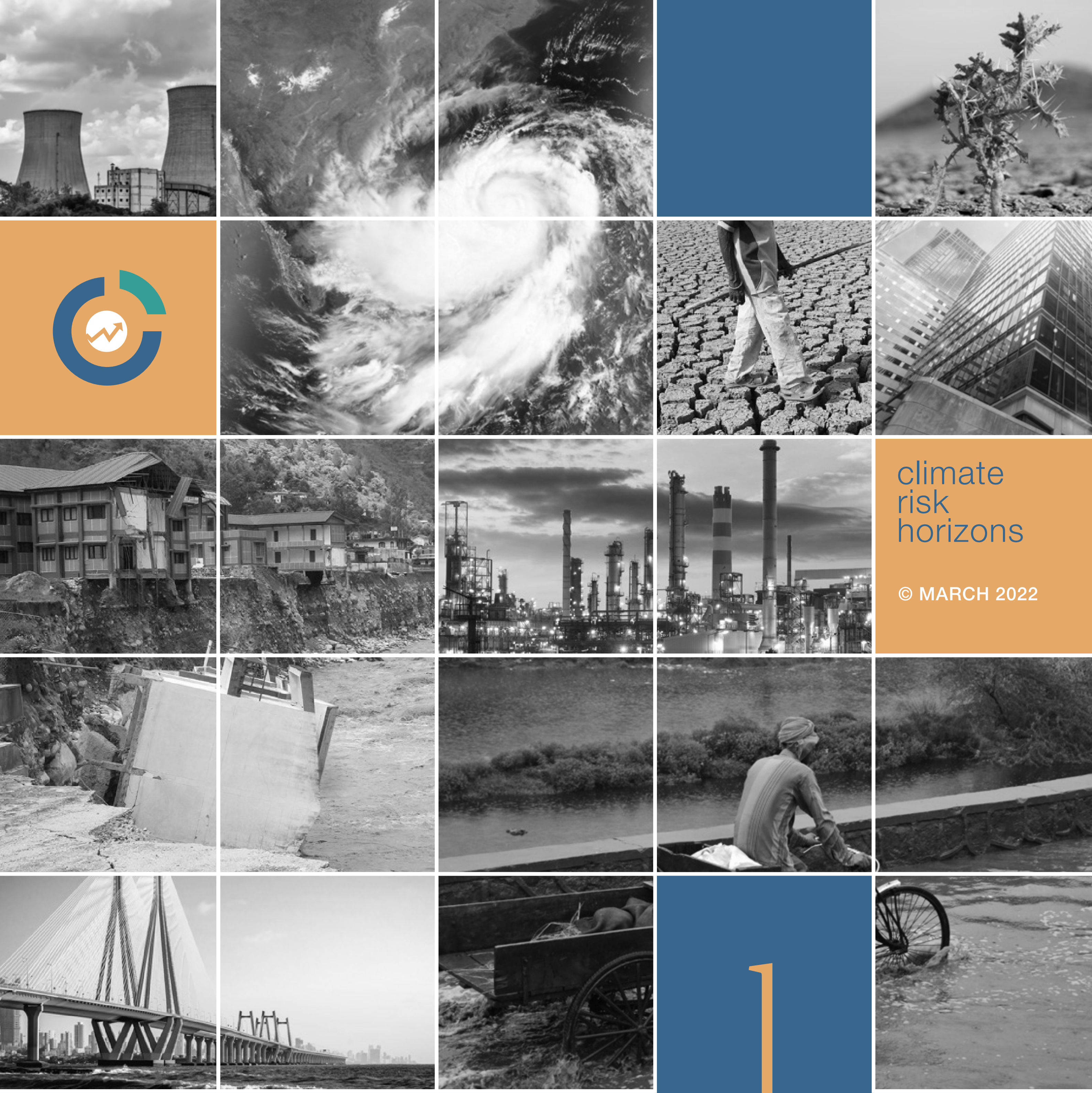

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Unprepared:

India's big banks score poorly on climate challenge

Authors

SAGAR ASAPUR, Researcher—Sustainable Finance
sagar.asapur@climateriskhorizons.com

ASHISH FERNANDES, CEO & Lead Analyst
ashish.fernandes@climateriskhorizons.com

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Design Pallavi Baasri, *pallavibaasri@gmail.com*

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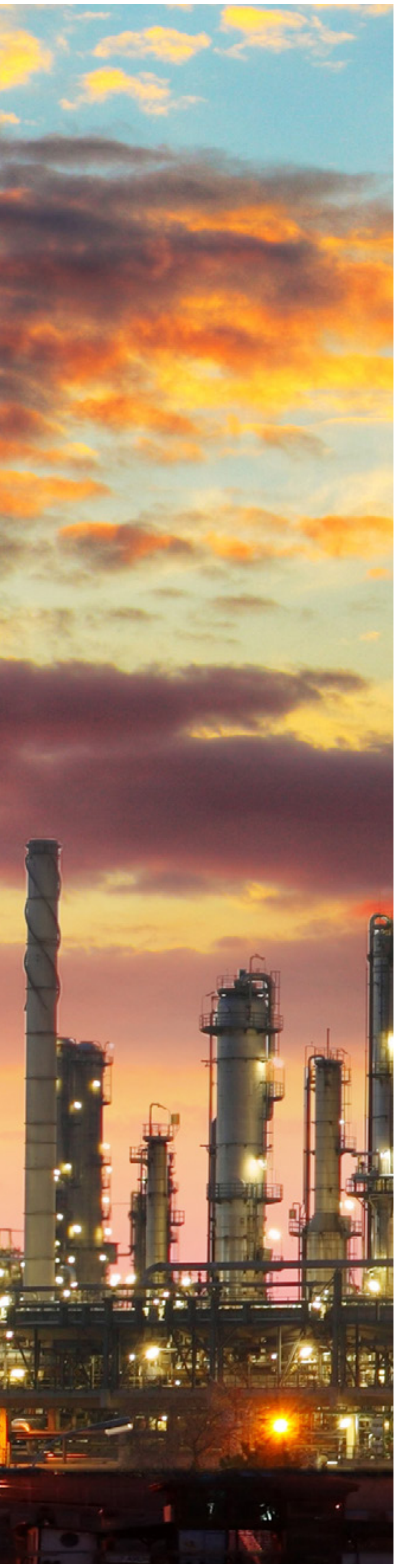

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List *of* Abbreviations

BIS	Bank for International Settlements
BRR	Business Responsibility Report
BRSR	Business Responsibility and Sustainability Report
BSE	Bombay Stock Exchange
CDP	Carbon Disclosure Project
CDSB	Climate Disclosure Standards Board
CFRF	Climate Financial Risk Forum
COP26	26th Conference of the Parties
CRH	Climate Risk Horizons
CRST	Climate Risk Stress Test
CSR	Corporate Social Responsibility
DEA	Department of Economic Affairs
E&S	Environmental & Social
EBA	European Banking Authority
ECB	External Commercial Borrowings
ERM	Enterprise Risk Management
ESDD	Environment and Social Due Diligence
ESMS	Environmental and Social Management System
FESG	Environmental, Social and Governance
ESG MSP	Environmental, Social and Governance Management System Plan
EVs	Electric Vehicles
FSB	Financial Stability Board
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
HKMA	Hong Kong Monetary Authority
IFC	International Finance Corporation

IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IMF	International Monetary Fund
ISSB	International Sustainability Standards Board
NFR	Non-Financial Reporting
NGFS	Network for Greening the Financial System
NGRBC	National Guidelines on Responsible Business Conduct
OCC	Office of the Comptroller of the Currency
ODI	Overseas Development Institute
OECD	Organization for Economic Co-operation and Development
PCAF	Partnership for Carbon Accounting Financials
PRA	Prudential Regulation Authority
PSL	Priority Sector Lending
RBI	Reserve Bank of India
RMC	Risk Management Committee
SASB	Sustainability Accounting Standards Board
SBI	State Bank of India
SBTi	Science-Based Target Initiative
SCBS	Scheduled and Commercial Banks
SDGs	Sustainable Development Goals
SEBI	Securities Exchange Board of India
SFG	Sustainable Finance Group
SLPP	Sustainable Lending Policy and Procedure
TCFD	Task Force on Climate-related Financial Disclosures
tCO_2e	Tons of Carbon Dioxide equivalents
$tCO_2e/\$M$	Tons of Carbon Dioxide equivalents per million USD
TFCR	Task Force on Climate-related Financial Risk
UNEP FI	United Nations Environment Programme Finance Initiative

01 Executive Summary

Few countries face as severe a threat from climate change as India. Droughts, floods, extreme weather events, changing rainfall patterns and heat waves have had a significant social and economic impacts on large parts of the country in just the last decade.

Current global temperatures are 1.2°C above pre-industrial levels; with the world's emissions continuing to rise, the planet is currently on course for ~3°C temperature rise. Even if the world acts aggressively on climate change and succeeds in meeting the Paris Agreement goal of keeping global temperature increase to 1.5°C, India will continue to see severe climate impacts in the coming decades.

Why should Indian banks act on climate?

Numerous studies have projected the impact on Indian economic growth and GDP from "business as usual" and continued climate inaction. The World Bank estimates a 2.8% annual hit to India's GDP by 2050.[1] Deloitte Economics Institute estimates that an emissions pathway consistent with a 3°C temperature increase would lead to an annual loss of 3% of GDP from now till 2050 and lost economic potential of $35 trillion by 2070.[2] The think tank Overseas Development Institute estimates that India may have already lost 3% of its GDP due to climate change.[3] Other studies have made more dire projections.

Climate change is a hardcore economic issue: even in a best-case scenario, no sector of the Indian economy will be unaffected by the climate crisis and humanity's response to it over the coming years.

As these changes unfold, what role will the Indian financial sector play? Is the banking sector sufficiently prepared to adapt to an Indian economy whose foundation will undergo significant changes? Will banking institutions be mute bystanders rushing to catch up to drastic changes in the energy, transportation, manufacturing, and agricultural sectors? Have they started to re-align their decision-making processes to aid in the necessary transformation of energy systems, or do they remain reliant on processes that are based on a 'past as prologue' mindset? Which banks are winning the race to put in place structures to assess and mitigate their own financial risk? Have banks begun to institute measures to ensure their own operations and portfolios are consistent with India's official goal of carbon neutrality by 2070?

To answer some of these questions, and provoke discussion, debate and action, Climate Risk Horizons (CRH) undertook an analysis of the 34 largest scheduled commercial banks[i] (read 'Indian banks') by market capitalization (12 public sector, 18 private sector, and four small finance banks) on the Bombay Stock Exchange (BSE) representing INR 26.81 trillion as on March 31, 2021. In terms of market cap of the banks assessed, 78% were from the private sector, 20% from the public sector and 2% from the small finance banking sector as shown in Figure 1 below.

i *Scheduled payments banks, regional rural banks and foreign banks were not part of the study.*

FIGURE 1 SHARE OF MARKET CAP BY BANK TYPE

Banks were ranked against 10 criteria to assess their climate preparedness, based on publicly available information about their operations. The criteria and methodology are explained in detail in the section on Data and Methodology.

Each institution was provided an opportunity to respond to their ranking with non-public information, if any, that would materially impact their scores. No bank saw fit to respond till time of publication. Responses, if any, will be incorporated into subsequent versions of this assessment.

Key findings

The results show that all the analyzed institutions—in effect, the cream of India's banking sector—are currently unprepared to respond to the climate crisis, particularly when it comes to incorporating climate-related financial risks into routine decision making and strategizing.

Finding 01

None of the banks have a long-term net zero target year with an implementation plan covering Scope 1, 2 and 3 emissions. However, two banks have set net zero targets with implementation plans for their Scope 1 and 2 emissions only (YES Bank, 2030 and HDFC, 2031-32). SBI only has a long-term carbon neutral target year, without specifying the scope of emissions included.

Finding 02

Only two of the 34 banks (Federal Bank and Suryoday Small Finance Bank) have an exclusion policy that prohibits lending for the construction of new coal power plants or the extension of an existing coal power plant. Additionally, Federal Bank has also committed to not finance oil and gas exploration activities, putting it at the top of the table on that criterion.

Finding 03

Public sector banks, despite their influence and dominance, are lagging private sector financial institutions. YES Bank, IndusInd Bank, HDFC Bank and Axis Bank are the top-ranking banks overall and have started to consider the climate issue. Public sector giant SBI is in distant 6th place.

Finding 04

26 of the 34 banks do not even disclose the most basic environmental indicators, i.e., scope 1 and 2 greenhouse gas emissions. Only six banks had their operational greenhouse gas emissions independently verified by a third party.

Finding 05

Only YES Bank has disclosed its Scope 3 Category 15 (financed) emissions associated with the reporting bank's loans and investments for 2020–21. However, even this disclosure was partial as it only pertained to the electricity generation sector.

Finding 06

None of the banks have undertaken forward-looking assessments like climate-related scenario analyses or climate stress testing to gauge the resiliency of their portfolios. Only 3 of the 34 banks have started building internal capacity to do so.

Finding 07

Only 8 of the 34 banks have a specific climate/ESG-related risk management process at the board level.

Finding 08

On the positive side, 27 banks have issued green loans/bonds/financing towards climate change mitigation/adaptation. However, only 11 banks have disclosed individual values of the relevant financed activities, making independent verification difficult.

Finding 09

Seven banks are supporting international climate initiatives/strategies, through partnerships or memberships, and have a clear position or policy commitment in terms of implementing strategies.

Finding 10

Only 7 banks have policies that exclude lending/services to entities credibly involved in deforestation, human rights violations, and biodiversity loss, etc. However, exclusion policies are limited to a standard of illegality, rather than a more progressive ethical standard.

The fact that 29 of the 34 biggest banks in India have scored less than 10 out of a maximum of 20 points should be seen as a blinking red warning light. Collectively, these 29 institutions represent a market cap of INR 11.85 trillion as on 31 March 2021. This collective inaction is a stark reminder of potential long-term damage to the Indian economy from financial institutions that are asleep at the wheel when it comes to addressing the risks from climate change. This also underlines the need for corrective action from regulatory agencies such as the Reserve Bank of India.

TABLE 1 SCORE OF TOP 10 BANKS

BANK	1	2	3	4	5	6	7	8	9	10	TOTAL
YES BANK	0	2	2	2	1	2	2	2	1	1	15
INDUSIND	0	2	2	1	1	2	2	2	2	0	14
HDFC BANK	0	2	2	0	1	2	1	2	1	1	12
AXIS BANK	0	2	2	0	1	1	2	2	2	0	12
KOTAK MAHINDRA BANK	0	2	2	0	0	2	1	2	2	0	11
SBI BANK	0	2	2	0	0	0	2	2	0	1	9
IDFC FIRST BANK	0	0	0	0	0	2	2	2	2	0	8
FEDERAL BANK	2	0	0	0	0	1	2	0	2	0	7
RBL BANK	0	2	0	0	0	2	1	0	2	0	7
ICICI BANK	0	1	0	0	0	2	2	0	0	0	5

Recommendations

Collectively, the Indian financial sector is failing to respond to the disruption that climate change will pose to their operations and profitability. The scale and pace of change needed is daunting, which is why it is concerning that so many Indian banks appear to have not even started on this process, while those that have are in the nascent stage. Climate Risk Horizons suggests the following key areas for financial institutions and regulators to focus on:

Public disclosure and transparency: This is the single most important step banks can institute. Banks should not only focus on financial materiality but also on Environmental & Social (E&S) materiality, meaning they should measure their impact on the climate as well as measure the impact that climate change has or will have on them. Hence, disclosing material climate-related data—not only operational emissions verified by a third party but also granular Scope 3 emissions including investment (portfolio) emissions in their financial filings, annual reports, etc., should be a basic minimum. Banks should also disclose the impact or potential impact on their financial performance to help investors to consider climate-related risks. Transparency and public disclosure is important to enable fair and open evaluation by investors and the public at large.

