

# FROM RISK TO OPPORTUNITY: TCFD REPORT ON CLIMATE RESILIENCE

2023





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# Introduction



**"Climate change is no longer some far-off problem; it is happening here, it is happening now."**

Former US President Barack Obama

## Every Bit of Warming Matters, Every Year Matters, Every Choice Matters

Climate change has given rise to significant environmental damage, including the melting of glaciers, sea level rise, as well as increased frequency and intensity of extreme weather events. These changes can bring a devastating impact on ecosystems, biodiversity, and natural resources.

Climate change has also brought significant economic impacts, affecting industries such as agriculture, tourism, and fishing. It can also lead to job cuts, economic instability, and low quality of life and exacerbate existing social inequalities with the poorest and most vulnerable communities being the most affected. In turn, this condition can lead to displacement, migration, conflict, and social unrest. Climate change can also bring about a profound impact on human health, causing increased rates of heat stroke, respiratory diseases, and other health issues caused by air pollution and environmental degradation.

To address the threat of climate change, countries worldwide adopted the Paris Agreement in 2015. The agreement aims to limit the rise in mean global temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels<sup>1</sup>.

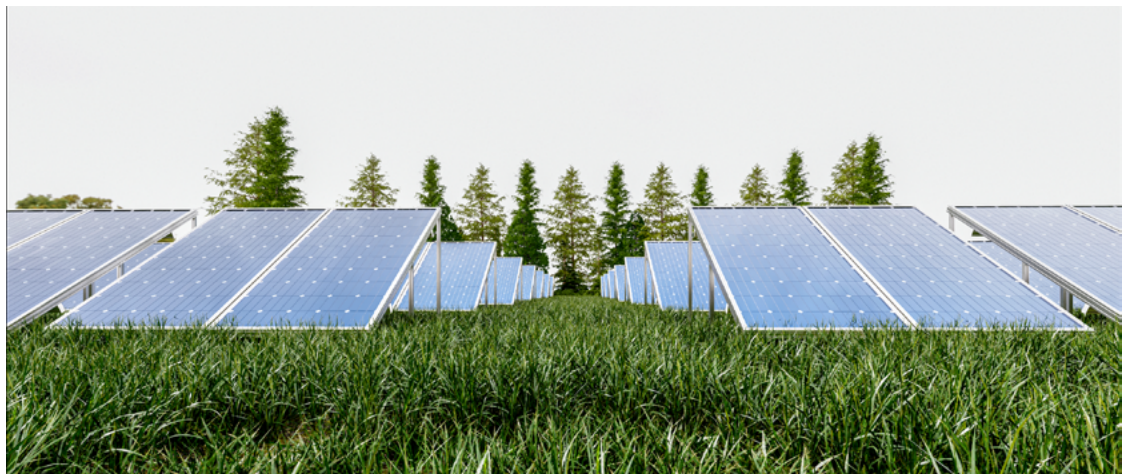
The agreement places significant emphasis on the need for sustainable development, the promotion of clean energy, and adapting to the impacts of climate change. It encourages countries to regularly submit their emission

reduction targets and implement effective measures to achieve them. Furthermore, the Paris Agreement establishes a financial mechanism to support developing nations in their climate actions and facilitates technology transfer and capacity-building initiatives. By fostering collaboration and collective action, the Paris Agreement serves as a vital instrument in addressing the urgent need for global climate action.

Given the urgency of the climate crisis, addressing climate change requires collective action from individuals, organizations, and governments worldwide. We all have a responsibility to reduce greenhouse gas emissions and mitigate the impacts of climate change. Taking measures to combat climate change is essential for protecting not only the environment but also the economy, health, and social well-being. This is a global problem that demands a global solution, and together, we can ensure a sustainable future for generations to come.

As Indonesia's leading financial institution, BRI acknowledges the importance of its roles and responsibilities in this matter. We are committed to addressing the climate crisis urgently and actively contributing to the successful transition towards a sustainable net-zero society.

Every Bit of Warming Matters,  
Every Year Matters,  
Every Choice Matters.



<sup>1</sup> UNFCC, [Paris Agreement](#), 2017



## TCFD as a Guidance

Established in 2015 by the Financial Stability Board (FSB), the Task Force on Climate-related Financial Disclosures (TCFD) is aimed at providing guidance for organizations to manage climate-related risks and opportunities. The TCFD recommends that organizations disclose information on their climate-related risks and opportunities in their mainstream financial filings to enable stakeholders to make informed decisions. In 2017, TCFD released Recommendations of the Task Force on Climate-related Financial Disclosures<sup>1</sup> to help companies provide such information voluntarily and consistently.

The framework consists of four interconnected themes, including Governance, Strategy, Risk Management, and Metrics and Targets. Governance involves establishing effective processes for climate-related decision-making and accountability within an organization. Strategy entails identifying and addressing climate-related risks and opportunities, including the consideration of different climate scenarios.

Risk management involves assessing and mitigating climate-related risks by integrating climate considerations into existing risk management frameworks. The TCFD groups climate-related risks and opportunities into two significant categories of transition risks and opportunities and physical risks and opportunities. Transition risks are associated with global decarbonization of the economy and involve four areas of consideration, including policy and law, technology, markets, and reputation. Physical risks are related to the physical impacts of climate change.

Metrics and targets involve the transparent disclosure of pertinent climate-related data, such

### Core elements of TCFD recommendations

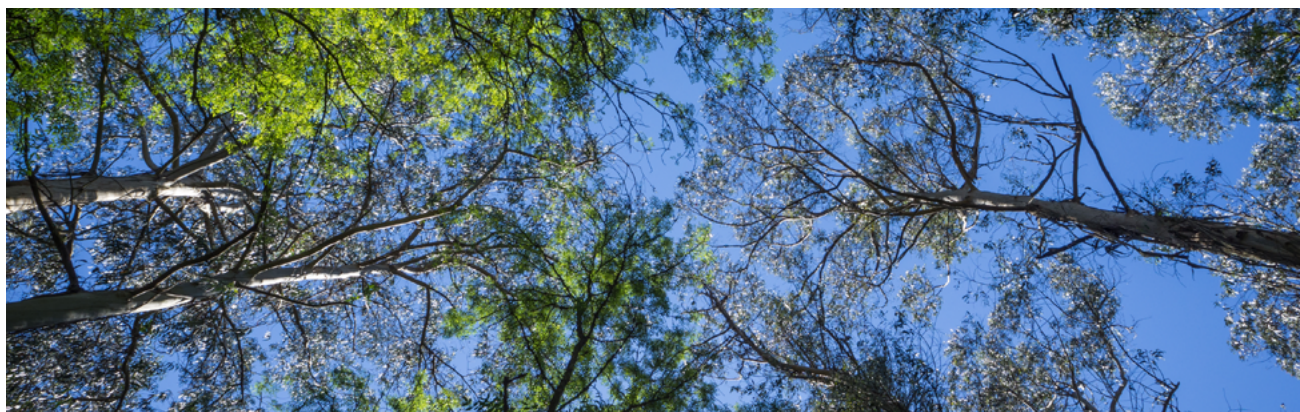


as greenhouse gas emissions and energy consumption, to monitor progress and establish objectives.

By following the TCFD guidance, organizations can better manage their climate-related risks and opportunities and provide stakeholders with the information they need to make informed decisions and speed up the transition to a more sustainable and resilient economy.

As of September 2022, the TCFD boasted over 3,800 supporters, including companies, governments, and regulators globally<sup>2</sup>. We understand the importance of making an informed decisions in our sustainability journey; therefore, BRI became a supporter for TCFD in March 2023.

While this report is mainly focused on climate-related issues, risks and opportunities, BRI has also published corporate sustainability disclosure on other environmental, social, and governance ("ESG") topics in its 2022 Sustainability Report<sup>3</sup>.



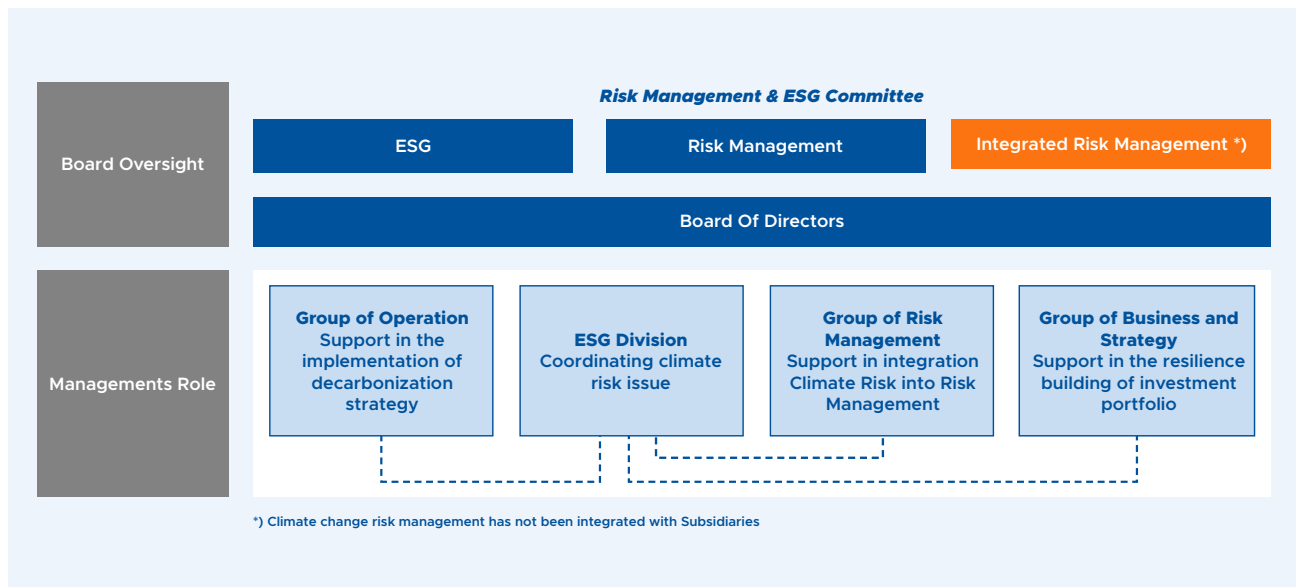
1. TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
2. TCFD, 2022 Status Report, 2022
3. BRI, 2022 Sustainability Report, 2022

# Governance

Climate change issues are largely overseen by the Risk Management and ESG Committee in which ESG issues are incorporated.



