

2024



GROUP HOLDINGS

TCC
Human Rights
and Environmental
Due Diligence
Report



I. Foreword

In May 2024, TCC Group Holdings officially announced its transformation from Taiwan Cement Corporation to TCC Group Holding, a holding company, expanding into 11 industries across 13 international markets. The cement business covers Taiwan, Mainland China, Turkey, Portugal, and Africa, while the energy business includes renewable energy, energy storage, and batteries.

As TCC's business expands globally, different regions face varying human rights and environmental issues. Additionally, systemic risks such as climate change and aging populations require early planning and response. To this end, TCC aligns with the EU's Corporate Sustainability Due Diligence Directive (CSDDD), announced in July 2024. Additionally, TCC references the UN, OECD guidelines, ISO standards, and European Sustainability Reporting Standards (ESRS) to complete its first human rights and environmental due diligence report.

II. Implementation Method

A. Due Diligence References

TCC's due diligence methods reference international conventions, declarations, guidelines, standards, regulations, and reports, including:

- International Conventions and Declarations: Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, International Covenant on Economic, Social and Cultural Rights, Declaration on Fundamental Principles and Rights at Work.
- Guidelines: UN Guiding Principles on Business and Human Rights, Human Rights Due Diligence Training Facilitation Guide; OECD Due Diligence Guidance for Responsible Business Conduct, Guidelines for Multinational Enterprises; Draft Taiwan's Guidelines on Enterprises to Respect Human Rights in the Supply Chain.
- Standards: ESRS 1, ESRS 2; ISO 31000:2018 Risk Management – Guidelines, ISO 31010:2019 Risk Management – Risk assessment techniques, ISO 37004:2023 Governance of organizations — Governance maturity model — Guidances, ISO 14091:2021 Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment; AA1000 Stakeholder Engagement Standard.
- Regulations: EU Corporate Sustainability Due Diligence Directive and its annexes.
- Reports: ILO Ensuring safety and health at work in a changing climate, The 2024 report of the Lancet Countdown on health and climate change: facing record-breaking threats from delayed action, Climate Change in Taiwan: National Scientific Report 2024, Population Projections for Taiwan: 2024-2070.

B. Due Diligence Execution

The execution method is detailed in Table 1, outlining the steps of TCC's human rights and environmental due diligence process:

Table 1: TCC Human Rights and Environmental Due Diligence Steps

Due Diligence Steps		
Step		Description
Step 1	Policy and Governance	<ul style="list-style-type: none"> Integrate due diligence into corporate policies and management systems. The company avoids adverse impacts on human rights and the environment from commitment, governance, and operational processes.
Step 2	Risk Identification and Assessment	<ul style="list-style-type: none"> Identify potential human rights and environmental issues affecting various stakeholders (rightsholders) during business operations. Due diligence references UN, EU, OECD, ILO guidelines and conventions to consolidate relevant issues. Consult stakeholders to assess risks. Prioritize high-risk issues with high likelihood and impact. This due diligence consults employees, local communities, indigenous peoples, customers, suppliers, and other stakeholders. Risk assessment includes current and future systemic risks. TCC assesses three future systemic risks: climate change, aging population, and net-zero transition.
Step 3	Prevention/Termination/Mitigation	Terminate negative impacts to prevent future potential negative impacts. If adverse impacts remain after termination and prevention measures, mitigation is required.
Step 4	Tracking Effectiveness	Regularly evaluate the effectiveness of measures in preventing or mitigating adverse impacts.
Step 5	Communication and Disclosure	Disclose information and communicate with stakeholders.
Step 6	Remediation and Grievance	<ul style="list-style-type: none"> Provide remediation measures for negative impacts. Establish corporate grievance mechanisms.

C. Scope of Execution

C-1. Scope of Execution for Business Entities

According to the "Guiding Principles on Business and Human Rights," due diligence should cover its own operations or those related to its operations, products, or services. The organizational structure of the Taiwan Cement Corporation (TCC) Group Holdings is shown in Figure 1. This year, the scope of entities for the execution of due diligence is marked by red boxes, including nine departments at the operational headquarters: Sales, Engineering Affairs, Finance, Human Resources, Supply Chain Management, General Affairs, Legal, Office of Responsibility and Sustainability, and Labor Safety and Health Management office. Additionally, the Taiwan Cement Plants and Taiwan RMC Plants under the Cement Environmental Business Unit (Asia) are prioritized for due diligence execution this year. Next year, this will expand to other global business units.



Figure 1. Organizational structure of the Taiwan Cement Corporation (TCC) Group Holdings

C-2. Scope of Execution for Stakeholder Due Diligence

Based on the "Guiding Principles on Business and Human Rights," due diligence should consult potentially affected groups and other relevant stakeholders. TCC has historically identified ten types of stakeholders for significant sustainability issues, according to the AA1000 Stakeholder Engagement Standard, including government, customers, employees, local communities, shareholders/investors, environmental groups/NGOs, media, industry associations/academic organizations, suppliers/contractors, and sustainability associations.

This due diligence focuses on environmental and human rights issues. According to five principles –Dependency, Responsibility, Tension, Influence, and Diverse Perspectives - the priority stakeholders (right holders) for this due diligence are employees, local communities (hereinafter referred to as the community), customers, and suppliers/contractors (hereinafter referred to as suppliers). Given that the Indigenous people among the company's employees and the local community are significant stakeholders, Indigenous people will be individually analyzed in the due diligence.

The General Principles of the "Guiding Principles on Business and Human Rights" suggest considering the different risks faced by women and men; the "Due Diligence Guidance for Responsible Business Conduct" mentions that women face different potential or actual human rights impacts compared to men and recommends incorporating gender factors into due diligence. Therefore, TCC will analyze overall employees and female employees separately in its due diligence.

Consequently, the scope of stakeholders for this due diligence includes six categories: employees, female employees, communities, indigenous people, customers, and suppliers.

C-3. Scope of Due Diligence Issues

According to the "Guiding Principles on Business and Human Rights," businesses must respect human rights, including the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social, and Cultural Rights, and the Declaration on Fundamental Principles and Rights at Work. The "Due Diligence Guidance for Responsible Business Conduct" points out that before identifying and assessing actual or potential adverse impacts, companies must broadly gather significant human rights and environmental issues that may affect various stakeholders during their operations.

Therefore, TCC has referred to guidelines and conventions from the United Nations, the European Union, the OECD, and the International Labour Organization to compile significant international human rights and environmental issues. The meanings of adverse impacts are described in Table 2.

Table 2. Human Rights and Environmental Issues and Descriptions of Adverse Impacts

Category	Issue	Adverse Impacts Description	Reference
Human Rights	Child Labor	Child labour affects physical and mental health, interferes with educational rights, exploits in any form, or the employment of children below the legal age.	UN 、 CSDDD 、 ILO 、 OECD
	Freedom of Thought and Conscience	Violation of individual freedom of thought and conscience.	UN 、 CSDDD
	Freedom of Expression	Violation of individuals' right to freely express their opinions.	UN
	Privacy	Interference with individual and family privacy or unlawful attacks on their honor or reputation.	UN 、 CSDDD
	Forced Labor Human/Trafficking	Forced or compulsory labor through slavery, workplace oppression, debt bondage, human trafficking, etc. Including the abuse of the right to life includes, but is not restricted to, private or public security guards protecting the company's	UN 、 CSDDD 、 ILO 、 OECD

Category	Issue	Adverse Impacts Description	Reference
		resources, facilities or personnel causing the death of a person due to a lack of instruction or control by the company;	
	Freedom of Association	Any retaliatory threats (such as job transfers) that obstruct workers from forming or joining unions or not recognizing the legitimacy of the union.	CSDDD 、 ILO 、 OECD
	Collective Bargaining	Not negotiating with workers or unions to reach consensus or failing to adhere to agreed terms.	CSDDD 、 ILO 、 OECD
	Bullying and Harassment	Bullying incidents in the workplace, or physical, verbal, and sexual harassment.	OECD
	Discrimination/ Diversity and Equality	Employment, position decisions, and work environment face unequal treatment based on race, color, sex, language, religion, political, national or social origin, property, birth or another status such as disability, age, marital and family status, sexual orientation and gender identity, health status, place of residence, economic and social situation.	CSDDD 、 ILO 、 OECD
	Occupational Health and Safety	<ul style="list-style-type: none"> ■ Failing to consider workers' physical and mental condition, adjust equipment, working time, and processes, and avoid harmful substances causing worker injuries ■ Violation of employees' basic rights to food, water, and sanitary facilities. 	UN 、 CSDDD 、 OECD
	Working Hours/ Wage and Benefits	Wages are insufficient for workers and their families to maintain a decent living within the reasonable limitation of working hours.	UN 、 CSDDD 、 OECD
	Fair Trade/ Information Disclosure		
	Equal remuneration	The same work receive different wage treatments. For example, male and female workers perform the same but receive different wages.	OECD
	Indigenous Peoples	Failing to appropriately engage with indigenous peoples where corporate activities potentially impact them.	OECD
	Conflict Minerals	The supply chain (e.g., extraction, refining, transportation) does not conduct due diligence on tin, tantalum, tungsten, and gold ores and concentrates.	EU Conflict Minerals Regulation
	Worker	During the green transition, no skill training is	UNFCCC

