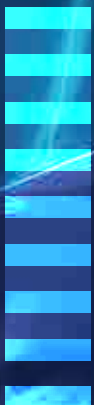




CH. Karnchang Public Company Limited



MAX



Sustainability Report 2024





## Message from the chairman

CH. Karnchang Public Company Limited is dedicated to advancing construction and infrastructure development projects that enhance societal well-being and improve the quality of life in a sustainable manner. Upholding the principles of high-quality construction, the company prioritizes creating value for society and the nation while ensuring fair and equitable returns for shareholders and all stakeholders. CH. Karnchang adheres to international standards and environmentally responsible construction practices (Green Construction), fostering sustainable social development in parallel with professional governance under ESG (Environmental, Social, and Governance) principles. In alignment with the United Nations Sustainable Development Goals (SDGs) and international sustainability assessment frameworks, CH. Karnchang was recognized in 2024 as a sustainable stock with an AA rating in the SET ESG Ratings, as evaluated by the Stock Exchange of Thailand (SET). Additionally, the company has been actively preparing for the evolving sustainability assessment framework of SET by enhancing transparency in sustainability disclosures in accordance with FTSE Russell ESG Scores. As a globally recognized ESG rating agency and a subsidiary of the London Stock Exchange Group (LSEG), FTSE Russell will begin full public disclosure of ESG Scores in 2026. Moreover, CH. Karnchang has received numerous prestigious awards, including Best CEO, Best CFO, and Best IR in the Real Estate and Construction category at the IAA Awards for Listed Companies 2024, presented by the Investment Analysts Association (IAA). The company has also been named in the ESG 100 list for 2024 for the eighth consecutive year, as recognized by the Thaipat Institute. In addition, CH. Karnchang achieved an “Excellent” rating in the 2024 Corporate Governance Evaluation of Thai Listed Companies, awarded by the Thai Institute of Directors (IOD), along with an “Outstanding” rating in the 2024 AGM Checklist from the Thai Investors Association. The company has also been honored with environmental management awards for outstanding sustainability practices in project execution, as recognized by the Mass Rapid Transit Authority of Thailand (MRTA).

The recognition and achievements attained by CH. Karnchang reflect its unwavering commitment to corporate governance, social and environmental responsibility, and the pursuit of sustainable business growth. CH. Karnchang has established its operational framework based on the corporate values of “C-K-S-A-T-I”, reflecting the company’s unwavering commitment to delivering high-quality projects through its skilled and knowledgeable workforce. By fostering collaboration across the CH. Karnchang Group, the company ensures long-term sustainability while proactively adapting to industry advancements. CH. Karnchang remains dedicated to ethical work practices, teamwork, and continuous innovation. Under the strategic approach of "Building Resilience: Focusing on Sustainable Infrastructure," the company has set forth its future development plans for construction and infrastructure projects. It upholds transparency in its operations and discloses performance in accordance with the Global Reporting Initiative (GRI) Standards 2021, aligning with internationally recognized sustainability







assessment frameworks. These initiatives are designed to meet stakeholder expectations and support the industry's ongoing transformation toward sustainability.

In 2024, CH. Karnchang conducted a comprehensive materiality assessment, evaluating both internal and external factors, risks, and opportunities that affect its business operations. The assessment also incorporated stakeholder expectations across the entire value chain. As a result, the company identified 11 key sustainability issues, spanning the economic, corporate governance, social, and environmental dimensions. A prioritization process revealed that seven issues were of the highest importance : Energy management and climate change adaptation, Good corporate governance, Occupational health and safety, Environmental management, Workforce management and employee well-being, Product safety and quality, and Social and community engagement.

CH. Karnchang has made these top-priority areas, embedding them into its strategic management approach while closely monitoring their implementation and impact. These critical issues not only contribute to the company's operational efficiency but also have a significant effect on its stakeholders. CH. Karnchang has established its sustainability policies and operational guidelines to reinforce its commitment to long-term sustainable business development. These policies provide a strategic framework that guides employees toward shared business objectives while fostering stakeholder engagement throughout the value chain. The implementation of these policies and guidelines is essential to embedding sustainability into project-level operations. CH. Karnchang prioritizes initiatives that cultivate a sustainability-driven corporate culture, focusing on impact management and mitigation of potential economic, environmental, and social effects associated with its construction and infrastructure development projects. Additionally, the company maintains a comprehensive monitoring system to assess and enhance the effectiveness of its sustainability efforts.

In 2024, CH. Karnchang secured multiple high-value contracts, reinforcing its position as a leader in infrastructure development. These contracts include: The civil works (design and construction) contract for the Orange Line Mass Transit Project (Bang Khun Non – Thailand Cultural Center section), valued at THB 82.502 billion. The procurement of electrical and mechanical systems (M&E work) contract for the Orange Line Mass Transit Project (Bang Khun Non – Min Buri [Suwinthawong] section), valued at THB 26.714 billion. The additional train procurement and system upgrade contract for the Blue Line Mass Transit Project, valued at THB 6.8 billion. With additional projects underway, the total contract value for 2024 exceeds THB 100 billion. These projects are expected to drive sustainable and steady growth, ensuring stable revenue and strong returns for both the company and its shareholders. Looking ahead to 2025, CH. Karnchang anticipates new government-led infrastructure projects and remains dedicated to expanding its business through effective cost management, while upholding environmental, social, and governance (ESG) best practices. With a strong track record and operational expertise, the company is confident in its ability to successfully compete for and secure new projects in line with its strategic growth objectives.





In alignment with its commitment to sustainable development, CH. Karnchang continues to advance the Community Craftsmen Innovation Program, now in its fourth year, in collaboration with the National Innovation Agency (NIA) and ChangeFusion Institute. This initiative is designed to enhance the technical skills of local craftsmen, equipping them with the expertise needed to drive innovation and improve efficiency, ultimately fostering sustainable income generation and long-term community growth.

In the realm of environmental management, CH. Karnchang emphasizes the responsible and efficient use of resources, including water recycling, sustainable construction material utilization, waste reduction, and recycling practices. Additionally, the company actively mitigates environmental impacts, such as air and water quality control in construction zones. A key aspect of this commitment is the integration of innovative technologies, including the deployment of solar power systems on project buildings to enhance energy efficiency and reduce carbon emissions.

Driven by a vision of engineering excellence for sustainable infrastructure, CH. Karnchang remains steadfast in conducting business with integrity and responsibility, ensuring that growth is balanced across economic, social, and environmental dimensions. By prioritizing business expansion, human capital development, and ecosystem preservation, the company continues to foster sustainable progress for its stakeholders, communities, and the nation.

On behalf of the Board of Directors, we sincerely appreciate the trust and steadfast support of all stakeholders over the past 52 years. We also extend our deepest gratitude to our dedicated employees, whose unwavering commitment and expertise in upholding the highest engineering standards have been instrumental in propelling our organization forward. Their dedication has been a cornerstone of our continued stability and sustainable growth.

Mr. Aswin Kongsiri  
Chairman of the Board of Directors

Mr. Plew Trivisvavet  
Chairman of the Executive Board

Mr. Nattavut Trivisvavet  
President







## Driving Business for Sustainability

In 2024, CH. Karnchang Public Company Limited published its 12th consecutive Sustainability Report to communicate its operations, management policies, strategies, and sustainability framework. The report encompasses key aspects of economic and corporate governance, social responsibility, and environmental stewardship, ensuring transparency for all stakeholders. Furthermore, CH. Karnchang reaffirms its commitment to the transparent disclosure of critical information, emphasizing both accuracy and accountability in the reporting process.

This report covers the company's activities and operations from January 1 to December 31, 2024. CH. Karnchang Public Company Limited has prepared this report in accordance with the Global Reporting Initiative (GRI) Standards. All data has been collected and verified by relevant departments within the company to ensure its completeness, accuracy, and reliability.

Furthermore, the company has aligned its operations with the United Nations Sustainable Development Goals (SDGs) to ensure that its business activities contribute to sustainable development objectives.

The information disclosed in this report has been reviewed based on its relevance to the business, the availability of data, and its impact on operations, particularly within the company's core business sector—construction. This disclosure specifically pertains to the business activities of CH. Karnchang Public Company Limited, as outlined below.

- Southern Purple Line MRT Project: Contract 1 (Tao Poon - National Library)
- Southern Purple Line MRT Project: Contract 2 (National Library - Phan Fa)
- Double-Track Railway Project (Den Chai - Chiang Rai - Chiang Khong): Contract 2 (Ngao - Chiang Rai)
- Double-Track Railway Project (Den Chai - Chiang Rai - Chiang Khong): Contract 3 (Chiang Rai - Chiang Khong)
- Chulabhorn 60th Anniversary Learning and Research Center
- Water Transmission Tunnel Project along Kanchanaphisek Road and the Old Railway Road (Bang Mod Pumping Station - Samrong Pumping Station)
- Bang Ban - Bang Sai Flood Drainage Canal Project: Contract 4
- Thonburi Wastewater Collection and Treatment System Project: Contract 1





















However, this report does not fully disclose all operational information, as some projects are nearing completion and in the process of being handed over to their respective owners. Additionally, the company is refining its data collection processes to ensure that performance reporting aligns with corporate standards and provides comprehensive and clear insights. CH. Karnchang remains committed to improving the efficiency of its data collection systems to enhance the quality of performance reporting in accordance with GRI standards in the future.

## Sustainability Management Policies and Goals



### Sustainability Management Goals

CH. Karnchang is dedicated to operating its business in a socially and environmentally responsible manner, setting key sustainability goals as follows.

Corporate Governance and Economic Dimensions	Environmental Dimension	Social Dimension
 <ul style="list-style-type: none"> <li>No complaints related to corruption were reported.</li> </ul>  <ul style="list-style-type: none"> <li>100% of suppliers acknowledge and comply with the Supplier Code of Conduct.</li> </ul>  <ul style="list-style-type: none"> <li>All new suppliers undergo a thorough screening process.</li> </ul>	 <ul style="list-style-type: none"> <li>Achieve a 1% annual reduction in energy consumption, using 2020 as the baseline year.</li> </ul>  <ul style="list-style-type: none"> <li>Achieve a 1% annual reduction in water consumption, using 2020 as the baseline year.</li> </ul>  <ul style="list-style-type: none"> <li>Received an award for excellence in environmental compliance, recognizing effective occupational health</li> </ul>	 <ul style="list-style-type: none"> <li>Employees received an average of 9 hours of training per year.</li> </ul>  <ul style="list-style-type: none"> <li>No cases of human rights violations were reported.</li> </ul>  <ul style="list-style-type: none"> <li>The Lost Time Injury Frequency Rate (LTIFR) for employees and contractors was 0.01 per million hours worked.</li> </ul>






<div data-bbox="296 255 400 389"></div> <ul style="list-style-type: none"> <li>100% of suppliers have been evaluated.</li> </ul> <div data-bbox="280 524 416 651"></div> <ul style="list-style-type: none"> <li>Maintain corporate governance at the highest standard.</li> </ul> <div data-bbox="272 775 408 902"></div> <ul style="list-style-type: none"> <li>Fully digitalize procurement processes to enhance transparency.</li> </ul> <div data-bbox="264 1099 400 1234"></div> <ul style="list-style-type: none"> <li>Strengthen anti-corruption initiatives at every level of the organization.</li> </ul> <div data-bbox="264 1424 400 1552"></div> <ul style="list-style-type: none"> <li>Achieved an “AA” rating in the SET ESG Rating for sustainable stocks.</li> </ul> <div data-bbox="264 1731 400 1865"></div> <ul style="list-style-type: none"> <li>The company’s Annual General Meeting (AGM) management received an “excellent” rating.</li> </ul>	<p>and safety (OHS) management and construction site conditions. This award was granted by the Mass Rapid Transit Authority of Thailand after meeting the assessment criteria at the Outstanding level.</p>	<div data-bbox="1166 255 1302 389"></div> <ul style="list-style-type: none"> <li>No employee or contractor fatalities were recorded.</li> </ul> <div data-bbox="1166 551 1302 678"></div> <ul style="list-style-type: none"> <li>100% of customers rated their satisfaction as good or very good.</li> </ul> <div data-bbox="1158 887 1294 992"></div> <ul style="list-style-type: none"> <li>All customer complaints were successfully resolved.</li> </ul>
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 <ul style="list-style-type: none"> <li>Recognized as an ESG100 Company.</li> </ul>  <ul style="list-style-type: none"> <li>Honored with the “Best CEO, Best CFO, and Best IR” awards by the Investment Analysts Association.</li> </ul>		
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### Review of Sustainability Management Policies and Goals in the Past Year

Over the past year, Ch. Karnchang has reviewed and updated its sustainability policy, achieving the following key milestones.