# Climate Change Governance



## ESG Committee

- Oversees climate-related issues relevant to BRI
- Advise on the implementation and monitoring of climate strategy

## Risk Management Committee

- Oversees BRI enterprise risk profile (including ESG rating as part of reputation risk)

## Integrated Risk Management Committee

- Oversees BRI integrating risk management (including ESG risk management in subsidiaries)

## Board of Directors

- CEO and Vice CEO becoming the chairman / Vice Chairman of the committee, and the other Board of Directors are the committee member
- Oversees the overall direction, supervision, and control of the Group and its management
- Delegate responsibilities to management for climate strategy implementation

## ESG Division

- Execution of climate strategy
- Coordination between risk, operational and business for effective climate strategy implementation

## Group of Risk Management

- Collaborating with ESG to map and assess climate risks and opportunities by analyzing climate change scenarios

## Group of Operation

- Identify and response to physical risks of BRI's office and outlets
- Plan budgets for climate change management initiatives

## Group of Business & Strategy

- Maintain financed emission policies and engage with BRI's portfolios in achieving BRI's financed emissions reduction targets

## Board Oversight

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### Board Oversight

Since 2015, BRI's Board of Directors have been actively engaged with sustainability issues, following BRI's commitment to sustainable banking. This commitment led to a focused effort on environmental concerns, including climate change. Climate change was incorporated into the responsibilities of the Director of Risk Management, making it a material aspect for BRI's Risk Management Committee. The committee issued the first policy for the Board of Directors, highlighting climate change as a key driver for the policy's issuance.

Regular discussions on climate change occur during Board of Directors' meetings. In 2021, BRI established the Risk Management & ESG Committee, which convenes at least once every six months to address sustainability issues, including climate change.

Chaired by the CEO, the ESG Committee comprises Board members responsible for overseeing the implementation of ESG practices and BRI's commitment to combating climate change and building resilience to its impacts.

The ESG Committee approves sustainability policies, strategies, and the Roadmap for ESG implementation. Additionally, it greenlights BRI's net-zero emissions and decarbonization measures.

Throughout 2022, the ESG Committee held regular meetings every six months, overseeing environmental policies, programs, and performance, with a particular focus on climate change. The ESG Committee actively assists the Board of Directors and Commissioners in managing the company's risks and implementing policies and standards to monitor and mitigate these risks. Climate change is integrated into the formal risk management process, with the ESG Committee continually reviewing the outcomes throughout 2022.

The Board of Directors already incorporates key performance indicators (KPIs) related to ESG, which includes BRI's ESG Rating/Score, covering climate change concerns. The Board diligently monitors progress towards addressing climate-related issues through the ESG Committee, Board meetings, and periodic reports.



## Role of the Management



### **The role of management in assessing and managing climate-related risks and opportunities.**

Since 2016, BRI has been proactive in addressing climate change by establishing a dedicated work unit within the Risk Management Division to handle climate-related matters. As the commitment to combating climate change has grown, BRI has strengthened the organizational structure, elevating the responsibility for climate change to a part-level in 2020.

In line with the increasing commitment and the urgency of addressing climate change, BRI further established an ESG Division under the Compliance Director's purview. This specialized division is responsible for developing the governance structure and implementing climate policies, working collaboratively with the risk management team.

ESG Division has conducted a thorough review of BRI's current policies, procedures, and practices to identify areas where the company can improve its climate-related activities. The Division has also conducted research on

international best practices and consulted with external experts to ensure that its climate policy and governance structure is aligned with global standards.

The ESG Division coordinates with all related work units to achieve these issues related to climate change. Among others, the team has identified key areas that will be addressed in the climate policy and governance structure, including climate risk management, green finance, stakeholder engagement, as well as reporting and disclosure.

Periodic monitoring has been carried out quarterly through the PPM Division and subsequently submitted to Board of Directors.

The ESG Division provides reports to management through the ESG Dashboard, which provides progress of related activities.





# Strategy

Climate change is a global challenge that requires a bold and comprehensive strategy. It demands not just incremental change, but a transformative shift in our approach.



## Climate Change Poses Risks but also Creates Opportunities

Indonesia is committed to reducing carbon emissions to mitigate global temperature rise by increasing the target of Enhanced Nationally Determined Contribution (E-NDC) to 32% or equivalent to 912 million tons of CO<sub>2</sub> by 2030 from the previous 29% target. More carbon-related regulations will be introduced in the near future, affecting Indonesia's industry and, inevitably, the

financial intermediary. BRI has identified and analyzed climate risk into transition risk and physical risk according to TCFD recommendation to be integrated into the risk management and business strategies across the organization to enhance the ability to withstand and adapt to climate-related challenges, thereby bolstering our climate resilience.

Transition Risks	Policy & Legal	Introduction of carbon pricing may increase the energy cost of operation and highly impacting the return on investment in some industries. Ambitious climate-related policies are expected.
	Technology	Technological advancement presents an opportunity to support transition towards a lower-carbon economy.
	Reputation	Customer and investors preference alteration; increase of negative feedback from stakeholders
	Market	Customer behavior alteration; change in demand and supply for products and services
Physical Risks	Acute	Heatwaves, Flooding, Tropical Cyclone, Wildfire
	Chronic	Temperature Rise, Sea level rise, Water stress

**Impact On BRI**

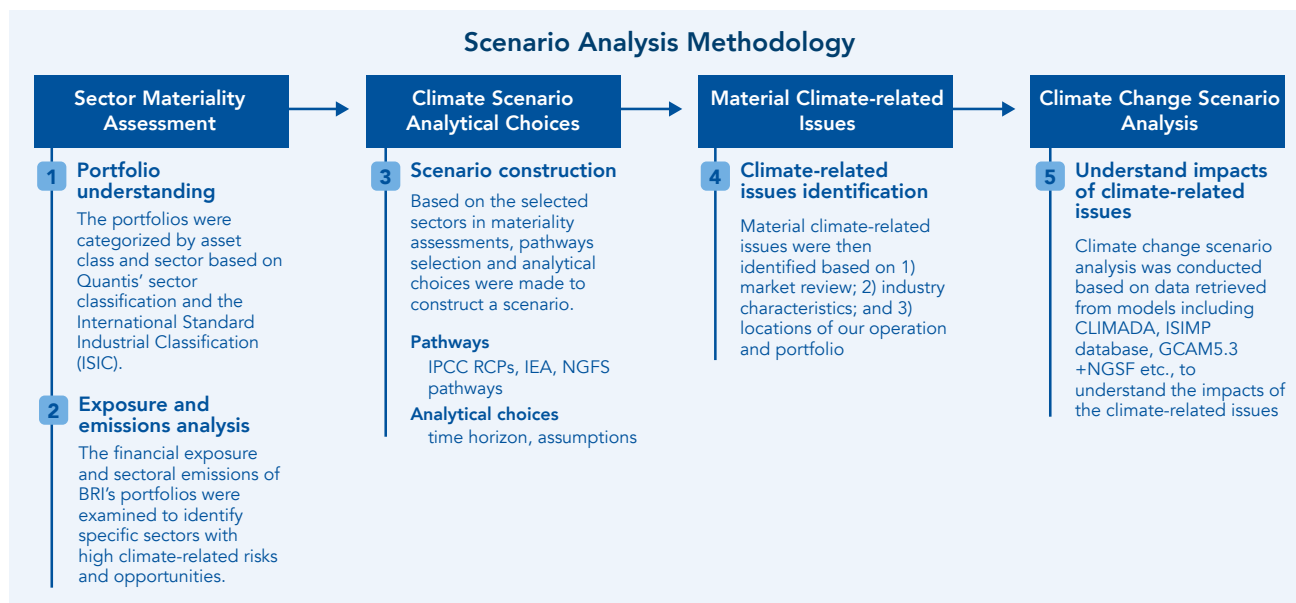
**+/- CapEx:** Investment hurdles affected by internal and external carbon prices.  
**+/- CapEx:** Value of assets based on emissions, energy, or water intensity; carbon price.  
**+/- Assets (intangible):** Increase in brand value for timely response to national decarbonization strategies or vice versa.  
**+/- Assets (intangible):** Needs in attraction and retention climate of competent employees.  
**- Liabilities:** Impact on credit rating due to failure in meeting regulatory requirements.  
**+ CapEx:** Purchased of equipment or new technologies to manage transition risk, adaptation, and conservation/ efficiency efforts.  
**+ Liabilities:** Impact on stock price due to the ability to tap into customers first, which can lead to strong brand recognition.

**+ OpEx:** Costs to improve energy or water conservation and efficiency capabilities.  
**- Assets (tangible):** Physical damage or impairment of assets due to weather events.  
**+ CapEx/OpEx:** Purchase of equipment or new technologies for physical risk mitigation, Expenses to address physical risks (e.g., insurance premiums, recovery expenses).

## Our Approach to Climate Change Scenario Analysis

Climate change poses significant risks to businesses across various sectors. By conducting scenario analysis, the potential impacts of climate change on operations, supply chains, assets, and financial performance could

be assessed and mitigated. Therefore, the following steps were taken to conduct BRI's scenario analysis as a necessary step to understand the potential impacts of climate change.



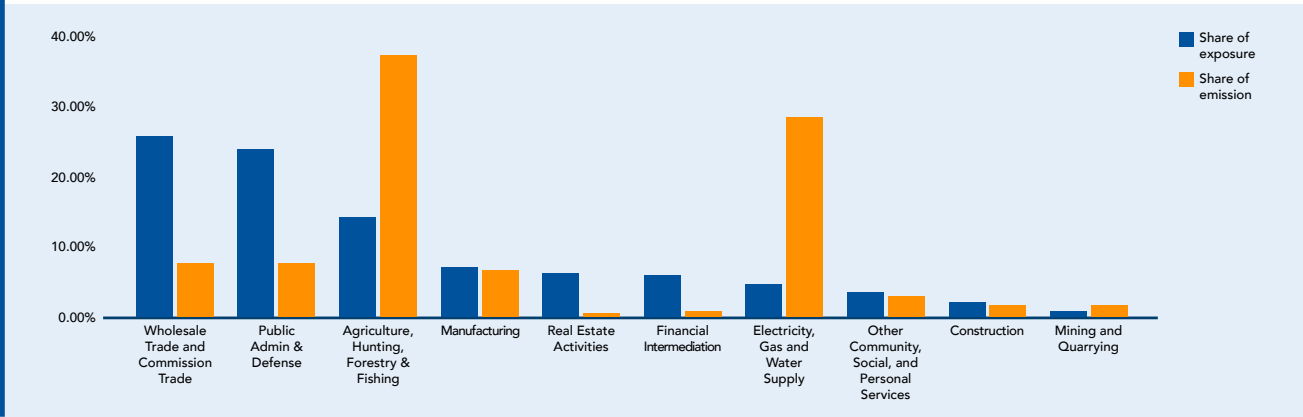
# Sector Materiality Assessment

## Portfolio Understanding

The 3 largest sectors invested are (1) wholesale trade and commission trade, except for motor vehicles and motorcycles, (2) public admin and defense; compulsory social security, and (3) agriculture, hunting, forestry & fishing, all of which account for 63.4% of the total investment. However, the sectors with the largest exposures do not necessarily face the largest physical/transition climate-related risks. Sector emissions should

also be considered in the materiality assessment. As for materiality by sector emissions, sectors with high portfolio emissions usually face larger climate transition risks. (1) Agriculture, hunting, forestry and fishing, (2) electricity, gas and water supply, and (3) public admin & defense are three largest greenhouse gas (GHG) emitting sectors, which accounts for 70.1% of total emissions.

