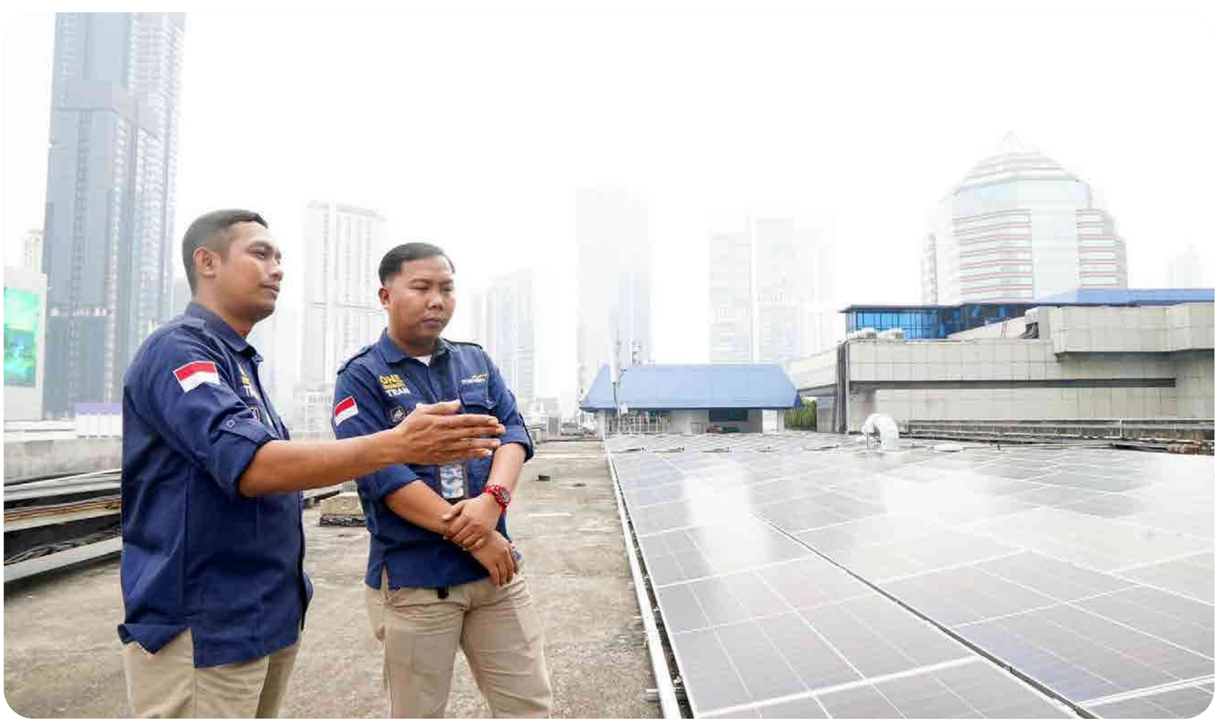
Climate-Related Risks and Opportunities [GRI 201-2]

Bank Mandiri has identified and analyzed two main types of climate-related risks: transition risks and physical risks. Transition risks are associated with the shift toward a low-carbon economy, where stricter climate policies, such as reducing greenhouse gas emissions, may affect industries that have not yet adapted. Additionally, changes in market and customer preferences that prioritize sustainability, as well as the adoption of low-emission technology, add complexity to these risks.

Meanwhile, physical risks include the direct impacts of climate change, such as increasingly intense extreme weather events, which can damage infrastructure, disrupt operations, and affect sectors within the Bank's financing portfolio. Rising temperatures and sea levels also increase the potential for damage to physical assets and impact sectors vulnerable to natural disasters, such as agriculture and fisheries.

Risk Type	Category	Description	Impact on Bank Mandiri
Transition Risks	Policy & Legal	Compliance with climate-related policies and regulations in Indonesia.	Increased costs to comply with policies and regulations.
	Technology	Transition to low-emission products.	Significant investment costs for research and development, as well as infrastructure upgrades.
	Market	Changes in customer preferences.	Revenue loss due to changes in customer preferences.
	Reputation	Negative publicity related to climate change management.	Increased litigation costs.
Physical Risks	Acute	Extreme weather events.	Increased costs for repairing damaged physical assets, operational disruptions, and higher insurance premiums.
	Chronic	Rising temperatures and sea levels.	Decrease in asset values and increased costs for climate adaptation.