Corporate Governance and Economic Dimensions	Environmental Dimension	Social Dimension
<p>Example :</p>  <ul style="list-style-type: none"> <li>Achieved a top-tier corporate governance rating for the third consecutive year.</li> </ul> 	<p>Example :</p>  <ul style="list-style-type: none"> <li>Achieved an 8% reduction in greenhouse gas emissions year-over-year.</li> </ul>  <ul style="list-style-type: none"> <li>Implemented a water recycling management system</li> </ul>	<p>Examples :</p>  <ul style="list-style-type: none"> <li>CH. Karnchang has strengthened its human rights policies by ensuring compliance with local labor laws on working hours and overtime. A key focus has been on minimizing excessive working hours, particularly by promoting job opportunities</li> </ul>

<ul style="list-style-type: none"> <li>80% of the digital procurement system improvement has been completed.</li> </ul>  <ul style="list-style-type: none"> <li>All employees have received training on the anti-corruption policy.</li> </ul>	<p>in five large-scale construction projects.</p>  <ul style="list-style-type: none"> <li>Increased the proportion of recycled materials used in construction projects by 15%.</li> </ul>	<p>for underprivileged individuals through various company initiatives.</p>  <ul style="list-style-type: none"> <li>Provided skills training for 850 local workers.</li> </ul>  <ul style="list-style-type: none"> <li>Ensured that local hires made up an average of 35% across all projects.</li> </ul>  <ul style="list-style-type: none"> <li>Achieved a 40% reduction in accident rates from the previous year.</li> </ul>
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Over the past year, the company has reviewed and refined its human rights policy to enhance its clarity and scope, ensuring the protection of all stakeholder groups in alignment with international standards. Additionally, the company has strengthened its ability to systematically monitor and assess policy implementation.

## Defining the Content of the Sustainability Report

### Process for Assessing the Company's Material Sustainability Issues

CH. Karnchang conducts its sustainability reporting by identifying and analyzing key material sustainability topics through an evaluation of both internal and external organizational factors, stakeholder expectations across the value chain, and the risks and opportunities affecting the business. This assessment follows the principle of Double Materiality, covering economic, corporate governance, social, and environmental dimensions in alignment with the Global Reporting Initiative (GRI 3) standards. To ensure continuous relevance, CH. Karnchang engages with



stakeholders every two years to reassess its material sustainability topics. In the intervening period, the company conducts a materiality review by analyzing industry trends and sustainability-related documentation to keep its approach aligned with evolving business and environmental conditions.

In 2024, CH. Karnchang conducted a materiality assessment to reassess key sustainability issues by evaluating various internal and external factors. These factors include regulatory changes, legal requirements, international sustainability standards, and emerging global trends within the construction industry. To align with stakeholder expectations, CH. Karnchang analyzed both potential benefits and adverse effects, as well as associated risks and opportunities. Additionally, the company assessed the potential human rights impacts of its business operations and external influences across the value chain. The materiality assessment process follows four key steps:

<b>Step 1</b>  <b>Review of Material Sustainability Issues</b>	<p>CH. Karnchang has collected and analyzed all business activities, including its roles as both a main contractor and a subcontractor, to assess the impact on eight key stakeholder groups—government agencies and related organizations, customers, business partners, employees, communities and the general public, shareholders, investors and analysts, the media, and competitors—throughout the value chain. Furthermore, the company has evaluated relevant environmental, social, and economic issues.</p> <p>Furthermore, the company has analyzed data from industry peers with similar business operations to CH. Karnchang, taking into account emerging trends, sustainability standards, and assessment frameworks at both national and international levels. To ensure alignment with evolving industry expectations, key sustainability issues have been updated to reflect current best practices.</p>
<b>Step 2</b>  <b>Identifying Impacts Across the Value Chain</b>	<p>The company assesses and identifies the impacts of its business operations across economic, environmental, and social dimensions, considering both positive and negative effects that arise from various activities, either directly or indirectly. The company's value chain is composed of five key activities: sourcing and procurement of construction materials and partners, engineering design and construction, construction execution, project delivery, and post-construction management. Additionally, supporting activities include corporate infrastructure management, human resource management, procurement, and the integration of technology. This assessment aims to provide a clear understanding of the scope</p>







	of impacts on stakeholders and their connection to CH. Karnchang's sustainable development goals.
<b>Step 3</b> <b>Impact Analysis</b>	Based on the assessment of key material issues impacting stakeholders in Steps 1 and 2, CH. Karnchang has developed a weighted heat map to evaluate the significance of each issue. This process includes analyzing peer companies, industry standards, emerging trends, and both national and international sustainability assessment frameworks. Key references include the Dow Jones Sustainability Indices (DJSI), the Sustainability Accounting Standards Board (SASB), and the Stock Exchange of Thailand's SET ESG Ratings. Additionally, the company is preparing for upcoming changes in the Stock Exchange of Thailand's sustainability assessment methodology, particularly in alignment with FTSE Russell's evaluation framework.
<b>Step 4</b> <b>Summarizing the Review of Material Sustainability Topics</b>	In the 2024 review of CH. Karnchang's material sustainability topics, the company categorized these topics into two levels: Material Topics and Non-Material Topics. This classification ensures a structured approach to prioritization, guiding policy formulation, delegation of responsibilities, strategic planning, and the development of short-, medium-, and long-term operational frameworks. It also supports the implementation of strategic initiatives and performance monitoring to enhance future management practices. The reviewed material sustainability topics were presented to and approved by the company's board of directors and leadership for public disclosure.

### Results of the Materiality Assessment

For the 2024 review of material sustainability topics at CH. Karnchang, the method of presenting evaluation results has been revised. Previously, topics were categorized into a three-tier matrix format (highest importance, high importance, and important topics). Now, a two-tier classification system is used, consisting of Significant Material Topics and Material Topics. Additionally, the number of material topics has increased from 11 to 12, with Product Safety and Quality introduced as a new topic. This inclusion reflects industry trends in both private and government construction sectors—spanning large-scale and smaller projects, domestically and internationally—where sustainability frameworks are placing greater emphasis on product safety and quality. This encompasses factors such as the quality and type of construction materials, including low-emission building materials, to ensure compliance with environmental standards. The goal is to enhance customer and stakeholder confidence in receiving high-quality,





safe, and environmentally responsible products. The details of the 2024 material topics are illustrated in the following image.

For all 12 material topics identified in 2024, CH. Karnchang has established policies, strategies, and business management plans to address stakeholder needs, mitigate potential impacts across the entire supply chain, and support the company's commitment to sustainability. To ensure effective implementation, CH. Karnchang has set clear goals and key performance indicators (KPIs) for each material topic. Further details can be accessed through the CH. Karnchang Sustainability Website.

Material Topics for 2024		SDGs <Graphic>
Significant Material Topics	Energy Management and Climate Change Adaptation	  
	Good Corporate Governance	 
	Occupational Health and Safety	 
	Environmental Management	 
	Human Resource Management	 
	Product Safety and Quality*	  
	Community and Social Engagement	  
Material Topics	Sustainable Supply Chain Management	
	Human Rights	 
	Risk Management	
	Biodiversity	



## Customer Relationship Management

\*The material topic newly introduced in 2024 was previously categorized under environmental management.

Note: The text color is used to classify material topics into three key dimensions as follows.

Environmental Dimension	S o c i a l Dimension	Governance and Economic Dimensions
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## Report Content

CH. Karnchang's sustainability reporting covers 12 key sustainability topics, along with related sub-topics that are managed in a similar manner. The operational data for these topics is regularly updated to align with the GRI Standard reporting framework. This information is disclosed through two primary channels: the 56-1 One Report and CH. Karnchang's sustainability website.

Key Sustainability Issues	Reporting in the 56-1 One Report	Website Reporting
Environmental Dimensions		
Energy Management and Climate Change Adaptation	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf</a>
Environmental Management	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf</a>
Product Safety and Quality	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-quality-materials-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-quality-materials-th.pdf</a>







Biodiversity	X	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-biodiversity-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-biodiversity-th.pdf</a>
<b>Social Dimensions</b>		
Occupational Health and Safety	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf</a>
Human Resource Management	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf</a>
Community and Social Engagement	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf</a>
Human Rights	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf</a>
<b>Governance and Economic Dimensions</b>		
Good Corporate Governance	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf</a>
Sustainable Supply Chain Management	X	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf</a>



Customer Relationship Management	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-customer-relationship-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-customer-relationship-management-th.pdf</a>
Risk Management	✓	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-risk-crisis-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-risk-crisis-management-th.pdf</a>
Data and Statistics (Performance table)	X	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-performance-data/ck-sustainability-performance-data.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-performance-data/ck-sustainability-performance-data.pdf</a>



## Business Value Chain

CH. Karnchang undertakes a strategic evaluation of its business value chain, mapping key stakeholder relationships across its operational ecosystem, from upstream procurement to downstream distribution. The company remains committed to driving sustainable value creation in its products and services, ensuring alignment with stakeholder expectations across all sectors

The company's value chain consists of five core activities: strategic partner selection and sustainable procurement of construction materials, engineering design and construction, construction execution, project handover, and post-construction management.







Main Activities	Selection of Partners and Procurement of Construction Materials	Selection of Partners and Procurement of Construction Materials	Project Construction Implementation	Construction Project Handover	Post-Construction Management
Stakeholders	<ul style="list-style-type: none"> <li>Suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Suppliers Employees</li> <li>Government agencies and Regulators</li> <li>Competitors</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Community</li> <li>Employees</li> <li>Government agencies and Regulators</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> </ul>	<ul style="list-style-type: none"> <li>Community</li> <li>Employees</li> <li>Government agencies and Regulators</li> <li>Shareholders</li> </ul>
Description	<ul style="list-style-type: none"> <li>CH. Karnchang has a transparent partner selection process and procures construction materials or machinery in accordance with standards and appropriate quantities for the construction project.</li> </ul>	<ul style="list-style-type: none"> <li>CH. Karnchang conducts feasibility studies and plans construction operations.</li> <li>Engineering design</li> <li>Construction</li> <li>Construction supervision and inspection to ensure compliance with legal requirements</li> <li>No violation of intellectual property rights</li> </ul>	<ul style="list-style-type: none"> <li>Carry out the assigned construction projects, such as mass transit systems, airports, energy, and water supply projects.</li> </ul>	<ul style="list-style-type: none"> <li>Deliver high-quality construction projects that meet customer requirements while complying with specifications and conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Manage waste and debris generated from construction and hand them over to waste disposal companies or relevant authorities.</li> <li>Communicate project successes and distribute benefits to shareholders fairly, equally, and transparently.</li> </ul>
Supporting Activities	- Organizational Infrastructure Management				
	- Human Resource Management				
	- Purchasing and Procurement				
	- Implementation of Technology				



## Stakeholder Analysis in the Business Value Chain

CH. Karnchang prioritizes fair and equitable engagement with all stakeholders. To ensure this, the company conducts an analysis to identify key stakeholders across its value chain through an organizational assessment process. This evaluation considers factors such as legal rights, contractual agreements, and the safeguarding of fundamental rights. CH. Karnchang recognizes that fostering strong stakeholder relationships and collaboration is essential for long-term stability and sustainable growth.