The Share of Exposure and Carbon Emissions of Each Industrial Sector

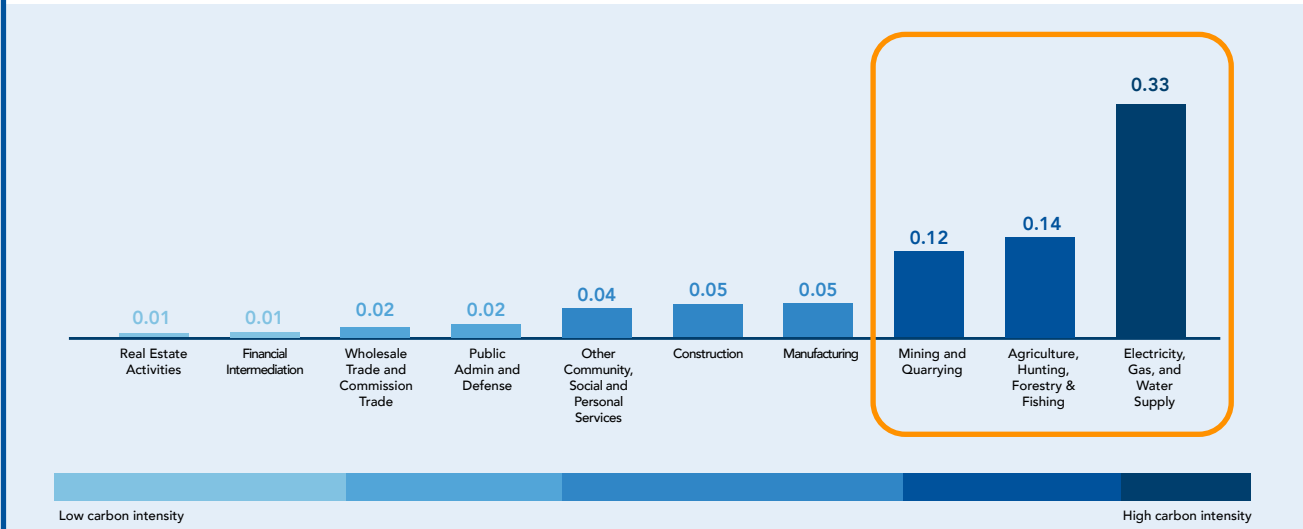


## Exposure and Emission Analysis

The analysis of carbon intensity has revealed that the (1) electricity, gas and water supply, (2) agriculture, hunting, forestry & fishing, and (3) mining and quarrying sector has the 3 highest carbon intensity in the entire asset

portfolio. We are planning to establish an engagement strategy that boost businesses' participation in green activities instead of excluding industrial sectors with high carbon intensity to reduce carbon emissions.

Economic carbon intensity of Each Industrial Sector





# Climate Scenario Analytical Choices & Material Climate-related Issues

## Scenario Construction

In the climate scenario analysis, the following analytical choices have been made as the basis of the scenarios that are established.

Each of the publicly available scenarios provide a range of pathways, each accompanied by a set of key characteristics formulated on a scientific basis by the providing organizations. TCFD also requires organizations

to assess climate-related issues with at least 2 scenarios, where a 2°C or lower scenario and another scenario should be assessed. On this basis, BRI has selected the relevant pathways to form a holistic view of plausible future, with one representing a low-emission future (2°C or lower scenario), and one representing a high-emissions future (above 2°C scenario).

		Low emission scenario	High emission scenario
Risk	Provider	Pathways	Pathways
Physical Risk Scenario	IPCC	SSP1 – 2.6	SSP5 – 8.5
Transition Risk Scenarios	IEA	Net Zero Emissions by 2050 Scenario ("NZE")	Stated Policy Scenario ("STEPS")
	NGFS	Orderly Pathways	Hot House World

## Climate-related issues identification

Relevant climate-related issues are selected based on the geographic location of BRI's operation, effects on BRI's operation, and nature of material sectors for the analysis

under the formulated scenarios. Climate-related issues are usually classified into two major categories and six subcategories in total.

+2°C globally	
Temperature rise	Policies
+ 0.9°C if average daily temperature	More stringent emission disclosure obligations
Flooding	Carbon price
+ 13.5% annual damage from river floods by 2050	Estimated carbon price as USD 64.3/ tCO <sub>2</sub> and USD 248/ tCO <sub>2</sub> by 2030 and 2050 respectively
Heatwaves	Market
+ 10.5% of population exposed to heatwaves by 2050	Technology advancement in more energy efficient equipment
Sea level rise	Reputation
+ 4.4mm/year	Corporates to loss reputation for financing carbon intensive activities
+4°C globally	
Temperature rise	Sea level rise
+ 1.4°C if average daily temperature	+ 11.2mm/year
Flooding	Droughts and wildfires
+ 80.3% in annual expected damage from river floods by 2050	+9% annual probability for Indonesia to experience a year with a severe drought by 2090s, Increasing probability of wildfire due to droughts
Heatwaves	Tropical cyclones
The likelihood of experiencing heatwaves is 96% higher, Median of 200 days with Heat Index >35°C	+ 7.6% of 1-in-100-year expected damage from tropical cyclone by 2050
Operation	

Physical damage of BRI's assets, Demand for building resilience of BRI's assets, Blockage of access to BRI's offices, data centers and branches under extreme weather, Higher energy demand to maintain a comfortable environment for offices and branches

# Transition Risk Scenario Analysis on Portfolio

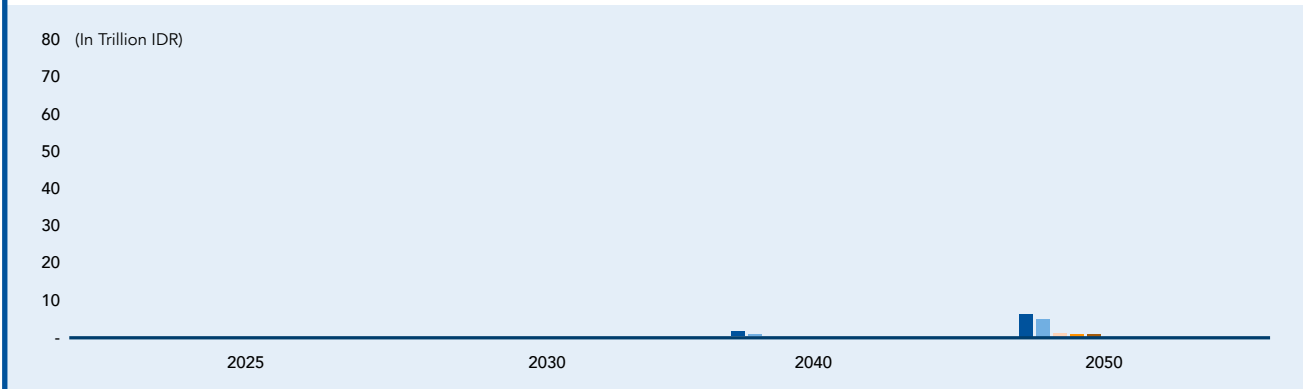
## Analysis on Carbon Cost Projection of Each Industrial Sector

Carbon cost projection calculation reflects the financial cost per ton of greenhouse gas emissions related to potential future pricing or tax hikes. It varies based on the choice of scenario, as well as the industrial sector. High carbon cost projection indicates that a company's carbon costs will rise, increasing its exposure to climate risks. Therefore, financial institutions should pay close attention to managing industrial sectors with a high carbon cost projection since the soundness of asset portfolios may deteriorate if carbon cost is high in their portfolios.

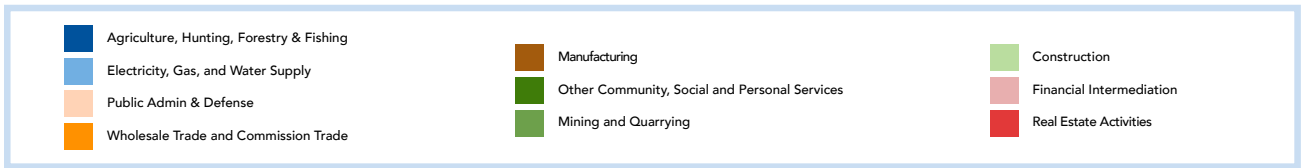
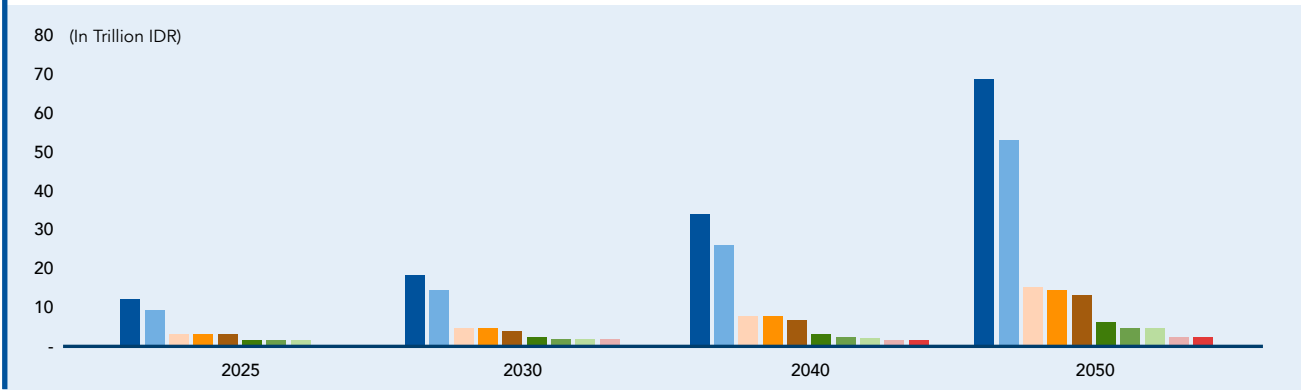
BRI has analyzed two scenarios by selecting the relevant pathways to form a holistic view of plausible future, with one representing a 2°C- aligned future, and the other representing a high-emissions future scenarios, reflecting the carbon cost's characteristic of changing according to the scenario and base year. The analysis shows that the stronger the scenario, the higher the total carbon cost of companies within each asset portfolio. This means that as greenhouse gas emissions reduction targets rise and relevant regulations become stronger, companies' financial burden within the asset portfolio increases.