Harmonisation of report formats/framework between SEBI (BRSR) and RBI: An appropriate framework by RBI for banks to identify, assess and manage climate-related risk and report non-financial disclosures (mainly environmental and social factors) is critical for the overall assessment of a bank's risk profile. To simplify reporting and verification, it is essential at this early stage to harmonise the RBI framework with the reporting formats as well as metrics/indicators mandated by the SEBI, particularly for banking and other financial institutions.

Coal exclusion policy: There is no dearth of economic and technical analyses that demonstrate that further coal expansion is no longer necessary to meet India's energy demand growth, and is financially risky as well. Hence, excluding finance for any expansion of the coal industry is the easiest first step for banks to demonstrate that they take the climate threat seriously. Such a move would also be in line with the Glasgow climate pact and the recommendations of the United Nations Secretary General.

Deforestation and human rights policy: Similarly, financial institutions should institute processes to ensure they are not financing activities leading to the destruction of natural forests or the abuse of human rights. This must include due diligence procedures and a grievance redressal mechanism. These and other exclusion policies should not be limited to ensuring the absence of illegality, as is currently the case, but adopt a more proactive and progressive view on issues of climate, biodiversity and human rights.

Scenario analysis: Banks need to build their capabilities to undertake scenario analyses that test their resilience to climate related changes, either due to physical risks caused by the climate crisis, or transition risks caused by economic changes in response to the climate crisis. This is a nascent field globally; the sooner the Indian financial sector starts to build its capacity in this field, the better prepared it will be for the future. Further, banks should disclose underlying material business impacts by conducting multiple scenario analyses using different climate scenarios.

Net zero target data covering scope 1–3, including financed emissions: Zeroing out emissions for Scope 1 and 2 is relatively easy for financial institutions, yet only 2 banks have set target dates for this. Tracking and reducing Scope 3 emissions is more tricky but also crucial since most of a bank's emissions are in its value chain and loans and investments.

In addition, banks should set medium- and long-term targets to reduce carbon intensity and apply carbon abatement measures such as internal carbon pricing, carbon budgeting and carbon offsetting, etc.

Green finance targets: The Indian government has adopted aggressive targets for renewable energy, rooftop and agricultural solar, electrification of transport and green hydrogen for industry. Meeting these targets will be essential to deliver India's larger climate neutrality goals. Banking institutions need to disclose the levels of financing for these and other climate mitigation and adaptation sectors. To support India's green transition, the RBI should periodically revise the Priority Sector Lending (PSL) scheme to include, for example, electric vehicles (EVs), battery storage, green hydrogen, etc.

Associations and partnerships: Indian banks need to learn from a growing international body of work by joining various partnerships/associations with national/international climate initiatives such as UN Principles of Responsible Banking, etc.

Risk management: A climate-related risk identification and process for subsequent management under Board oversight is essential for any financial institution.

02 Background

With more frequent and severe natural hazards and extreme events, climate change poses systemic risks to the society, economy, and financial markets. The global economy could lose up to 18% of GDP by 2050 if no actions are taken.[4]

As per the latest Global Risk Report 2022, 'climate action failure', 'extreme weather' and 'biodiversity loss' are the top three global risks by severity over the next decade.[5] Climate change is a fast-emerging risk driver for financial systems globally that can manifest in two broad ways—physical risks (due to natural hazards and climate extremes) and transition risks (arising from transitioning to a low-carbon economy to address climate change). Thus, climate-related financial risk refers to risk assessments based on analysis of the likelihoods, consequences, and responses to the impacts of climate change as well as from efforts to mitigate these changes.[6]

The World Bank estimates a 2.8% annual hit to India's GDP by 2050. Deloitte Economics Institute estimates that an emissions pathway consistent with a 3°C temperature increase would lead to an annual loss of 3% of GDP from now till 2050, and a lost economic potential of $35 trillion by 2070. The think tank Overseas Development Institute (ODI) estimates that India may have already lost 3% of its GDP due to climate change.

In summary, even the rosiest projections indicate significant economic challenges ahead for the Indian economy. The Indian banking sector has a critical role to play in responding to the climate crisis, both in terms of managing the risks that climate change poses to their operations as well as in terms of financing the energy transition that India has embarked upon. But thus far there has been little information in the public domain to gauge the way the sector is preparing itself,

if at all, for a climate-changed India. This assessment is an effort at starting to fill in that gap.

Prior studies in assessing the preparedness of financial institutions towards climate-related risks have faced difficulties due to methodological challenges and gaps in availability of granular data in these institutions. This assessment also struggled with similar challenges given the lack of standardization in terms of institutional reporting. In the absence of granular data and standardized reporting, this study used a criteria-based scoring methodology.

Assessment of climate risks at the international level

To address the climate-related challenges faced by financial institutions, a variety of initiatives and processes are underway to develop guidance and methodologies to assess and monitor climate-related risks.

TABLE 2 ASSESSMENT OF CLIMATE-RELATED RISKS AT INTERNATIONAL LEVEL

METHODOLOGY/FRAMEWORK/ INITIATIVE	BRIEF DESCRIPTION
UNEP Finance Initiative's Principles of Responsible Banking[7]	A unique framework for ensuring signatory banks align their activities with the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. UNEP FI has rolled out climate-risk methodologies for the banking sector.
Partnership for Carbon Accounting Financials (PCAF)[8]	The most established carbon accounting methodology for assessment and disclosure of financed emissions, i.e., greenhouse gas (GHG) emissions financed by the loans and investments of financial institutions.
Financial Stability Board (FSB)[9,10]	• In October 2021, presented to the G20 a comprehensive roadmap for addressing climate-related financial risks, including steps and indicative timeframes needed for implementation. • Published a report examining the availability of data to assess and monitor climate-related risks to financial stability.

METHODOLOGY/FRAMEWORK/ INITIATIVE	BRIEF DESCRIPTION
European Central Bank[11,12]	• Published a guide on climate-related and environmental risks—supervisory expectations relating to risk management and disclosure for banks, outlining the European Central Bank's understanding on safe and prudent management of climate—related and environmental risks under the current prudential framework. • In January 2022, the European Banking Authority (EBA) published binding technical standards on Pillar 3 disclosures of ESG risks.
Prudential Regulation Authority (PRA), Bank of England, UK[13,14]	• Issued a supervisory statement that firms should have fully embedded their approaches to managing climate-related financial risks by the end of 2021 and a roadmap towards mandatory TCFD disclosure for banks and insurers. • The Climate Financial Risk Forum (CFRF) has issued guidelines to help financial firms manage climate-related financial risk.
Network for Greening the Financial System (NGFS)[15]	A group of central banks and supervisors willing to share best practices and contribute to the development of environment and climate risk management in the financial sector, published a guide on climate-related disclosure—a first 'how to guide' for central banks in line with the TCFD recommendations.
The Office of the Comptroller of the Currency (OCC), USA[16]	In December 2021, issued public consultation on supervisory principles to support the identification and management of climate-related financial risks for large banks.
Bank for International Settlements (BIS)[17,18]	• In February 2020, established the Task Force on Climate-related Financial Risk (TFCR). • Basel Committee published analytical reports on climate-related risk drivers and their transmission channels and climate related financial risks—measurement methodologies. • In November 2021, the Basel Committee issued a public consultation on principles for the effective management and supervision of climate-related financial risks.
Hong Kong Monetary Authority (HKMA)[19]	In December 2021, the HKMA conducted a pilot climate risk stress test (CRST) for its banking sector.
Central Bank of Malaysia[20]	In December 2021, released the exposure draft on Climate Risk Management and Scenario Analysis setting out the proposed requirements and guidance on climate risk management and scenario analysis.

In terms of disclosure requirements by public companies and other organisations, the FSB established the Task Force on Climate-related Financial Disclosures (TCFD) that set out an overarching framework in four thematic areas—governance, strategy, risk management, and metrics and targets. Beneath these thematic areas are the 11 recommended disclosures which provide more granular detail under each recommendation. Its recent status report suggests that there has been an increasing number of financial institutions supporting TCFD and overall, an increased push towards integrating and disclosing climate-related risks into the existing risk management framework of financial firms.[21]

At the recent COP26 climate summit in Glasgow, the International Financial Reporting Standards (IFRS) Foundation announced the formation of the International Sustainability Standards Board (ISSB) which aims to develop a comprehensive global baseline of high-quality sustainability disclosure standards focusing on enterprise value.[22] The ISSB will be a consolidation of Climate Disclosure Standards Board (CDSB), International Integrated Reporting Council (IIRC) and Sustainability Accounting Standards Board (SASB) and builds upon TCFD's climate-related financial disclosures.

The quantification of climate-related risks remains a challenge due to data gaps and methodological hurdles, many of which are unique to climate risk and contribute to elevated uncertainty in risk estimates.

For instance, assessment of the potential impact of climate change may require precise data on the location of a borrower's assets and business operations, as well as on local weather patterns for their locations. It may also require knowledge of a counterparty's carbon emissions and policies in different industries and jurisdictions. Data at this level of granularity is often difficult to acquire, presenting challenges in calculating the magnitude of climate-related financial risks. Firms also lack technical capacity to develop and disclose forward-looking assessment of climate-related risks. Some of these data gaps are particularly acute in emerging market economies. However, the NGFS provides a common starting point for analyzing climate risks through standardized scenarios and related datasets on transition risk, physical risk, and economic impacts.

Global banks start to act on climate

Globally, banks are evolving when it comes to assessing, managing, and integrating climate-related risks into their overall enterprise risk management framework. Banks have explored several physical risk assessment tools to assess and disclose climate-related risks. For example, Banco Bradesco, Intesa Sanpaolo, Lloyds Banking Group, NatWest Group, Santander, and Standard Bank use a tool developed by UNEP FI[23] to conduct a physical risk assessment for its portfolio.

The UNEP FI[24,25] provided few case studies on banks vis-à-vis TCFD's recommended four themes:

TABLE 3 INTERNATIONAL BANKS' CASE STUDIES ON THE TCFD THEMES

TCFD THEME & ACTIVITIES	BANKS FEATURED
Governance: Board oversight and senior management role	UBS, Citi, ING, and Scotiabank
Strategy: time horizons (short-, medium-, and long-term targets)	ING Terra and UBS
Strategy: assessing climate-related risks and opportunities	Citi and ING
Strategy: identifying and managing business impact, strategy, and financial planning	National Australia Bank, Citi, and ING Groep N.V
Strategy: scenario analysis and resilience strategy	Barclays and UBS
Risk Management: identifying and assessing risks	UBS
Risk Management: process for managing risks	Barclays
Risk Management: integration into overall risk management	Barclays and Citi
Metrics and Targets: climate-related metrics	State Street and UBS
Metrics and Targets: Scope 1, 2 and 3 emissions	State Street
Metrics and Targets: target setting	Barclays

Some international banks have taken a sector-based decarbonization approach in assessing their climate-related risks, by using climate transition scenarios to cover oil and gas, power generation/utilities, transportation and metals and mining sectors. Examples of this approach are Caixa Bank, Intesa Sanpaolo, Danske Bank, Mitsubishi UFJ Financial Group (MUFG), KBC Group, UBS, Banco Bradesco, and ABN AMRO.[26]

Several global banks have instituted exclusion policies or phase out commitments covering coal and fossil fuels.

- In January 2022, Citigroup announced new 2030 interim targets[27] to reach its commitment to net zero financed emissions by 2050. The plan includes a commitment to reduce absolute financed emissions from the energy sector by 29% and financed emissions intensity from the power sector by 63%. Citi was also the first US bank with a plan to restrict financing for companies expanding coal power and to phase-out financing for almost all coal power companies by 2030 in the OECD and 2040 globally.[28]

- In December 2021, HSBC committed[29] to phase out financing from coal power and mining by 2030 in the OECD and 2040 globally, and *"withdraw any financing and advisory services with a client that makes a new commitment to, or proceeds with, thermal coal expansion after 1 January 2021."*

- Dutch bank ING has committed to reducing its financing to upstream oil and gas by 12% by 2025, compared to 2019 levels.[30]

A few international commercial banks have measured and disclosed financed emissions associated with their portfolio of loans and investments by using the PCAF's carbon accounting methodology recommended by the TCFD. This list includes ABN AMRO, Banco Bradesco, Danske Bank, NatWest Group, Rabobank, and Triodos Bank.[31] The PCAF methodology is also useful for other financial institutions such as asset managers/owners, development banks, financial services groups, investment banks and insurance companies.

The Indian scenario

According to International Monetary Fund (IMF)'s Climate Change Dashboard, the economic activity indicator for India's carbon footprint-adjusted loans to total loans (CFALTL) for deposit takers in countries around the world shows a slight upward trend from 719.67 tCO_2/Million USD in 2012 to 771.51 tCO_2/Million USD in 2015.[32]

India is clearly playing catch up when it comes to putting in place the necessary frameworks and guidelines for financial institutions. There are two main regulatory bodies that have jurisdiction in the area—the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). Both have

recently initiated measures that are relevant to assessing financial institutions' response to climate change.

The Reserve Bank of India: Over the last few years, the RBI has shown that it is clearly cognizant of the importance of developing a better understanding of the interaction between climate risks and business activities of financial institutions, as well as the compounding effects such risks may have on various prudential risk categories. It has taken several measures to put in place the structures and systems needed to monitor and guide Indian financial institutions and has been vocal of the need to assess more completely the financial and economic risks that climate change poses.

As far back as 2007, the RBI had advocated banks put in place an appropriate action plan towards making a meaningful contribution to sustainable development, corporate social responsibility (CSR), and non-financial reporting (NFR).[33] In 2015, the RBI started incentivizing bank lending towards green initiatives and projects, such as Priority Sector Lending (PSL) in agriculture, education, housing, social infrastructure, and renewable energy projects. According to the latest guidelines, a bank can loan up to a limit of INR 30 crore for renewable energy projects viz. solar, wind, biomass, and micro-hydel as well as for non-conventional energy projects like public street lighting systems and remote village electrification, etc.[34]

Being a central bank, the RBI is a member of the TFCR established in February 2020 of the Basel Committee on Banking Supervision. The April 2020 RBI bulletin on the macroeconomic impacts of climate change discussed the impact of temperature and weather events on agricultural yields in India. Its analysis indicated that precipitation (rainfall) has a strong influence on food inflation due to weather events and overall, on the economy. It concluded that fiscal policy tools (e.g., carbon pricing and other tax incentives or disincentives) are the first, best option to mitigate the risks related to climate change, complemented by appropriate monetary policy instruments and measures by central banks viz. providing support to green finance, investing in green assets, performing scenario analysis and stress testing, bridging data gaps, additional/subsidized liquidity support to banks, incentivizing banks towards green projects, and allocating a certain minimum credit to environment-friendly sectors (e.g., PSL).[35]

In January 2021, the RBI reviewed the development of green finance globally and in India. Its findings indicate that the green finance field is at a nascent stage and should become a fast-emerging priority in India. It also stated that a reduction in asymmetric information through better management systems and increased coordination among stakeholders could help India's economic growth in a greener and more sustainable manner. Other than improving public awareness on green finance, the RBI also highlighted major challenges in green financing options[ii] such as high borrowing costs, false claims of environmental compliance, plurality of green loan definitions, maturity mismatches between long-term green investment and relatively short-term interests of investors.[36]

In January 2021, the Department of Economic Affairs (DEA), India's Finance Ministry set up a Task Force on Sustainable Finance to define the framework for sustainable finance in India. The task force will also work on establishing sustainable finance roadmap, suggesting a draft taxonomy of sustainable activities and a framework for risk assessment by the financial sector.