Transition Risks

Type of Risk	Likelihood	Time Horizon	Description	Financial Impact	Strategies to Respond to Risk
Policy and Legal					
Compliance with policies and regulations related to climate risks in Indonesia	Likely	Short to Medium	The enactment of Law No. 16/2016, Presidential Regulation No. 98/2021, as well as Financial Services Authority Regulation (POJK) No. 51/2017 and POJK No. 60/2017, has the potential to impact Bank Mandiri's operations concerning carbon emission reduction and the implementation of sustainability standards.	An increase in operational costs (Opex) to update internal policies and risk limits.	• Bank Mandiri implements sustainable finance in accordance with POJK 51/2017 and POJK 60/2017, and has developed the Sustainable Finance Action Plan (SFAP) 2025–2029 to support the NZE 2060 target, or sooner. • Bank Mandiri establishes an acceptable risk level (risk appetite) and industry level (industry appetite) aligned with Environmental, Social, and Governance (ESG) aspects, as outlined in the Industry Acceptance Criteria (IAC) under Internal Regulation No.B3.P1.T16. IAC. Risk assessment is conducted by each Business Unit based on the Loan Portfolio Guideline, which includes Industry Classification (IC), Industry Limit (IL), Industry Acceptance Criteria (IAC), and sectoral credit policies. This process is followed by pre-approval using credit risk tools that integrate ESG aspects. For the retail segment, assessments are conducted through the Industry Acceptance Criteria (IAC) and credit risk scorecard, tailored to the risk criteria of each product, ensuring risk management adheres to sustainability principles.

Type of Risk	Likelihood	Time Horizon	Description	Financial Impact	Strategies to Respond to Risk
Legal responsibilities arising as part of the implementation of climate change-related policies.	Likely	Short to Medium	The risk of legal action if Bank Mandiri fails to fulfill its emission reduction obligations in accordance with Law No. 16/2016 on the Paris Agreement.	Increase in operational costs (Opex) due to emerging litigation costs.	• Periodic measurement and monitoring of operational carbon emissions to achieve NZE 2030. • Internalizing a sustainable work culture among employees and enhancing understanding of customers, vendors, and stakeholders through training, workshops, and focus group discussions (FGDs) related to emission reduction initiatives.
The impact of climate change can worsen the financial condition of debtors and increase credit risks for Bank Mandiri.	Likely	Medium	The risks caused by the impacts of climate change have the potential to negatively affect debtors' businesses, which in turn may lead to more credit risk for Bank Mandiri.	Reduction in financing allocation to sensitive sectors.	• In its credit approval process, Bank Mandiri has implemented Environmental and Social Risk Management (ESRM) starting from the pre-selection (feasibility assessment), credit analysis, legal and compliance review, credit approval, to the monitoring process. The ESG risk management system in the credit process covers all Bank Mandiri's credit services, including retail, treasury, corporate finance, and consumer finance segments. • Bank Mandiri's credit policies are based on the Loan Portfolio Guideline (LPG), exclusion lists, and sectoral policies for priority sectors.
Technology					
Transition to low-emission technology in products.	Likely	Long	Technology risk can have a significant impact on the Company's business, including high technology investment costs and the potential depreciation of assets. Additionally, there is the risk of asset decommissioning due to pressure to replace services or products with lower-emission technologies.	Increase in capital expenditure (Capex) due to the procurement of low-emission technologies.	• Bank Mandiri continues to develop and integrate digital solutions that support environmentally-friendly operations, such as digital banking, branchless banking (*laku pandai*), and mobile banking services.