Low emission scenario	A high carbon price scenario assumes full implementation of policies in line with the Paris Agreement goal of 2°C
High emission scenario	A low carbon price scenario assumes full implementation of countries' NDCs, most of which are not expected to meet the Paris Agreement goal of limiting climate change under +4°C scenario

### NGFS - Hot House World (High Emission Scenario)



### NGFS - Orderly Pathways (Low Emission Scenario)



The carbon price projection Data is extracted from GCAM 5.3 +NGFS Model



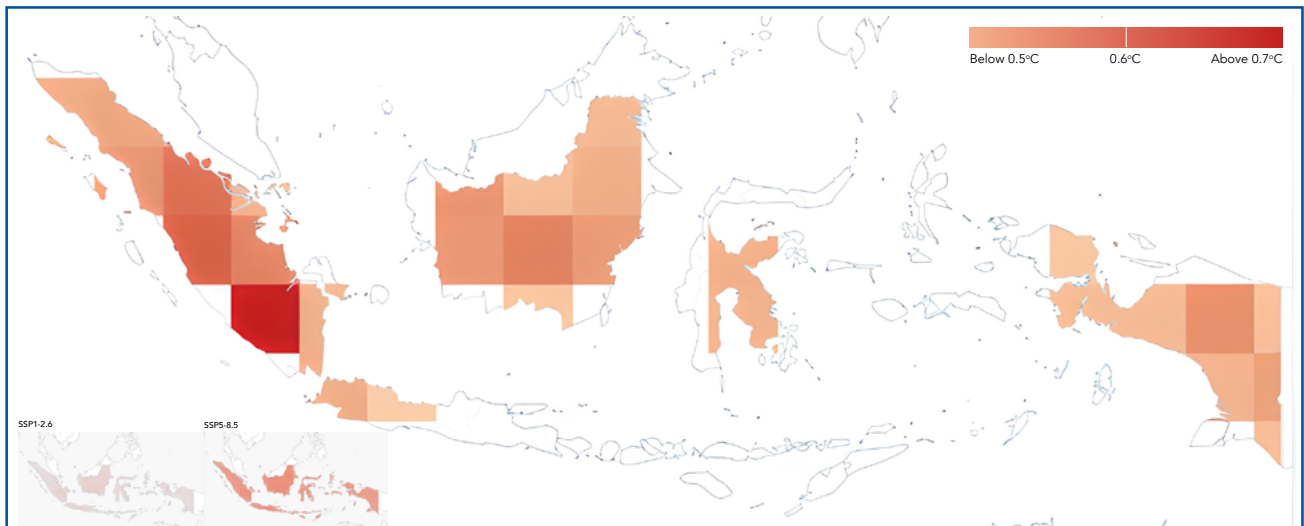
# Physical Risk Scenario Analysis

## Extreme Heatwaves Highlight

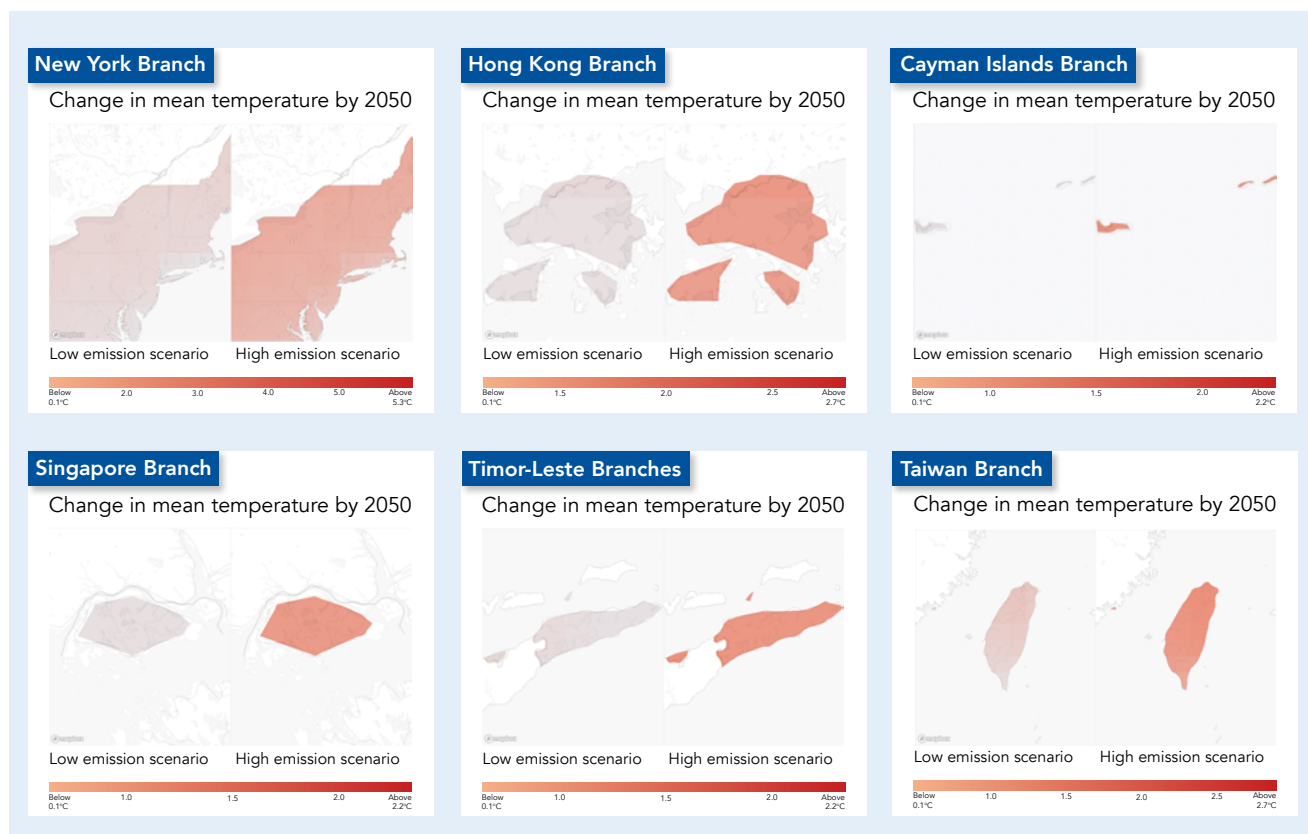
Located in Southeast Asia, Indonesia is positioned as one of the most vulnerable countries to extreme heatwaves and a prolonged period of excessively hot weather that often accompanied by high humidity, bringing severe impacts on human health, ecosystems, and infrastructure. The country is expected to experience high temperature regularly and the likelihood of experiencing heatwaves

dramatically increase by 96% under the high emission scenario.

This map highlights provinces and regencies in Indonesia that are exposed to higher heatwave risks with the highest risk predicted in South Sumatra province.



BRI has also conducted assessments of its overseas branches that are exposed to extreme heatwaves.



Source: Climate Impact Explorer

Flood Zone Highlight

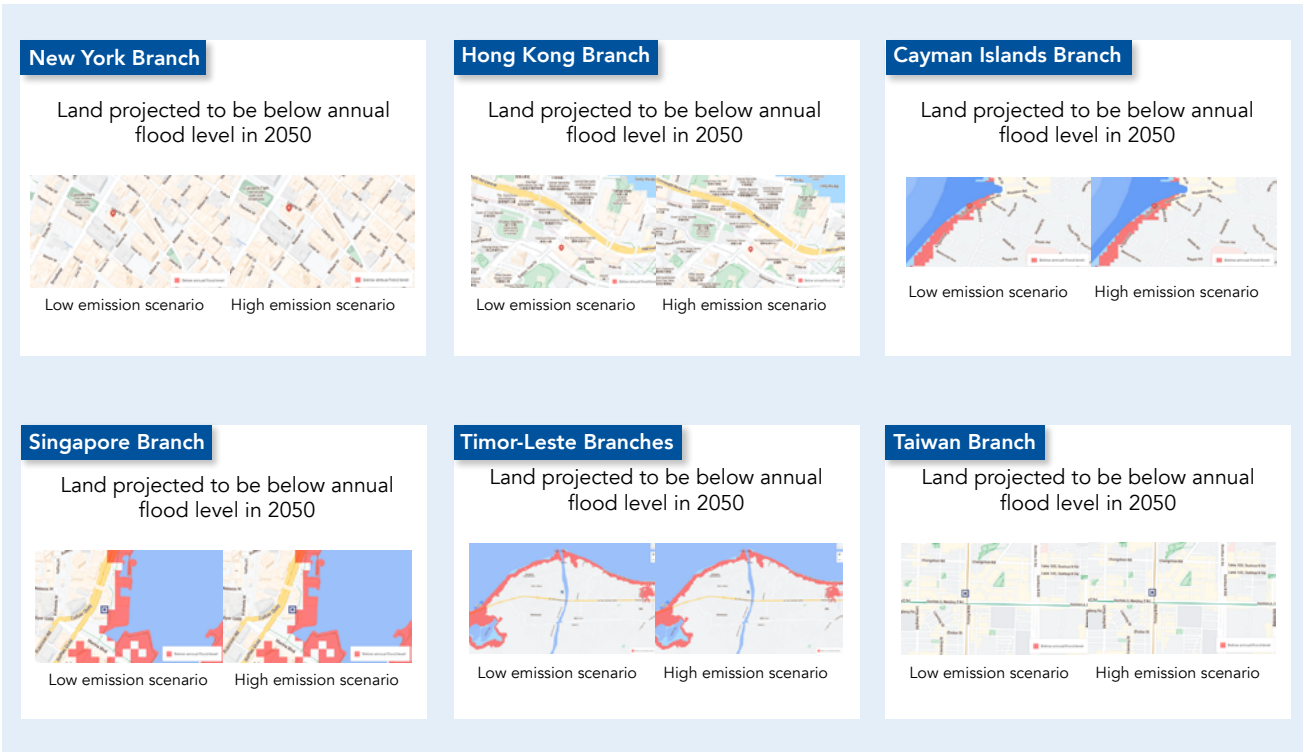
Due to its geographic characteristics, Indonesia is exposed to flooding (due to extreme weather event and sea level rises) at a high risk. Flooding brings impacts on BRI's operation in which access to branches could be blocked, causing physical damage to the branches. Results show that capital Jakarta accounts for approximately 25% of the projected national climate change cost. The city is also vulnerable to flooding due to water inundation from sea level rises and increased rainfall. As BRI's headquarters

and data center are in Central Jakarta and South Jakarta respectively, direct impact of flooding to the assets are relatively small. However, disruption to BRI's operation may still occur in 3.9% of branches in coastal areas with the majority located in the city of Surabaya.