The analysis has identified eight key stakeholder groups : 1) Shareholders 2) Employees 3) Customers 4) Suppliers 5) Media 6) Community 7) Government agencies and 8) Competitors

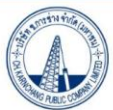
Among these, the three most critical stakeholder groups that will require active engagement with the company in 2024 are:

- 1) Government agencies
- 2) Customers
- 3) Suppliers



## Relevance of Stakeholders in the Business Value Chain to the Organization's Sustainability Issues

CH. Karnchang recognizes the critical role of all stakeholder groups throughout its business value chain in driving success and long-term sustainability. To ensure effective engagement, the company has identified and prioritized key sustainability issues relevant to each stakeholder group. This process informs the development of appropriate strategies and management approaches, allowing the company to proactively address business risks and opportunities. By fostering collaboration and shared value creation, CH. Karnchang aims to build a resilient and sustainable future for both the organization and its stakeholders.



Key issues for the year 2024		ผู้มีส่วนได้ส่วนเสีย							
		Shareholder	Employees	Customer	Supplier	Media	Community	Government agencies	Competitors
Material Topics	Energy management and climate change adaptation	✓			✓		✓	✓	
	Good corporate governance	✓			✓			✓	✓
	Occupational health and safety		✓		✓				
	Environmental management	✓			✓		✓	✓	
	Human resource management		✓						
	Product Safety and Quality*			✓	✓			✓	
	Community and social engagement						✓		
Non-Material Topics	Sustainable supply chain management			✓	✓				
	Human rights	✓	✓	✓	✓	✓	✓	✓	✓
	Risk management	✓	✓		✓				
	Biodiversity	✓			✓		✓	✓	
	Customer relationship management			✓					





CH. Karnchang has assessed stakeholder expectations regarding the company's business operations and outlined how it addresses the needs of each stakeholder group. Additionally, the company has summarized its stakeholder engagement methods and its approach to stakeholder relations for 2024, as detailed below.





Table Showing CH. Karnchang's Stakeholder Engagement and Practices

Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
<b>1. Customers</b> <ul style="list-style-type: none"> <li>Government Project Owners</li> <li>Public Private Project Owners</li> <li>CH. Karnchang Group Companies</li> </ul>	<ul style="list-style-type: none"> <li>Ensure occupational health and safety management in operations and implement measures to control environmental impacts.</li> <li>Maintain a workforce with sufficient efficiency and resources for operations.</li> <li>Equip with adequate and efficient tools, machinery, and equipment for operations.</li> <li>Possess experience and expertise to execute projects effectively, ensuring quality delivery within the specified timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>Manage engineering operations with a focus on cost efficiency, delivering high-quality work that meets standards and deadlines.</li> <li>Develop and implement a strict and effective occupational health and safety management plan, regularly assessing operational risks and promoting training to raise awareness of safety and occupational health among employees and partners.</li> <li>Provide training and skill development for employees, conduct performance evaluations to enhance efficiency, and ensure compliance with design specifications, bidding requirements, and contracts.</li> <li>Utilize safe, efficient machinery, tools, and equipment.</li> <li>Employ a team with expertise and</li> </ul>	<ul style="list-style-type: none"> <li>Report documents and evidence as required.</li> <li>Meetings with project owners.</li> <li>Organize training sessions, volunteer activities, or other joint events.</li> <li>Telephone.</li> <li>Website.</li> <li>Email.</li> <li>Letter.</li> </ul>







Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
		<p>experience in construction operations.</p> <ul style="list-style-type: none"> <li>Establish a structured project management system to keep information up-to-date while maintaining accurate and comprehensive technical and cost data.</li> <li>Improve work processes to minimize environmental impact by adopting eco-friendly technologies and methods while consistently assessing and reporting environmental effects.</li> </ul>	
<b>2. Shareholders</b>	<ul style="list-style-type: none"> <li>Compliance with laws in a lawful, transparent, and auditable manner, with good corporate governance.</li> <li>Equal treatment of all shareholders, investors, and analysts.</li> <li>The company maintains strong financial performance and stability, achieving its set goals while ensuring fair allocation of legal entitlements, such as equitable dividend payments and the provision of accurate and complete information.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with laws, regulations, and enforcement measures to ensure that the treatment of shareholders, investors, and analysts aligns with good corporate governance principles.</li> <li>Provide information equally, ensuring accuracy, completeness, clarity, efficiency, and timeliness.</li> <li>Establish clear and transparent guidelines or policies for benefit allocation.</li> </ul>	<ul style="list-style-type: none"> <li>Annual General Meeting (AGM)</li> <li>Analyst Meeting</li> <li>Roadshow, Conference Meeting, and Company Visit</li> <li>Participation in events organized by the Stock Exchange of Thailand (SET)</li> <li>Annual Information Disclosure/Annual Report (56-1 One Report)</li> <li>Sustainability Development Report (SD Report)</li> </ul>





Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
			<ul style="list-style-type: none"><li>• Company Performance Summary Document (Company Presentation)</li><li>• Telephone</li><li>• Conference Call</li><li>• Video Conference</li><li>• Newspapers and Public Relations Media</li><li>• Website: <a href="http://www.ch-karnchang.co.th">www.ch-karnchang.co.th</a></li><li>• Email: <a href="mailto:ck-ir@ckplc.com">ck-ir@ckplc.com</a></li></ul>





Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
3. Customers	<ul style="list-style-type: none"><li>Ensured occupational health and safety management in operations.</li><li>Receive fair compensation and benefits.</li><li>Employees have equal rights and opportunities.</li><li>Career advancement, job security, and workplace safety are provided, along with continuous skill and knowledge development.</li></ul>	<ul style="list-style-type: none"><li>Effectively implement occupational health and safety measures.</li><li>Provide fair and appropriate compensation.</li><li>Comply with labor laws while considering human rights principles and employee needs, offering a grievance channel for cases of unfair treatment.</li><li>Prioritize employee capacity development with performance evaluation plans and participatory career advancement goals.</li></ul>	<ul style="list-style-type: none"><li>Executive meetings with employees</li><li>Training and seminar activities</li><li>Email</li><li>Circular letters</li><li>Notice boards</li><li>Briefings through supervisors</li><li>Notifications via Microsoft Teams</li><li>Activities for sharing opinions on various topics, such as safety, sustainability, and recreational events</li></ul>
4. Suppliers	<ul style="list-style-type: none"><li>Make full and timely payments for goods and services as agreed.</li><li>Maintain continuous use of suppliers' and subcontractors' products and services.</li></ul>	<ul style="list-style-type: none"><li>Treat all suppliers fairly and equally, ensuring a transparent and auditable bidding process.</li><li>Communicate suppliers performance evaluations appropriately and encourage partners to prioritize sustainability.</li></ul>	<ul style="list-style-type: none"><li>Report purchase/order contract documents</li><li>Organize meetings with contractors and suppliers</li><li>Conduct training sessions, volunteer activities, or other joint events</li><li>Telephone</li><li>Email</li></ul>
5. Media	<ul style="list-style-type: none"><li>Receive clear, relevant, and accurate</li></ul>	<ul style="list-style-type: none"><li>Communicate information effectively,</li></ul>	<ul style="list-style-type: none"><li>Publish organizational news through</li></ul>





Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
	<p>information from the company.</p> <ul style="list-style-type: none"><li>Obtain information equally, on par with other stakeholder groups.</li></ul>	<p>ensuring it is useful, fast, accurate, and timely.</p> <ul style="list-style-type: none"><li>Treat all media groups equally, just as other stakeholder groups.</li></ul>	<p>press releases, articles, and reports.</p> <ul style="list-style-type: none"><li>Conduct interviews and meetings with executives for opinion exchanges.</li><li>Email</li><li>Telephone</li></ul>





Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
6. Community	<ul style="list-style-type: none"> <li>Ensure no adverse impacts from construction activities, including pollution such as air quality, dust, noise, and surface water quality, as well as effects on quality of life and daily living. Prevent accidents and negative consequences from machinery use and the transportation of large equipment.</li> <li>Promptly address and resolve any construction-related impacts to restore normal conditions as quickly as possible.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct construction efficiently with measures to inspect tools, machinery, and potential impacts on the public. Engage with local communities to monitor and address concerns regarding construction activities.</li> <li>Resolve issues promptly by gathering community feedback, establishing mutual agreements, supporting preventive measures, fostering understanding, and contributing to community development. Organize community engagement activities to enhance residents' skills and overall quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare environmental impact reports</li> <li>Community engagement activities</li> <li>Complaint filing at the construction project office</li> <li>Construction project's Facebook page</li> <li>Telephone contact</li> <li>Project office website</li> <li>Meetings through supervisors</li> <li>Public announcement boards</li> <li>Training sessions, volunteer activities, or other joint initiatives</li> </ul>
7. Government agencies and Regulators	<ul style="list-style-type: none"> <li>Comply with laws and regulations correctly</li> <li>Follow appropriate procedures and timelines</li> </ul>	<ul style="list-style-type: none"> <li>Adhere to laws, regulations, and enforcement procedures to ensure accuracy, completeness, clarity, efficiency, and compliance with established protocols.</li> <li>Plan operations in advance appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings with Government agencies</li> <li>Email</li> <li>Telephone</li> </ul>







Stakeholders	Stakeholders' Expectations and Concerns	Approach to Stakeholder Engagement	Channels for Engagement
8. Competitors	<ul style="list-style-type: none"><li>Engage with competitors lawfully and ethically. Refrain from damaging the reputation of other companies through false accusations. Avoid accessing confidential information of industry peers through dishonest or illegal means. Do not adopt anti-competitive policies.</li></ul>	<ul style="list-style-type: none"><li>Conduct business within the legal framework with ethics, transparency, and accountability. Ensure compliance with intellectual property rights and avoid any infringement.</li></ul>	<ul style="list-style-type: none"><li>Meetings through the Thai Contractors Association under Royal Patronage and other relevant organizations.</li></ul>



## CK : Proceed to Sustainability

### CK Moves Forward with Sustainability

In today's business landscape, sustainability is no longer just an option—it has become a critical factor that every organization and business must prioritize. A sustainability-focused approach not only minimizes negative impacts on the environment and society but also strengthens organizations and enhances their long-term competitiveness.

Recognizing this, CH. Karnchang has developed key strategies to drive effective and sustainable business growth. The company embraces the C-K-S-A-T-I framework as a guiding principle, steering the organization toward a stable, resilient, and environmentally responsible future.