While stressing the role of central banks to mitigate financial risks on their balance sheets due to exposures to climate change risks, the RBI's monetary policy report in April 2021 shared cross-country experiences of global central banks towards mitigating climate change risks.[37] That same month, the RBI formally joined the Network for Greening the Financial System (NGFS).

ii For example, green bond issuances constituted only 0.7% of all bonds issued in India since 2018.

In May 2021, the RBI set up a 'Sustainable Finance Group' (SFG) within its Department of Regulation to coordinate with other national and international agencies on issues relating to climate change. It is envisaged that this group would be instrumental in suggesting strategies and evolving a regulatory framework, including appropriate ESG disclosures, which could be prescribed for banks and other regulated entities (REs) to propagate sustainable practices and mitigate climate-related risks in the Indian context. Going forward, it will analyze context-specific themes on the systemic stability impact of climate change and stress testing.

In a June 2021 speech on building a more resilient financial system in India through government improvements on climate resilience, the Deputy Governor of the RBI stated that *"climate is fast emerging as a risk driver for the financial system... banks are also required to take into account the climate risk more seriously".*[38]

As per its Financial Stability Report in July 2021, the RBI stated that climate change is a growing threat to financial stability across advanced and emerging economies alike and realized that it is now imperative to have an appropriate framework to identify, assess and manage climate-related risks in India.[39] In late November 2021, in line with India's COP26 commitment at Glasgow to achieve net zero by 2070, the RBI published a statement expressing support for the NGFS and committing to exploring how climate risks and vulnerability assessments can be integrated into financial stability monitoring and building awareness about climate-related risks among its regulated entities and methods to deal with them.[40]

India's Economic Survey 2022 indicated that the RBI is preparing a consultative discussion paper to assess the progress of its regulated entities in managing climate risks. This will cover (i) governance (ii) strategy (iii) risk management and (iv) disclosure, to help regulated entities integrate climate-related and environmental risks in their business, strategies, governance, and risk management. The Economic Survey also highlights the liberalization of External Commercial Borrowings (ECB) framework of RBI which has authorized Indian companies to raise finance through green bonds/sustainable bonds.[41]

However, **despite these statements over the last two years and more, the RBI has not yet issued any climate-related guidelines on assessing or managing risks and compliance culture or business strategy for scheduled and commercial banks (SCBs)**. In response to the CRH's request for information, the RBI in October 2021 confirmed that it had not yet communicated with the SCBs on the assessment or reporting of climate-related risks.[iii]

Securities Exchange Board of India (SEBI): In March 2021, to bring in greater transparency regarding material Environment, Social and Governance (ESG)-related risks and opportunities, the SEBI Board[42] decided to introduce new requirements for sustainability reporting known as "Business Responsibility and Sustainability Report (BRSR), replacing the pre-existing Business Responsibility Report (BRR). The BRSR is structured around disclosures under the nine principles laid down by the National Guidelines on Responsible Business Conduct (NGRBC), 2019.[43] Under each of these nine principles, the disclosure requirement is divided into essential (mandatory) and leadership (voluntary) sections. SEBI extended the mandate from the top 500 to 1000 listed entities by market capitalization under the SEBI (Listing Obligation and Disclosure Requirements or LODR) Regulations, 2015,

iii Right to Information response from the RBI dated October 28, 2021.

and issued a revised format for BRSR and a guidance note on ESG indicators in May 2021.[44] To avoid duplication of reporting of information by entities, the BRSR also provides for interoperability of reporting, i.e., entities may provide a cross-referencing of the sustainability reports based on internationally accepted reporting frameworks (such as the GRI, SASB, TCFD, Integrated Reporting), while making the relevant disclosures under the BRSR format.

SEBI also directed that the Boards of the top 1000 listed entities by market capitalization are required to constitute a Risk Management Committee (RMC), to ensure appropriate methodology, processes and systems are in place to monitor and evaluate ESG related risks.[45]

SEBI also regulates the green bond market—green bonds are issued under existing SEBI regulations for issuance of corporate bonds, i.e., SEBI (Issue and Listing of Debt Securities Regulations, 2008). As per SEBI's concept paper for issuance of green bonds, 'Green Bonds' designation requires an issuer to disclose additional information based on Green Bond Principles, 2015.[46] In January 2016, the SEBI's Board approved the proposal for disclosure requirements for issuance and listing of green bonds[47] followed by issued circular on disclosure requirements for issuance and listing of green debt securities in May 2017 which provided the definition of green debt securities and clarified that the requirement of independent third-party reviewer/certifier for reviewing the pre- and post-issuance including project evaluation and selection criteria are optional and an escrow account for tracking the use of proceeds is also not mandatory.[48] In fact, these should be mandatory to ensure investors can hold companies to account on meeting E&S goals. Finally, the issuer must disclose use of proceeds, list of green projects, etc., in annual reports/periodic filings.

In January 2022, SEBI issued a consultation paper on ESG rating providers for securities markets[49] to protect investors from 'green washing'. The paper flags the plethora of ESG ratings used by Indian companies and the lack of clear terminologies, definitions, and objectives in the ESG space. SEBI has proposed a regulatory framework that would mandate public disclosure of ESG ratings service providers' rating methodologies and the key performance indicators used for assessing companies. Further, the rules envisage avoiding conflicts of interest between rating providers and the companies they evaluate.

03

Data and Methodology

There are 34 banks[iv] (12 public sector, 18 private sector, and 4 small finance banks) in the top 1000 entities by market capitalization at the BSE as on 31 March 2021. According to the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, it is mandatory for these banks to file Business Responsibility and Sustainability Reports (BRSR) from FY 2022–23 onwards.

CRH assessed these banks based on their performance on ten specific criteria for their disclosures during FY 2020–21.[50] The assessment is based on publicly available information in bank reports, exchange filings, media articles, annual reports, and other public documents.

Criteria principles

To conduct a robust and systematic analysis, CRH's methodology was guided by the following principles:

1. **Data Availability:** Bank assessments should be from public reporting like bank publications, exchange filings, annual reports, sustainability reports, ESG reports, Integrated reports, and other public documents and recent updates from publicly available information like media articles, bank press notes, etc.
2. **Objectivity:** Banks shall be ranked based on scores received for each bank, with minimal space for subjective interpretation.
3. **Transparency:** Banks shall be asked for their feedback/ suggestions/comments if any, or additional documents that might have a bearing on the bank's ranking, before publishing the final ranking on the website of CRH.

iv *Refer Appendix 1 for the list of banks.*

4. **Usability:** The ranking should be useful to academia, policy makers, asset owners (including asset managers), and the media.

5. **Consistency:** Criteria should link to, or build on the existing initiatives and disclosure frameworks, for example, the FSB's TCFD to improve and increase reporting of climate-related financial information.

6. **Completeness:** Criteria scores should be aggregated and apply to the bank as a whole.

7. **Coverage:** Criteria score should pertain to the individual bank, and not their subsidiary companies or foundation(s) or institution(s) or any other organization(s).

8. **Decision Relevance:** The criteria should be in the context of India, i.e., pragmatic to India's current position on the world stage.

TABLE 4 CRITERIA FOR ASSESSING THE CLIMATE-RELATED RISK PREPAREDNESS OF BANKS IN INDIA

GOVERNANCE	
Criteria 1	A policy commitment to act on phasing out coal investments (power plants, mines, washeries, and other coal infrastructure) and/or stopping new coal investments.
Notes	**2 points:** The bank has a clear policy or equivalent commitment on phasing out coal investments or stopping new coal investments **1 point:** The bank is planning to have a clear policy or equivalent commitment on phasing out coal investments or stopping new coal investments **0 point:** No commitments or plans to commit to phasing out coal investments
Explanation	Banks are assessed on their policy commitment to act regarding coal lending in its portfolio. The bank should have a clear policy on not providing lending to any new coal-fired power plants/washeries or expansion of existing plants, new coal mines or expansion of existing mines or other new coal infrastructure. Banks having such clear policy commitment will be scored highest and the banks that do not have such policy will be provided lowest points accordingly.

METRICS AND TARGETS	
Criteria 2	Discloses Scope 1, Scope 2, and/or Scope 3 emissions
Notes	**2 points:** The bank discloses Scope 1, Scope 2, and Scope 3 emissions **1 point:** The bank discloses only Scope 1 and Scope 2 emissions **0 point:** The bank discloses only Scope 1 or no emissions
Explanation	Banks are assessed on their voluntary disclosure of Scope 1, Scope 2, and Scope 3 emissions. Here, Scope 3 emissions are from activities in the value chain of the entities included in the bank's organizational boundary. Banks disclosing all three Scope of emissions are scored highest.

METRICS AND TARGETS	
Criteria 3	Verification of operational emissions
Notes	**2 points:** Operational GHG emissions have been independently verified by a third party and disclosed by an assurance letter **1 point:** Operational GHG emissions have been independently verified by a third party without disclosing an assurance letter **0 point:** Operational GHG emissions have not been independently verified by a third party
Explanation	Banks are scored higher if their operational GHG emissions have been independently verified by a third party along with its statement of assurance for the same financial year.

METRICS AND TARGETS	
Criteria 4	Disclosure of Scope 3 category 15 (investment) emissions
Notes	**2 points:** The bank discloses Scope 3 category 15 (investment) emissions **1 point:** The bank is planning to disclose Scope 3 category 15 (investment) emissions **0 point:** The bank does not disclose Scope 3 category 15 (investment) emissions
Explanation	Scope 3 category 15 includes emissions associated with the reporting bank's loans and investments in the reporting year, not already included in Scope 1 or Scope 2. Banks disclosing these emissions are scored highest.

STRATEGY	
Criteria 5	Climate scenario planning/analysis or other forward-looking assessments such as climate stress testing, etc.
Notes	**2 points:** The bank confirms that they have conducted one or more climate-related scenario analyses and describes the business impact **1 point:** The bank confirms that they have conducted one or more climate related scenario analyses and does not describe the business impact, or is planning to undertake climate-related scenario analysis in the next 1–2 years **0 point:** The bank has no plan to undertake climate-related scenario analysis
Explanation	Climate scenario analyses allow banks to explore and develop an understanding of how the physical and transition risks and opportunities of climate change might plausibly impact their business over time. Considering a set of different scenarios and assumptions might help to understand material impacts on loans and investments in a bank's portfolio. Banks score highest if they have performed one or more climate-related scenario analysis/ climate stress testing and describe the impact on its business such as impact on input costs, operating costs, revenues, supply chain, business interruption and timing.

STRATEGY	
Criteria 6	Process in place to manage climate-related risks at the Board level
Notes	**2 points:** The bank has a specific climate-related risk management process and a Board member or a Board committee responsible for decision-making on risks related to climate change **1 point:** The bank has or is planning to have a specific climate-related risk management process, but there is no Board member or Board committee responsible for decision-making on risks related to climate change **0 point:** The bank does not have a specific climate-related risk management process, nor a Board member or Board committee responsible for decision-making on risks related to climate change
Explanation	Banks are scored if they provide evidence of having clear Board or Board committee oversight of climate change/ESG risk and integrate these risks into a specific climate-related risk management process. Banks score highest if they have such a process to manage climate-related risks at the Board level.

STRATEGY	
Criteria 7	Issuance of green loans/financing towards climate change mitigation/adaptation

Notes	**2 points:** Issued green loans/financing towards climate change mitigation/adaptation and discloses individual values of relevant financed activities **1 point:** Issue green loans/financing towards climate change mitigation/adaptation but does not disclose the value **0 point:** Neither issues green loans/financing towards climate change mitigation/adaptation, nor discloses each total value
Explanation	Banks are scored if they provide any funding towards climate change mitigation activities like loans to renewable energy, electric vehicles, biogas plants, etc., and adaptation activities like sustainable agriculture, water and waste management, land conservation, etc., and disclose total value for each. Banks providing green bonds/loans and sustainability linked bonds/loans are also considered. Sustainable activities carried out by Banks under its Corporate Social Responsibility (CSR) are not considered for scoring.
GOVERNANCE	
Criteria 8	Partnership or association with national/international climate initiatives/strategies such as Equator Principles, Net Zero Banking Alliance, UN Principles of Responsible Banking, Partnership for Carbon Accounting Financials (PCAF), Science-Based Target Initiative (SBTi), CDP, etc.
Notes	**2 points:** The bank supports national/international climate initiatives/strategies, through partnerships or memberships, and has a clear position or policy commitment in terms of implementing said strategies **1 point:** The bank is or planning to support national/ international climate initiatives/strategies through partnerships or memberships, but does not have a clear position or policy commitment in terms of in terms of implementing said strategies **0 point:** The bank does not demonstrate or support national/ international climate initiatives/strategies through partnerships or memberships, and does not have a clear position or policy commitment in terms of implementing said strategies
Explanation	Banks are scored if they have disclosed their membership to national/international associations such as Equator Principles, Sustainable Finance Collaborative, Net Zero Banking Alliance, UN Principles of Responsible Banking, PCAF, SBTi, etc. that engage on climate-related issues, and have consistency and involvement in these associations as well as respond appropriately.

GOVERNANCE	
Criteria 9	Policies that exclude lending/services to entities credibly involved in deforestation, human rights violations, biodiversity loss, etc.
Notes	**2 points:** The bank has such exclusion policies in place **1 point:** The bank is planning to institute such exclusion policies **0 point**: The bank has no plan to institute exclusion policies
Explanation	Banks are scored if they have a clear policy commitment and/or exclusion/screening list for activities like deforestation, biodiversity loss, human rights violations, weapons and munitions, gambling, radioactive material, ozone depleting substances, etc., will not be financed.
STRATEGY	
Criteria 10	Net zero target covering Scope 1, 2 and 3 emissions, and implementation plan
Notes	**2 points:** The bank has a long-term net zero target year including an implementation plan covering Scope 1, 2 and 3 emissions **1 point:** The bank has or is planning to have a long-term net zero target year for only Scope 1 and 2 emissions **0 point:** The bank has neither a plan to have a long-term net zero target nor an implementation plan
Explanation	Banks are scored if they have a clear policy commitment or statement on net zero or carbon neutral target covering Scope 1, 2 and 3 emissions, along with implementation plan and its timeline.