Type of Risk	Likelihood	Time Horizon	Description	Financial Impact	Strategies to Respond to Risk
Market					
Shifting customer preferences	Likely	Medium to Long	The risk arises when customers shift to lower-emission products, which can impact the decline in demand and company revenue.	Decrease in bank revenue	• Bank Mandiri is committed to developing environmentally friendly and sustainable financial products, including the issuance of green bonds, sustainable bonds, and ESG repo. Bank Mandiri also encourages financing in the Sustainable Business Activity Category (KKUB), which includes green and social portfolios, such as loans for MSMEs in accordance with POJK 51/2017. • Bank Mandiri is accelerating the digitalization of banking services to ease public access through digital innovations such as Livin', Kopra, and Smart Branch.
Reputation					
Negative publicity related to climate change management.	Likely	Short to Medium	Negative publicity or bad perception related to Bank Mandiri's activities and compliance with climate regulations can decrease customer trust and damage Bank Mandiri's reputation.	Increase in operational costs (Opex)	• Increasing the transparency of sustainability reporting and ESG with the ESG Group as the control tower ensuring compliance with climate change regulations. • Bank Mandiri minimizes reputational risk by analyzing negative news and public opinions and providing strategic and structured responses. • Interactive dashboards are used to monitor news and opinions across various platforms in real-time.

Physical Risk

Type of Risk	Likelihood	Time Horizon	Description	Financial Impact	Strategies to Respond to Risk
Chronic					
Rising temperatures and sea level	Likely	Long	Risk that disrupts operations and revenue of debtors in high-risk sectors, increases the LGD risk, and negatively impacts asset quality and the capital of Bank Mandiri.	Increase in Loss Given Default (LGD) and decline in asset value.	• Conducting a Pilot Project on Climate Risk Stress and creating a watchlist to regularly monitor customers impacted by climate-related issues. • The Business Continuity Management Group implements business continuity management in accordance with the international standard ISO 22301:2019, and applies our Business Continuity Management Framework to ensure organizational resilience through the readiness of buildings, equipment, technology, human resources, and third parties (BETH3). • Bank Mandiri collaborates with the Meteorology, Climatology, and Geophysics Agency (BMKG) to obtain rapid climate analysis and integrate an early disaster notification system, which is directly communicated to the Crisis Management Team. • Bank Mandiri also has alternative locations for operational units and data centers to mitigate the risk of transaction disruptions and potential data loss due to the impact of climate change.
Acute					
Extreme weather	Likely	Medium	Extreme weather can disrupt Bank operations, damage physical infrastructure, and increase recovery costs. Additionally, credit risk may rise due to disruptions to debtors, potentially increasing LGD and affecting Bank Mandiri's capital stability.	Increase in loss given default (LGD) and decline in asset value.	

Opportunity

Type of Opportunity	Likelihood	Time Horizon	Description	Financial Impact	Strategy to Realize Opportunity
Increase in portfolio diversification of the Bank	Likely	Short to Medium	Diversification of the Bank's product portfolio into green bonds and sustainable products	Increase in the Bank's revenue and access to capital	Bank Mandiri has issued the Sustainable Green Bond I Phase 1 with a total issuance value of up to Rp5 trillion, which was oversubscribed by 3.74 times in 2023. The proceeds from the issuance have been fully allocated, with 69% directed to the renewable energy sector and 31% to the management of natural biological resources and sustainable land use.

Bank Mandiri is currently assessing the financial impact of climate-related risks and opportunities on the Company's strategy and decision-making processes. Bank Mandiri's business model has transitioned toward a low-carbon economy through the launch of ESG-based products, both in funding and financing. Mitigation and adaptation efforts, direct and indirect, are being developed as part of the transition plan. Bank Mandiri is preparing a climate-related transition plan, taking into account key assumptions such as global climate policies and technological developments. Additionally, we have allocated resources to support this climate strategy, with a focus on investing in sustainable technologies and ESG-based financial products. Further details regarding the progress of this plan will be disclosed in upcoming reporting periods.

Metrics and Targets

Bank Mandiri has set a medium-term target to achieve NZE for its operations by 2030 and a long-term target to achieve NZE financing by 2060, in line with the global commitment to limit the rise in global temperatures to 1.5°C compared to pre-industrial levels.

Scope 1 and 2 Emissions

Scope 1 and 2 emissions have been reduced by 33% compared to the baseline through the implementation of energy efficiency measures, environmentally friendly operations, and the use of renewable energy with solar panels. Further information on Scope 1 and 2 emissions will be discussed in more detail in the Sustainable Operation chapter.

Operational Carbon Emissions Reduction Roadmap