### ■ Values **C-K-S-A-T-I**



Commitment to Quality



Knowledge and Knowhow



Synergy and Sustainability



Agility



Trust in Teamwork



Integrity and Innovation

	<h3>Commitment to Quality</h3> <p>We are committed to sustainability by engaging in business practices that create long-term value for society and the nation while ensuring fair and sustainable returns for stakeholders. Our engineering management follows efficient cost control principles, ensuring the timely delivery of high-quality projects that meet industry standards. At CH. Karnchang, we prioritize responsible business practices with a strong focus on</p>
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	environmental impact. We adhere to international construction standards, use eco-friendly materials, and implement low-emission production processes to foster long-term trust with our customers.
K	<b>Knowledge and Knowhow:</b> We are an organization committed to continuous learning and the development of our people and expertise to foster human capital and drive innovation. We believe that sustainable development must be built upon a strong foundation of knowledge. Therefore, we actively promote ESG (Environment, Social, and Governance) learning among our employees, enabling everyone within the organization to contribute to a sustainable future.
S	<b>Synergy and Sustainability</b> Leveraging collective efforts in the construction industry and investment in public infrastructure projects within the Ch. Karnchang Group to develop initiatives that benefit both society and the nation. Collaboration is key to achieving sustainability. We believe that fostering partnerships among business allies, communities, and stakeholders will strengthen the circular economy and green supply chain, ensuring inclusive and balanced growth across all sectors.
A	<b>Agility</b> We are committed to adapting and evolving to enhance our competitive advantage in response to global trends and market demands. The business landscape is evolving rapidly, and CH. Karnchang prioritizes operational agility. The organization stays ahead of environmental trends and shifting consumer behaviors by promoting renewable energy use in offices to reduce greenhouse gas emissions. Additionally, we demonstrate a strong commitment to environmental sustainability and climate action.
T	<b>Trust in Teamwork</b> Sustainability is a shared responsibility. CH. Karnchang fosters an open corporate culture where employees are encouraged to participate in decision-making and collaborate with transparency. By building trust within our teams, we can successfully achieve our sustainability goals in a tangible and meaningful way.





## Integrity and Innovation

Transparency and integrity are at the core of Ch. Karnchang. We strictly adhere to business ethics and ESG standards. Furthermore, we are committed to developing innovative solutions that enhance operational efficiency and minimize environmental impact.

The "CK Towards Sustainability" strategy serves as a guiding approach to fostering stable and sustainable organizational growth, built upon the core C-K-S-A-T-I principles. CH. Karnchang believes that by leveraging quality, knowledge, collaboration, agility, trust, and innovation, we can drive a sustainable future that benefits business, society, and the environment alike.

Sustainability is not just about minimizing negative environmental and social impacts—it is also a critical factor in strengthening the organization's long-term competitiveness. Effective resource management, technological integration, strong corporate governance, and a deeply embedded sustainable corporate culture are all essential drivers of lasting success. With the C-K-S-A-T-I values at its core, the organization is committed to balanced and sustainable growth for the future.





## Sustainability Governance

To enhance the effectiveness and efficiency of the company's social affairs and sustainability operations while ensuring alignment with its objectives, the company has adopted the C-K-S-A-T-I concept and the "CK Moving Towards Sustainability" strategy as guiding principles. A key initiative in this effort is the establishment of the Social Affairs and Sustainability Committee, which serves as a crucial mechanism demonstrating the company's commitment to driving business growth while simultaneously creating value for society and the environment.

The Social and Sustainability Committee is composed of distinguished experts from various fields, including economics, social affairs, and environmental management. The committee develops policies, defines operational frameworks, and supervises sustainability initiatives to comprehensively address key ESG (Environmental, Social, and Governance) issues. Additionally, it integrates the United Nations' Sustainable Development Goals (SDGs) into business strategies, ensuring alignment with global sustainability objectives.

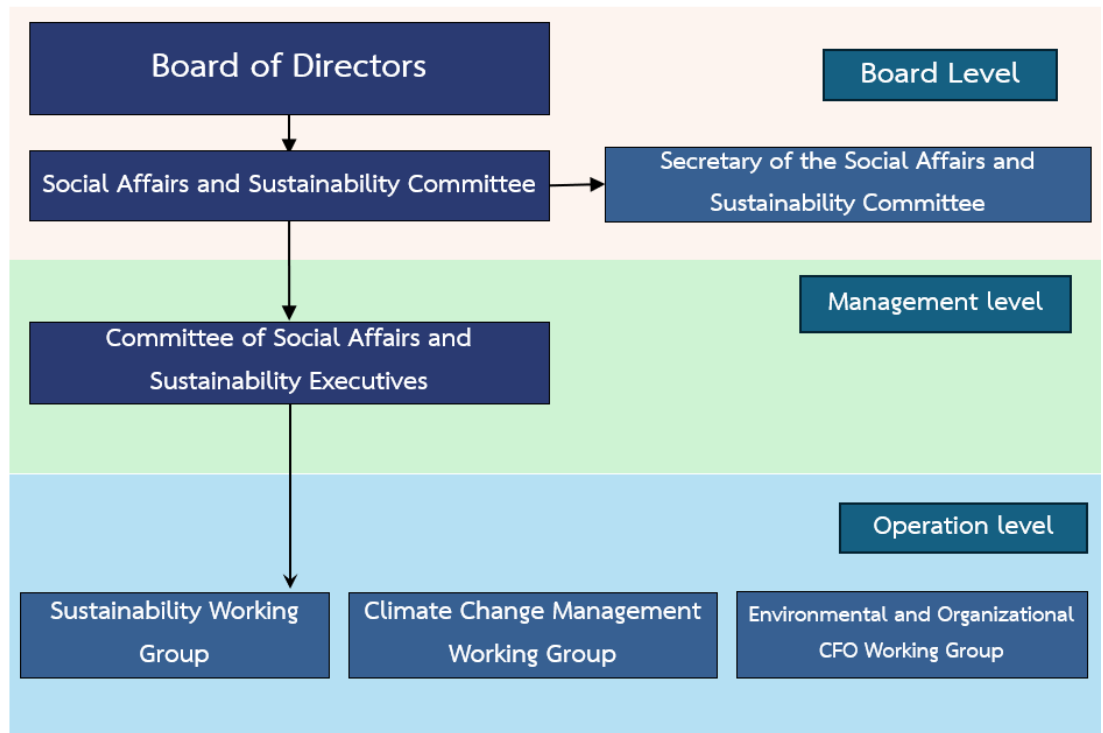
The operational structure of the Social and Sustainability Committee is integrated across all levels of the organization. At the Board level, the committee sets the vision and strategic direction for sustainability. At the Management level, it translates policies into action and collaborates with other departments responsible for overseeing sustainability initiatives in directly related areas.

The appointment of the Social and Sustainability Committee reflects the company's strong commitment to conducting business responsibly, with a focus on both social and environmental considerations. Beyond demonstrating this dedication, the committee plays a crucial role in fostering stakeholder confidence, driving long-term sustainable growth, and enhancing the company's competitive edge in a market where consumers increasingly prioritize corporate social and environmental responsibility. The company firmly believes that a committee composed of knowledgeable, experienced, and skilled professionals will effectively guide its sustainability efforts. This approach ensures a well-balanced integration of business growth, societal value creation, and environmental preservation—fundamental pillars of sustainable development.





## Structure of the Company's Sustainability Committee



Additionally, the company has established the Corporate Governance and Risk Management Committee to systematically oversee risk management across the organization. The risk management framework is integrated at all levels, ensuring alignment from the Board of Directors to the operational level. The structure is as follows:

- **Board Level:** The Corporate Governance and Risk Management Committee is responsible for defining risk management policies and frameworks, with the Audit Committee supporting corporate governance oversight.
- **Management Level:** The Risk Management Committee and Risk Management Team implement policies and oversee risk management at the organizational level.
- **Operational Level:** The Operational Risk Management Working Team and Business Units execute risk management processes and report risks directly.

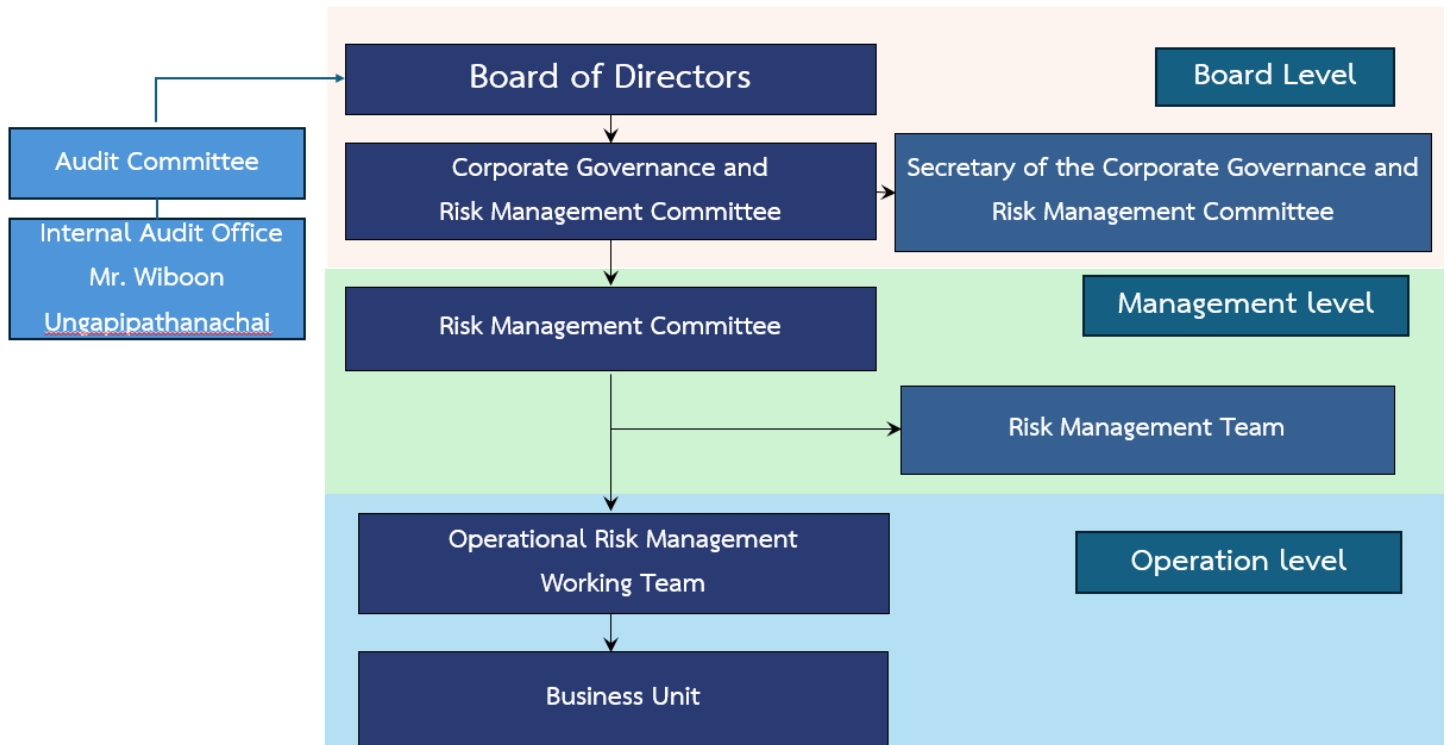
This comprehensive framework enables the company to manage risks efficiently by clearly defining roles and responsibilities, implementing a systematic risk monitoring and reporting process, and fostering a strong risk-awareness culture across the organization.