Category	Issue	Adverse Impacts Description	Reference
	Training and Education	offered to adapt to new materials, new processes, and new technologies in the industry, nor is there training for workers to develop relevant skills.	
	Whistleblower Protection	No grievance mechanisms allow rightsholders to report concerns about the adverse impacts of corporate activities, and no protection for whistleblowers from retaliation and threats.	CSDDD
Environmental Issues	Climate Change	Companies do not develop climate change transition plans to ensure that their business models and strategies align with limiting global warming to 1.5°C, which is in line with the Paris Agreement.	UNFCCC 、 CSDDD
	Biodiversity	<ul style="list-style-type: none"> Adverse impact on biodiversity Impact on biodiversity caused by Living Modified Organisms (LMOs) Trade in endangered species Adverse impacts on natural heritage as defined in the World Heritage Convention Adverse impacts on wetlands as defined in the Ramsar Convention 	CSDDD 、 CBD 、 CITES 、 World Heritage Convention 、 Ramsar Convention
	Pollutants and Waste	<ul style="list-style-type: none"> Import, manufacture, or use mercury-added products or handling mercury waste in violation of the Minamata Convention. Produce or use Persistent Organic Pollutants (POPs) or handle their waste in violation of the Stockholm Convention. Import or export chemicals in violation of the Rotterdam Convention. Unlawful production, consumption, import and export of controlled substances in the Montreal Protocol. Export of hazardous or other waste in violation of the Basel Convention. Ship pollution according to the International Convention for the Prevention of Pollution from Ships. Marine pollution according to the United Nations Convention on the Law of the Sea. 	Minamata Convention on Mercury 、 Stockholm Convention 、 Rotterdam Convention 、 Montreal Protocol 、 Basel Convention 、 MARPOL 、 UNCLOS 、 CSDDD
Environmental Impact on Human Rights	Environmental Degradation (e.g., water	Environmental degradation, such as harmful soil changes, water or air pollution, harmful emissions, excessive water consumption,	UN 、CSDDD

Category	Issue	Adverse Impacts Description	Reference
Issues	resources (air pollution)	degradation of land, or other impacts on natural resources, resulting in: <ul style="list-style-type: none"> • Impairing the production of food; • Lack of access to safe and clean drinking water; • Difficulty in accessing sanitary facilities; • Infringing on land use/acquisition rights; • Harm the use of land or lawfully acquired possessions 	
	Land Use	Land acquisition, development, and use of land, forests, and water resources by companies (such as deforestation) damaging residents' community livelihood rights.	UN \ CSDDD

III. Policies and Commitments on Human Rights and Environmental Governance

A. Policies and Commitments

According to the "Guiding Principles on Business and Human Rights," companies should make policy statements confirming their commitment to fulfilling their obligation to respect human rights. These statements should adhere to the following principles:

1. Approved by the highest corporate executive.
2. Informed by internal and external experts.
3. Outlined in the company's human rights standards, which cover individuals, business partners, and those related to operations, products, and services.
4. Publicly available and communicated to stakeholders.
5. Integrated into corporate operating policies and procedures.

TCC, based on these principles, has compiled a list of its human rights and environmental policies, as shown in Table 3, and TCC's participation in external advocacy and commitments, as shown in Table 4.

Table 3. TCC Human Rights and Environmental Policy List

Item	Policy Name	Description
Human Rights	Human Rights Policy	<ul style="list-style-type: none"> ■ TCC adheres to labor-related laws in all its global operations and follows international human rights conventions, strictly prohibiting any involvement in human rights violations. ■ Approved by the Chairman and published on the official website and related reports.
	Stakeholder Engagement Policy	<ul style="list-style-type: none"> ■ Guidelines for TCC's communication and interaction with stakeholders are in its operations and value chain activities. ■ Approved by the Board of Directors and published on the official website and related reports.
	Anti-Discrimination and Anti-Harassment Policy	<ul style="list-style-type: none"> ■ This policy protects all members of the company (including employees, dispatched workers, technical students, and interns) and job applicants from discrimination and harassment. ■ Approved and published on the official website.
	Occupational Safety and Health Policy	<ul style="list-style-type: none"> ■ This policy ensures the safety and health of all employees, outsourced workers, and contractors at the workplace and is designed to prevent accidents. ■ Approved by the Board of Directors and published on the official website.
	Fair Trade and Anti-Trust Compliance Guidelines	<ul style="list-style-type: none"> ■ This guideline is established to comply with the laws of all countries where TCC operates and conducts business, including fair trade laws,

Item	Policy Name	Description
		<p>anti-trust laws, competition laws, anti-monopoly laws, or other laws promoting fair competition and maintaining trade order.</p> <ul style="list-style-type: none"> ■ Approved by the Chairman and published on the official website.
	Supplier Management Policy	<ul style="list-style-type: none"> ■ This policy ensures the legality of mineral, material, and goods sources through supplier management and promotes green procurement. ■ Approved by the Board of Directors and published on the official website.
	Employee Grievance and Handling Guidelines	<ul style="list-style-type: none"> ■ This guideline and the establishment of a Friendly Workplace Committee are to handle employee grievances, feedback, and other suggestions.
	Whistleblower System for Violations of Professional Ethics	<ul style="list-style-type: none"> ■ This system is established to prevent corruption, theft, embezzlement, private gain, fraud, or other unethical and dishonest behaviors that harm the interests of the company, shareholders, employees, and partners. ■ Approved and published on the official website.
Environment	Environmental Protection Policy	<ul style="list-style-type: none"> ■ This policy integrates environmental protection into the business philosophy and establishes a self-management system for environmental protection involving all employees. ■ Approved by the Board of Directors and published on the official website.
	Climate-Related Public Participation and Management Measures	<ul style="list-style-type: none"> ■ This policy effectively manages climate-related public affairs participation through the establishment of engagement activities and industry association participation management mechanisms, ensuring compliance with the Paris Agreement and TCC's net-zero emission goals. ■ Approved by the Board of Directors and published on the official website.
	Water Resource Management Declaration	<ul style="list-style-type: none"> ■ TCC believes that ensuring access to water, sanitation, and hygiene is a basic human right and pursues sustainable use of water resources, actively promoting measures to reduce water risks, especially in water-stressed areas, and minimizing the impact of water and wastewater discharge on the surrounding environment and communities. ■ Approved by the Board of Directors and published on the official website.
	Biodiversity Policy	<ul style="list-style-type: none"> ■ TCC commits not to conduct exploration and

Item	Policy Name	Description
		<p>extraction in World Heritage areas, IUCN Category I-IV protected areas, UNESCO World Natural Heritage and Biosphere Reserves, Ramsar Convention-designated wetlands, and key biodiversity areas. If business operations are required in globally or nationally essential biodiversity areas, TCC will follow local regulations and apply the principles of avoidance, minimization, mitigation, and compensation to prevent and reduce the impact of development activities on nature. TCC extends its value chain partners' attention to the environmental impact management of biodiversity and discusses and shares biodiversity-related information with them.</p> <ul style="list-style-type: none"> ■ Approved by the Board of Directors and published on the official website.
	No Deforestation Commitment	<ul style="list-style-type: none"> ■ TCC actively responds to and proposes its commitment to the COP26 agreement's commitment to no deforestation and the UN Sustainable Development Goals, SDG 13 Climate Action, and SDG 15 Life on Land. Approved by the Vice President's meeting and published on the official website.
	Green Procurement Policy	<ul style="list-style-type: none"> ■ This policy was established to incorporate environmental and social performance into the procurement decision-making process, focusing on global environmental protection and leveraging influence to encourage upstream and downstream supply chain vendors to enhance their positive impact on the environment and society. ■ Approved and published on the official website.
Human Rights and Environment	Corporate Social Responsibility Best Practice Principles	<ul style="list-style-type: none"> ■ This practice was established to fulfill corporate social responsibility and promote economic, environmental, and social progress to achieve sustainable development goals in accordance with the "Corporate Social Responsibility Practices for Listed Companies" regulations. ■ Approved by the Board of Directors and published on the official website.
	Risk Management Policy	<ul style="list-style-type: none"> ■ This policy was established to identify internal and external issues, assess climate change risks, respond to climate uncertainties, and implement operational impact analysis of major global

Item	Policy Name	Description
		issues. Regularly review the operation of the risk management mechanism to protect stakeholders and fulfill social responsibility. <ul style="list-style-type: none"> Approved by the Board of Directors and published on the official website.
	Supplier Code of Conduct	<ul style="list-style-type: none"> This code was established to ensure the labor rights, health and safety, and environmental protection of supply chain vendors. Approved and published on the official website.