TABLE 5 TYPOLOGY OF SEARCH ITEMS USED FOR ASSESSMENT

CRITERIA	SEARCH TERMS
Criteria 1: Coal policy commitment	Coal investments, phasing out coal, new coal, coal mines, coal plants/washeries, fossil fuels
Criteria 2: Scope 1, 2 and/or 3 disclosures	Scope 1, Scope 2, Scope 3, emissions, tCO2e, greenhouse gas
Criteria 3: Verification of operational emissions	Emissions, verification, assurance, third party, independent, greenhouse gas
Criteria 4: Scope 3 category 15 (investment) emissions	Scope 3, financed emissions, category 15, investment emissions
Criteria 5: Climate scenario analysis	Climate scenario analysis/planning, climate stress testing, forward-looking assessments
Criteria 6: Climate-related risks management	Climate-related risks, climate board, risk management, ESG risk, climate/ESG committee
Criteria 7: Green finance	Green loans/bonds, climate change mitigation/adaptation financing/lending, sustainability-linked loans, renewables, electric vehicles
Criteria 8: Association with climate initiatives/strategies	Partnership/association, climate initiatives/strategies, equator principles, net zero, UN principles, responsible banking, PCAF, SBTi
Criteria 9: Exclusion list/policies	Exclusion list/policies, ESG policy, screening list, lending policy, human rights, biodiversity, ozone, nuclear, weapons, gambling
Criteria 10: Net zero target	Net zero, long-term target, carbon neutral/target, climate target, emission target

For each of the 34 banks, publicly available disclosures were assessed using search items to address each of the criteria questions, and individual scores provided to them. Draft scores were shared with the respective reporting heads of the bank's BRSR for their comments/suggestions/feedback if any or provide additional documents that might have a bearing on the banks' ranking. The bank representatives were provided 10 working days to respond along with proper information. Additionally, they were informed about the dissemination of this research with the academia, policy makers, and media.

YES Bank

YES Bank is India's leading private sector bank in terms of sustainability disclosures. It has disclosed all scopes of emissions, verified by an external agency.[51]

It is the only bank in India that has started to measure its attributable Category 15 (investment) emissions for its project finance and corporate loans. So far, it has undertaken this in the electricity generation sector only. YES Bank has used the PCAF carbon accounting methodology to calculate financed emissions in the electricity sector for the year 2020, which amounted to 5,470 ktCO_2.

The bank says it is piloting a forward-looking assessment for its electricity generation sub-portfolio and building capacity and collaborating with different stakeholders to use other emerging methodologies. By taking a sectoral approach, the bank has identified climate sensitive sectors to measure and mitigate climate risks at portfolio level, including scenario-based assessment and building climate resilience of its portfolio.

YES bank has a risk management committee at the Board level for assessing and monitoring the risk profile of the bank, including sustainability and ESG-related risks.

The bank has extended loans of INR 575 crore for solar projects of 950 MW in the year 2020–21. The bank is also expediting an agreement with the Green Climate Fund (GCF) to access funding for climate mitigation and adaptation projects in India and it is exploring projects in climate change sectors like e-mobility, water and waste management, energy efficiency, and climate smart agriculture.

The bank has expressed its intent to utilize its association with PCAF, UNEP FI Principles for Responsible Banking, Collective Commitment to Climate Action, Physical Risk and Resilience Commitment and Science Based Targets Initiatives

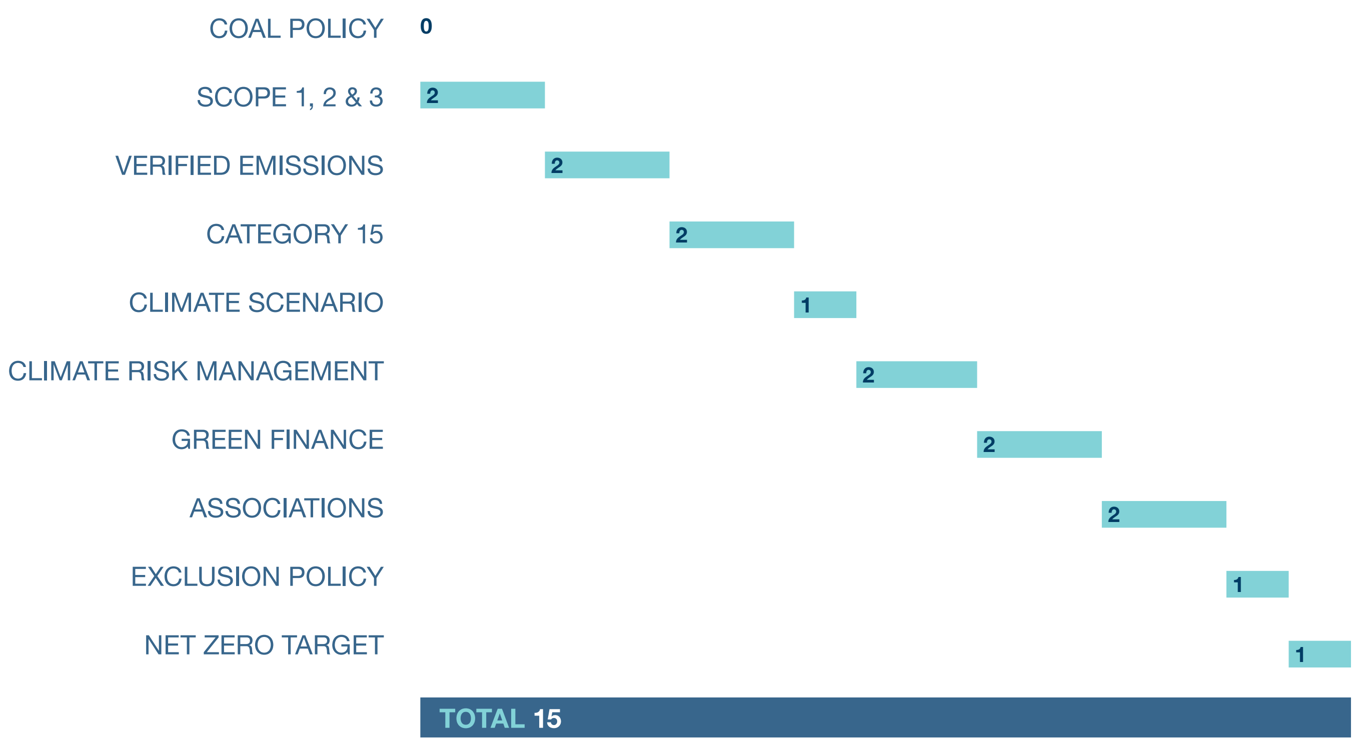
(SBTi), for developing forward-looking methodologies on climate assessment and integration. It is the only bank in India that has committed to align its disclosure as per TCFD recommendations.

The bank has an environment and social policy[52] which outlines a 'list of prohibitive activities' derived from the International Finance Corporation (IFC) exclusion list and applies to all its lending activities to be pre-screened. However, this list is not public, making independent scrutiny impossible.

Notably, the bank does not have a coal lending exclusion policy, or any other fossil fuel related policy. Considering that YES Bank is the most progressive of any Indian bank in assessing its climate risks, this is a notable omission.

In January 2022, the bank committed to reduce Scope 1 & 2 operational emissions across the country to reach net zero by 2030.[53] However, the net zero commitment does not include Scope 3 emissions.

FIGURE 2 YES BANK SCORE



IndusInd Bank

IndusInd Bank has voluntarily disclosed all scopes of emissions, verified by an external agency.[54]

For Scope 3 (Category 15) investment emissions, the bank is currently developing targets to align its portfolio emissions with climate-related goals such as the Paris Agreement and divestment from high-carbon sectors.

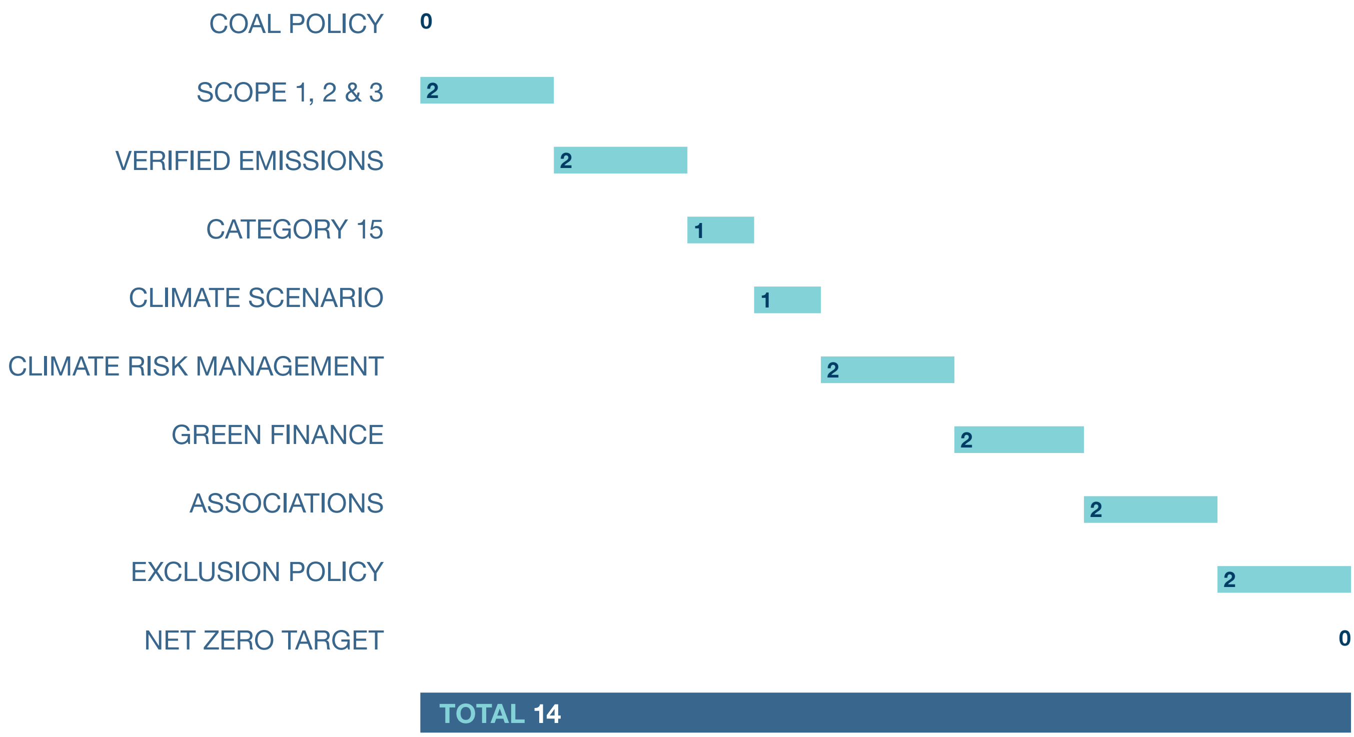
IndusInd Bank acknowledges the necessity for having specific guidelines for financial institutions on key ESG disclosures such as SBTi and TCFD, etc. It is planning to conduct climate scenario stress tests in line with the TCFD recommendations to appropriately integrate potential climate change impacts in its business and financial performance. The bank confirms that it has started conducting a few aspects of climate scenario analysis for its business and operations but does not describe its impact on their business.

The Head of Corporate Investment and Sustainable Banking is responsible for the management of climate-related risks at the Board level. The bank has integrated an environment and social due diligence (ESDD) into its overall credit risk assessment framework supervised by a risk management committee responsible for overall risks as well as the risks and opportunities associated with environmental and social issues along with climate change.

Recently, the bank has instituted an environmental and social management system (ESMS) committee to oversee risks arising from the bank's investments. The system also includes an exclusion list—areas where the bank does not make investments.[55]

Between 2015 and 2021, the bank has extended loans of INR 17, 251.1 crore for setting up a total of 4568.02 MW of solar, wind, biomass, and small hydro projects.

FIGURE 3 INDUSIND BANK SCORE



HDFC Bank

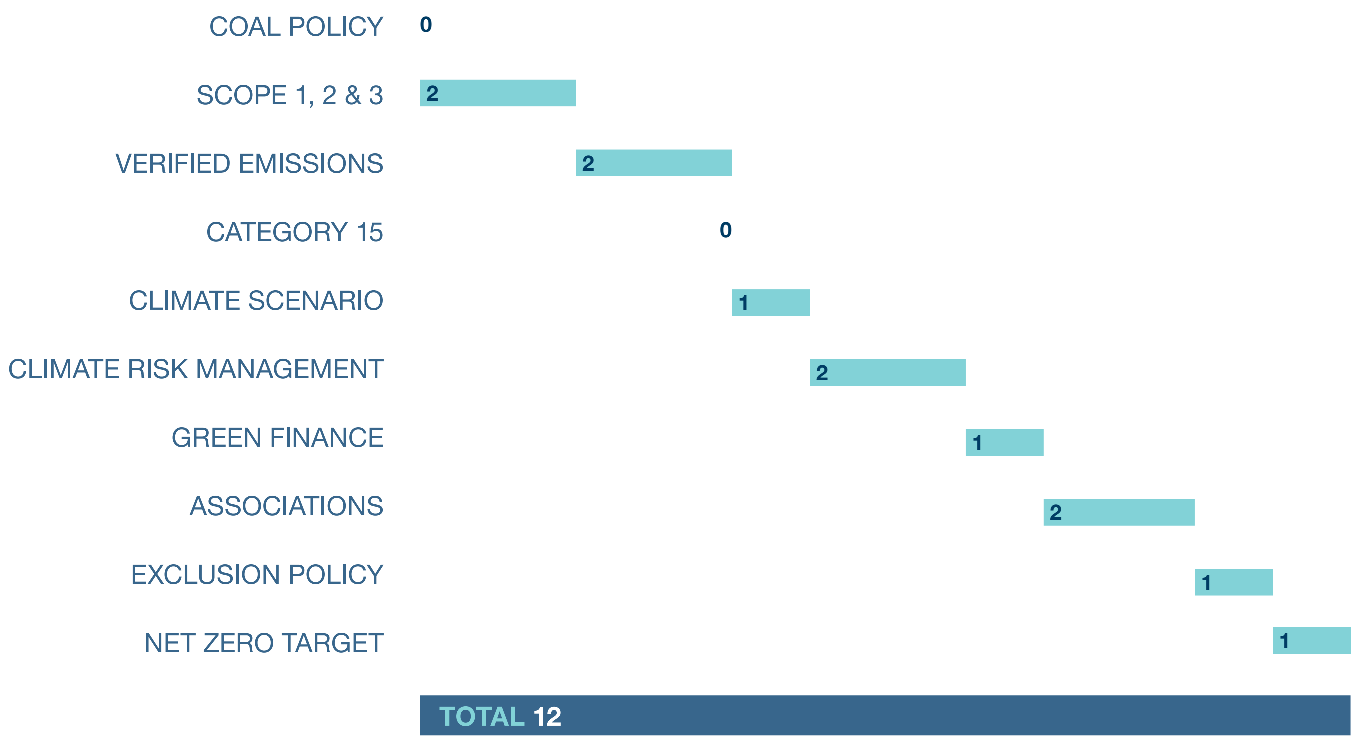
HDFC Bank is the largest bank by market capitalization in India. The bank has said it is aiming at carbon neutrality by 2031–32 covering its own emissions, energy, and water consumption.[56] The latest sustainability report available in the public domain is for 2019–20 therefore, all three scopes of emissions cannot be compared to the assessment year (2020–21) of this study or other banks.[57]

HDFC Bank has reported that it has in-house capacity to assess climate-related risks through scenario analysis. This has however not been integrated into their risk assessment processes, hence the impacts of climate change are unknown to the bank.

The bank provides financing towards climate change mitigation/adaptation but does not disclose its total value. The bank sees significant opportunities in sustainable finance including green bonds and loans in the renewable energy space and these opportunities are currently being evaluated by their ESG committee.