## Corporate Risk Committee Structure





## Sustainability Policy

Sustainability Dimensions	Sustainability Management Policy	Links to Policies
E	Environment, Green Building, and Climate Management Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf</a>
	Occupation Health & Safety Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-occupation-health-safety-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-occupation-health-safety-policy-th.pdf</a>
S	Human Rights Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-human-rights-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-human-rights-policy-th.pdf</a>
	Tax Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-tax-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-tax-policy-th.pdf</a>
G	Policy to Notify Before Trading in Advance	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-policy-to-notify-before-trading-in-advance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-policy-to-notify-before-trading-in-advance-th.pdf</a>
	Guidelines for Recruiting Directors and Executives Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-guidelines-for-recruiting-directors-and-executives-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-guidelines-for-recruiting-directors-and-executives-policy-th.pdf</a>
	Board Diversity	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-board-diversity-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240527-ck-board-diversity-th.pdf</a>





Sustainability Dimensions	Sustainability Management Policy	Links to Policies
	Procurement Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-procurement-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-procurement-policy-th.pdf</a>
	Business Innovation Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-business-innovation-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-business-innovation-policy-th.pdf</a>
	Corporate Governance Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf</a>
	Policy on Remuneration for Executive Directors and Executives	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-remuneration-for-executives-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-remuneration-for-executives-th.pdf</a>





Sustainability Dimensions	Sustainability Management Policy	Links to Policies
G	Policies and Practices relating to Remuneration for Directors and Top Management	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-remuneration-for-directors-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-remuneration-for-directors-th.pdf</a>
	Information Technology Security Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-information-technology-security-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-information-technology-security-policy-th.pdf</a>
	Personal Data Protection Policy (External)	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-personal-data-protection-external-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-personal-data-protection-external-policy-th.pdf</a>
	Personal Data Protection Policy (Website User)	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-personal-data-protection-website-user-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-personal-data-protection-website-user-policy-th.pdf</a>
	Anti-Corruption and Bribery Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-anti-corruption-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-anti-corruption-th.pdf</a>
	Risk Management Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-risk-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-risk-policy-th.pdf</a>
	Code of Conduct for Business	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-code-of-conduct-for-business-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-code-of-conduct-for-business-th.pdf</a>
	Supplier Code of Conduct	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-supplier-code-of-conduct-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-supplier-code-of-conduct-th.pdf</a>





Sustainability Dimensions	Sustainability Management Policy	Links to Policies
	Supplier of Credit Term Policy	<a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-supplier-of-credit-term-policy.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-supplier-of-credit-term-policy.pdf</a>





## ESG Awards of Pride

CH. Karnchang Earns AA Rating in SET ESG Rankings for 2024



On December 16, 2024, the Stock Exchange of Thailand (SET) announced the 2024 SET ESG Ratings, recognizing companies for their commitment to sustainable business practices. CH. Karnchang Public Company Limited was included in the Thailand Sustainability Investment (TSI) list for the fifth consecutive year and achieved an AA rating in the SET ESG Ratings for 2024, an improvement from its A rating in 2023.

The assessment evaluates sustainability performance across economic, social, and environmental dimensions. As a publicly listed company known for its strong commitment to sustainability, CH. Karnchang has consistently delivered solid financial performance and stable shareholder returns while upholding its responsibilities to all stakeholders, society, and the environment. These efforts align with the principles of Environmental, Social, and Governance (ESG) standards.

## Corporate Governance Award for Thai Listed Companies 2024

CH. Karnchang Public Company Limited has been awarded an “Excellent” rating in the 2024 corporate governance assessment for Thai listed companies by the Thai Institute of Directors Association (IOD).







### Evaluation of the Quality of the Annual General Meeting (AGM) for 2024

CH. Karnchang Public Company Limited was awarded a quality assessment score for its Annual General Meeting (AGM Checklist) for 2024, achieving a score within the range of 90-99, as evaluated by the Thai Investors Association.



### Sustainable Investment Index (ESG100) Award 2024



CH. Karnchang Public Company Limited has been recognized as part of the ESG100 Company group for 2024 by the Thaipat Institute, marking its ninth consecutive year of inclusion. The announcement was made on May 30, 2024. For the 2024 ESG Emerging and ESG100 evaluations, the Thaipat Institute assessed 920 listed securities, analyzing over 17,037 ESG-related data points. The selection criteria prioritize securities with strong ESG performance, transparency, and business practices that align with ESG principles across multiple aspects.

### IAA Awards for Listed Companies 2024



CH. Karnchang Public Company Limited was honored with the Best CEO, Best CFO, and Best IR awards in the Real Estate and Construction category. The awards were presented by Mr. Pichai Chunhavajira, Deputy Prime Minister and Minister of Finance, at the IAA Awards for Listed Companies 2024 ceremony, organized by the Investment Analysts Association (IAA). These accolades were determined through votes from analysts and fund managers, recognizing CH. Karnchang's commitment to providing precise, clear, and reliable information to the investment community. This achievement underscores CH. Karnchang's dedication to good corporate governance, social and environmental responsibility, and sustainable business growth.





## Environmental Compliance Award



Mr. Nat Nakhathoranin, Assistant Governor of the Mass Rapid Transit Authority of Thailand (MRTA), presented a certificate of recognition for excellence in safety management and workplace safety for the year 2024 (January–December 2024) to the Purple Line MRT Project (Tao Poon–Rat Burana [Kanchanaphisek Ring Road] section). This recognition was awarded for the project's strong performance in safety, occupational health, and environmental management during construction, achieving a commendable rating based on evaluation criteria.

To ensure high standards in workplace safety, the MRTA conducts performance evaluations of construction contractors and workplace safety officers every six months. The evaluation consists of two key components: (1) **Safety, Occupational Health, and Environmental Management** – Assessed across 20 criteria; and (2) **Workplace Safety Officer Performance** – Assessed across 16 criteria. The evaluations are carried out by Safety Specialists, relevant officials, and consulting firms responsible for overseeing and assessing the safety performance of construction contractors and workplace safety officers.





## Environmental Sustainability Management



CH. Karnchang's Environmental Sustainability Management in 2024 Encompasses the Following Key Areas:



1. Energy Management and Climate Change
  - Energy Management
  - Climate Change Adaptation
2. Environmental Management
  - Water Resource Management
  - Waste Management, Construction Material Quality, and Biodiversity Conservation
  - Air Quality Control
3. Environmental Awareness and Education

**Note :** The company has published supplementary information on key environmental and sustainability topics on its website. These include Construction Material Quality ([ck-quality-materials-th.pdf](#)), Biodiversity ([ck-biodiversity-th.pdf](#)), Energy and Climate Change Management ([ck-energy-climate-change-management-th-02](#)), and Environmental Management, covering water resources, waste and pollution control, and noise pollution ([ck-environmental-management-th.pdf](#)).





## Environmental Policy

 Environmental Management Policies, green building practices, climate action, and sustainable biodiversity conservation : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf</a>	 Corporate Governance Policy : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf</a>
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As a leading company in the construction industry, CH. Karnchang recognizes the potential environmental impacts on all stakeholders. Therefore, the company has developed strategic plans and goals to systematically manage natural resources and environmental sustainability.

CH. Karnchang recognizes the growing environmental challenges and the far-reaching impacts of climate change on ecosystems, the economy, and overall societal well-being. The company acknowledges that its own business operations—such as natural resource consumption, greenhouse gas emissions, and construction waste—also contribute to these challenges. These environmental shifts bring significant risks, including an increase in natural disasters, resource scarcity, and infrastructure instability.

Additionally, businesses face mounting pressure due to stricter environmental regulations, rising operational costs, and increasing expectations from consumers and investors for sustainable business practices. However, proactive environmental and climate change management also presents valuable opportunities for long-term business growth. These include driving innovation in green technologies to enhance efficiency and reduce costs, accessing green financing and government incentives, expanding into environmentally conscious markets, and strengthening corporate reputation and stakeholder trust.

To address these challenges, CH. Karnchang is committed to advancing its policies on environmental management, green construction, climate action, and sustainable biodiversity while strengthening stakeholder confidence. The company emphasizes environmentally responsible construction by utilizing high-quality materials that minimize ecological impact, implementing effective environmental and climate change management strategies, and optimizing water, energy, and natural resource usage. Additionally, efforts include reducing pollution, conserving biodiversity,





and fostering green innovation across all aspects of operations—spanning production, business processes, and partnerships throughout the value chain. These initiatives align with the company’s 2023 Code of Business Conduct and Best Practices, as well as its policies on environmental management, green construction, climate action, and sustainable biodiversity. As of 2024, no revisions or updates have been made to these policies.

**Water Resource Management :** CH. Karnchang is committed to enhancing operational efficiency to minimize water-related impacts. The company has implemented both quantitative and qualitative control measures by reducing water consumption and integrating water recycling systems within its projects. Particular emphasis is placed on projects located in water-stressed areas. Furthermore, this water management strategy is interconnected with air quality control efforts, as recycled water is utilized for spraying to mitigate dust in construction zones.

**Air Quality and Noise Management :** CH. Karnchang is committed to enhancing operational efficiency to minimize its impact on air quality. While noise pollution is an unavoidable aspect of construction, excessive noise levels can significantly disrupt the daily lives of nearby residents. To address this, CH. Karnchang has implemented control measures to mitigate noise impacts, ensuring compliance with the standards set by the Notification of the National Environmental Board No. 15 (B.E. 2540). The regulatory noise limits specify that the maximum permissible noise level must not exceed 115 A-weighted decibels (dBA), and the 24-hour average noise level must remain below 70 dBA. In 2024, CH. Karnchang actively monitored and assessed noise levels across its construction projects. The results confirmed full compliance with regulatory standards, with no complaints recorded regarding excessive noise. To further minimize noise-related disruptions, CH. Karnchang has established the following measures:

1. Restricting loud construction activities to between 06:00 and 22:00. If work extends beyond these hours, advance notifications will be provided to nearby communities.
2. Implementing noise control measures, including the installation of temporary noise barriers around construction zones.
3. Ensuring solid fencing (at least 2.0 meters high) is erected around excavation sites, demolition areas, drilling operations, and concrete mixing zones.
4. Deploying noise monitoring devices at construction sites to ensure compliance with regulatory limits.

**Waste Management, Construction Materials, and Biodiversity :** The company considers waste management a key priority, emphasizing proactive measures at the source. This includes





efficient material planning, optimizing construction material usage, and reusing materials whenever possible without compromising safety. The company also promotes sustainable building design and construction, including the use and production of energy-efficient materials that reduce greenhouse gas emissions and undergo Life Cycle Assessment (LCA) evaluations. Additionally, the company avoids construction materials that may emit volatile gases or hazardous substances, such as asbestos. Furthermore, the company is committed to biodiversity conservation and collaborates with external organizations to support conservation efforts, particularly in ecologically sensitive areas. For example, special measures are taken to protect aquatic species in construction projects located near major water sources, such as the Mekong River.

**Energy Management and Climate Change :** CH. Karnchang conducts climate risk assessments to evaluate the potential risks and impacts of climate change on its business operations and stakeholders. The company also implements energy management strategies across its projects and operational sites, including its headquarters. A key focus is fostering a culture of environmental responsibility among employees and stakeholders by promoting energy conservation and increasing awareness of climate adaptation measures. In line with global sustainability efforts, CH. Karnchang is committed to achieving net-zero greenhouse gas emissions by 2065, aligning with the goals of the Paris Agreement. To achieve this, the company prioritizes the adoption of renewable energy, optimization of operational efficiency to reduce costs, strict compliance with environmental regulations, and active engagement of employees and stakeholders in environmental initiatives.

As part of its sustainability strategy, CH. Karnchang has installed solar energy systems to increase its use of clean energy and has plans to expand their implementation further. Additionally, the company has conducted a comprehensive greenhouse gas emissions assessment covering : Scope 1: Direct emissions from business operations, Scope 2: Indirect emissions from purchased energy, Scope 3: Indirect emissions from other business-related activities. These insights inform the company's strategic planning for reducing emissions and enhancing environmental sustainability for the broader community.