Table 4: Taiwan Cement's Participation in External Initiatives and Commitments

Issue	Founding partner of BCSD Nature Positive Initiative
Environmental Issues	<ul style="list-style-type: none"> ISSB's "Partnership for Early Awareness of Sustainability - Disclosure Today" Taiwan Alliance for Net Zero Emission "Silver" Net-Zero Label
Climate Change	<ul style="list-style-type: none"> SBTi TCFD Supporter EP100
Biodiversity	<ul style="list-style-type: none"> TNFD Early Adopter Signed Business for Nature Founding partner of BCSD Nature Positive Initiative It's Now for Nature

B. Human Rights and Environmental Governance

According to the recommendations in the "Guiding Principles on Business and Human Rights," commitment to human rights and environmental policies must be integrated into the management system. By coordinating and integrating relevant units, we aim to avoid adverse human rights and environmental impacts.

The governance structure of TCC is shown in Figure 1 above. To horizontally integrate human rights and environmentally related business and implement corporate policies, TCC established the Corporate Sustainability Development Committee to oversee the decision-making and supervision of governance (G), environment (E), and society (S) tasks.

The structure of the Corporate Sustainability Development Committee of TCC is outlined in Figure 2. The Board of Directors supervises the highest decision-making unit of TCC's sustainability-related issues, the Corporate Sustainability Development Committee is responsible for approving and overseeing sustainability-related work, the working group is responsible for sustainable projects and proposing indicators and goals, and the functional group promotes related work according to the tasks.



Figure 2: TCC Corporate Sustainability Development Committee Structure

IV. Risk Identification and Assessment

Referring to the "Guiding Principles on Business and Human Rights" and the "Due Diligence Guidance for Responsible Business Conduct," companies should address all potential and actual adverse impacts on human rights and the environment. If it is impossible to handle all at once, prioritize due diligence based on the likelihood and severity of impacts, giving precedence to issues with high likelihood and significant impacts. The process must involve stakeholder consultation. Below is an explanation of the risk assessment methods, stakeholder consultation approaches, and the results of this assessment.

A. Risk Identification and Assessment Consultation Method for Stakeholders

In this human rights and environmental due diligence investigation, consultations were conducted with employees from Taiwan Cement's headquarters, Suao Cement Plant, Heping Cement Plant, and Taipei, Taichung, and Kaohsiung Products Plants, surrounding communities and indigenous groups, as well as customers and suppliers in Taiwan. The compilation of the consultation with stakeholders is shown in Table 5, and the issues corresponding to each stakeholder are summarized in Table 6.

The consultation method for stakeholder risk assessment on issues was a questionnaire survey. Table 2 illustrates the responses to questions asking about the likelihood and degree of impact of human rights and environmental issues. The consultation targets and the number of questionnaires are shown in Table 7.

Table 5 Summary of Rightsholders to be Consulted for Due Diligence

Rightsholders	Scope
Employees	<ul style="list-style-type: none"> ■ TCC Headquarters, Suao Cement Plant, Heping Cement Plant, Taiwan RMC Plants
Community	<ul style="list-style-type: none"> ■ Taipei RMC Plant: Zhangshu Village ■ Taichung Products Plant: Side Village ■ Kaohsiung Products Plant: Renwu Village ■ Suao Cement Plant: Chang'an Village, Yongchun Village ■ Heping Cement Plant: Heping Village
Indigenous Peoples	<ul style="list-style-type: none"> ■ Heping Cement Plant: Knlibu Tribe (Heping), Gukut Tribe (Hezhong), Qnragan Tribe (Heren) ■ Suao Cement Plant: Iyo Tribe
Customers	<ul style="list-style-type: none"> ■ Customers in Taiwan
Suppliers	<ul style="list-style-type: none"> ■ First-tier suppliers and contractors in Taiwan

Table 6 Corresponding Issues for Rightsholder Consultation

Category	Issue	Employees	Community	Indigenous Peoples	Suppliers	Customers
Human Rights	Child Labor	•	•	•	•	•
	Freedom of Thought and Conscience	•	•	•		•
	Freedom of Expression	•	•	•		•
	Privacy	•			•	•
	Forced Labor					
	Human Trafficking	•	•	•	•	•
	Freedom of Association	•	•	•	•	•
	Collective Bargaining	•	•	•	•	•
	Bullying and Harassment	•	•	•	•	•
	Discrimination/ Diversity and Equality	•	•	•	•	•
	Occupational Health and Safety	•			•	•
	Working Hours/ Wage and Benefits	•	•	•	•	•
	Equal remuneration	•	•	•	•	•
	Indigenous Peoples			•		
	Conflict Minerals				•	
	Worker Training and Education	•			•	
	Whistleblower Protection	•			•	
	Fair Trade/ Information					•

	Disclosure					
Environmental Issue	Climate Change	●	●	●	●	●
	Biodiversity	●	●	●		
	Pollutants and Waste	●	●	●	●	
Environmental Impact on Human Rights Issues	Environmental Degradation	●	●	●	●	
	Land Use	●	●	●	●	

Table 7 Questionnaire Collection Status

Rightsholders	Questionnaire Collection Status
Employees	Since this is the first execution of human rights and environmental due diligence, and employees are vital rightsholders, the census method was used for the questionnaire distribution. The effective response rate was 94%.
Community	The effective response rate was 84%.
Indigenous Peoples	The effective response rate was 86%.
Customers	The effective response rate was 81%.
Suppliers	The effective response rate was 96%.

B. Risk Identification and Assessment Results

Based on the risk matrix method from the ISO 31010:2019 Risk Management – Risk assessment techniques and the recommendations from the "Due Diligence Guidance for Responsible Business Conduct," risks were prioritized by their likelihood and severity of impact. Issues with high likelihood and significant impact were addressed first. The risk matrix was created using corresponding levels assigned by likelihood and impact, and the assessment results are summarized in Table 8, with three levels of risk: primary risk (denoted by ●), secondary risk (denoted by ○), and low risk (denoted by ◐). Priority was given to primary risk issues in this due diligence.

B-1 Employees

The analysis of the human rights and environmental risks for all employees, the key issues identified include whistleblower protection, training and education, bullying and harassment, collective bargaining, working hours, occupational safety and health, equal remuneration, wage and benefits, and forced labor/human trafficking.

B-2 Female Employees

The analysis of human rights and environmental risks for female employees showed that key issues are generally similar to those for all employees. The difference is that female employees considered bullying and harassment as significant issues due to their severity when they occur. Additionally, privacy rights and discrimination are also important human rights issues for female employees.

B-3 Community

The analysis of human rights and environmental issues for the community residents highlighted that they prioritize environmental issues, including environmental degradation, waste management, land use, water resources, biodiversity, and climate change.

B-4 Indigenous Peoples

The analysis of human rights and environmental issues for indigenous peoples identified key issues including indigenous rights, biodiversity, environmental degradation, waste management, land use, water resources, and climate change.

B-5 Customers

The analysis of human rights and environmental issues for customers shows that key issues include fair trade/information disclosure and climate change.

B-6 Suppliers

The analysis of human rights and environmental issues for suppliers identifies key risk issues, including occupational health and safety, bullying and harassment, climate change, working hours, environmental degradation/ waste/land use.