The bank does not disclose financed emissions. HDFC Bank also does not have an exclusion list, but its ESG policy does call for screening prospective deals for social considerations, resettlement, CSR initiatives, GHG emissions, etc.

FIGURE 4 HDFC BANK SCORE



Axis Bank

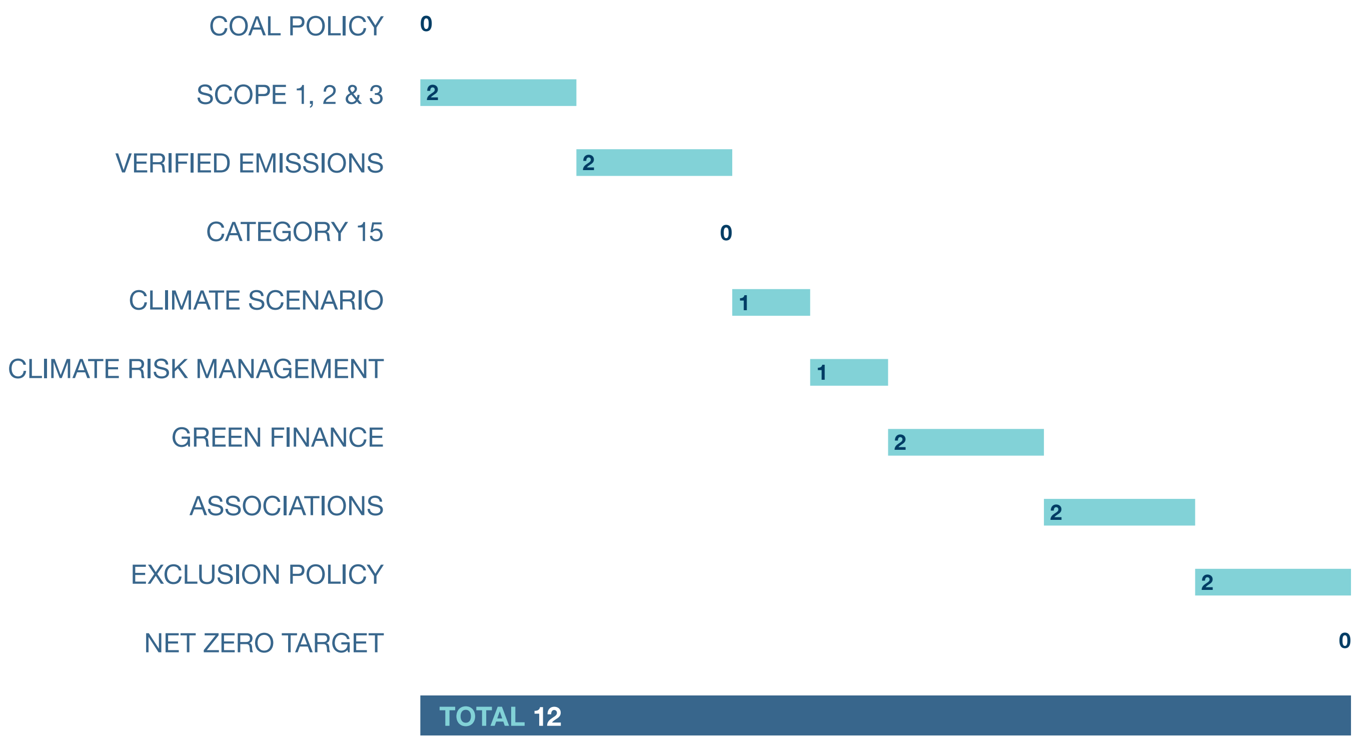
Axis Bank does not have a coal lending exclusion policy. It has voluntarily disclosed all scopes of emissions, verified by a third-party agency.[58] The bank has not disclosed Category 15 (Scope 3) investment emissions.

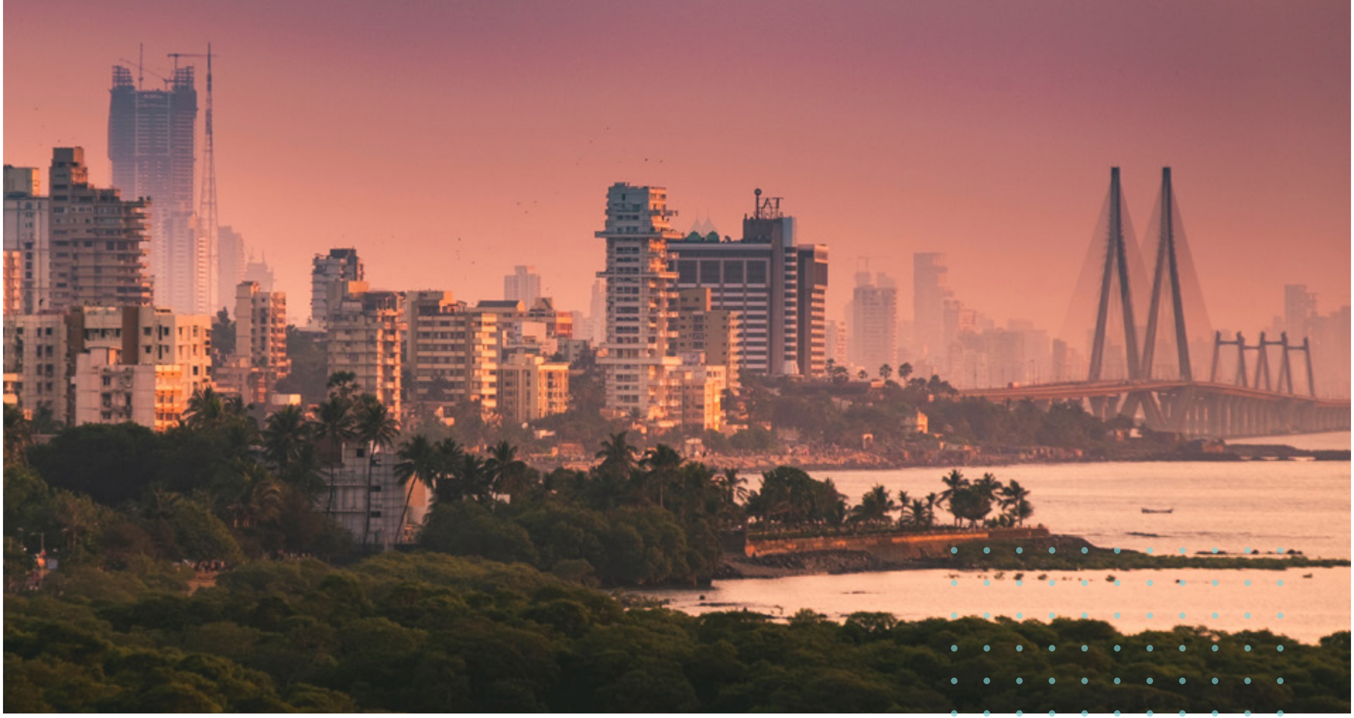
As per Axis bank's latest sustainability report, the bank will build and deploy appropriate risk assessment toolkits covering ESG stress testing and scenario analysis, climate risk dashboard as well as integrating ESG into its credit risk management and decision making over the next two reporting years. The bank is also working to design and implement structures and processes to help manage and govern climate-related risks across the bank by enhancing its disclosure for its stakeholders.

The bank has an environment and social management group division overseeing the environment and social due diligence of the lending portfolio in accordance with its sustainable lending policy and procedure (SLPP). According to this policy, it also commits to an exclusion list that will not be financed by the bank.[59]

Axis Bank provides green financing towards renewable energy, urban mass transport, electric mobility, green buildings, which stood at INR 9,753 crore as on 31 March 2021. The bank also has a sustainable financing framework for the issuance of sustainability bonds and loans, aligned to the green bond principles and other standards, verified by a third-party agency. Axis Bank has issued a green bond worth INR 46.05 billion as on 31 March 2021.[60] The bank does not have a long-term climate neutral commitment.

FIGURE 5 AXIS BANK SCORE





Kotak Mahindra Bank

Kotak Mahindra Bank is the third largest private sector bank by market capitalization. It had adopted the IFC guidelines on Social Environmental Management Plan (SEMS Plan) meant to ensure projects being financed are sustainable in environmental and social aspects. However, the SEMS plan is not available in the public domain, making independent verification impossible.

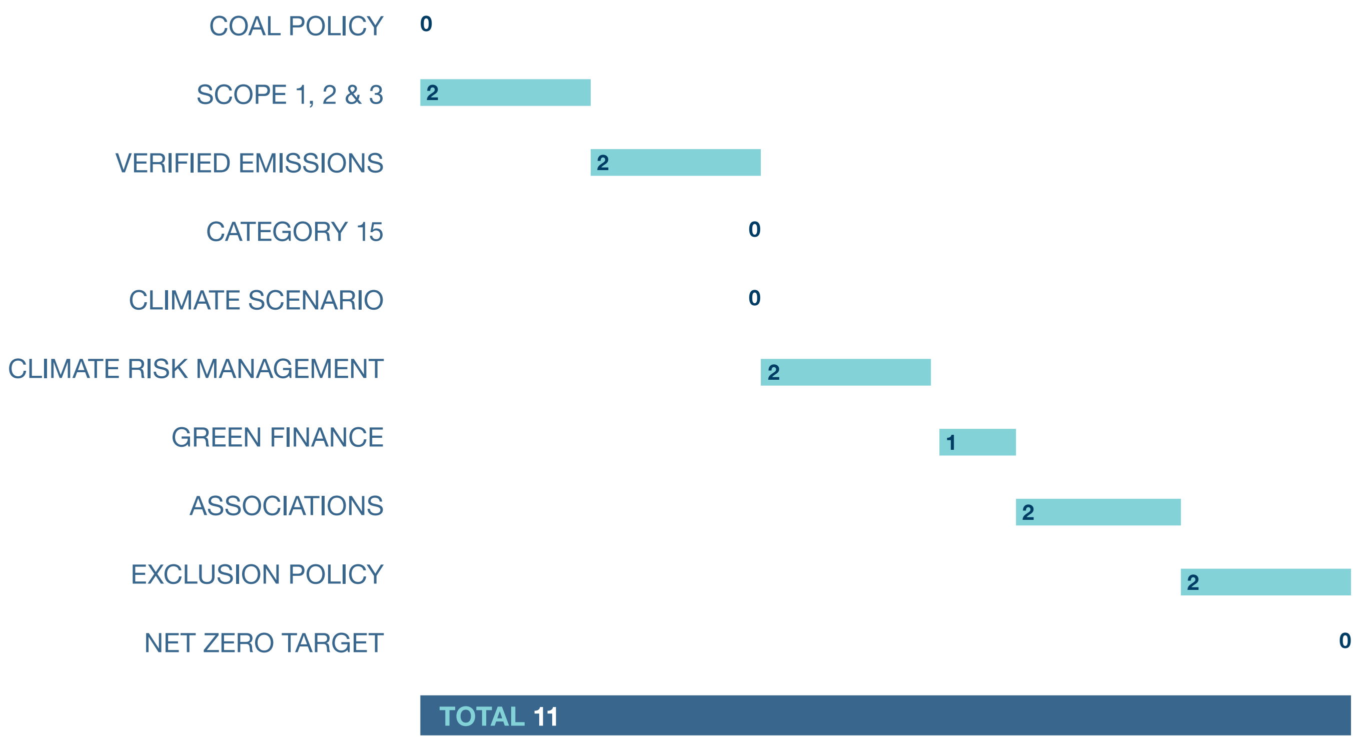
The bank has been monitoring its GHG emissions and reporting to the CDP since 2014 to account for its carbon emissions. As per the bank's latest Integrated report,[61] it has voluntarily disclosed total GHG Scope 1, 2 and 3 emissions. The bank has started disclosing Scope 3 emissions, however, the activities involved in Scope 3 are not mentioned. Category 15 (investment) emissions have not been disclosed in the report.

The Kotak Mahindra Group Board has established an ESG Committee overseeing development of the Group's ESG framework and initiatives including ESG reporting and disclosures.[62] The bank also has an Enterprise-wide Risk Management (ERM) framework to align risks and capital management to its business strategy. The ERM comprises management of risks, including climate change. In February 2021, the bank introduced ESG Management Systems Plan

(MSP) to review ESG risks for its wholesale loan proposals above a certain threshold.[63] As part of the bank's credit risk management, the ESG MSP has laid out ESG screening and exclusion criteria.

The bank is lending toward renewable energy, waste management and energy efficiency measures, etc., based on its ESG lending policy. It has not disclosed the total lending value in climate change mitigation and adaptation.

FIGURE 6 KOTAK MAHINDRA BANK SCORE



SBI Bank

SBI is the largest public sector bank in India. It is one of the top 12 banks in the world to finance coal plants and has provided INR 1.57 lakh crore in fossil fuel finance between 2016 and 2020.[64]

SBI has voluntarily disclosed all Scope 1, 2 and 3 emissions verified by a third-party agency.[65] It has not made any disclosure on its financed emissions and does not conduct climate scenario analysis.

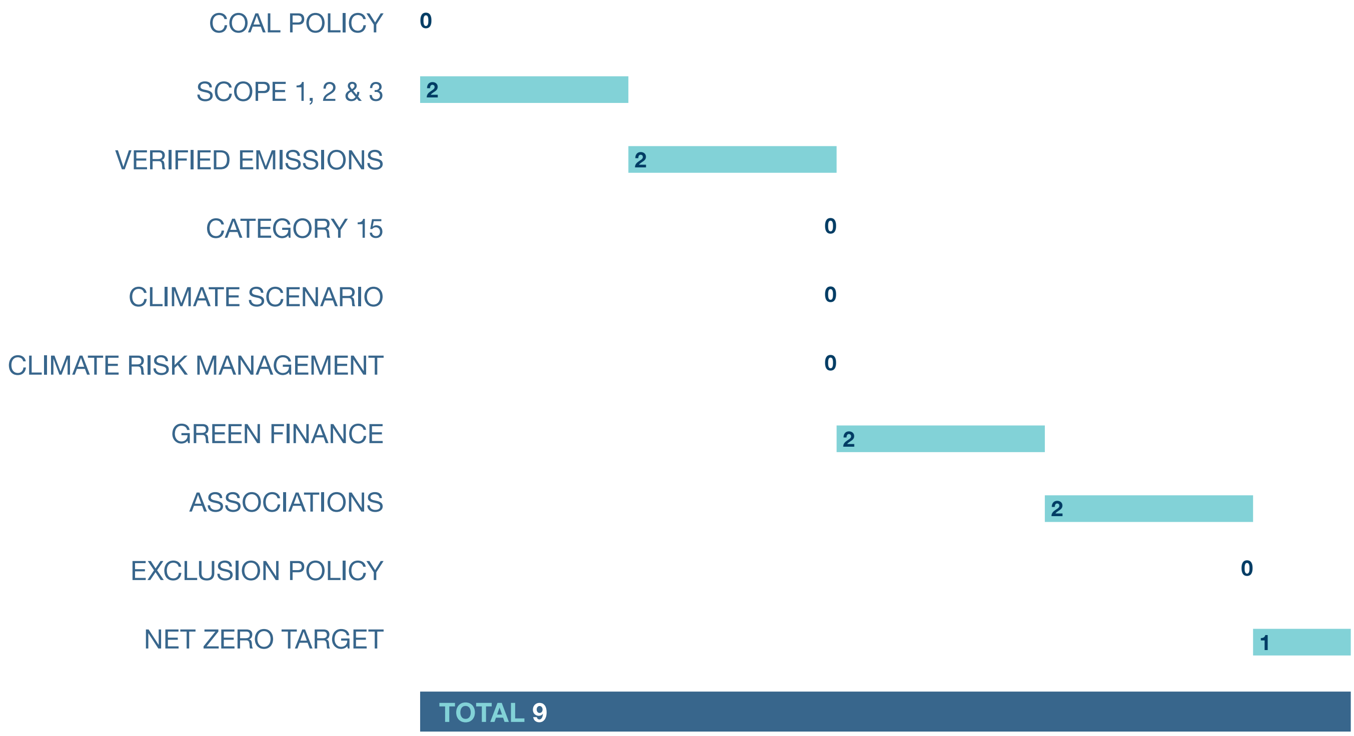
SBI lacks processes in place to manage climate-related risks at the Board level. As per its latest sustainability report, the bank is in the process of constituting a framework for climate risk management and identifying and managing risk arising out of ESG practices and integration of ESG risk assessment in overall credit assessment.