This map highlights provinces and regencies that are exposed to high flooding risks.



BRI has also conducted assessments of its overseas branches that are exposed to extreme heatwaves.



Source: Climate Central

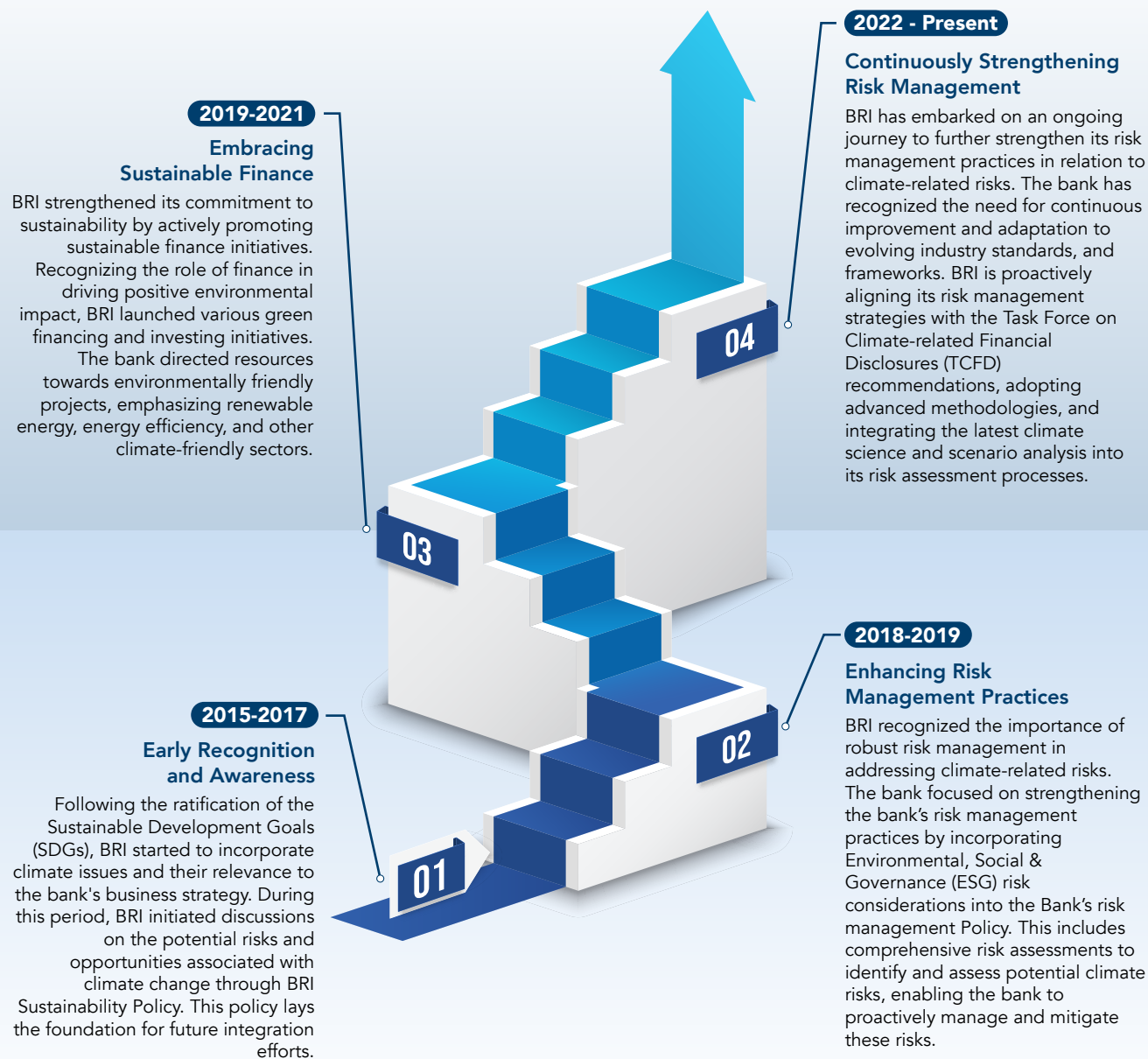
# Risk Management

A hand is shown placing a domino into a line of standing dominoes. The dominoes are arranged in a slightly curved line, and the hand is positioned to place a new domino at the end of the line. The background is a solid blue color.

BRI has undergone a transformative journey in integrating climate-related risks and opportunities into the bank's risk management practices.



## Integration of Climate into BRI's Risk Management: An Evolutionary Journey



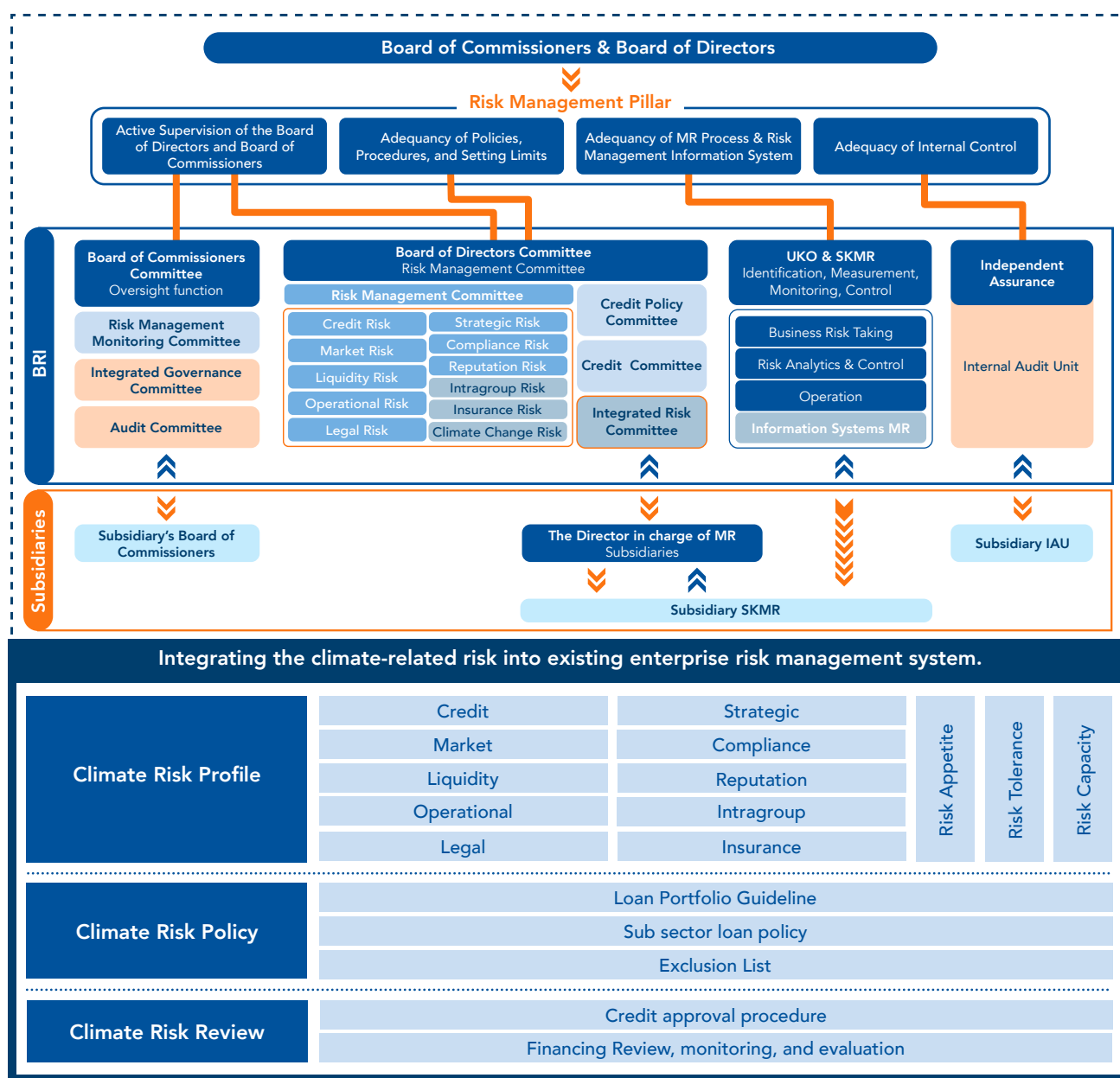
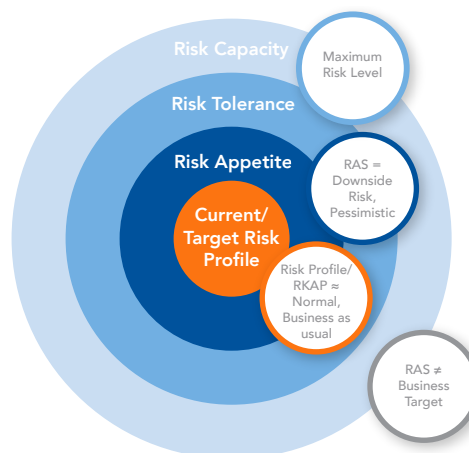
Throughout this evolutionary process, BRI has prioritized stakeholder engagement, actively seeking input from customers, investors, regulators, and industry experts. These engagements have enabled BRI to better understand stakeholder expectations and incorporate diverse perspectives into its risk management approach.

