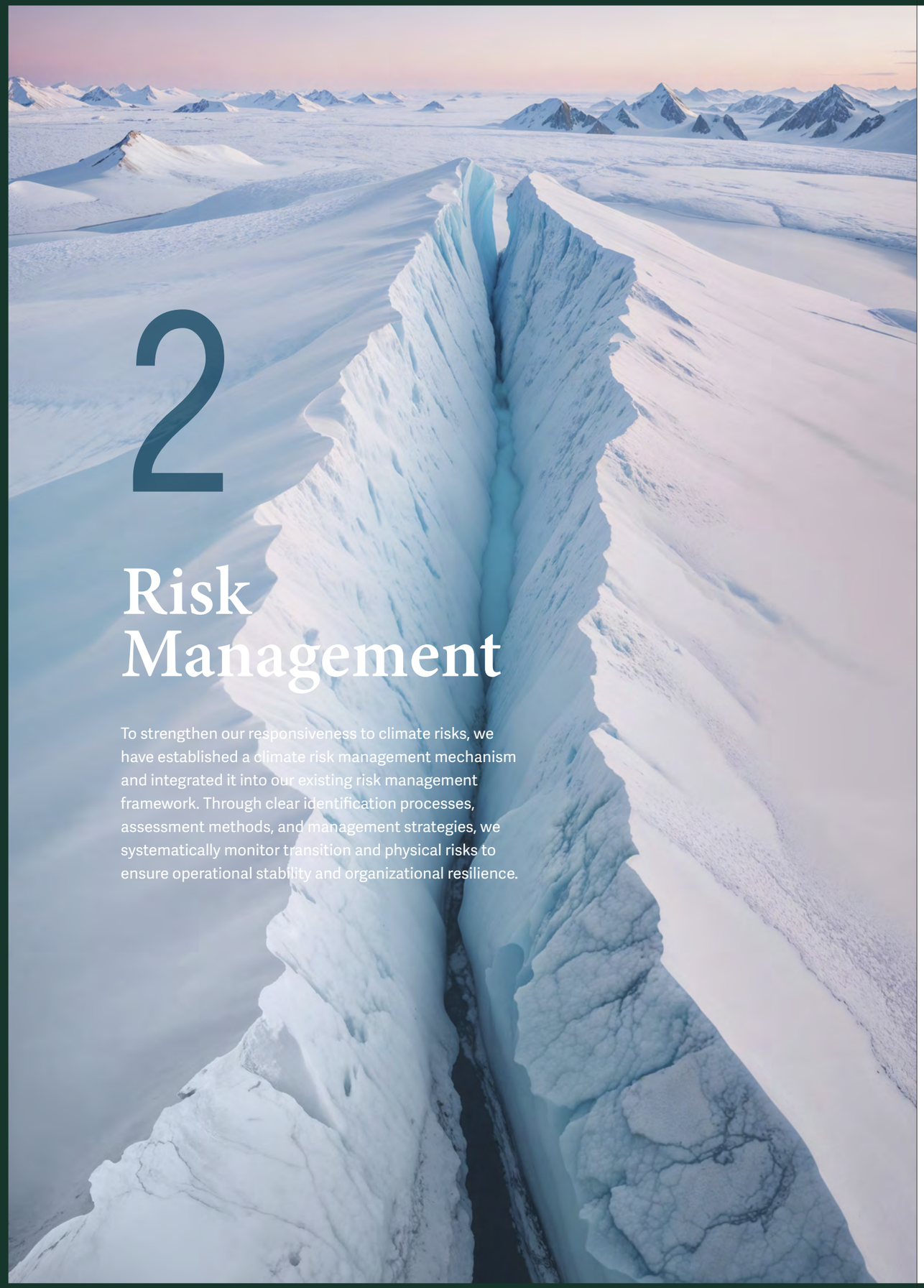

2 Risk Management

To strengthen our responsiveness to climate risks, we have established a climate risk management mechanism and integrated it into our existing risk management framework. Through clear identification processes, assessment methods, and management strategies, we systematically monitor transition and physical risks to ensure operational stability and organizational resilience.

2.1_ Climate Risk, Opportunity Identification, and Assessment Methods

The Board of Directors, as TCC's highest risk governance and decision-making body, is responsible for overseeing overall risk management policies and strategic directions, ensuring that risk control mechanisms are effectively incorporated into core operational processes. Based on each department's business scope, the Company systematically conducts risk identification and analysis across four major dimensions: strategic, operational, climate, and financial risks. Climate-related risks have been formally integrated into the Enterprise Risk Management (ERM) framework to ensure consistency and forward-looking capabilities in related response measures and decision-making mechanisms. TCC assesses climate risks across eight aspects based on the TCFD framework and practical principles, including policy and regulations, technology, market, reputation, acute and long-term physical risks. The assessment considers the impact and intensity of risks over different time horizons—short-term, medium-term, and long-term—to enhance the layered and adaptive nature of risk management.