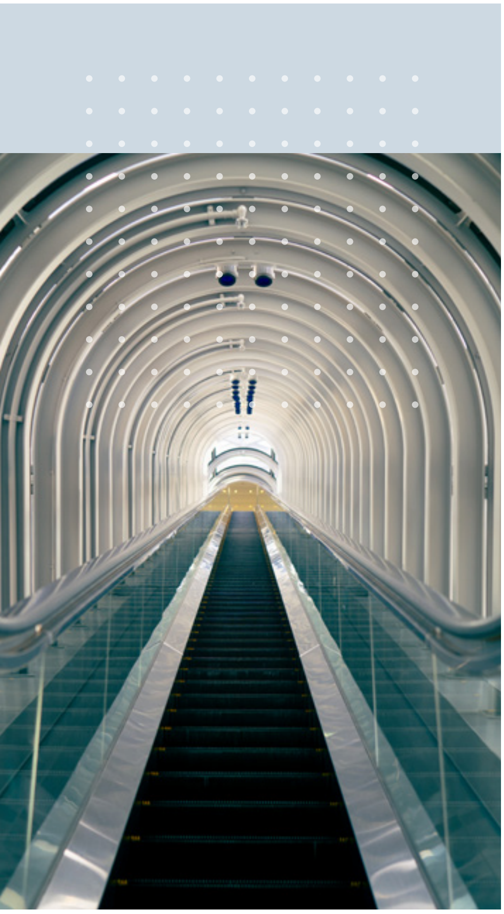
SBI has a sustainability and business responsibility policy[66] to integrate and support the bank's risk management framework, which identifies measures to manage risks from economic, environmental, and social aspects. The policy also states the bank's ambition to achieve long-term carbon neutrality in a phased manner by 2030. However, it does not include an implementation plan and does not specify which Scope (1, 2, 3 or all) emissions will be covered by the 2030 goal. It also does not have an exclusion/screening list for prohibited activities.

The bank states that it gives due consideration to ESG criteria while making lending decisions for loans valued between INR 5 crore and INR 50 crore. For loans exceeding INR 50 crore borrowers are assigned scores based on their performance on various ESG parameters.

As per SBI's Q3 FY 22 analyst presentation, it deployed about INR 32,000 crore to renewable energy sector, issued green bonds worth USD 800 million in aggregate since inception.[67] It has also raised a green loan worth €50 million in FY 2020–21.

FIGURE 7 SBI BANK SCORE





IDFC FIRST Bank

IDFC FIRST Bank does not disclose Scope 1, 2 or 3 emissions.

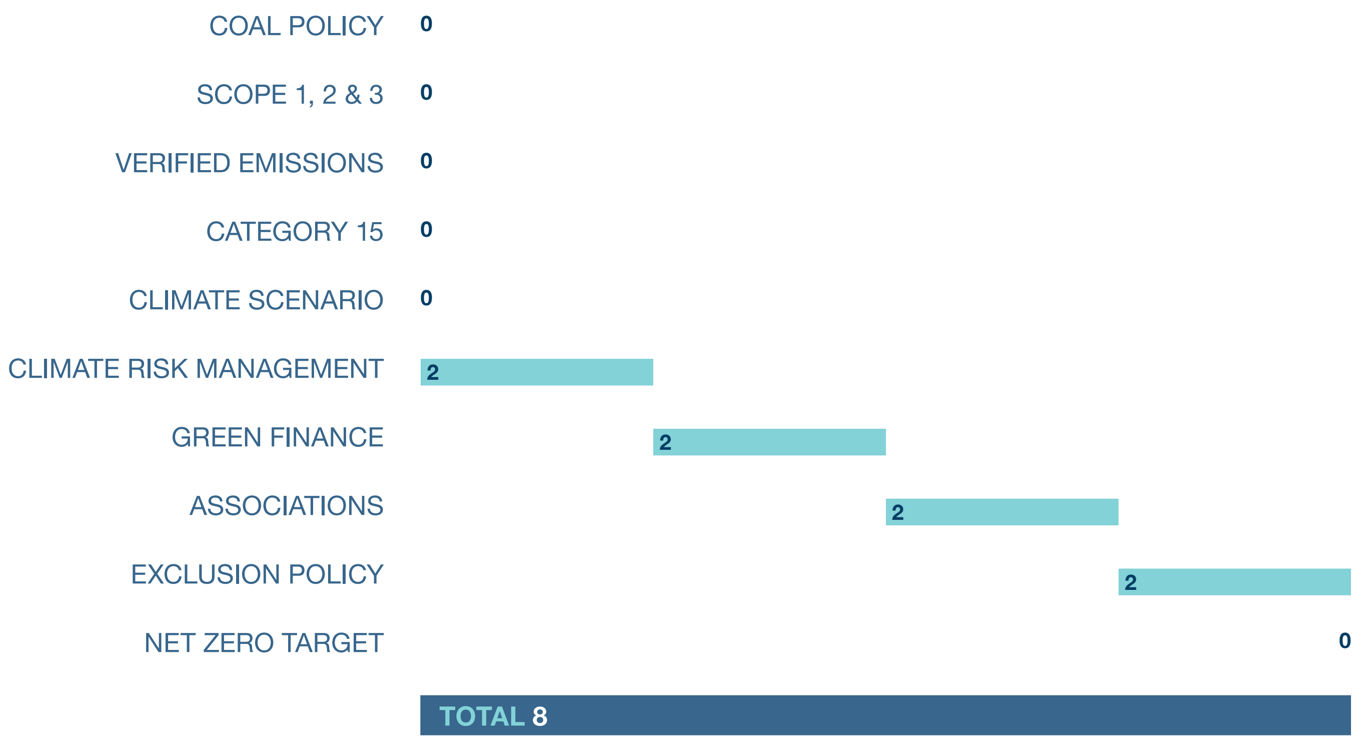
The bank has a statement on environmental and social policy to assess and manage direct and indirect environmental impacts, risks, and opportunities.[68] The bank also has an E&S risk management framework for its lending business, covering both wholesale and retail banking.

In June 2013, IDFC FIRST bank became the first and as of now only bank in India to adopt the Equator Principles[69], which is a risk management framework to guide banks in determining, assessing, and managing environmental and social risks in project finance.

IDFC FIRST Bank states that E&S risk management has become an integral part of the credit risk appraisal system of the bank. The environment risk group (ERG), part of the credit risk group (CRG), is responsible for managing E&S risks in the bank's lending business. The ERG team is supervised by the chief risk officer (CRO) and the risk management committee of the Board. IDFC FIRST bank has also developed and adopted an exclusion list comprising sectors in which the bank will not provide any finance.

The bank provides financing to climate mitigation projects like wind energy and solar projects with current outstanding exposure of INR 240 crore, as per its Q3 FY 22 investor presentation.[70] The bank does not have a long-term net zero target.

FIGURE 8 IDFC FIRST BANK SCORE



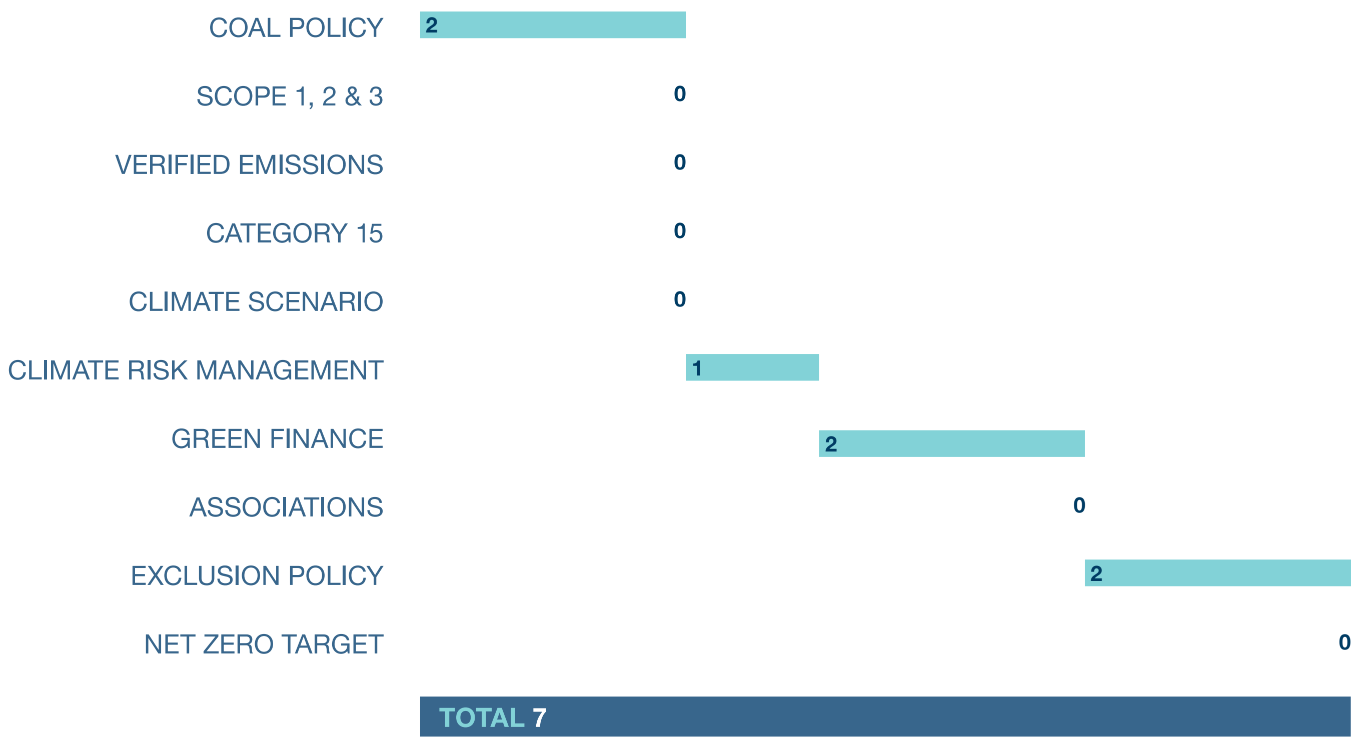
Federal Bank

Federal Bank does not disclose all scopes of emissions, or the emissions associated with its lending or investment emissions.

In July 2021, IFC acquired an equity stake in the Federal Bank. As part of this deal, Federal Bank committed to reduce its exposure to coal and increasing its climate lending.[71] The bank in consultation with IFC has developed an environmental and social management system (ESMS) policy to integrate environmental and social considerations into its lending activities.[72] This policy has an ESMS framework as part of which new coal-fired power plants or expansion of existing coal plants, oil and gas exploration activities, etc., will not be financed. The framework also covers an E&S risk categorization of projects/enterprise and due diligence, to be analyzed directly by the bank or with the help of an external agency. However, it is not clear whether these ESMS policies and procedures are under the oversight of the Board or a Board committee or Board member.

The bank aims to grow its green financing in coming years. During FY 2020–21 the bank has provided lending for EVs for a total amount of INR 170 lakh.[73] The bank's ESMS policy encourages 'green loans' in eligible criteria viz. energy efficiency, renewable energy, green buildings, and special climate. The bank does not have a long-term net zero target.

FIGURE 9 FEDERAL BANK SCORE



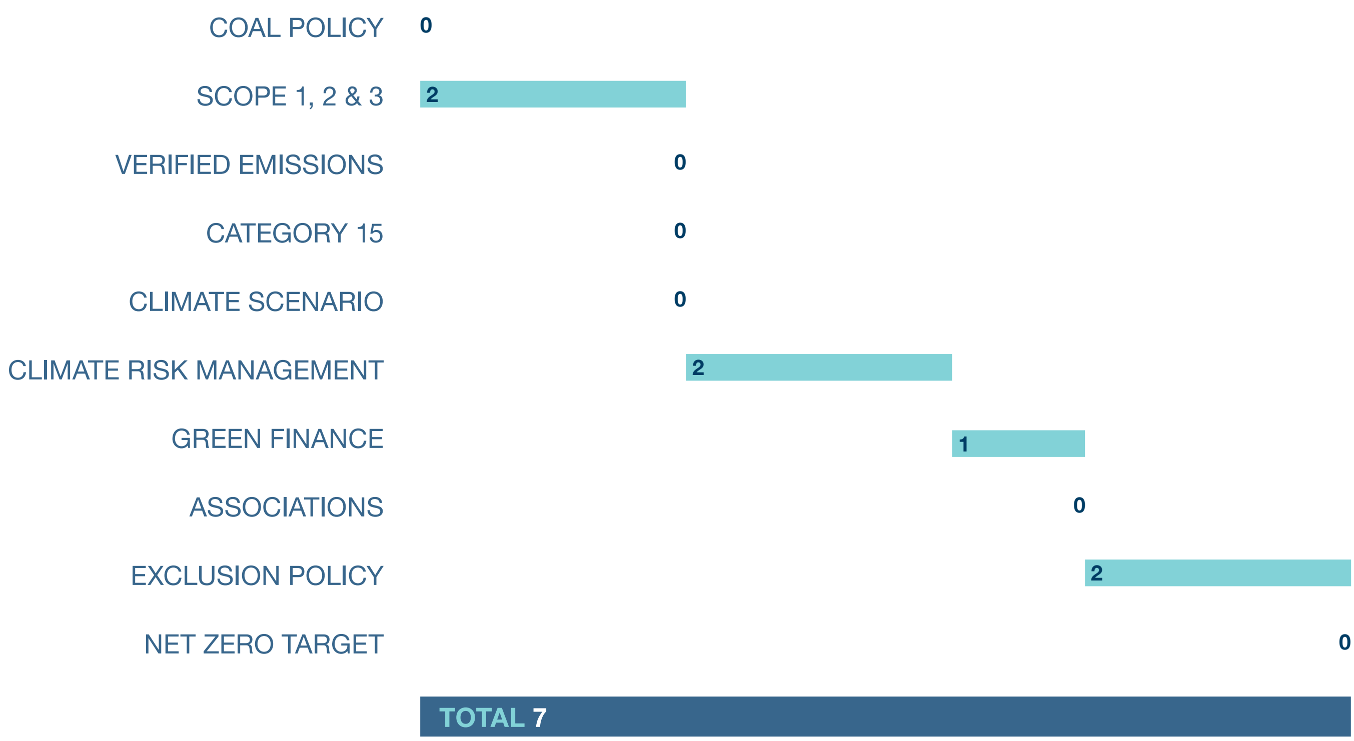
RBL Bank

The RBL bank has voluntarily disclosed all scopes of emissions, but this has not been verified by a third-party agency.[74]

RBL Bank has a policy commitment towards sustainability including understanding and managing E&S risks and opportunities associated with the bank's lending and investment as well as impacts on its supply chain and physical assets. The bank screens all large corporate lending and project financing transactions against an 'exclusion list' as per its E&S risk policy.[75] The bank claims its E&S management system (ESMS) will ensure the successful implementation of this policy. The ESMS is overseen by the Bank's ESG Committee, which is a Board sub-committee chaired by the Executive Director of the bank, providing periodic updates to the Board.