**Environmental Awareness :** CH. Karnchang is dedicated to upholding ethical business practices and good governance, ensuring corporate growth while safeguarding natural resources and enhancing community well-being. The company strives to foster long-term positive impacts on the environment, economy, and society. A key focus is raising awareness and strengthening environmental management capabilities among employees. To achieve this, CH. Karnchang





continuously organizes activities, training programs, and educational initiatives to equip employees and contractors with the knowledge and skills necessary for effective environmental management.

All environmental initiatives undertaken by CH. Karnchang undergo rigorous environmental impact assessments, with continuous monitoring and evaluation. These measures drive ongoing improvements in environmental management efficiency, demonstrating the company's unwavering commitment to integrating sustainability into its business operations.





## Energy Management and Climate Change Mitigation



### Stakeholders

- **Shareholders, Investors, and Analysts:** The company's climate strategy strengthens business resilience, creates sustainable investment opportunities, and drives long-term financial performance.
- **Business Partners and Contractors:** The company collaborates with business partners and contractors under energy management and climate change frameworks, selecting those who share a commitment to mitigating climate impacts.
- **Government Agencies:** Energy initiatives and climate-related collaborations contribute to regulatory compliance and support national sustainability goals.
- **Community and Society:** Reducing pollution and adopting renewable energy improve quality of life, promote public health, and mitigate risks associated with climate change.

### Significance

Climate change presents a significant global challenge that necessitates coordinated efforts across all sectors, including the construction industry. In alignment with the targets set by the Paris Agreement, reducing greenhouse gas emissions plays a crucial role in mitigating financial risks and adapting to evolving consumer expectations. CH. Karnchang prioritizes sustainable business practices by implementing energy efficiency measures and reducing carbon emissions across its operations. These efforts support long-term corporate resilience while contributing to environmental preservation and sustainable development objectives.

CH. Karnchang is deeply committed to reducing the environmental and climate-related impacts of its business operations through the advancement of innovative business practices.







This strategic approach mitigates long-term risks, including escalating operational costs, regulatory compliance challenges, and heightened market competition. Ineffective management practices may compromise public health, diminish quality of life, and exacerbate disaster vulnerabilities, while also impeding national climate objectives. By optimizing energy consumption and reducing greenhouse gas emissions, the company enhances cost efficiency, strengthens corporate reputation, and aligns with the evolving expectations of investors and stakeholders.

## Energy Management

### Management Strategies and Compliance with Standards

CH. Karnchang acknowledges and commits to the strategic significance of energy conservation and efficiency in mitigating operational risks associated with energy shortages, which directly contribute to escalating production costs and broader business challenges. In response, the company has implemented a structured energy management framework, integrating energy efficiency optimization and the adoption of renewable energy solutions within its operations. Additionally, CH. Karnchang aligns with national energy conservation policies and promotes corporate-wide energy stewardship by cultivating awareness among employees on responsible energy consumption. These efforts contribute to cost reduction and operational sustainability while supporting the company's broader environmental management agenda. This agenda encompasses sustainable green construction, climate resilience strategies, and biodiversity conservation, all of which are integral to CH. Karnchang's long-term sustainability objectives.

### Integration of Management Plans with Policies

CH. Karnchang has developed a comprehensive policy framework to guide its energy management practices. This framework integrates key sustainability principles, including environmental management, green construction, climate resilience, and biodiversity conservation. Designed to extend across all production activities and the entire supply chain, these policies aim to enhance energy efficiency while promoting a sustainable corporate culture.





### Responsible Entities

In response to the need for efficient energy management, CH. Karnchang has established the Social and Sustainability Division and the Risk Management Committee. These entities operate under the governance of the Board of Directors, with oversight from the Executive Committee and senior management. Their collective responsibility is to ensure alignment with corporate sustainability objectives and risk mitigation strategies. Further information is available in the Climate Change section.

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### Target

Indicator	Base Year	Target	Performance Results 2024	Independent Verification by third party
Achieve a 1% annual reduction in energy consumption.	Baseline Year (2020): 2,995,795 kWh	Long-Term Target for 2030	<ul style="list-style-type: none"><li>- Total energy consumption was 2,339,984 gigajoules, representing a 22% reduction from the base year.</li><li>- In 2023, the annual target was exceeded by 2%.</li></ul>	Bureau Veritas Certification Thailand Ltd.

### Performance and Results

As a result of these efforts, in 2024, the company's total energy consumption reached 2,339,984 gigajoules, reflecting a 2% reduction from the previous year and a 22% decrease compared to the baseline year.

### Energy Conservation Initiative

CH. Karnchang has undertaken an energy conservation initiative by systematically replacing conventional lighting with high-efficiency Light Emitting Diode (LED) bulbs. In 2024, the company installed over 400 additional LED bulbs at its headquarters, achieving an estimated annual reduction of more than 270 kilowatt-hours (kWh). This transition has also contributed to a significant decrease in greenhouse gas emissions, with over 7 metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e) mitigated per year. This initiative is strategically aligned with the company's long-term sustainability goals, particularly in reducing overall energy consumption and promoting environmentally responsible practices. To further enhance energy efficiency, CH. Karnchang is





encouraging employees to transition to LED lighting in their homes while also extending the initiative to construction sites, including temporary worker accommodations. These measures aim to drive continuous improvements in energy efficiency and reinforce the company's commitment to environmental stewardship. Additionally, employees are actively engaged in conservation efforts by adhering to energy-saving practices such as turning off unused lights, fostering a culture of sustainability within the organization.



#### Renewable Energy Promotion Project

CH. Karnchang has promoted the use of renewable energy by installing solar panels on the roof of the office building for the Purple Line metro project, with a generation capacity of 118.8 kilowatts. Additionally, the company has expanded the installation to the office building of the Orange Line metro project, with a budget of 2,800,000 baht and the same generation capacity of 118.8 kilowatts. This initiative has resulted in an average cost reduction of approximately 140,727.78 baht per month.





#### Crushed Stone Transportation Project for Concrete Mixing via Conveyor System

The Luang Prabang Hydropower Plant construction project requires 4.4 million tons of aggregate stone and 2.5 million cubic meters of concrete. This demand has traditionally necessitated a large fleet of trucks for transportation, resulting in traffic congestion, high fuel consumption, and extended delivery times. To mitigate these challenges, in 2024, the project implemented a conveyor belt system for stone transportation, enabling the efficient movement of 1,071,000 tons of stone. This system has led to a reduction in diesel fuel consumption by 188,496 liters, greenhouse gas emissions by 356 tCO<sub>2</sub>eq, and cost savings of 4.29 million baht. Additionally, a conveyor system for ready-mixed concrete transportation was installed, handling 55% of the total concrete volume, or approximately 510,000 cubic meters. This has contributed to a further reduction in greenhouse gas emissions by 436 tCO<sub>2</sub>eq and cost savings of 2.52 million baht. Overall, the conveyor system has played a crucial role in alleviating traffic congestion, optimizing energy efficiency, and reducing costs, while significantly lowering the project's greenhouse gas emissions.





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## Climate Change

### Management Strategies and Compliance with Standards

CH. Karnchang is committed to addressing climate change through its environmental management policies, green construction practices, and sustainable biodiversity conservation. The company prioritizes sustainable resource utilization, pollution reduction, and effective climate risk management, aligning with the United Nations' Sustainable Development Goals (SDGs). It has set an ambitious target to achieve Net-zero target for greenhouse gas emissions by 2065. To reach this goal, CH. Karnchang integrates its investment strategies and operations with its long-term emissions reduction targets, in line with the Paris Agreement's commitment to limiting global warming to 1.5°C. All initiatives are implemented under the Environmental, Social, and Governance (ESG) framework to drive long-term positive environmental and social impact. The company adheres to the ISO 14064-1 standard for greenhouse gas measurement, reporting, and reduction, as certified by the Thailand Greenhouse Gas Management Organization (TGO). Additionally, it actively incorporates advanced technologies and fosters stakeholder engagement to ensure sustainable business growth while maximizing value for all stakeholders. These initiatives underscore the company's commitment to achieving its sustainability objectives and contributing to a greener future.

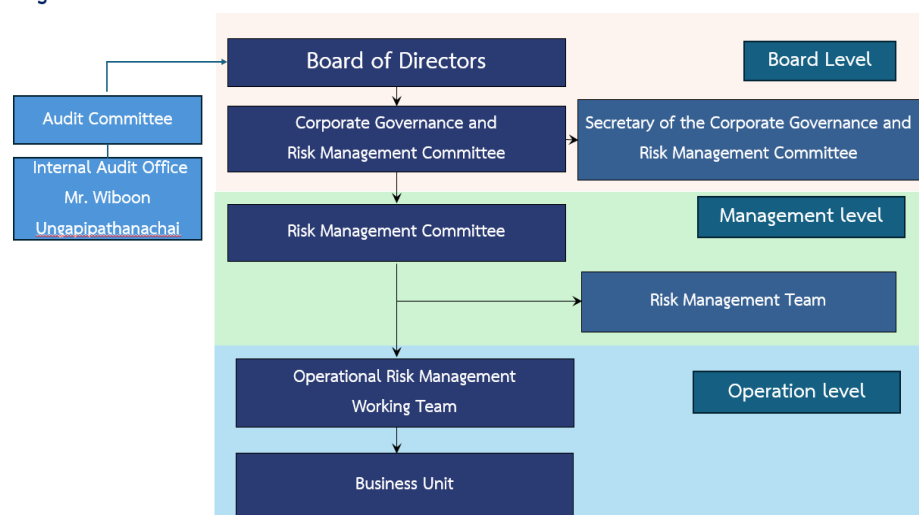
### Climate Governance

To achieve net-zero carbon emissions by 2065, the company has established the Corporate Social Responsibility and Sustainability Management Committee and the Risk Management Committee. Responsibility for climate governance is shared among the Board of Directors, the Executive Committee, and senior management, with oversight from the Board of Directors, which is responsible for strategic planning and target setting. The Social and Sustainability Affairs Committee plays a key role in shaping and reviewing policies, monitoring progress, and assessing sustainability performance, including environmental management and climate change initiatives. Simultaneously, the executive team oversees corporate social and environmental responsibility projects, provides strategic recommendations, and supports relevant departments. In 2024, quarterly meetings were held, totaling four sessions, during which key decisions were made, including the approval of the Climate Risk Assessment.