Risk Type	Description of TCC's Risk Exposure
Current Regulatory Risks	Subject to existing environmental regulations at various operational sites, such as carbon fees, emissions reporting, and energy efficiency requirements, non-compliance may result in penalties or additional compliance costs.
Emerging Regulatory Risks	Potential future regulations, such as Carbon Border Adjustment Mechanism (CBAM), clinker blending ratio restrictions, and low-carbon product procurement obligations, may raise compliance thresholds, increase pressure to substitute raw materials and modify process, and impact production costs and international competitiveness.
Legal Risks	Inadequate disclosure or management of environmental risks may expose the company to litigation from shareholders or stakeholders, such as civil or administrative liabilities arising from inaccurate climate information disclosure, pollution, or illegal emission incidents.
Technology Risks	The introduction of immature technologies (such as carbon capture, alternative fuels, low-carbon building materials) or delays in implementation may hinder progress toward carbon reduction goals and market transformation. These efforts may also face challenges such as high R&D costs and uncertain returns.
Market Risks	Increasing market demand for low-carbon products and shifting consumer preferences are reducing the competitiveness of traditional high-carbon products. Failure to launch compliant products or obtain low-carbon certifications in a timely manner may result in loss of tender qualifications or market share.
Reputational Risks	Failure to actively address net-zero and sustainability demands may lead to doubts among investors, customers, and the public about the company's corporate responsibility and reputation, ultimately impacting shareholder trust, tender participation, and partnership decisions.

Risk Type	Description of TCC's Risk Exposure
Acute Physical Risks	Extreme weather events (such as heavy rainfall, typhoons, and floods) may disrupt the operations of cement and power plants, causing supply chain interruptions or logistics obstacles. Facilities located in low-lying and coastal areas are particularly vulnerable to these risks.
Long-term Physical Risks	Long-term climate change (such as sea level rise and water resource depletion) may pose threats to factory safety, water resource usage, and raw material source stability. In response, early risk response and site adaptation assessments are necessary.

To enhance the scientific basis and scenario foresight in risk identification and decision-making, TCC adopts various scenario models based on risk characteristics and probabilities when assessing climate risks and opportunities:

The International Energy Agency (IEA)'s Net Zero Emissions by 2050 (NZE) roadmap serves as the primary reference to assess transition risks and climate opportunities. This framework captures the institutional challenges and growth opportunities businesses may encounter under scenarios such as rapidly tightening global policies, accelerating industrial transformation, swift advancement of low-carbon technologies, and shifting market preferences.

IEA International Energy Agency

The high-emission scenario SSP5-8.5, developed by the United Nations Intergovernmental Panel on Climate Change (IPCC), is used to assess physical risks. This scenario simulates potential extreme events, such as rainfall, drought, heatwaves, or sea level rise amid ongoing climate change, evaluating their impacts on operational sites, infrastructure, and supply chains.

IPCC Intergovernmental Panel on Climate Change

Scope of Business Identification and Assessment	Building Materials, Social Energy Transition, Green Energy and Storage, Batteries and Asset Management
Scenario Settings	
Physical Climate Risks	SSP5-8.5
Climate Transition Risks	NZE 2050
Climate-related Opportunities	NZE 2050

By setting the above two representative extreme climate scenarios, TCC conducts comprehensive qualitative and quantitative analysis of risks and opportunities, evaluating potential impacts on corporate strategy, capital allocation, operational models and financial performance under different climate development pathways. This serves as a core basis for enhancing climate resilience, formulating medium- and long-term transition strategies, and prioritizing resource allocation.

2.2_ Climate Risk and Opportunity Management Process

TCC has approved the Risk Management Policy and Risk Management Committee Charter. By regularly holding meetings to monitor climate action results, TCC aims to keep potential risks across its operations within acceptable limits and to establish robust risk management procedures. In identifying and assessing climate-related risks and opportunities, TCC has established a systematic identification and analysis process based on TCFD recommendations to ensure that climate risk and opportunity management is fully integrated into corporate decision-making.

STEP 1

Risk and Opportunity Identification

⊙ Building Update climate risk and opportunity issues in accordance with the results of the previous climate risk and opportunity identification, international scientific and technological reports, industry trends in local laws and regulations where TCC operates, etc.

⊙Based on the Sustainability Accounting Standards Board (SASB) standards applicable to industries involved in key operations and their disclosure topics, the Company is gradually identifying and incorporating climate-related risks and opportunities across different sectors.

Results |

Based on TCFD classification to identify 10 key climate risks and 5 climate opportunities

STEP 2

Risk and Opportunity Analysis

⊙ Conduct cross-departmental workshops to probe into the actual impacts, timing, sources, and expected financial impact of various risks/opportunities on TCC

⊙ Analyze and assess questionnaire results, incorporating the perspectives of external experts and executives, to identify key risks/opportunities.

Results |

Distributed 32 internal assessment questionnaires, ultimately identifying 3 major climate risks and 3 major climate opportunities

STEP 3

Response and Adaptation

Link the climate policies, operation and production, products and services, and external communication to the existing climate mitigation and adaptation strategies to formulate and execute six climate action plans.