Table 8 Summary of Risk Identification and Assessment Results

Category	Issue	Employees	Female Employees	Community	Indigenous Peoples	Suppliers	Customers
Human Rights	Child Labor	●	●	●	●	●	●
	Freedom of Thought and Conscience	●	●	●	●		●
	Freedom of Expression	●	●	●	●		●
	Privacy	●	●			●	●
	Forced Labor Human Trafficking	●	●	●	●	●	●
	Freedom of Association	●	●	●	●	●	●
	Collective Bargaining	●	●	●	●	●	●
	Bullying and Harassment	●	●	●	●	●	●
	Discrimination	●	●	●	●	●	●

Category	Issue	Employees	Female Employees	Community	Indigenous Peoples	Suppliers	Customers
	/Diversity and Equality						
	Occupational Health and Safety	●	●			●	●
	Working Hours/ Wage and Benefits	●	●	●	●	●	●
	Equal remuneration	●	●	●	●	●	●
	Indigenous Peoples				●		
	Conflict Minerals					●	
	Worker Training and Education	●	●			●	
	Whistleblower Protection	●	●			●	
	Fair Trade/ Information Disclosure						●
Environmental Issue	Climate Change	●	●	●	●	●	●
	Biodiversity	●	●	●	●		
	Pollutants and Waste	●	●	●	●	●	
Environmental Impact on Human Rights Issues	Environmental Degradation	●	●	●	●	●	
	Land Use	●	●	●	●	●	

C. Risk Assessment Rankings for Different Work Sites and Employee Gender

An analysis was conducted separately for male and female employees at the headquarters, cement plants, and product plants to understand the differences in potential human rights risks faced by employees of different work site types and genders. The risk assessment rankings are compiled in Table 9, which serves as a reference for planning subsequent qualitative interviews.

Table 9 Risk Assessment Summary by Work Site and Employee Gender.

Gender	Work Place	Risk Ranking	Issue
Male	Operation Headquarter	1	Training and Education
		2	Privacy
		3	Occupational Health and Safety – Protective Equipment and Occupational Safety Training
	Cement Plants	1	Occupational Health and Safety – Protective Equipment and Occupational Safety Training
		2	Whistleblower Protection
		3	Occupational Health and Safety – Work-Related Injuries and Work-Related Ill Health
	RMC Plants	1	Working Hours
		2	Whistleblower Protection
		3	Wage and Benefits
Female	Operation Headquarter	1	Working Hours
		2	Bullying and Harassment
		3	Training and Education
	Cement Plants	1	Bullying and Harassment
		2	Whistleblower Protection
		3	Wage and Benefits
	RMC Plants	1	Training and Education
		2	Bullying and Harassment
		3	Whistleblower Protection

V. Management Measures, Effectiveness Tracking, and Remediation Appeals

After assessing the risks of human rights and environmental issues, TCC followed the subsequent steps of human rights and environmental due diligence to propose preventive/mitigating measures for potential impacts on major human rights and environmental issues, as well as remedial measures for existing impacts. Referring to the "Guiding Principles on Business and Human Rights," to ensure that TCC appropriately addresses potential or adverse impacts, setting quantitative or qualitative indicators to track the effectiveness of preventive/mitigating/remedial management measures; moreover, stakeholder feedback is also an essential channel for evaluating the effectiveness of management measures, this chapter also discusses corporate grievance mechanisms.

The management measures, effectiveness tracking, and remediation appeals in this chapter are presented in a dashboard format, as shown in Table 10. The key items on the dashboard are explained below, and the results related to various vital stakeholders are listed subsequently.

Table 10 Example of Management Measures and Performance Tracking Dashboard Display

Stakeholder Types	(a)	
Issues	(b)	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	(c)	(d)
Preventive/Mitigation Measures		
Remedial Measures		
Management Maturity Grading	(e)	
Residual Risk Description	(f)	
Corresponding Sustainability Report Content	(g)	

- (a) Stakeholder Types: Employees, Female Employees, Community, Indigenous People, Customers, Suppliers.
- (b) Issues: See the important issues identified in Chapter 4.
- (c) Management Measures: The "Guiding Principles on Business and Human Rights" management measures for human rights and environmental issues are divided into three parts. First is compliance with national regulations, second is proposing preventive/mitigation measures for potential impacts, and third is proposing remedial measures for existing impacts.
- (d) Tracking Indicators: Corresponding tracking indicators for the management measures are proposed. Unless otherwise specified, the data for this due diligence report are from 2023.
- National Regulation Indicators: For example, the number of violation penalties.

- Preventive/Mitigation Measures Indicators: For example, sustainability disclosure indicators.
 - Remedial Measures Indicators: For example, the number of complaints and reports received.
- (e) **Management Maturity Grading:** Based on references to the Canadian Human Rights Commission's Human Rights Maturity Model Continuum, the OECD and Global Compact Network Canada's Gender Balance Maturity Model, the American Psychological Association's (APA) Accessibility and Inclusion Maturity Model, UNICEF's Maturity Model and Assessment Tools for Harmful Practices and Policies, and the United Nations Office for Disaster Risk Reduction's Resilience Maturity Assessment Tools, it is evident that maturity models can be applied to various aspects such as human rights, gender equality, the rights of persons with disabilities, children's rights, and organizational resilience. These models provide a framework for organizations to conduct self-assessments, understand their current policies and management practices on specific issues, and propose improvements to achieve desired outcomes. Due to the broad scope of human rights and environmental issues, this report references the ISO 37004:2023 Governance of Organizations - Governance Maturity Model – Guidance to assess the maturity of management measures for critical human rights and environmental issues, and the grading degree is summarized as shown in Table 11.
- (f) **Residual Risk Description:** Use the ISO 31000:2018 Risk Management to determine whether the issue has reached an acceptably low residual risk after the company implements risk-reducing management measures.
- (g) **Corresponding Sustainability Report Content:** The corresponding chapters and pages of the sustainability report are provided for the issue, allowing stakeholders to understand the detailed management content.

Table 11 Governance behaviour maturity measurement scale

Level	Description
Level 0: Undefined	There is no evidence to prove that the company has implemented its commitments and policies.
Level 1: Limited	There is evidence, but it only proves that the company meets the minimum requirements of its commitments and policies.
Level 2: Emerging	There is evidence showing that the company has implemented management measures related to its commitments and policies.
Level 3: Formalized	There is evidence showing that the company has established standard procedures for implementing management measures related to its commitments and policies.
Level 4: Measured	There is evidence showing that the company has established standard procedures for implementing management measures related to its commitments and policies, and can evaluate the effectiveness of these measures.

Level	Description
Level 5: Optimizing	There is evidence showing that the company has established standard procedures for implementing management measures related to its commitments and policies, can evaluate the effectiveness of these measures, and continuously optimizes the measures based on the evaluation results.

A. Employees

Stakeholder Types	Employees	
Issues	Whistleblower Protection	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	—	—
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Whistleblower System for Violations of Professional Ethics. ■ Employee Grievance and Handling Guidelines. 	Reports and Grievances in 2023 Reporting Mailbox:16 Audit Committee Mailbox:4 Employee Grievance Mailbox:15
Remedial Measures	Grievance Channel <ul style="list-style-type: none"> ■ TCC provides employees with various channels to express their opinions. A dedicated committee takes appropriate protective measures to safeguard the personal information and privacy of whistleblowers or complainants. ■ The channels include email, hotline, fax, letterbox, and internal system platforms. 	—
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established a grievance mechanism and whistleblower protection. Based on the number of reports and grievances in 2023, the mechanism continues to operate effectively and handles cases appropriately, assessing this issue as a low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 55 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees
Issues	Worker Training and Education