The integration of climate-related risks into BRI's risk management practices shows the bank's commitment

to responsible banking and sustainable finance. By effectively managing climate risks, BRI aims to enhance its resilience, safeguard its stakeholders' interests, and contribute to global efforts in mitigating climate change. This ongoing journey reflects BRI's dedication to continuously improving its risk management framework and staying at the forefront of sustainable banking practices.

## Risk Management Framework

Scenario analysis could be considered the first step in understanding the impacts of relevant climate-related risks on BRI's operations and investment portfolio. The result is used as the basis for understanding the potential risks and impacts of the relevant climate-related risk.





## Integrating Climate Risk to Risk Profile

Risk profile type	Climate risk type	Key driver	Response activities
Credit Risk	Policy & legal	<ul style="list-style-type: none"> <li>Carbon Pricing</li> <li>National decarbonization strategies</li> <li>Climate related disclosure obligation</li> </ul>	<ul style="list-style-type: none"> <li>Engaging with portfolios to encourage the adoption of policy &amp; legal related to carbon pricing, decarbonization strategies, and climate disclosure</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Increased market demand for greener products</li> <li>Changing customer behavior</li> <li>Market demand for green finance</li> </ul>	<ul style="list-style-type: none"> <li>Giving advice on portfolios to shift into green infrastructure</li> <li>Developing green banking product and services</li> </ul>
Compliance Risk	Policy & legal	<ul style="list-style-type: none"> <li>Carbon pricing</li> <li>National decarbonization strategies</li> <li>Climate-related disclosure obligation</li> </ul>	<ul style="list-style-type: none"> <li>Actively implementing BRI's carbon neutrality strategy</li> <li>Strengthening the application of global standards within the climate change response framework</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Market demand for green finance</li> </ul>	<ul style="list-style-type: none"> <li>Developing green banking product and services in accordance to regulation</li> </ul>
Reputation Risk	Policy & legal	<ul style="list-style-type: none"> <li>National decarbonization strategies</li> </ul>	<ul style="list-style-type: none"> <li>Revamping strategies and implementation that meet the need of stakeholders</li> <li>Securing customer and investor confidence by strengthening environmental management</li> <li>Disclosing the climate change issues through TCFD report and SR</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Increased market demand for greener products</li> </ul>	
	Reputation	<ul style="list-style-type: none"> <li>Risk of loss of trust and confidence in investors</li> <li>Opportunity to enhance reputation &amp; brand value</li> </ul>	
Operational Risk	Technology	<ul style="list-style-type: none"> <li>Increased demand of lower-carbon technology</li> </ul>	<ul style="list-style-type: none"> <li>Expanding lower-carbon technology related investment</li> <li>Monitoring lower-carbon technology and research trends</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Increased adoption of renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Converting to the usance renewable energy</li> </ul>
	Acute	<ul style="list-style-type: none"> <li>Heatwave</li> <li>Flooding</li> <li>Tropical cyclone</li> <li>Wildfire</li> </ul>	<ul style="list-style-type: none"> <li>Establishing Business Continuity Plan (BCP)</li> <li>Executing mock exercises and emergency evacuation drills</li> <li>Developing climate change response strategy according to the physical risk scenario analysis</li> </ul>
	Chronic	<ul style="list-style-type: none"> <li>Temperature rise</li> <li>Sea level rise</li> <li>Water stress</li> </ul>	
Strategic Risk	Market	<ul style="list-style-type: none"> <li>Increased market demand for greener products</li> <li>Changing customer behavior</li> <li>Market demand for green finance</li> </ul>	<ul style="list-style-type: none"> <li>Identify the ESG risks within products and services</li> <li>Revamp the composition of green products and service</li> </ul>




# Climate Risk Assessment

BRI assesses the material risks based on the severity of its impact and the likelihood of the risk occurring to conclude a risk level for the material climate-related risks on operation.

Severity × Likelihood = Risk level


Severity

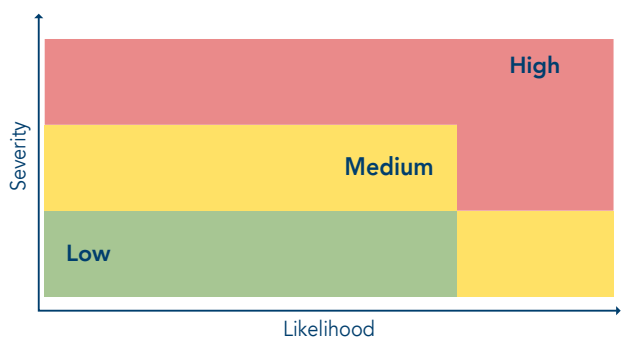

The level of impact that directly or indirectly affects BRI’s operating performance or its financial condition.






Likelihood

The frequency of the risk impacting on BRI’s operating performance or its financial condition.



Risk Level	Description
 <div>High</div>	A risk rated as high-risk level refers to the risk that is expected to have severe impacts or medium impacts at a high frequency. It is expected to pose long term adverse impact on BRI’s operation and business strategies that cause changes in business direction or strategies
 <div>Medium</div>	A risk rated as medium risk level refers to the risk is expected to have medium impacts at a low to medium frequency or low impacts at a high frequency. It is expected to pose long term impact on BRI’s operation and business strategies that cause measures that can be taken into existing operation and business strategies
 <div>Low</div>	A risk rated as low risk level refers to the risk that is expected to have low impacts at a low to medium frequency. It is expected to pose short term impact on BRI’s operation that requires one-off measure to adapt to the existing operation model or on-going monitoring of risk

As most of BRI branches, specifically 8,335 out of 8,344 branches, along with 3 offices and 2 data centers, are located in Indonesia, the impact of climate-related risks in the country has the greatest effect on BRI’s operations. The analysis focuses on the impacts on BRI’s operation in Indonesia. In the exercise, physical risks in the page illustrate risks identified under the high emission

scenario in which transition risks in the page illustrate risks identified under the 2°C aligned scenario. Physical risks under low emission scenario are deemed to be low, whereas transition risks under high emission scenario are deemed to be irrelevant as it is expected that policies/risks in relation to low-carbon transition will be irrelevant under a fossil fuel driven economy.

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## Climate Change Risk Management

Risk			Risk Level per Scenario		Time Period	Risk Trend
			Low Emission	High Emission		
Transition Risk	Policy & Legal	Carbon pricing	High	N/A	M - L	+
		National decarbonization strategies	High	N/A	S - M	-
		Climate-related disclosures obligations	Medium	N/A	S - M	-
	Technology	Increased demand of lower-carbon technology	Low	N/A	M - L	+
	Market	Increased adoption of renewable energy	Low	N/A	M - L	=
		Increased market demand for greener products	Low	N/A	S - M	=
		Changing customer behavior	Low	Low	M - L	=
		Market demand for green finance	Medium	N/A	M - L	=
	Reputation	Risk of loss of trust and confidence in investors	Medium	Low	M - L	+
		Opportunity to enhance reputation and brand value	Medium	Low	M - L	=
Physical Risk	Acute	Heatwave	Low	High	S	+
		Flooding	Low	High	M - L	+
		Tropical cyclone	Low	Medium	S	=
		Wildfire	Low	Low	S	=
	Chronic	Temperature rise	Low	High	L	=
		Sea level rise	Low	High	L	=
		Water stress	Low	Medium	L	+

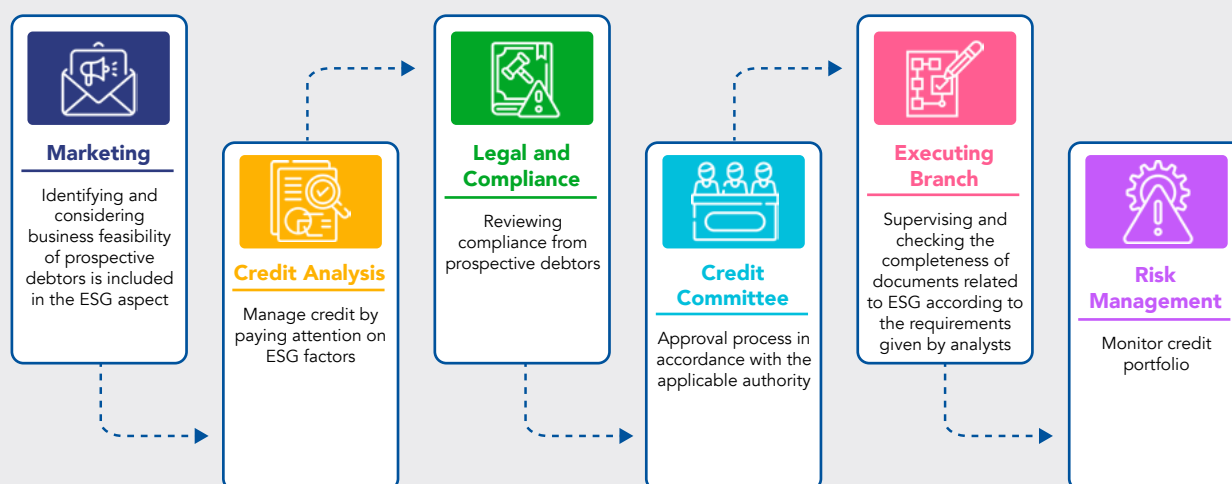
Time Period	<b>S</b> Less than 5 years	<b>M</b> 5 - 10 years	<b>L</b> Over 10 years
Risk Trend	<b>-</b> Decrease over time	<b>=</b> Remain stable over time	<b>+</b> Increase over time