Results |

Six Climate Actions

STEP 4

Management and Supervision

Call meetings on a regular basis to track the progresses of the Six Climate Actions in response to risks and opportunities, track the carbon reduced by each plant via the Carbon Reduction Management Platform, and present the risk control report to the Board of Directors by the Risk Management Committee.

Results |

Performances against the management indicators and non-financial performance indicators of the Six Climate Actions

First, in the risk and opportunity identification phase (Step 1), TCC considers previously identified results, the latest international scientific research, local regulations at its operational sites, and industry trends to continuously update climate-related issues. Guided by the Sustainability Accounting Standards Board (SASB) framework for industry-specific disclosure topics, TCC gradually reviews potential climate risks and opportunities in key operational activities. In this phase, TCC identified a total of 10 key climate risks and 5 climate opportunities as the foundation for subsequent analysis. In the risk and opportunity analysis phase (Step 2), TCC conducted cross-departmental workshops to gain an in-depth understanding of how various risks and opportunities could potentially impact company operations and finances, including their timeframes and sources. After distributing 32 internal assessment questionnaires and consolidating input from external experts and senior executives, TCC conducted cross-validation from multiple perspectives, ultimately identifying 3 major climate risks and 3 major climate opportunities. These findings serve as a key basis for subsequent strategic planning, resource allocation, and prioritization of climate actions.

When identifying and assessing climate-related risks and opportunities, TCC adopts a matrix method for systematic analysis, comprehensively considering the timeframe of risk occurrence (short-term, medium-term, long-term), likelihood (from low to high), and degree of financial impact (effects on revenue, operating costs, capital expenditure, or asset value) to evaluate their overall significance. Through this method, TCC effectively identifies the most critical risks and opportunities for business operations and transformation and prioritize them accordingly as a key basis for subsequent resource allocation, risk response strategy formulation, and operational planning. Furthermore, this risk matrix also corresponds to the Group's overall risk management system, ensuring that climate issues are incorporated into daily risk monitoring and management decision-making processes, enhancing corporate resilience and responsiveness under climate change.

Definition of Timeframes

Connection to Strategic Decisions

Short term 2025-2026

TCC regularly reviews and adjusts its key strategic initiatives for the next two years through a rolling mechanism to ensure its operations and sustainability transformation remains responsive to rapidly changing external environments. In response to increasingly severe environmental risks and policy challenges, TCC integrates external expert advice, domestic and international research reports, and market observations to systematically assess potential risks and opportunities brought by environmental changes, using them as key references for adjusting corporate strategies.

Medium Term 2027-2029

The average planning cycle for TCC's major decision-making items spans two to four years, accompanied by regular reviews and rolling adjustments to ensure long-term strategies remain aligned with changing external conditions. In response to potential risks and transformation opportunities arising from climate change, the Company draws on external expert opinions, internal and external research data, and international market trends to integrate climate-related risks and opportunities, continuously evaluating the potential impacts of environmental changes on its operations and the industry.

Long Term After 2030

TCC aims to achieve net-zero emissions for its cement and concrete business units by 2050 as a long-term goal and formulates specific action guidelines in accordance with Taiwan's net-zero emission pathway and China's overall policy planning. The related strategies are expected to gradually demonstrate synergies after 2030 and lay the foundation for long-term corporate transformation.

Definition of Probability of Occurrence

Description of Probability of Occurrence	Probability (P)	Frequency
Almost Certain to Occur	P ≧ 90%	Occurs once per year on average
Very Likely to Occur	65% ≤ P< 90%	Occurs once every 1-3 years (inclusive) on average
Likely to Occur	35% ≤ P< 65%	Occurs once every 3-5 years (inclusive) on average
Very Unlikely to Occur	10% ≤ P< 35%	Occurs once every 5-10 years (inclusive) on average
Almost Impossible to Occur	P < 10%	Occurs once every 10-30 years (inclusive) on average

Financial Impact Level Definition

Inherent Risk Impact Level Description	Financial Impact
Extreme	$>$1.5 billion
High	1 billion<$≤1.5 billion
Moderate	500 million<$≤1 billion
Low	10 million<$≤500 million
Very Low	$≦10 million

TCC has formally integrated climate change risks and opportunities into its Enterprise Risk Management (ERM) framework, with implementation coordinated through the board-authorized risk management mechanism. This approach ensures that climate issues are managed and governed alongside other key risks, such as operational, financial, and regulatory risks, instead of being addressed independently. Specifically, TCC has incorporated transition risks (such as carbon pricing, regulations, and green finance pressure) and physical risks (such as extreme weather events and sea level rise) into its existing risk identification and assessment processes. Through cross-departmental collaboration, the Company jointly inventories risk sources and potential impacts, incorporating them into regular risk assessment operations. By integrating the aforementioned systems and frameworks, TCC has enhanced the governance and management of climate issues, embedding them within the overall corporate decision-making process and achieving a risk management-oriented sustainable transformation.