Management Measures	Contents	Tracking Indicators
Laws and Regulations	—	—
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Employee Development Programs. ■ TCC Carbon Academy. 	Number of participants for the Sustainable Learning Action Passport:1,308 Average satisfaction with the sustainability courses: 95.1%
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established an employee training and education system, with 100% participation and high satisfaction among employees. The system is continuously optimized, and no related grievances have been received. This issue is assessed as a low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 133-136 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees	
Issues	Occupational Health and Safety	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Occupational Safety and Health Act	Safety and OHS violations: 5
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Occupational Safety and Health Policy. ■ All cement and RMC plants in Taiwan, Mainland China, and the Operation Headquarters are 100% certified to ISO 45001 certification. 	<ul style="list-style-type: none"> ■ Fatality Rate:0 ■ Rate of High consequence Work-related Injuries:0 ■ Work-related Injury Rate (LTIR):0.16 ■ In 2023, TCC reported 13 minor work-related injuries in Taiwan and Mainland China.
Remedial Measures	Remedial Measure: Enhanced inspections at high-risk sites, more frequent plant inspections, and additional education and training to prevent future	Number of grievances: 0

	incidents and aim for "zero work-related injuries."	
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC emphasizes a safe work environment, targeting "zero work-related injuries." A safety management system is established, with the Labor Safety and Health Office (LSH Office) at each location handling safety matters. This office organizes quarterly labor safety and health committee meetings, tracks project progression, assesses improvements, and reports to the Operation Headquarters. In the future, TCC will continue to strengthen occupational safety and health management to achieve low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 145-146 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees	
Issues	Collective Bargaining	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Collective Agreement Act	Number of violations:0
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ TCC holds quarterly labor-management meetings with labor representatives and unions to exchange opinions and communicate thoroughly. ■ Each plant has established union organizations, maintaining good interactive communication with the stance of integrity, openness, and respect. Collective agreements are signed based on principles of mutual trust and benefit, ensuring adherence. ■ To protect the rights and interests of employees, the content of collective agreements or work rules applies to all employees. Employees are not treated differently based on any conditions or willingness to 	<ul style="list-style-type: none"> ■ Labor unions have been established at all TCC plants in Taiwan, and collective bargaining agreements were signed, covering 100% of employees. ■ In 2023, 64% of TCC employees joined the union. Those not in the union follow standard work rules.

	join the union. The Company ensures the freedom of employees to participate in assembly and association with a fair, just, and respectful approach.	
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established a collective bargaining system and continues to optimize related measures. There have been no related grievances received, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 149 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees	
Issues	Working Hours	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Labor Standards Act	Labor working hours violations: 1
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Implement overtime control and tracking mechanisms, and establish an overtime warning system. The TCC operations headquarters turns off the lights at 9:30 PM daily to reduce the possibility of excessive work hours. ■ Prevent working hours risks at the source through manpower and resource allocation mechanisms, enhanced employee professional skills training, and management and supervision mechanisms. 	—
Remedial Measures	<p>Remedial Measure: Strengthen training for employees to acquire the professional skills they need, emphasize the importance of physical and mental health, and enhance the immediacy of supervisors' concern and assistance in management and supervision. Additionally, pay attention to ensuring reasonable</p>	Number of grievances: 0

	working hours for employees.	
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established working hours management measures and has implemented remedies for violations of labor working hours regulations. In the future, we will continue to strengthen management to achieve low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 143-144 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees	
Issues	Wage and Benefits	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	—	—
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ TCC develops wage and benefits projects such as Treasury Shares Program, Employee Savings Mutual Fund and Employee Stock Option Program. ■ Paid Volunteer Time Off, cross-time-zone Shift, Paid Personal/Sick Leave, Flexible Working Hours. ■ Overtime Home Late Plan, Green Transport Subsidies, Medical subsidies, etc. 	<ul style="list-style-type: none"> ■ Flexible Working Hours: 434 applicants ■ Travel Subsidy: 2,617 applicants ■ Medical subsidies: 1,369 applicants
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the management system for wages and benefits. There have been no related grievances received, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 140-141 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Employees	
Issues	Forced Labor / Human Trafficking	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	■ Labor Standards Act	Number of

	<ul style="list-style-type: none"> ■ Human Trafficking Prevention Act 	violations:0
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Human Rights Policy ■ Whistleblower System for Violations of Professional Ethics 	—
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 147-149 of the 2023 Taiwan Cement Sustainability Report.	

B. Female Employees

Stakeholder Types	Female Employees	
Issues	Bullying and Harassment / Discrimination / Privacy	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	<ul style="list-style-type: none"> ■ Sexual Harassment Prevention Act ■ Gender Equality in Employment Act ■ Stalking and Harassment Prevention Act 	Number of violations:0
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Implement Anti-Discrimination and Anti-Harassment Policy. ■ "Anti-Discrimination and Anti-Harassment Policy" are included in TCC's annual mandatory training. ■ Include sexual harassment prevention in new recruit orientation. ■ Specific grievance channels for discrimination and harassment prevention ensure employees' well-being and a harmonious work environment. 	—
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk	TCC has established and continuously optimized the relevant	

Description	management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.
Corresponding Sustainability Report Content	For more details, please refer to pages 134 of the 2023 Taiwan Cement Sustainability Report.

Stakeholder Types	Female Employees																
Issues	Equal remuneration																
Management Measures	Contents	Tracking Indicators															
Laws and Regulations	Gender Equality in Employment Act	Number of violations:0															
Preventive/Mitigation Measures	TCC Group Holdings adheres to the principle of sharing operational performance and has formulated a compensation policy where employee salaries are determined based on their performance, job responsibilities, and other comprehensive factors. Discrimination based on personal characteristics such as gender (including sexual orientation), race, class, age, marital status, language, ideology, religion, political affiliation, birthplace, appearance, facial features, or disabilities is strictly prohibited.	2023 Ratio of basic salary and remuneration of women to men <table border="1"> <thead> <tr> <th colspan="3">Taiwan</th> </tr> <tr> <th>Employee Type</th> <th>Base Salary</th> <th>Annual Remuneration</th> </tr> </thead> <tbody> <tr> <td>Top management</td> <td>99:100</td> <td>122:100</td> </tr> <tr> <td>Management level</td> <td>103:100</td> <td>101:100</td> </tr> <tr> <td>Non-management level</td> <td>99:100</td> <td>94:100</td> </tr> </tbody> </table>	Taiwan			Employee Type	Base Salary	Annual Remuneration	Top management	99:100	122:100	Management level	103:100	101:100	Non-management level	99:100	94:100
Taiwan																	
Employee Type	Base Salary	Annual Remuneration															
Top management	99:100	122:100															
Management level	103:100	101:100															
Non-management level	99:100	94:100															
Remedial Measures	—	Number of grievances: 0															
Management Maturity Grading	Level 5: Optimizing																
Residual Risk Description	TCC has established and continuously optimized relevant management systems, striving to ensure that employee compensation is not influenced by individual gender. This issue is assessed as low residual risk.																
Corresponding Sustainability Report Content	For more details, please refer to pages 140-141 of the 2023 Taiwan Cement Sustainability Report.																

C. Community

Stakeholder Types	Community	
Issues	Water resource	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Water Pollution Control Act	Number of violations:0
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Water Resource Management Declaration. ■ TCC cement plants and RMC plants in Taiwan and Mainland China have 100% ISO 14046 certification, with Taiwan's plants also certified to ISO 46001. In May 2024, Hoping Plant (Hualien) and Suao Plant (Yilan) received the highest Platinum level from the Alliance for Water Stewardship (AWS) after thorough evaluation. ■ TCC is enhancing water efficiency by constructing recycling systems, optimizing pipelines and equipment, and installing water-saving devices. The future water supply was assessed based on the WRI's Aqueduct Water Risk Atlas. 	<p>Complete water resource usage data and water stress area withdrawal data can be found in the 2023 Taiwan Cement Sustainability Report on pages 168-170, 187, and 206.</p> <p>For more details about water resources, please refer to pages 1-75 of the 2023 Taiwan Cement Sustainability Report.</p>
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 74-75 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Community	
Issues	Waste	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Waste Disposal Act	Number of violations:1
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ Cement plants in Taiwan and Mainland China generate 	For more details about waste data, please

	<p>maintenance and domestic waste. Valuable industrial waste is reclaimed by certified third-party agencies, while other wastes are recycled via high-temperature rotary kiln treatment for reuse.</p> <ul style="list-style-type: none"> ■ The RMC plants and distribution stations produce non-hazardous domestic and industrial waste, treated by certified vendors. ■ All waste from TCC plants is non-hazardous and treated per regulations. Following ISO 14001 certification, each site implements its waste management procedures. ■ TCC DAKA Renewable Resource Recycling Center (RRRC) to process Hualien's domestic waste. As Taiwan's first to use cement kilns for local waste co-processing, the RRRC possess a daily capacity of 200 metric tons. 	refer to page 170 of the 2023 Taiwan Cement Sustainability Report.
Remedial Measures	<ul style="list-style-type: none"> ■ Waste Disposal Act violations in Taiwan: 1 case ■ The penalty was issued due to incorrect waste reporting data. To prevent similar incidents in the future, the waste reporting process has been improved. 	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	The company has established relevant management measures and has proposed remedial actions for incidents violating the Waste Disposal Act. In the future, we will continue to strengthen management to achieve low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 76, 79-85 of the 2023 Taiwan Cement Sustainability Report.	