## Climate Risk Policy and Review on Loan Portfolio

Loan Policy	General Acceptable Risk Criteria	<ul style="list-style-type: none"> <li>Comprehensive licensing in accordance with the prevailing regulations;</li> <li>Environmental management documents based on industry sector, including Environmental Management Efforts - Environmental Monitoring Efforts (UKL-UPL), Environmental Impact Analysis (AMDAL), environmental management permits/certifications including RSPO and ISPO or have registered the company in the process of ISPO certification under applicable regulations for corporate debtors in the oil palm plantation business sector;</li> <li>PROPER (not included black category) certification for medium and corporate debtors;</li> <li>Sector limit which is the overall limit for credit placement in each industrial sector.</li> </ul>
	Exclusion List	BRI is committed not to provide credit financing for businesses that damage the environment (negative/exclusion list), such as national parks, historical relics; does not support financing of land acquisition activities through violence; as well as not financing the debtor's activities and businesses that could damage the Heritage Sites (include UNESCO World Heritage Sites).
Sub Sector Loan Policy	Palm Oil	Risk management policies for the palm oil sector: protection of priority areas, greenhouse gas emission, production requirements, chemical used, pest control, soil management, water management, local and traditional communities, labor rights, health and safety operations.
	Pulp and Paper	Policies that are applied to the pulp and paper sector: application of green industry principles, waste management, greenhouse gas emission, clear standard operating procedures related to suppliers of wood raw materials, respect local community rights, health and clean water, use of by-products in the form of black liquor.
Risk Review		BRI conducts the climate risk review through the credit approval procedure that is carried out by taking into account the ESG aspect. ESG aspects are aspects that need to be confirmed in the Know Your Customer (KYC) process. It will confirm whether the debtor has issues related to the environment, social, legal or litigation.
		<p>BRI carries out continuous reviews of each project financed. The results of the review are submitted through internal mechanisms on credit extension approval. BRI conducts regular monitoring and evaluation to ensure that customers apply the principles of sustainable finance at least once a year, but for high risk exposure or other reasons, the review can be carried out in a shorter period of time.</p> <p>As a follow up to BRI's Green Bond issuance, BRI also reports distribution of financing in accordance with the one-year framework. This report presents an explanation of the number of assets that comply with the requirements based on the project category and the remaining balance from the results that are not distributed.</p>

### CREDIT APPROVAL PROCEDURE

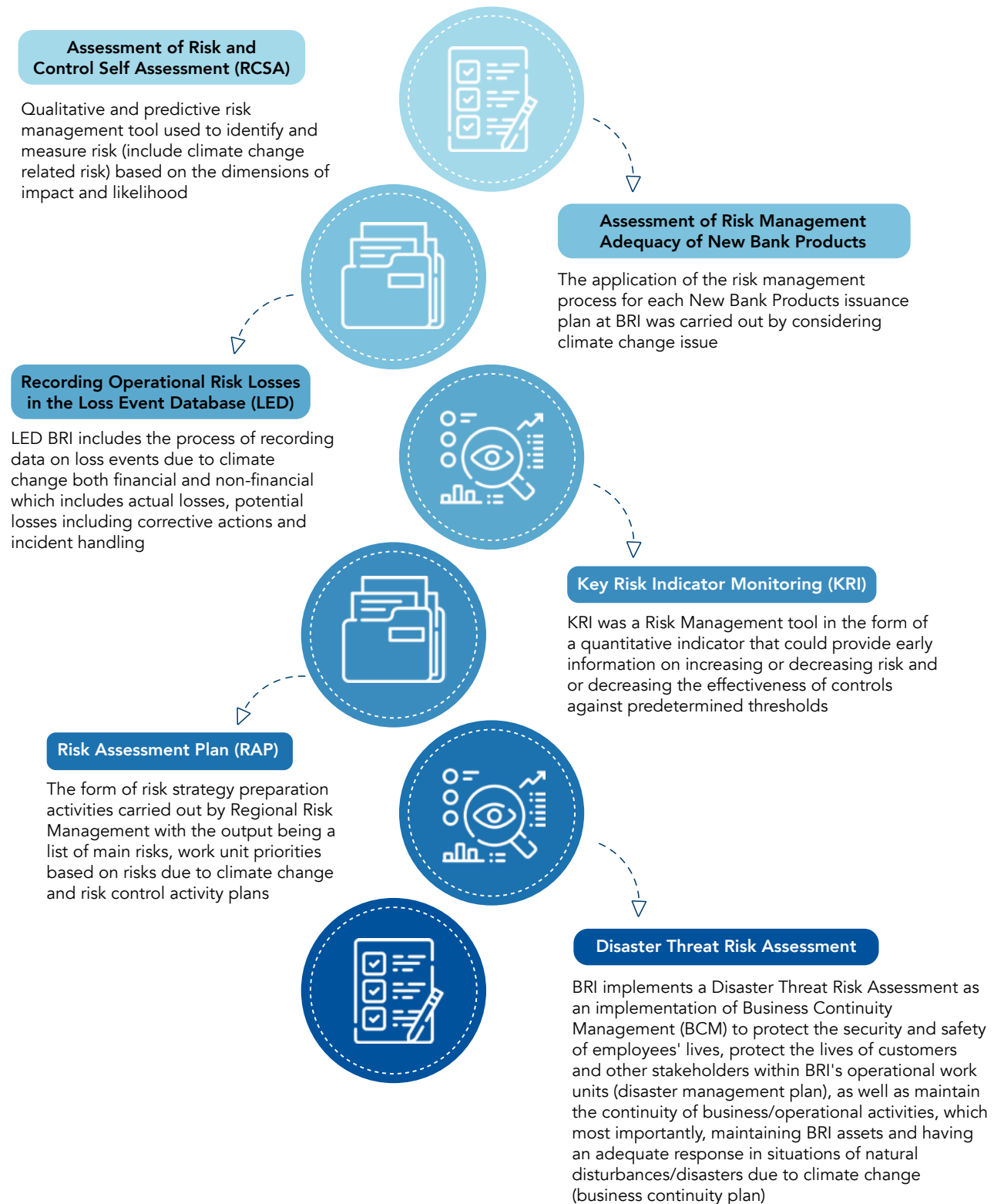




## Operational Risk Management Process - Related to Climate Change

The operational risk management process was carried out in accordance with the governance set out in the operational risk management framework and used tools in accordance with regulatory provisions and best

practices. The process of measuring and calculating operational risk was carried out through the following activities:

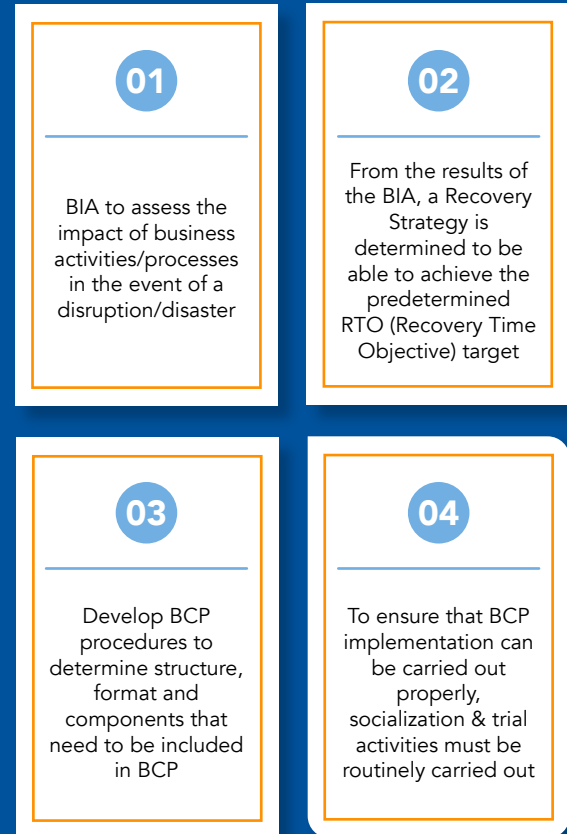
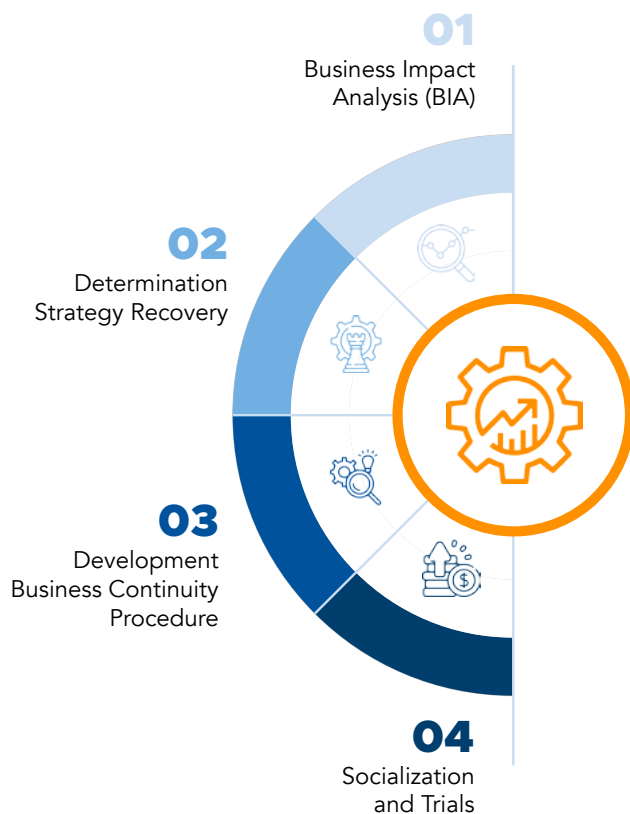


## Business Continuity Plan

BRI has Business Continuity Plan (BCP) that consist of planned and coordinated actions, procedures and information used in the framework of the recovery


process in an emergency, crisis or disaster condition so that bank operations and services to customers can continue to run.

### BCP Implementation Process



### Recovery Activity

No	Activity	Disturbance Physical / Force Majeure	Other IT or Non-IT Interruption
1	Identification of Disorders and Escalation	✓	✓
2	Impact Analysis	✓	✓
3	Mobilization to Alternative Location	✓	✗
4	Activation of Work Environment at Alternative Location	✓	✗
5	Activation of Work Equipment and Applications at Alternative Locations	✓	✓
6	Data Recovery	✓	✓
7	Product/Services Recovery	✓	✓
8	Return to Main Location	✓	✗



Measuring key performance indicators or metrics is critical to effective management. When we measure something, we can track its progress over time and make informed decisions about how to improve it.