## Organizational Structure of Climate Governance



CH. Karnchang has established a management structure to address climate change. The company has assigned responsibility to the Corporate Social Responsibility and Sustainability Management Committee and the Risk Management Committee—comprising the Board of Directors, the Executive Committee, and senior management—to oversee and implement relevant initiatives. Each level has specific duties and responsibilities as follows:

Roles	Duties and Responsibilities
<b>Social and Environmental Enterprises</b>	
<b>Board of Directors</b> Consists of Dr. Pavich Tongroach Mr. Don Pramudwinai Dr. Supamas Trivisvavet Dr. Anukool Tuntimas	<ul style="list-style-type: none"><li>Oversee the strategy and execution of social and environmental initiatives, with a strong focus on climate change.</li><li>Monitor and approve CSR strategies and action plans, including setting the company's annual CSR targets.</li><li>Evaluate and approve the annual CSR budget and plans before submission to the Executive Committee and Board of Directors.</li><li>Track and assess CSR progress, measure success, and ensure the quality of CSR projects.</li><li>Perform additional tasks as assigned by the Board of Directors.</li></ul>
<b>(Corporate Social Responsibility and Sustainability Management Committee)</b> Consists of Dr. Supamas Trivisvavet	<ul style="list-style-type: none"><li>Develop operational policies to guide the company's business toward sustainable growth in a concrete and practical manner.</li><li>Offer guidance and recommendations while monitoring operations to ensure they align with social and environmental policies and achieve set goals.</li></ul>





Roles	Duties and Responsibilities
	<ul style="list-style-type: none"><li>Assess and track progress in the company's social and environmental initiatives.</li><li>Evaluate overall success and help the company prepare to contribute to reducing greenhouse gas emissions and achieving net-zero carbon emissions.</li></ul> <p>In 2024, the board of directors approved the implementation of an organizational carbon footprint assessment to measure and reduce greenhouse gas emissions from the company's various activities.</p>
<b>Climate Change Management Committee</b> Consists of Mr. Nattavut Trivisvavet	<ul style="list-style-type: none"><li>Monitor, compile, analyze, and assess the risk management activities of various departments to ensure alignment with the company's strategic objectives.</li><li>Oversee the reporting process, track progress, and coordinate with relevant departments to prepare necessary documentation. Ensure that the Board of Directors and the Corporate Social Responsibility and Sustainability Committee are kept informed accordingly.</li></ul>
<b>Corporate Social Responsibility and Sustainability Committee</b> Consists of Mr. Sombat Trivisvavet Ms. Sawanya Trivisvavet	<ul style="list-style-type: none"><li>Manage social responsibility and sustainability initiatives in alignment with the company's policies and strategies, as assigned.</li></ul>







Roles	Duties and Responsibilities
<b>Corporate Governance and Risk Management.</b>	
<b>Board of Directors</b> Consists of Dr. Patarut Dardarananda Mr. Vitoon Tejatussanasoontorn Mr. Plew Trivisvavet Mr. Narong Sangsuriya Dr. Supamas Trivisvavet	<ul style="list-style-type: none"><li>• Oversee strategy development and implementation for corporate governance and risk management, with a particular focus on climate change-related risks.</li><li>• Review and approve corporate governance and risk management strategies and operational plans, as well as set the company's annual goals.</li></ul>
<b>Corporate Governance and Risk Management Committee</b> Consists of Dr. Patarut Dardarananda Mr. Vitoon Tejatussanasoontorn Mr. Plew Trivisvavet Mr. Narong Sangsuriya Dr. Supamas Trivisvavet	<ul style="list-style-type: none"><li>• Develop policies and operational frameworks for corporate governance and risk management to ensure effective risk management within the company.</li><li>• Assess and review policies while considering key corporate governance and risk management issues. This includes reporting on governance and risk management performance and working to mitigate potential future risks—both organizational and environmental—such as those related to the company's carbon footprint.</li></ul>
<b>Risk Management Committee</b> Consists of Mr. Phongsarit Tantisuvanitchkul Mr. Sittidej Trivisvavet Dr. Anukool Tuntimas Mr. Watchara Sanghattawattana Mr. Pornnarong Siriyothin Mr. Prapon Chanpradubfa Mr. Pairat Prom-In Mr. Thammanoon Surarat Mr. Pichai Cheybumroong Mrs. Rinrada Tangtrongkid Mr. Wiboon Ungapipathanachai Mr. Keerati Luangchookiat Mr. Sombat Trivisvavet Mr. Thipwaree Athagrisna Mrs. Arunee Trivisvavet Ms. Sawanya Trivisvavet	<ul style="list-style-type: none"><li>• Identify and reassess emerging risks, considering the interrelationships between various risk impacts.</li><li>• Monitor the effectiveness of risk management by evaluating the work plans of responsible teams, assessing key risk factors, and ensuring performance indicators are based on reliable data from actual implementation.</li><li>• Present risk management findings to the Corporate Governance and Risk Management Committee for approval and report to the Board of Directors quarterly to ensure close oversight and that all risks, including the organization's carbon footprint, remain at an acceptable level.</li><li>• Conduct risk and opportunity assessments related to climate change.</li></ul>





### Climate Change Action

The company is committed to transparency in its climate change initiatives by aligning its disclosures to the guidelines of the Task Force on Climate-Related Financial Disclosures (TCFD) and prioritizing sustainable environmental management. Additionally, the company aims to reduce greenhouse gas emissions per unit of output and enhance resource efficiency through various ongoing initiatives. This includes assessing its organizational carbon footprint to develop strategic plans for reducing greenhouse gas emissions.

In 2024, the company engaged Advance Energy Plus Co., Ltd. as a consultant, with validation conducted by Bureau Veritas (Thailand) Co., Ltd.. As part of this effort, the company will achieve ISO 14064-1:2018 certification and receive official certification from the Thailand Greenhouse Gas Management Organization in March and May 2025, respectively.

### The greenhouse gas emissions (GHG) from business operations and activities.

Unit: Kilograms of CO<sub>2</sub> equivalent per ton of production.

	2023	2024
Scope 1: Direct GHG emissions	8,671.00	10,861.00
Total Biogenic CO <sub>2</sub> Emission	395.00	645.00
Scope 2: Indirect GHG emissions from energy use	7,784.00	8,729.00
Scope 3: Other indirect GHG emissions	219,302.00	227,134.00
<b>Total</b>	<b>236,152.00</b>	<b>246,724</b>

### Climate-Related Risk Management Procedures

In recognition of climate change, in 2024, CH. Karnchang conducted a Climate Change Risk Assessment in collaboration with its business partners. This study aimed to identify climate change-related risks (and opportunity) that could impact the business and the company's operations, including both physical and transition risks. Examples of physical risks include rising average temperatures and increased rainfall, which may reduce construction productivity. The findings from this risk assessment will be integrated into CH. Karnchang business strategies, operational, and risk management plans to identify new opportunities and implement risk mitigation measures in both the short and long term.





Additionally, the company will address a climate adaptation plan, integrating efforts across its risk management, business development, and sustainability teams. Governance oversight will be provided by the board of directors to enhance business resilience and maintain competitiveness. This approach also ensures alignment with stakeholder expectations, particularly those of investors. Furthermore, this initiative supports the goals of the Paris Agreement, aiming to limit global temperature increases to no more than 2°C. CH. Karnchang is aligning its efforts with the Nationally Determined Contributions (NDC).

Following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), CH. Karnchang has identified five operational sites most vulnerable to climate-related risks across its value chain. These sites have been assessed for their physical and geographical characteristics using specialized risk assessment software. Key physical risks include heatwaves, sudden temperature drops, floods, thunderstorms, droughts, and wildfires. In terms of transition risks, significant challenges include regulatory and policy shifts, market dynamics, changing demand in the construction sector, and the growing impact of digital technology. The entire assessment process was conducted using scenario analysis based on the Shared Socioeconomic Pathways (SSP) framework, which evaluates factors such as population trends, economic growth, education, political developments, and technological advancements. The framework categorizes future scenarios into five possible pathways.



Sustainability



Middle of  
the Road



Regional  
Rivalry

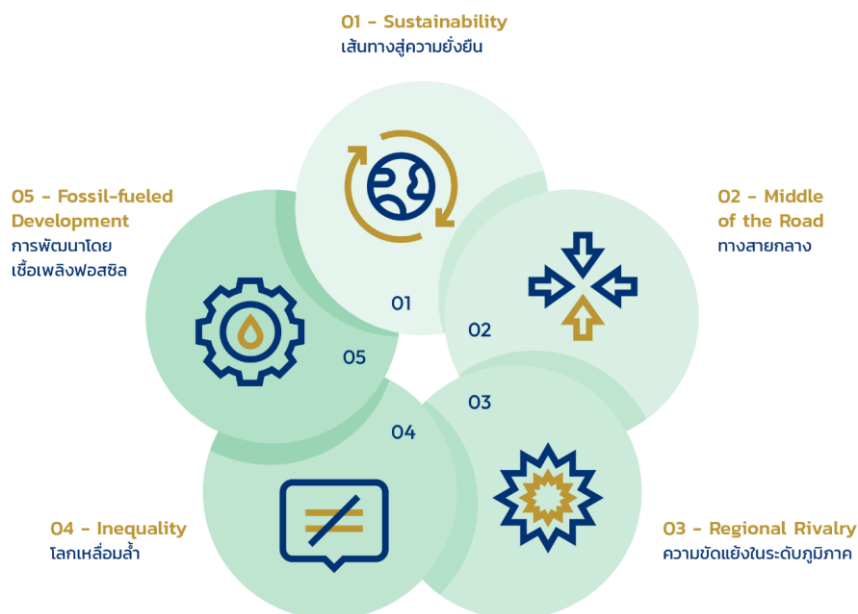


Inequality



Fossil-fueled  
Development





In its scenario analysis, CH. Karnchang evaluated 2 degree scenario in relation to business planning: A long term scenario where greenhouse gas emissions remain high or very high, with emissions nearly doubling by 2050. A long term scenario where greenhouse gas emissions are significantly reduced, ultimately reaching Net Zero by 2050. CH. Karnchang has identified key climate change risks and/or opportunities, both physical and transitional, integrating them into the company-wide risk management. Additionally, the company has outlined preliminary management strategies as follows:

The Risks of Climate Change	The strategy to incorporate climate change risks and opportunities
<b>Physical risk</b>	
<b>Risk of Water Shortage</b> CH. Karnchang must consider the risk of water shortages within its supply chain and among its business partners, as water is a crucial resource in the production of construction materials. A shortage could reduce the availability of materials, disrupting construction activities and potentially delaying projects. Such	<ul style="list-style-type: none"><li>• Planning ahead for construction material usage to ensure a steady supply throughout the project.</li><li>• Communicating with suppliers and supporting them in mitigating the risks and impacts of</li></ul>





The Risks of Climate Change	The strategy to incorporate climate change risks and opportunities
<p>disruptions may undermine stakeholder confidence in the company's ability to meet project deadlines.</p> <p>To maintain production standards, additional costs may arise from securing alternative water sources. Furthermore, reliance on natural water supplies carries risks, as these sources are shared by multiple industries and projects.</p> <p><b>Types of Risks</b></p> <ul style="list-style-type: none"><li>• Strategic Risk</li><li>• Operational Risk</li><li>• Financial Risk</li></ul>	<p>water scarcity.</p>
<b>Transition Risk</b>	
<p><b>Changes in Laws and Carbon Pricing</b></p> <p>Changes in domestic laws and international cooperation are leading to the implementation of carbon taxation as a regulatory mechanism to mitigate the effects of climate change. If multiple countries adopt cross-border carbon pricing adjustments, such as the Carbon Border Adjustment Mechanism (CBAM), this could drive up construction material costs or cause delays in transportation when trading partners fail to meet the required standards or regulations.</p> <p><b>Types of Risks</b></p> <ul style="list-style-type: none"><li>• Financial Risk</li><li>• Regulatory Risk</li></ul>	<ul style="list-style-type: none"><li>• Internal carbon pricing (ICP) can serve as a key metric in investment decision-making, managing high-risk business partners, and forming strategic partnerships. Additionally, it helps assess the business impact of projects in terms of greenhouse gas reduction or emissions.</li></ul>
<p><b>Investment in Infrastructure</b></p> <p>The country's current infrastructure investment presents a significant opportunity for Ch. Karnchang, as much of the existing infrastructure still requires continuous development and improvement. The primary focus is on transportation systems, including roads, expressways (highways), rail systems, air travel, and ports. Additionally, this project has the potential to lead to further investment in sustainable finance options, such as Green Bonds and Green Loans.</p>	<ul style="list-style-type: none"><li>• Expand opportunities and enhance knowledge in the field of green construction.</li><li>• Assess, disclose, and manage sustainability efforts for Ch. Karnchang, encompassing governance, strategic planning, risk assessment, and the establishment of key performance indicators and targets. These initiatives aim to strengthen trust and credibility among stakeholders and investors.</li></ul>





The Risks of Climate Change	The strategy to incorporate climate change risks and opportunities
<b>Types of Risks</b> <ul style="list-style-type: none"><li>• Strategic risk</li><li>• Financial risk</li><li>• Regulatory risk</li></ul>	<ul style="list-style-type: none"><li>• Invest in low-carbon technologies to support business operations and promote sustainable construction.</li></ul>

## Performance and Results

### Concrete Mix Design Project for Reduced Cement Use

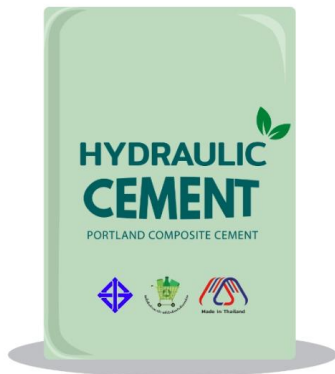
In 2024, the Luang Prabang Hydropower Project aimed to develop a concrete mix that minimizes cement consumption and reduces the heat of hydration, a major factor in thermal cracking. The project utilizes waste materials, specifically fly ash, to maximize resource efficiency while preventing environmental pollution from disposal. By substituting up to 33% of the cement content with fly ash, the mix maintains its designed compressive strength while significantly cutting costs—saving approximately 112 million baht in cement expenses. Furthermore, this initiative reduces Scope 1 carbon dioxide emissions by 2,652 tons of CO<sub>2</sub> equivalent, an impact comparable to planting 279,183 trees.