Stakeholder Types	Community	
Issues	Environmental Degradation / Biodiversity / Land Use	
Management	Contents	Tracking Indicators

Measures		
Laws and Regulations	Forestry Act, Marine Pollution Control Act, Soil and Water Conservation Act, Slope land Conservation and Utilization Act, Soil and Groundwater Pollution Remediation Act, Act on Wildlife Conservation	Number of violations:1
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ TCC Nature Action is based on the frameworks and methodologies of TNFD, SBTN, and WBCSD, and conducts assessments in accordance with the SBTN Company Guidance for Nature Positive. ■ TCC is engaged in indigenous species ecosystem restoration projects and soil research programs in its mines. 	For more details, please refer to pages 112-130 of the 2023 Taiwan Cement Sustainability Report and 2023 TNFD Report.
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 112-130 of the 2023 Taiwan Cement Sustainability Report and 2023 TNFD Report.	

Stakeholder Types	Community	
Issues	Climate Change	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Climate Change Response Act	Number of violations: 0
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ TCC unveiled the new " Net Zero Pathways for Cement and Concrete Business Units Worldwide". ■ In 2024, the 2030 SBT targets were updated, and the 2050 net-zero commitment was submitted. ■ TCC revised its 2030 SBT to meet the 1.5°C target by 2024. Concurrently, TCC 	<ul style="list-style-type: none"> ■ Complete GHG emissions and energy usage data can be found in Chapter 6 of the 2023 Taiwan Cement Sustainability Report, ESG Key Indicators, on pages 160-166, 186, and 190-191. ■ Data on the usage of alternative raw

	committed to 2050 net-zero goals and joined the SBTi validation pilot, ensuring consistent carbon reduction monitoring.	materials and fuels in 2023 can be found in the 2023 Taiwan Cement Sustainability Report on pages 173-174.
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 63-88 of the 2023 Taiwan Cement Sustainability Report and the TCFD Report.	

D. Indigenous Peoples

Stakeholder Types	Indigenous Peoples	
Issues	Indigenous Peoples	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	The Indigenous Peoples Basic Law	—
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ TCC is committed to complying with labor regulations globally, protecting employee rights, and upholding principles stated in key international human rights treaties such as the United Nations Declaration on the Rights of Indigenous Peoples, and the International Labour Organization Convention No. 169. ■ TCC established the Hoping Sustainability Charity Foundation to offer sustainable support to the tribe. The foundation operates on a tribal consensus model, led by the village leader and three tribal chairs. Additionally, the Hoping Emergency Relief Fund was created to ease financial hardships of the needs. ■ TCC DAKA Open Eco-Factory (TCC DAKA) enhances industry-society dialogue. Since its 2020 launch as a non-profit, regular contribution from the month surpluses of 7-ELEVEN Lienhe Store and Starbucks are directed to the Hoping Sustainability Charity Foundation. Additionally, income 	For more details about distribution of full-time employees by demographic groups, please refer to page 177 of the 2023 Taiwan Cement Sustainability Report.

	<p>from DAKA Eco-Tour Itinerary and DAKA Market stall fees finance the Hoping Environmental Education Project.</p> <ul style="list-style-type: none"> ■ TCC DAKA launched the Home Repair Service Center, employing two locals and suppliers' staff as electricians and engineers, with the Hoping Plant supplying basic parts for free. ■ Since 2022, the Hoping Village Care Bus, equipped with an automatic lift, has facilitated access for individuals with disabilities. The bus transports Heping villagers to and from downtown Hualien for business, medical needs, and grocery shopping. 	
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details, please refer to pages 150-154 of the 2023 Taiwan Cement Sustainability Report.	

E. Customers

Stakeholder Types	Customers	
Issues	Fair Trade / Information Disclosure	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	Fair Trade Act	Anti-competition or anti-trust: 1 case (Legal remedies filed)
Preventive/Mitigation Measures	The “Code of Fair Trade and Anti-trust Compliance” and “Whistleblower System for Violations of Professional Ethics” have been formulated.	For more details about waste data, please refer to page 54-55 of the 2023 Taiwan Cement Sustainability Report.
Remedial Measures	In employee education and training, this case serves as a teaching material to remind employees of being vigilant in discussing sensitive information with competitors and refusing to attend occasions involving any of the	—

	above. How to report and keep evidence while clients demanding the same price is emphasized to protect the Company's interests.	
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details about waste data, please refer to page 54-55 of the 2023 Taiwan Cement Sustainability Report.	

F. Suppliers

Stakeholder Types	Suppliers	
Issues	Occupational Health and Safety, Bullying and Harassment, Climate Change, Working Hours, Environmental Degradation/Waste/Land use	
Management Measures	Contents	Tracking Indicators
Laws and Regulations	—	—
Preventive/Mitigation Measures	<ul style="list-style-type: none"> ■ The “Occupational Safety and Health Policy” and “Green Procurement Policy” have been formulated. ■ Suppliers are required to sign the Supplier Code of Conduct. With the aim to ensure the work safety, the protection of the environment, and the dignity of the employees (including the contractors) on the entire supply chain and the manufacturing process, as well as the compliance with the laws and regulations relating to occupational safety and health and the signing of the Letter of Undertaking of Health, Safety and Environment. ■ TCC refers to UNGC and integrates the principles of the ISO 20400 into its procurement processes. Meanwhile, TCC conducts written reviews of the supply chain based on CSDDD, promoting the ESG supplier program through five major steps, and strengthen its influence over suppliers. ■ The five major steps include risk and impact assessment; sustainability 	For more details about waste data, please refer to page 56-58 of the 2023 Taiwan Cement Sustainability Report.

	<p>performance evaluation; correction and improvement; training, empowerment, and cooperation capacity-building programs; supervision, evaluation, and mutual learning.</p> <ul style="list-style-type: none"> ■ Conduct supplier due diligence, including issue identification, supplier grading, risk assessment, risk verification, and issue concept establishment. 	
Remedial Measures	—	Number of grievances: 0
Management Maturity Grading	Level 5: Optimizing	
Residual Risk Description	TCC has established and continuously optimized the relevant management systems. There have been no related penalties or grievances, and this issue is assessed as low residual risk.	
Corresponding Sustainability Report Content	For more details about waste data, please refer to page 56-58 of the 2023 Taiwan Cement Sustainability Report.	

VI. Systemic Risk Identification and Assessment

Chapter 4 on Risk Identification and Assessment, as well as Chapter 5 on Management Measures, Tracking Effectiveness, and Remedial Complaints, primarily address the current risks of human rights and environmental issues faced by Taiwan Cement Corporation (TCC). This chapter will discuss potential systemic risks TCC may face in the future, including climate change, aging populations, and net-zero transition risks, as detailed below.

A. Climate Change Risk Identification

A-1. The Impact of Climate Change on Occupational Safety and Health

According to the 2024 ILO Global Report on Occupational Safety and Health under Climate Change, the table below summarizes the impacts of climate change and other environmental factors on occupational safety and health.

Table 12: Summary of Impacts of Climate Change and Other Environmental Factors on Occupational Safety and Health (Excerpt from Ensuring safety and health at work in a changing climate, Geneva: International Labour Office, 2024)

Types of Risks	Global Occupational Exposures or Impact
Excessive heat	Annually, over 2.41 billion workers face excessive heat exposure.
UV radiation	Annually, 1.6 billion workers face solar UV radiation exposure.
Extreme weather events	From 1970 to 2019, 2.06 million deaths were caused by weather, climate, and water hazards (not just occupational exposures).
Workplace air pollution	Increased air pollution exposure risk for 1.6 billion outdoor workers.
Vector-borne diseases	Annually, over 15,170 work-related deaths are due to parasitic and vector diseases.

A-2. Risk of Climate Change Impact on Occupational Safety and Health in Taiwan

Following the significant occupational safety and health risks mentioned in the aforementioned ILO report on climate change, the following section assesses the future warming scenarios and their impact on occupational safety and health risks in Taiwan based on the 2024 National Climate Change Science Report.

A-2-1. Extreme High Temperatures

The risks of extremely high temperatures are discussed using the Heat Wave Duration Index (HWDI) and the Physiological Equivalent Temperature (PET). Preliminary evaluations suggest that the entire island is at risk of extreme high-temperature impacts, with urban areas and the central and southern regions being more vulnerable.