# Metrics & Targets



## What Gets Measured, Gets Managed

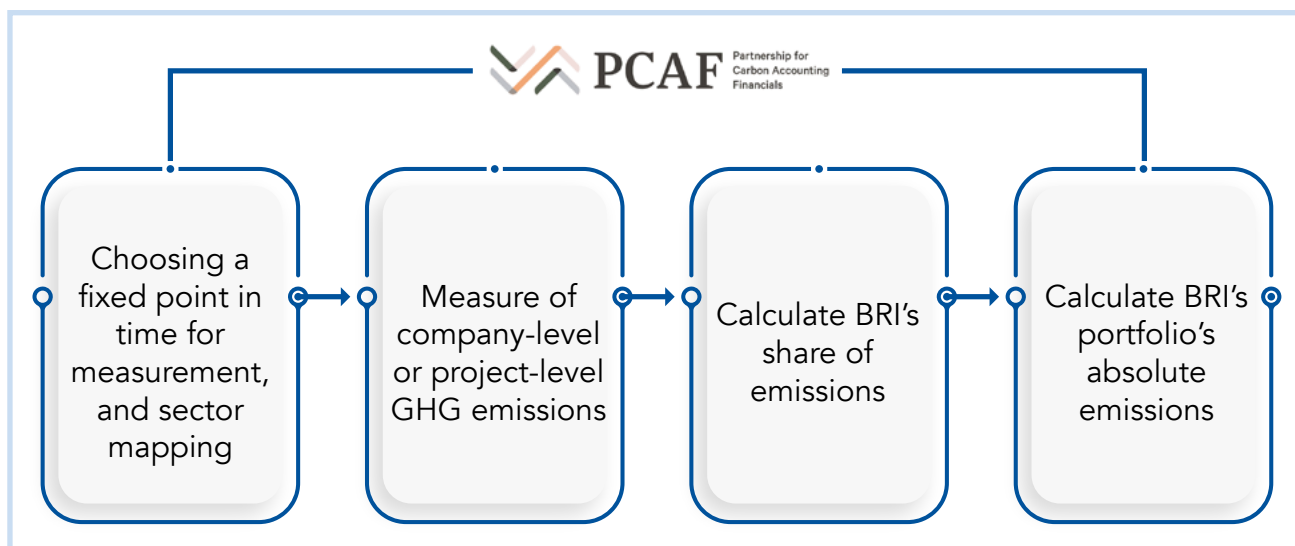
Measurement is a critical component of improvement. Without measuring performance, it would be difficult to determine whether progress is made or whether the desired results are being achieved. By measuring and managing progress over time, it becomes easier to make data-driven decisions and to continuously improve performance.

BRI measures and manages both Scope 1 & 2 and Scope 3 emissions. Scope 1 & 2 emissions are generated from our own operations, while Scope 3 financed emissions incurred from the bank's investment and lending activities, and accounts for the bank's majority of the total GHG emissions.

BRI is the first institution in Indonesia to join the Partnership for Carbon Accounting Financials (PCAF) and utilize its methodology to measure and disclose financed emissions<sup>1</sup>. The PCAF methodology was devised based on the Greenhouse Gas Protocol - a global accounting standard for greenhouse gas emissions - and provides consistent and validated measurement standards.

Furthermore, we have followed the SBTi's coverage requirements for financed emission measurement per asset type, including corporate loans, electricity generation project finance, commercial real estate, listed equity, and bonds.

### BRI Financed Emission Measurement Approach

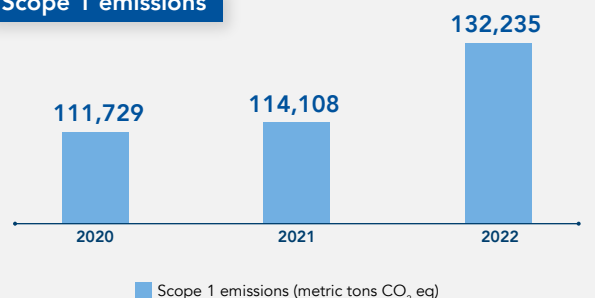


<sup>1</sup> PCAF, Financial institutions taking action, 2023

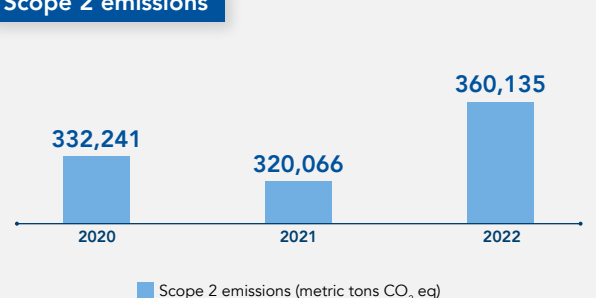
### Scope 1 & 2 (operational emissions)

Since 2018, we have measured the Scope 1 emissions produced by our own buildings, leased buildings, and company fleets, as well as the Scope 2 emissions generated by the use of purchased energy.

#### Scope 1 emissions



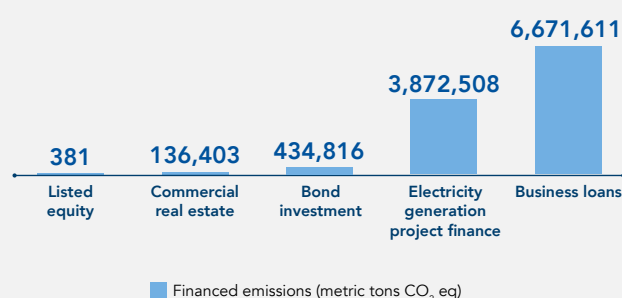
#### Scope 2 emissions



### Scope 3 (financed emissions)

Starting this year, we begin measuring Scope 3 financed emission attributable to our loans and investments. Our scope of measurement is focused on SBTi required activities initially. BRI's 2022 financed is estimated to be 11.1 million metric tons CO<sub>2</sub> eq. We have disclosed the physical emission intensity for asset classes and sectors with available SBTi Sectoral Decarbonization Approach (SDA) pathways. We plan to measure and report progress on an annual basis and expand the scope coverage when methodologies are available.

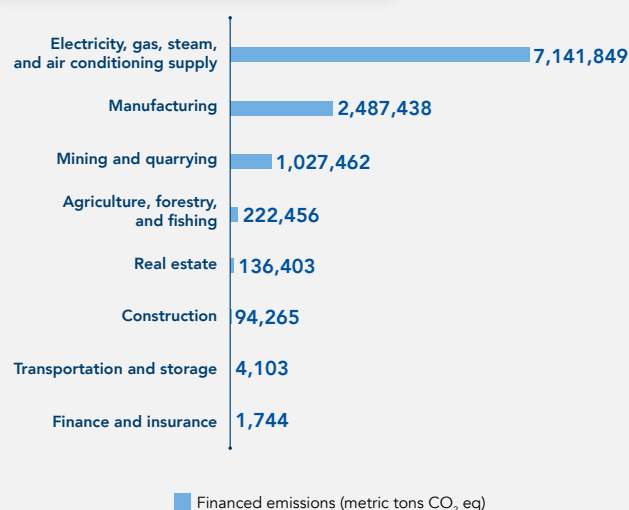
#### Financed emissions by asset class



#### Physical Emission Intensity (SBTi SDA Sectors)

Electricity generation project finance	0.816 metrics tons CO <sub>2</sub> eq/MWh
Commercial real estate	0.122 metrics tons CO <sub>2</sub> eq/m <sup>2</sup>

#### Financed emissions by sector



#### Physical Emission Intensity (SBTi SDA Sectors)

Electricity generation (under electricity, gas, steam and air conditioning supply)	0.662 metrics tons CO <sub>2</sub> eq/MWh
Paper and pulp (under manufacturing)	0.188 metrics tons CO <sub>2</sub> eq/metric tons
Real estate	0.122 metrics tons CO <sub>2</sub> eq/m <sup>2</sup>

## BRI Net Zero for the BRilliant Future

Over 4,500 companies have committed to set Science-based targets (SBTs) via the Science-Based Target Initiative (SBTi). The SBTi defines and promotes best practices in emissions reductions and net-zero targets in line with climate science.

In order to set our net-zero target, BRI adopts SBTi's most recent approach for establishing emissions reduction targets. We are the first Indonesian financial institution to submit a commitment letter seeking to obtain the SBTi's approval<sup>1</sup>. Based on our science-based reduction target, we will support our corporate clients in setting emissions reduction target in line with the SBTi's standards and achieving carbon neutrality by 2050.

We have set our Scope 3 (Finance Emissions) target according to SBTi's criteria for Scope 3 Portfolio Target.

**FI-C15** – Requirement to Set Target(s) on Investment and Lending Activities: All financial institutions shall set targets on their investment and lending activities as required by FI-C16, irrespective of the share of quantified Scope 3 portfolio emissions as compared to the total emissions or Scope 1,2 and 3 emissions of the financial institution. FIs may choose from the applicable methods for target setting, by asset class.

**FI-C16** – Portfolio Target Boundary: Financial institutions shall set targets on all "Required Activities" in the Required Activities and Methods Table following the minimum boundary coverage requirement.



<sup>1</sup> SBTi, Target Dashboard, 2023



# Green Initiatives

## Operational Eco-efficiency Program

By setting operational net-zero target by 2050, we are committed to reduce our operational emission by expanding our operational eco-efficiency program so that we meet both our near-term target in 2030 and ultimately net-zero in 2050.

### Green Transportation



**43 Unit**  
Electric cars



**50 Unit**  
Electric motorcycle



Public Electric vehicle charging station at the Head Office

### Green Premises



BRILIAN Tower is a 37 floor Green Building that received Gold category greenship certificate from the Green Building Council Indonesia in 2022



**143 Solar Panels**  
at BRI Tower Medan



LED Implementation

### Avoidance & Removal Emission



**Waste Management System**

164.375 kg CO<sub>2</sub> eq of emission avoided in 2022

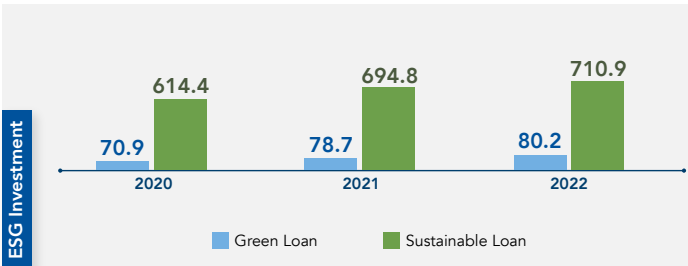


**BRI Menanam**

(BRI Tree Planting) has distributed 680,848 tree seedlings and reached 2,196 villages throughout Indonesia

## Green Banking

Financial institution plays a critical role in enabling transition to a low-carbon economy as an important part in supporting Indonesia Enhanced Nationally Determined Contribution (E-NDC) To support this cause and to help our finance emission net-zero target by 2050, we will continue to increase our Climate Specific Financing, Green/ESG Credit Lines, ESG Fixed Income Products, and other ESG Products.



### ESG Bond

IDR 5 Trillion (Green Bond)

\$500 Million (Sustainability Bond)

### Sustainability Linked Loan

\$1 Billion (SLL)



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