The bank provides climate smart loans to renewable energy, energy efficiency and green building projects but it has not disclosed the total value of such loans. The bank has not disclosed financed emissions, nor has it set any long-term net zero target.

FIGURE 9 RBL BANK SCORE



ICICI Bank

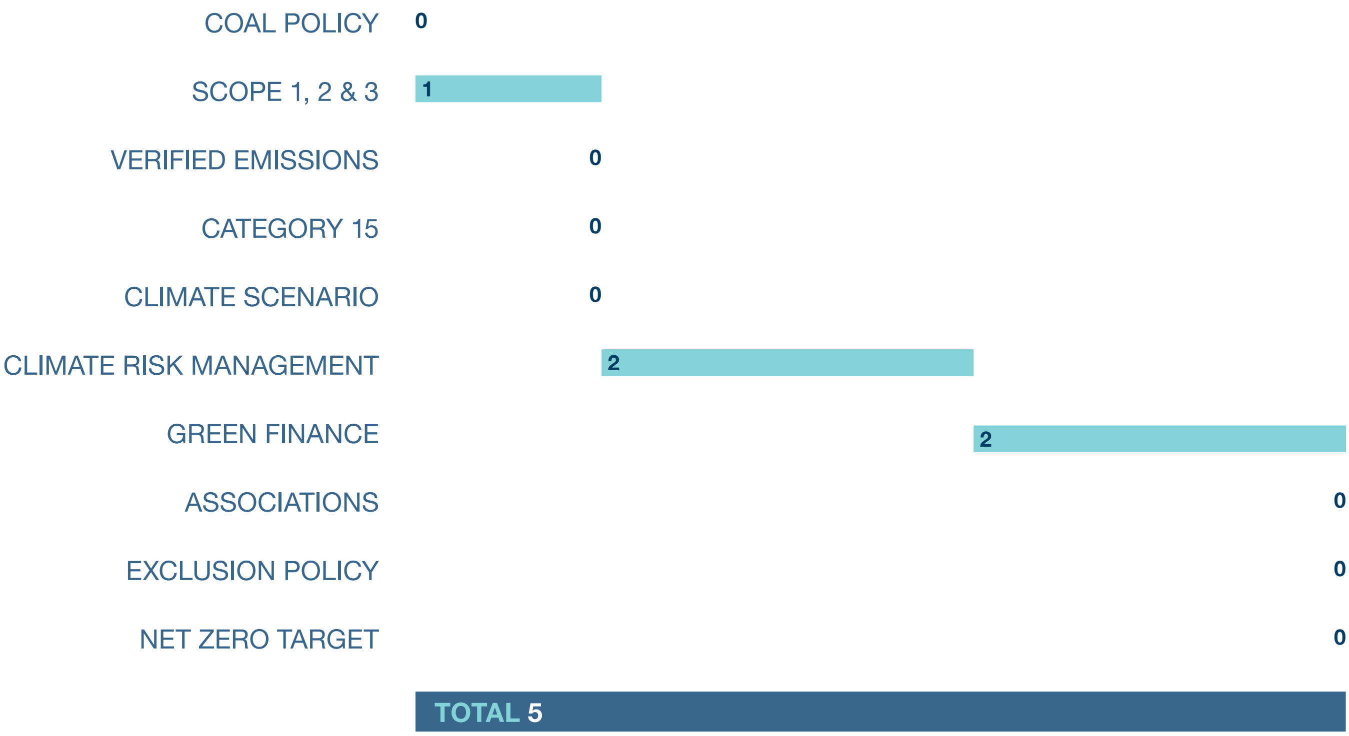
ICICI Bank is the second largest bank by market capitalization in India. However, it is lagging far behind its peers in terms of assessing and disclosing climate-related risks.

ICICI Bank has voluntarily disclosed Scope 1 and 2 emissions only,[76] but this has not been validated by a third-party agency.

As per the bank's latest ESG report, the bank has an ESG framework for lending which is supposed to review all new projects with exposure above a threshold and related to 'highly polluting sectors.' There is no public exclusion list or list of sectors receiving additional scrutiny on ESG grounds.

As per its latest annual report, the bank lends to projects in renewable energy, drinking water and other positive impact sectors. ICICI Bank's outstanding portfolio to the renewable energy sector is about INR 31.5 billion as on 31 March 2021.[77]

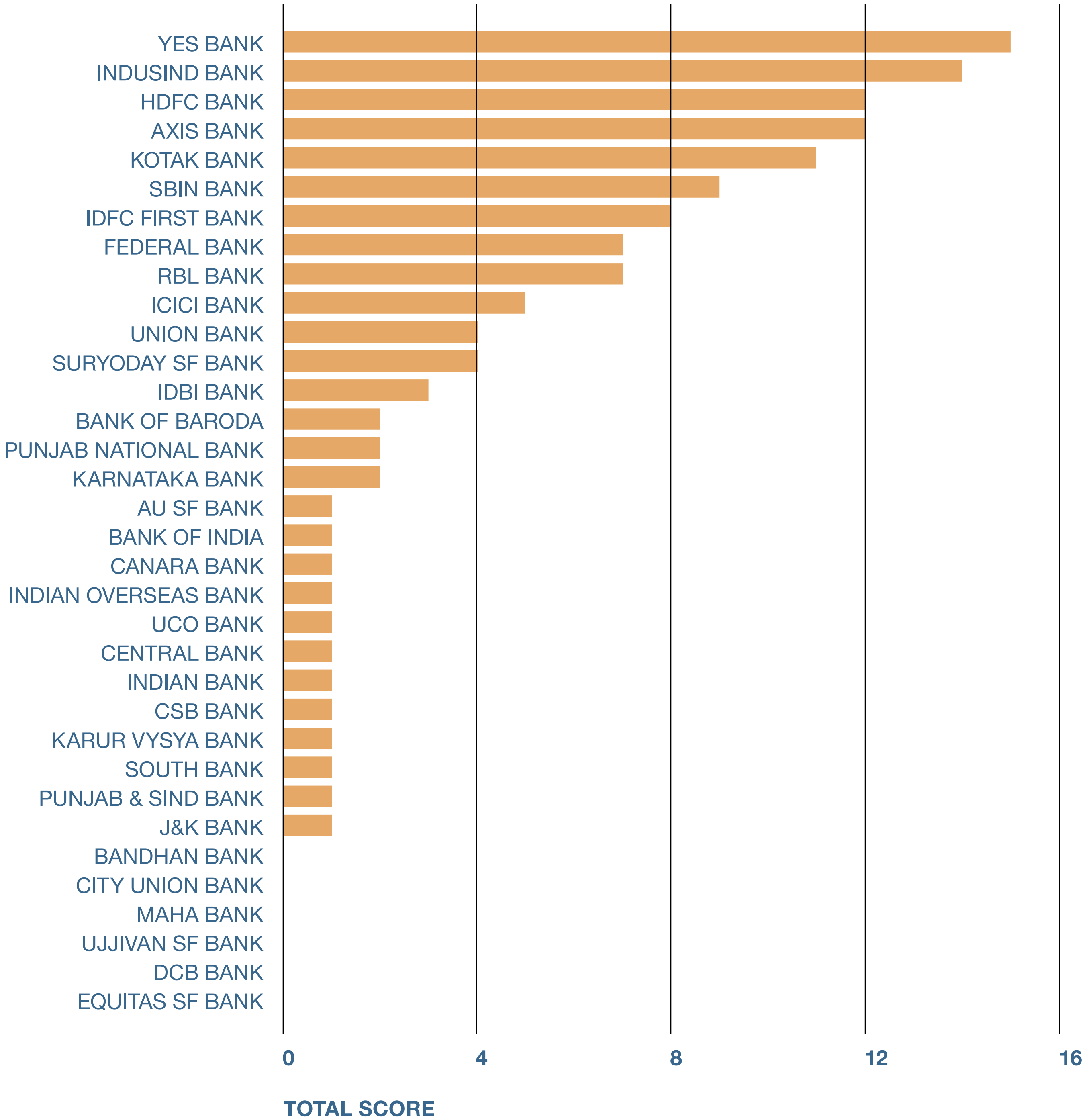
FIGURE 11 ICICI BANK SCORE



Ranking India's leading banks on climate

The figure below provides the overall score and ranking for all 34 of the banks assessed. The top 10 banks are all private sector banks except for the SBI in sixth position. It is worth mentioning that more than half of the 34 banks scored either zero or 1 point.

FIGURE 12 RANKINGS OF BANKS IN INDIA



05

Mapping Criteria to TCFD Recommendations

The four broad themes on climate change disclosures recommended by the TCFD[78] are:

1. **Governance:** Engagement of Board and senior management on climate-related risks and opportunities

2. **Strategy:** Assessment of climate-related risks and opportunities and likelihood of impact

3. **Risk Management:** Integration of climate-related risk management processes

4. **Metrics and Targets:** Usage of metrics and targets for climate risk management

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRIC AND TARGETS
Disclose the organization’s governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

RECOMMENDED DISCLOSURES

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRIC AND TARGETS
a) Describe the Board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Describe the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2-degree or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

CRITERIA

1, 8 & 9	5, 7 & 10	6	2, 3 & 4

Disclosures under the TCFD themes of Governance, Strategy, Risk Management and Metrics and Targets are the building blocks of climate-related risk management. It is instructive to map the performance of Indian banks against these TCFD themes, to provide an analysis of the state of play when it comes to the Indian banking sector and climate risk management.

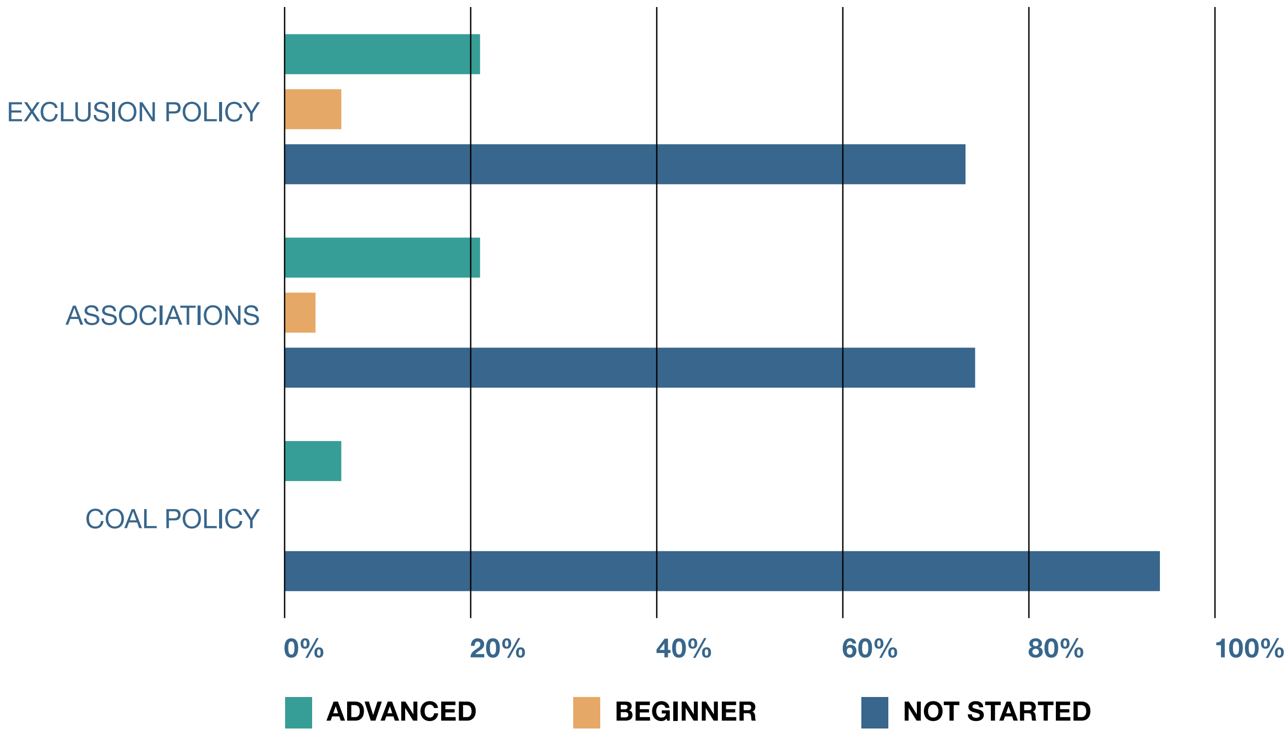
Governance

Governance disclosure requirements are focused on Board oversight and management's role in assessing and managing climate-related risks and opportunities. Most banks in India do not have elementary climate governance measures in place. **The assessment criteria relating to coal policy, associations/partnerships and exclusion policies relate to the governance theme of the TCFD.**

In terms of advanced-level policy measures, only 6% of the banks assessed have a policy commitment to restrict or end coal financing; 21% of banks have clear policy commitments excluding or screening undesirable investments.

Only 21% of banks assessed have partnerships or associations with national/international initiatives that are engaged on climate-related issues and are consistently involved with and responding to those initiatives. For example, Yes Bank is a member of UNEP FI and a supporter of TCFD, and IDFC FIRST Bank is committed to Equator Principles guidelines.

FIGURE 13 GOVERNANCE SCORE



Strategy

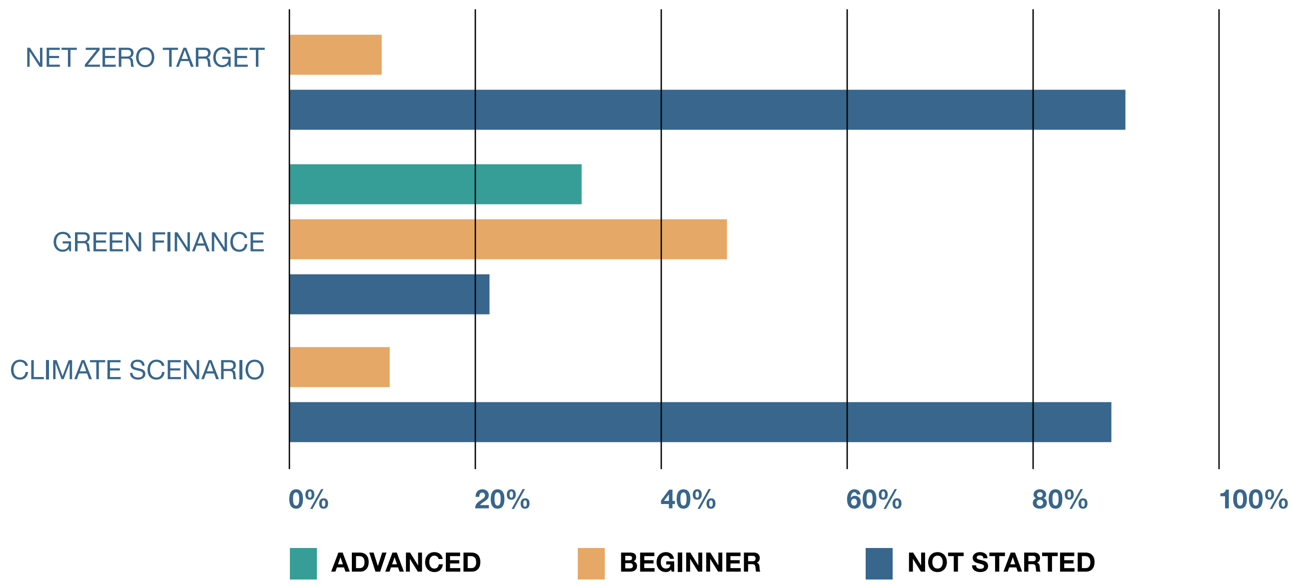
The second theme of the TCFD recommended disclosures is Strategy. This recommendation deals with how climate-related risks and opportunities that are short-, medium- and long-term are likely to impact the organization's business, strategy, and financial planning. **The criteria used in CRH's assessment for climate scenarios, green finance, and net zero targets are aligned to the Strategy theme of TCFD.**

None of the assessed banks are at an advanced stage either in conducting forward-looking assessments such as climate scenario analysis or climate stress testing. None have a long-term net zero target year including an implementation plan covering Scope 1, 2 and 3 emissions.