- Heat Wave Duration Index (HWDI): This index indicates the number of days in a

year where the daily maximum temperature exceeds the 95th percentile of the highest temperatures from 1995 to 2014 for three consecutive days or more. The 2024 National Climate Change Science Report states that, under a 1-degree Celsius warming scenario (GWL 1°C), future warming of 2 degrees will increase the duration of extreme high temperatures by 28 days, 3 degrees will increase it by 57 days, and 4 degrees will increase it by 88 days, with central and southern Taiwan facing higher impacts.

- **Physiological Equivalent Temperature (PET):** PET represents the temperature felt by the human body in an environment, expressed as the indoor temperature in the absence of wind and sunlight. The National Climate Change Science Report points out that, whether the future warming scenario is 2 degrees or 4 degrees, PET will be higher in highly developed urban areas compared to surrounding suburban areas.

A-2-2. Extreme Weather Events

The 2024 National Climate Change Science Report highlights the future risks of extreme weather events, including typhoons, droughts, and heavy rainfall, which must be considered in climate adaptation.

Typhoons: Compared to the baseline period, the number of typhoons is expected to decrease by about 10% by the mid-21st century, while the frequency of intense typhoons is expected to increase by 105%.

Droughts: The trend of increasing droughts is shown using the number of consecutive days without rainfall in a year. By the end of the century, the trend will become more evident with intensified warming scenarios. The situation will be more severe in southern Taiwan than in the northern region.

Heavy Rainfall: The number of extreme rainfall days and the intensity of extreme rainfall events will increase on the windward side of western Taiwan. At the same time, it will decrease in the eastern region.

A-2-3. Air Pollution

The 2024 National Climate Change Science Report states that climate change will worsen air quality in Taiwan during the autumn and winter seasons, and the warming atmosphere will accelerate photochemical reactions, leading to increased ozone concentrations.

A-2-4. Vector-borne Diseases

According to the 2024 National Climate Change Science Report, climate warming will exacerbate mosquito-borne diseases such as dengue fever. Waterborne diseases may also increase due to flooding.

A-3. TCC's Occupational Safety and Health Prevention and Management Measures in Response to Climate Change

Based on the aforementioned ILO Global Report on Occupational Safety and Health

under Climate Change, as well as the 2024 Taiwan National Climate Change Science Report, it is evident that climate change poses human rights risks to workers' occupational safety and health.

To address this, TCC has referenced the ISO 14091 Climate Change Adaptation—Guidelines on Vulnerability, Impacts and Risk Assessment to plan subsequent occupational safety and health prevention and management measures in response to climate change. These measures are included in the due diligence management measures and effectiveness tracking dashboard, and the direction of TCC's occupational safety and health climate change adaptation planning for employees is shown in Table 13.

Table 13: TCC Employee Occupational Safety and Climate Change Adaptation Follow-up Plan

Stakeholder Type	TCC employees considering variables such as age, gender, ethnicity, and region.	
Issue	Focus on human rights risks to employee occupational safety and health due to climate change, including extremely high temperatures, extreme weather events, air pollution, and vector-borne diseases.	
Management Measures	Description	Tracking Indicators
National Regulations	Climate Change Response Act	—
Prevention/Mitigation Measures	<ul style="list-style-type: none"> ■ Plan prevention measures based on IPCC AR6 WGII report, ILO report, ISO 14091 Climate Change Adaptation – Vulnerability, Impact and Risk Assessment Guidelines, and other documents. ■ Prevention measures will reference the AA1000 Stakeholder Engagement Standard and involve relevant stakeholders. Propose appropriate tracking indicators for the issue. 	Propose appropriate tracking indicators for the issue.
Remediation and Grievance Measures	Plan relevant reporting and warning measures.	Propose appropriate tracking indicators for the issue.
Management Maturity Grading	—	
Residual Risk Description	Evaluate and describe residual risks after implementing climate change adaptation measures based on the IPCC AR6 WGII report.	

B. Aging Risk

B-1. Taiwan's Aging Trend

According to the National Development Council's Population Projections for the Republic of China (2024-2070), Taiwan's population continues to decline. The total population is expected to decrease from 23.4 million in 2024 to 19.7 million in 2050 and further to 14.97 million in 2070. This reduction in population leads to two key trends:

- The overall working-age population (ages 15-64) will decline, with its proportion of the total population dropping from 69.1% in 2024 to 53.8% in 2050 and to 46.6% in 2070.
- The workforce will mainly consist of middle-aged and older individuals. In 2024, those aged 45-64 will make up 44.8% of the working-age population, increasing to 53.2% in 2050 and maintaining at 53% in 2070.

B-2. Risks Derived from Aging

B-2-1. Forced labor due to labor shortages:

According to the 2023 International Workshop on Combating Human Trafficking, one of the speakers, Japanese independent journalist Yasuhiro Ide, mentioned that Japan's labor shortage has led to an increase in international students, many of whom become victims of working under the pretenses of studying. These students enter Japan with a debt of nearly \$10,000 and work over the legal limit for student hours, often in labor-shortage industries such as bento factories, hotels, and logistics companies.

B-2-2. Occupational safety:

The 2016 report by the European Agency for Safety and Health at Work (EU-OSHA) reviewing the impact of an aging workforce on occupational safety and health indicated that although physical functions decline with age, accumulated work experience and skills can compensate for this loss. Chronic illnesses like cardiovascular disease, if treated and controlled, do not affect work. Nevertheless, organizations should consider how to create a safe and friendly work environment regardless of age.

B-3. TCC's Preventive Management Measures for Human Rights Risks Due to Aging

With the future decline in Taiwan's overall working-age population and a workforce primarily consisting of middle-aged and older individuals, TCC will quantify the impact of population aging on the company's long-term workforce needs. This measure will further assess the relationship between labor shortages and forced labor risks and understand the occupational safety prevention measures adopted by other countries in response to aging.

C. Net-Zero Transition Risk

The process of corporate net-zero transition may impact stakeholders. Taking TCC as an example, employees in the cement business unit must continue to learn innovative carbon reduction technologies; the decommissioning of the Hoping Power Plant's coal-fired units by 2040 raises important issues regarding employee training and transformation. Hence, TCC held a Just Transition Workshop on November 2, 2024, inviting colleagues and supervisors from relevant departments at the headquarters, cement plants, Hoping Power Plant, Hoping Port and subsidiaries to participate. Together, they identified key stakeholders in TCC's net-zero transition. Subsequent in-depth interviews will be conducted to identify significant transition risks and propose preventive and mitigation measures.

D. Impact of Systemic Risks on Employee Human Rights Risk

As indicated in the afore mentioned cited reports, climate risks may increase occupational safety and health risks for workers, and the aging that causes labor shortages may increase the risk of forced labor. If we simulate a 2-degree warming scenario (GWL 2°C) along with the population projections of the National Development Council, changes in relevant human rights issues in the original employee risk matrix are shown in Figure 3.

Climate risks and aging risks coexist, potentially exacerbating negative impacts. For example, extreme heat or other extreme weather events can reduce working hours. According to the 2024 report of the Lancet Countdown on health and climate change, extreme weather in 2023 resulted in a global loss of 512 billion potential labor hours. If we also consider the future reduction in the labor force due to aging, the risk of forced labor may further increase. In response, Taiwan Cement will proactively implement preventive measures.

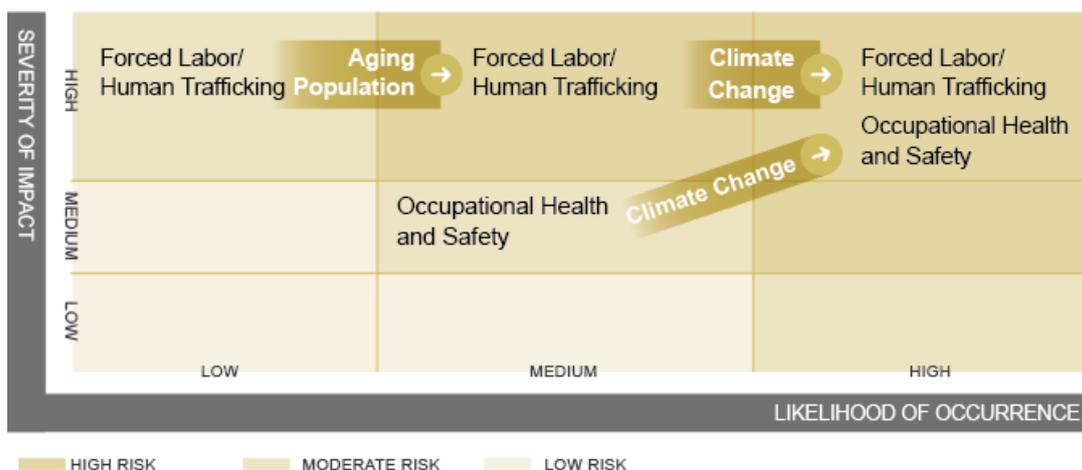


Figure 3 Changes in the Risk Matrix of Systemic Risks on Employee Human Rights Risks

VII. Communication and Disclosure

Referring to the "Guiding Principles on Business and Human Rights," companies must communicate externally on how they handle human rights. The methods include physical meetings, online dialogues, consultations with affected stakeholders, and public disclosure of formal reports. Such information communication must adhere to the following two principles:

1. Stakeholders must be able to access the information.
2. The information must be sufficient for stakeholders to assess whether the management measures are appropriate.

TCC consults the AA1000 Stakeholder Engagement Standard and considers three aspects: the degree of communication, relationship maintenance, and the level of participation. According to the characteristics of different stakeholders, the key points of stakeholder engagement planning for 2025 are shown in Table 14.

Table 14: Key Excerpts from the 2025 Stakeholder Engagement Plan

Type	Content	Target Audience
Climate Change Adaptation Workshop	Discuss the company's climate adaptation measures in response to significant climate events.	Colleagues vulnerable to climate events.
Net-Zero Transition Workshop	Interview key stakeholders impacted by the net-zero transition, assess significant impact risks and propose prevention and mitigation measures.	Key stakeholders identified in the preliminary inventory of the Just Transition Workshop on November 2, 2024.
Public Due Diligence Report	Publish this due diligence report on TCC's official website.	All stakeholders can read it.

VIII. Conclusion and Key Due Diligence Work for 2025

A. Conclusion

The results of this due diligence revealed that key stakeholders of TCC, including employees, female employees, communities, indigenous peoples, customers, and suppliers, believe that important human rights and environmental risks have been largely mitigated through the company's existing management systems and preventive/mitigation measures, resulting in primarily low residual risk. For issues that have produced adverse impacts, remedial measures have been proposed, and preventive measures have been strengthened.

However, in the face of systemic risks such as climate change, aging population, and net-zero transition risks, the challenges are not only geographically widespread, affecting global operations, but also long-term, with impacts inevitable in 2025, 2030, and even 2050. As time progresses, the severity of global warming and extreme weather events will increase. The compounded adverse impacts of extreme weather and aging population will further exacerbate these challenges, necessitating the early implementation of comprehensive preventive/mitigation measures.

B. Key Due Diligence Work for 2025

In 2025, we will continue to conduct human rights and environmental due diligence, focusing on the following key areas:

1. Gradually expand the scope of due diligence to other global business groups.
2. Continue to engage stakeholders through workshops, qualitative interviews, and surveys.
3. Strengthen management measures for human rights issues in the international supply chain.
4. In response to the EU Corporate Sustainability Due Diligence Directive (CSDDD), ensure due diligence aligns with ESRS, with reference to ESRS E1, ESRS E2, ESRS E3, ESRS E4, ESRS E5, ESRS S1, ESRS S2, ESRS S3, ESRS S4, and other relevant thematic standards.
5. Continue to refer to conventions and guidelines from the United Nations, ILO, and OECD, and integrate ISO risk assessment methodologies and management standards to establish a global human rights and environmental risk management mechanism applicable to TCC's global business operations.

Appendix-Rightholder Human Rights and Environmental Risk Matrix

Human Rights and Environmental Risk Matrix for Each Rightsholder Group : Employees				
SEVERITY OF IMPACT ON EMPLOYEES	HIGH	Wage and Benefits Forced Labor/ Human Trafficking		
	MEDIUM	Privacy, Freedom of Expression, Discrimination, Biodiversity, Climate Change, Environmental Degradation/ Waste/ Land Use	Whistleblower Protection, Training and Education, Bullying and Harassment, Collective Bargaining, Working Hours, Occupational Health and Safety, Equal remuneration	
	LOW	Freedom of Thought and Conscience, Diversity and Equality, Freedom of Association, Child Labor		
		LOW	MEDIUM	HIGH
LIKELIHOOD OF OCCURRENCE AT TCC ACCORDING TO EMPLOYEES ASSESSMENT				

■ HIGH RISK ■ MODERATE RISK ■ LOW RISK

Explanation:

According to the OECD Due Diligence Guidance for Responsible Business Conduct, gender factors must be incorporated into due diligence, as women may face different potential or actual human rights impacts compared to men. Therefore, the risk ranking of key issues for employees will be analyzed separately for all employees and female employees.

After analyzing the human rights and environmental risks for all employees, the key issues identified include whistleblower protection, training and education, bullying and harassment, collective bargaining, working hours, occupational safety and health, equal remuneration, wage and benefits, and forced labor/human trafficking.

Human Rights and Environmental Risk Matrix: Female Employees				
SEVERITY OF IMPACT ON FEMALE EMPLOYEES	HIGH	Wage and Benefits, Privacy , Forced Labor/ Human Trafficking	Bullying and Harassment	
	MEDIUM	Occupational Health and Safety, Freedom of Expression, Biodiversity, Climate Change, Environmental Degradation/ Waste/ Land Use	Whistleblower Protection, Training and Education, Discrimination , Collective Bargaining, Equal remuneration, Working Hours	
	LOW	Freedom of Thought and Conscience, Diversity and Equality, Freedom of Association, Child Labor		
		LOW	MEDIUM	HIGH
LIKELIHOOD OF OCCURRENCE AT TCC ACCORDING TO FEMALE EMPLOYEES ASSESSMENT				

■ HIGH RISK ■ MODERATE RISK ■ LOW RISK

Explanation:

The analysis of human rights and environmental risks for female employees showed that key issues are generally similar to those for all employees. The difference is that female employees considered bullying and harassment as significant issues due to their severity when they occur. Additionally, privacy rights and discrimination are also important human rights issues for female employees.

Human Rights and Environmental Risk Matrix: Community				
SEVERITY OF IMPACT ON COMMUNITY	HIGH		Environmental Degradation/ Waste/ Land Use Water Resources, Biodiversity	
	MEDIUM	Forced Labor/ Human Trafficking, Freedom of Expression, Discrimination, Equal remuneration, Bullying and Harassment, Diversity and Equality, Working Hours/Wage and Benefits	Climate Change	
	LOW	Collective Bargaining, Freedom of Thought and Conscience, Freedom of Association, Child Labor		
		LOW	MEDIUM	HIGH
LIKELIHOOD OF OCCURRENCE AT TCC ACCORDING TO COMMUNITY ASSESSMENT				
■ HIGH RISK ■ MODERATE RISK ■ LOW RISK				

Explanation:

The analysis of human rights and environmental issues for the community residents highlighted that they prioritize environmental issues, including environmental degradation, waste management, land use, water resources, biodiversity, and climate change.

Human Rights and Environmental Risk Matrix: Indigenous Peoples				
SEVERITY OF IMPACT ON INDIGENOUS PEOPLES	HIGH		Indigenous Peoples	
	MEDIUM		Environmental Degradation/ Waste/ Land Use Water Resource, Climate Change Biodiversity	
	LOW	Working Hours/Wage and Benefits, Forced Labor/ Human Trafficking, Collective Bargaining, Child Labor, Discrimination, Freedom of Thought and Conscience, Freedom of Association	Bullying and Harassment, Freedom of Expression, Diversity and Equality, Equal Remuneration	
		LOW	MEDIUM	HIGH
LIKELIHOOD OF OCCURRENCE AT TCC ACCORDING TO INDIGENOUS PEOPLES ASSESSMENT				
■ HIGH RISK ■ MODERATE RISK ■ LOW RISK				

Explanation:

The analysis of human rights and environmental issues for indigenous peoples identified key issues including indigenous rights, biodiversity, environmental degradation, waste management, land use, water resources, and climate change.


GROUP HOLDINGS

TCC OFFICIAL WEBSITE



TCC ESG SECTION



TCC FACEBOOK



TCC INSTAGRAM



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