Banks in India are comparatively well placed in terms of providing green finance with 32% having issued green loans/ financing towards climate mitigation/adaptation and disclosed individual values of relevant financed activities. 47% have issued green loans/financing towards climate change mitigation/

adaptation but have not disclosed values. Indian banks seem to be in the process of leveraging climate-related opportunities, i.e., lending towards sectors such as renewable energy, sustainable agriculture, issuance of green bonds, sustainability linked loans etc., which can be seen in the following figure.

FIGURE 14 STRATEGY SCORE



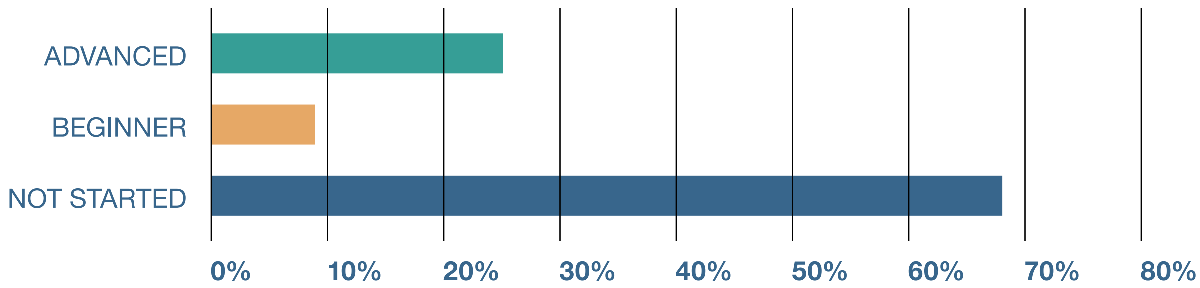
Risk Management

The third theme of the TCFD recommendations, Risk Management, focuses completely on the processes involved to identify, assess, and manage climate-related risks and opportunities. Based on this theme, CRH's assessment criteria include **processes in place to manage climate-related risks at the Board level.**

24% of assessed banks are at an advanced stage, i.e., having clear Board or Board committee oversight of climate change/ ESG risk, and integrating these risks into a specific climate-related risk management process.

9% of banks have or are planning to have a specific climate-related risk management process, but there is no Board member or Board committee responsible for decision-making on risks related to climate change. Lastly, 68% of banks have not started integrating climate-related risks issues into their business, strategy, and financial planning through climate-related risk management at the Board level. This should shortly be improved due to the recent notification by SEBI for the top 1000 listed entities to establish a Risk Management Committee (RMC) which will formulate a detailed risk management policy, including ESG related risks.

FIGURE 15 RISK MANAGEMENT SCORE



Metrics and Targets

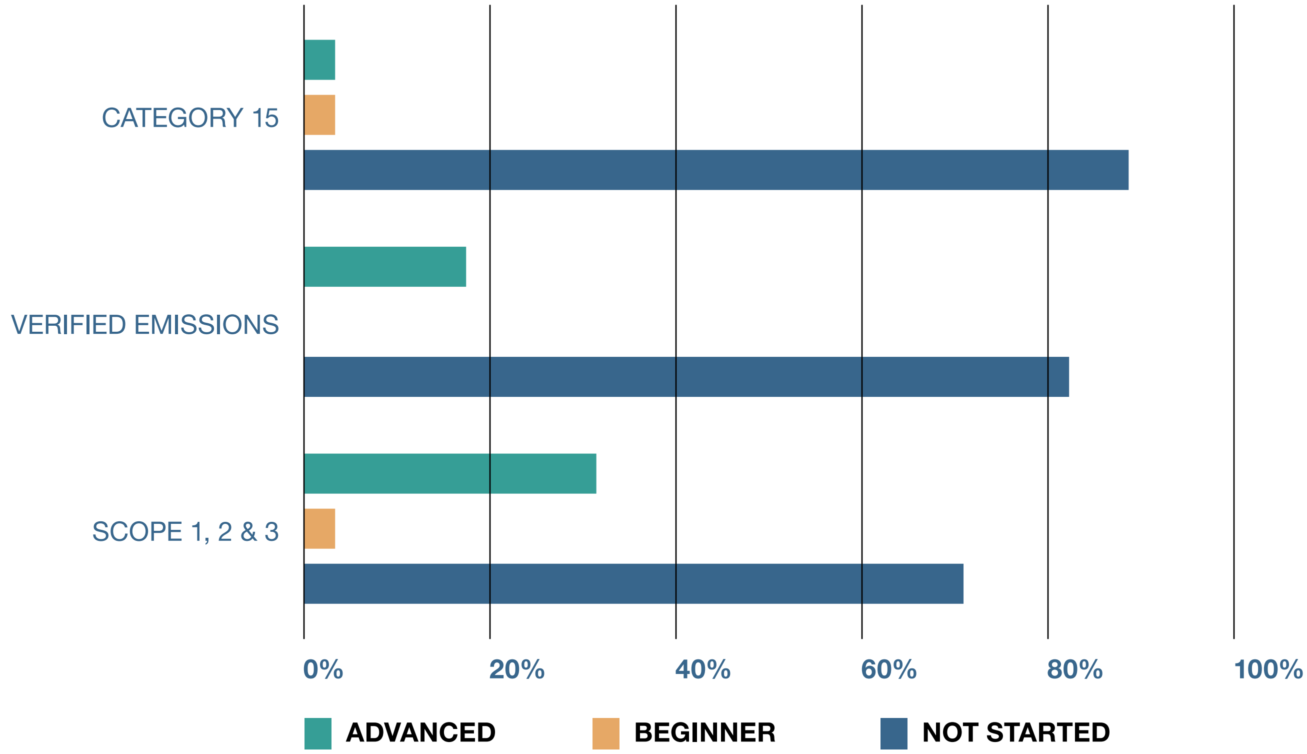
Under the fourth theme of the TCFD recommendations, companies are asked to provide information on the metrics used by them in assessing the climate-related risks and opportunities as per its strategy and risk management processes. **CRH's bank assessment criteria on Scope 1, 2 & 3; verified emissions; and Category 15 (investment) emissions represents the Metrics and Targets theme of TCFD.**

Only 21% of them include Scope 1, Scope 2, and Scope 3 emissions, but there are issues related to inconsistencies and harmonisation of the type of Scope 3 emissions covered by banks.

Only 18% of banks have had their operational greenhouse gas emissions independently verified by a third party along with a statement of assurance for the same financial year. Third party verification of operational emissions is critical since there could be anomalies in data published by the banks.

Only 3% of banks (one bank) have disclosed Category 15 (investment or financed) emissions associated with the reporting bank's loans and investments in the reporting year. Even this disclosure does not cover all loans and investments but is limited to one sector. GHG accounting of financed emissions is important for financial institutions including banks as a method to assess portfolio exposure. TCFD suggests calculating the weighted average carbon intensity expressed in tons of CO_2 equivalents per million USD revenue or $tCO_2e/\$M$.

FIGURE 16 METRICS AND TARGETS SCORE



Greenhouse gas (GHG) emissions disclosure

Only 24% or 8 of 34 banks reported sufficient data to estimate carbon dioxide emissions disclosure, and this was mostly limited to Scope 1 and 2. This amounted to a total of 2,337,847.92 metric tons of CO_2 equivalent (GHG emissions equal to nearly 508,435 passenger vehicles driven for one year) for the year 2020-21. These numbers would have been considerably higher had all banks disclosed their operational emissions, including Scope 3 emissions.

FIGURE 17 GHG DISCLOSURES BY THE BANKS

Sustainability reporting in banks

Many of the banks have provided statements on climate change and sustainability in their regulatory filings, policies, presentations, and other annual bank reports. But only 19% of the banks assessed have actually disclosed sustainability or ESG or Integrated reports.

FIGURE 18 SUSTAINABILITY REPORTING IN BANKS

Mapping of BRSR with banks' disclosures

From FY 2022–23, as per the SEBI, it will be mandatory for the top 1000 listed entities by market capitalization to file BRSRs. As indicated in the figure below, for FY 2020–21, 62% of banks have disclosed BRSR report as part of their annual report, 26% have a separate disclosure, 6% have mapped it with their sustainability/integrated reports and 6% have not filed during the voluntary disclosure period.

FIGURE 19 BRSR FILING BY THE BANKS FOR FY 2020–21

Banks' climate-related risk policies

In order to effectively manage climate risks, banks need to have in place policies related to E&S risks, E&S and sustainable lending, E&S management system, etc. In this study only 21% of assessed banks have formulated policies related to E&S risks or ESG lending or sustainability.

FIGURE 20 BANKS WITH E&S POLICIES

06
Conclusion

This analysis highlights that the Indian banking system is not prepared for the systemic risk that climate change poses, or for a probable climate 'black swan event'. With a few notable exceptions, the bulk of India's banking sector has not even started to put in place the most rudimentary mechanism to address the climate threat.

The fact that even large, media-savvy public and private sector institutions such as SBI, Union Bank, ICICI Bank, etc., are performing so badly should be extremely worrying for investors, and something that the regulators (the RBI and the SEBI) must address.

India's banking sector needs to align itself with the global community's collective goal of keeping temperature rise to 1.5°C. India's current goal of carbon neutrality by 2070 implies that 'easier to transition' sectors (i.e., electricity, transport, industrial power) must start moving now, and make rapid progress. This requires finance, and innovative financing models suited to the Indian context.

Banks must also prepare to limit their future financial losses due to climate change. Setting clear target dates to phase out fossil fuel investments and exposure to high carbon sectors is key to managing longer-term financial impacts as the global economy decarbonizes. Raising global capital will also increasingly become more difficult (and probably more expensive) without a clear climate strategy in place.

The coming decades will see significant climate-related impacts on the Indian economy and on Indian society. If India is to adapt, mitigate or otherwise manage those impacts while also leveraging the economic opportunities, it needs its financial sector to play an active and informed role.

07

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Appendix I

List of banks in the top 1000 entities by market capitalization at the BSE as on March 31, 2021

SL. NO.	COMPANY NAME	MARKET CAP (INR CR.)
1	HDFC Bank Limited	8,23,360.73
2	ICICI Bank Limited	4,01,981.80
3	Kotak Mahindra Bank Limited	3,47,576.46
4	State Bank of India	3,25,168.22
5	Axis Bank Limited	2,13,670.89
6	IndusInd Bank Limited	72,254.45
7	Bandhan Bank Limited	54,559.05
8	IDBI Bank Limited	41,450.51
9	YES Bank Limited	39,085.65
10	Punjab National Bank	38,400.71
11	Bank of Baroda	38,345.65
12	AU Small Finance Bank Limited	38,285.17
13	IDFC FIRST Bank Limited	31,614.48
14	Indian Overseas Bank	26,299.18
15	Canara Bank	25,071.59
16	Bank of India	22,233.92
17	Union Bank of India	21,815.31
18	Federal Bank Limited	15,112.81
19	Bank of Maharashtra	13,645.13
20	Indian Bank	13,128.89
21	RBL Bank Limited	12,408.92
22	City Union Bank Limited	11,518.24
23	UCO Bank	10,900.26
24	Central Bank of India	9,606.54
25	Equitas Small Finance Bank Limited	6,840.04

26	Ujjivan Small Finance Bank Limited	5,271.36
27	Karur Vysya Bank Limited	4,452.12
28	CSB Bank Limited	4,036.32
29	DCB Bank Limited	3,189.21
30	Suryoday Small Finance Bank Limited	2,905.86
31	Karnataka Bank Limited	1,900.97
32	Jammu & Kashmir Bank Limited	1,833.57
33	South Indian Bank Limited	1,500.26
34	Punjab & Sind Bank	1,233.85

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Appendix II

Glossary *of* Terms

Climate-related risk	Refers to the potential negative impacts of climate change on an organization. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.
Scope 1 emissions	Emissions from operations that are owned or controlled by the reporting company.
Scope 2 emissions	Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company.
Scope 3 emissions	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
Scope 3 category 15 emissions	This category includes Scope 3 emissions associated with the reporting company's investments in the reporting year, not already included in Scope 1 or Scope 2. This category is applicable to investors (i.e., companies that make an investment with the objective of making a profit) and companies that provide financial services. Category 15 is designed primarily for private financial institutions (e.g., commercial banks), but is also relevant to public financial institutions e.g., multilateral development banks, export credit agencies, etc.)

ESG risks	For an investor, an environmental, social, or governance risk is a factor or issue that may expose a security, issuer, investment, or asset class to unexpected changes in its current and future financial, economic, reputational, and legal prospects. At a corporate or issuer level, the disclosure of an ESG risk would be reasonably expected by investors, as its omission would result in an incomplete understanding of current or future financial prospects.
Scenario analysis	A process for identifying and assessing the potential implications of a range of plausible future states under conditions of uncertainty. Scenarios are hypothetical constructs and not designed to deliver precise outcomes or forecasts. Instead, scenarios provide a way for organisations to consider how the future might look if certain trends continue or certain conditions are met. For example, in the case of climate change, scenarios allow an organisation to explore and develop an understanding of how various combinations of climate-related risks, both transition and physical risks, may affect its businesses, strategies and financial performance over time. Scenario analysis can be qualitative, relying on descriptive, written narratives, or quantitative, relying on numerical data and models, or some combination of both.

Sources

(1) *UNPRI-https://www.unpri.org/reporting-and-assessment/reporting-framework-glossary/6937.article*
(2) *TCFD - https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf*
(3) *GHG Protocol - https://ghgprotocol.org/standards/scope-3-standard*

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Climate Risk Horizons work highlights the systemic risks that climate change poses to investors, lenders and infrastructure investments. Through a data driven, research-oriented approach that incorporates a holistic understanding of climate policy, energy infrastructure regulatory processes, CRH provides advice on risk management strategies to minimise stranded, non-performing assets and economic disruption in the face of climate change.

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Address

№ 40, 16th Cross Road,
Malleshwaram, Bangalore 560 055
Karnataka, INDIA

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