### Use of Hydraulic Cement (GU Cement) in the Luang Prabang Hydropower Project

The Luang Prabang Hydropower Project has transitioned to using hydraulic cement (GU Cement), a move that reduces carbon emissions by lowering the amount of clinker used, which is the primary component of cement. Additionally, the project has updated its cement quality control standards, shifting from the previous ASTM C150 standard for Portland cement to the ASTM C1175 standard for hydraulic cement. This change helps reduce coal consumption in the cement production process. In 2024, the project used 58,140 tons of hydraulic cement, leading to a reduction of 3,023 tons of CO<sub>2</sub> emissions—equivalent to planting approximately 318,239 trees.



#### Hydraulic Cement: A Cement Product that Helps Reduce Greenhouse Gas Emissions

Hydraulic cement refers to a type of cement that sets and hardens through chemical reactions with water and retains its strength even when submerged. It meets the quality standards specified in the Industrial Product Standard TIS 2594, regulated by the Thai Industrial Standards Institute under the Ministry of Industry. Introduced in Thailand in 2013, hydraulic cement is an alternative to Portland cement, focusing on enhancing performance (Performance-Based) while also reducing carbon dioxide emissions for greater environmental sustainability.





## Environmental Management



### Stakeholders

- **Business Partners and Contractors:** The environmental management practices of partners and contractors can directly impact CH. Karnchang, the project owner.
- **Government Agencies:** Ensure compliance with environmental regulations, foster cooperation, and minimize penalties for non-compliance.
- **Community and Society:** Effective management reduces environmental harm, enhances public health, and improves overall quality of life.
- **Shareholders, Investors, and Analysts:** A strong environmental strategy strengthens business resilience, mitigates risks, and drives sustainable returns.

### Significance

CH. Karnchang's core operations, particularly its construction projects, have significant environmental impacts, including resource consumption, air and water pollution, and industrial waste management challenges. These activities affect multiple stakeholders, including local communities around project sites, business partners, contractors, customers, and shareholders, all of whom are concerned with the company's environmental and social sustainability. If not properly managed, these impacts could pose risks to operations, such as regulatory penalties or a decline in stakeholder confidence.

To address these challenges, CH. Karnchang has implemented environmental and sustainability policies committed to minimizing the pollution, resources, waste, and water impacts of its construction projects. This includes developing operational plans to mitigate effects on local communities and the environment while conducting ongoing impact assessments through external agencies. The company also prioritizes air pollution emission, water use and reduction, resource efficiency and responsible waste management—not only to reduce environmental harm but also to meet the growing demand for socially and







environmentally responsible business practices. Furthermore, its commitment to sustainability enhances long-term business stability and strengthens stakeholder trust across all sectors.

### Environmental Management Process

CH. Karnchang manages environmental sustainability by adhering to policies on environmental management, green construction, climate responsibility, and biodiversity conservation. These principles are integrated into every stage of the construction process—from planning and project execution to waste management and post-construction sustainability. The company follows ISO 9001:2015 standards for environmental management, requiring project management teams to develop operational plans and impact mitigation strategies for local communities and the environment. Continuous quality monitoring is conducted, with third-party organizations assessing and reporting environmental impacts in compliance with project owner requirements throughout the construction phase. This ensures transparency and accuracy for all stakeholders.

The company strictly monitors and reports compliance with environmental impact mitigation measures in each project. This includes air quality control through dust suppression techniques, noise and vibration monitoring, surface water quality assessments, and aquatic ecosystem protection. Hazardous waste and debris management is carefully planned, while transportation and traffic conditions are also monitored. Additionally, CH. Karnchang actively engages with local communities to address concerns and gather feedback on potential environmental impacts.

Beyond compliance, the company fosters environmental awareness by educating employees, contractors, customers, and business partners on resource conservation, waste management, and relevant environmental regulations. This collaborative approach supports long-term, sustainable, and responsible business operations.

CH. Karnchang has also formed a committee for safety, occupational health, and environmental management. This committee keeps environmental law databases up to date and aligned with business operations, conducts scheduled internal audits to ensure





regulatory compliance, and holds annual meetings to review progress, address challenges, and propose continuous improvements for sustainability initiatives.

📄 Environmental management policy, green construction, climate, and sustainable biodiversity :  
<https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf>

### Social Responsibility and Sustainability Committee

The Social Responsibility and Sustainability Committee of CH. Karnchang Public Company Limited has appointed three members to oversee the company's sustainability initiatives. Their key responsibilities include:

- Developing and proposing social and environmental policies for approval by the Board of Directors.
- Reviewing and endorsing the company's CSR strategies to ensure alignment with sustainability goals. Evaluating and approving the annual CSR plan and budget before submission to the Executive Committee and Board of Directors.
- Monitoring CSR activities, assessing their progress and effectiveness, and evaluating the overall impact and quality of CSR initiatives.
- Carrying out additional responsibilities as assigned by the Board of Directors.
- Promoting sustainable business development by establishing policies that foster long-term growth while maximizing benefits for all stakeholders. This is achieved through adherence to environmental, social, and governance (ESG) principles and a commitment to measurable, impactful sustainability.





## Water Management

### Water Management Plan: Strategies and Compliance with Standards

Effective water management in construction is a crucial factor that requires careful planning, as water is a valuable resource with significant environmental impacts. Proper management can reduce costs, improve efficiency, and promote environmental sustainability. For construction-related water use, thorough planning should be conducted from the project's outset. This includes estimating water requirements at each stage, from foundation work and concrete mixing to curing and site cleaning. It is also essential to consider water sources, which may include municipal water supplies, groundwater, or local natural sources. In most cases, the company primarily relies on water provided by the Metropolitan Waterworks Authority and the Provincial Waterworks Authority.

In terms of wastewater treatment, appropriate systems must be in place. Water recycling is a key component of sustainable water management, and the company actively promotes its implementation within projects. Treated water can be repurposed for activities that do not require high water quality, such as irrigation, surface cleaning, and dust control, thereby reducing the demand for clean water. Construction activities also generate contaminated water, such as wastewater from washing concrete mixing equipment and site cleaning. To address this, the company has implemented a system to separate stormwater drainage from wastewater. Sedimentation tanks and septic tanks are used to filter contaminants before releasing water into the public drainage system. Additionally, the company emphasizes wastewater management for both construction processes and temporary sanitation facilities.

Lastly, educating construction workers on efficient water use and conservation is a priority. Training programs, clear guidelines, and regular monitoring ensure that water management practices in construction projects remain effective and sustainable.

### Water Monitoring and Risk Management in Construction Projects

Water accumulation within construction sites poses potential risks to structural integrity, disrupts project timelines, and leads to increased operational expenditures. To proactively mitigate these challenges, the company has implemented a comprehensive water management and drainage strategy aimed at minimizing risks at their source. A systematic approach has been established to continuously monitor and assess water levels, ensuring prompt intervention should water volumes exceed acceptable thresholds. This initiative





aligns with best practices in risk mitigation, supports sustainable project management, and fulfills stakeholder expectations. The overarching principles guiding this framework are as follows:

#### Water Drainage Planning



The Luang Prabang Hydropower Project is located in an area with uneven terrain. Water drainage within the project is managed in the following ways:

Drainage channels will be installed around residential areas to collect and direct water into the environment.

Runoff from construction activities will be managed using sedimentation and collection ponds before being discharged.

Wastewater from various activities will be collected and treated before disposal.

#### Use of Technology



The Luang Prabang Hydropower Project continuously monitors water conditions, including water volume and levels, using data from the Mekong water level monitoring station at Chiang Saen, along with the project's own measurement stations. Several stations have been installed both upstream and downstream, as well as in tributaries of the Mekong River. These stations play a crucial role in tracking water levels to support effective water management and planning within the project area.

#### Legal Compliance



At the Luang Prabang hydropower project, water quality and discharge levels have been regularly inspected and monitored. These measures comply with the Decree on National Environmental Standard 2017 of the Lao People's Democratic Republic, ensuring confidence among stakeholders in environmental management and natural resource protection.





## Performance and Results

### Water Recycling Project

The Luang Prabang Hydropower Project has implemented a water recycling system at its batching plant. This system reuses water for key activities, including aggregate cooling (reducing rock temperature), cleaning the concrete mixing plant, and washing concrete transport trucks, with a total water usage of 1,430 cubic meters per day. To minimize water waste, 1,200 cubic meters per day of used water is pumped back into the process, leaving 230 cubic meters per day for additional uses. The remaining water is used for cleaning the plant and trucks and spraying roads to reduce dust from traffic within the project site. In total, the project reuses 83,950 cubic meters per year (or 83,950,000 liters per year), significantly reducing reliance on natural water sources and minimizing wastewater discharge into the environment. The water recycling initiative officially began in January 2023.





### Water Reduction Project

CH. Karnchang has implemented a plan to reduce water consumption by 1% per year, starting from the base year 2020. The company's approach includes promoting water reduction and using sensor-activated faucets that automatically turn on and off. By 2024, the company successfully met its annual target of a 4% reduction and achieved 40% progress toward its long-term goal of a 10% reduction by 2030. In 2024, total tap water usage was 24,640 units, marking a 4% decrease compared to 25,602 units in the base year 2020.





## Waste Management

### Management Strategies and Compliance with Standards

The Luang Prabang Hydropower Project recognizes the importance of effective waste management in its operations, including leftover materials from construction, renovation, and demolition activities. As the project's population grows, the amount of waste generated also increases. Without proper management in compliance with environmental regulations, this waste could have a significant impact on the environment and surrounding communities. Poor waste management can not only affect the landscape but also lead to soil and water contamination and pose safety risks to nearby residents. To address this, the company prioritizes a comprehensive waste management process, from initial planning to project completion. Waste is first sorted into two main categories: construction waste and community waste. Further classification is carried out to ensure proper disposal, as follows:

1. Non-hazardous, non-recyclable, non-combustible waste
2. Non-hazardous, non-recyclable, combustible waste
3. Non-hazardous organic waste, such as food scraps and vegetable waste
4. Non-hazardous, recyclable, or reusable waste
5. Hazardous waste, including engine oil, lubricants, grease, solvents, and batteries
6. Hazardous infectious waste





Additionally, recyclable and reusable materials are sorted to minimize the amount of waste requiring disposal. Any remaining waste is sent to municipal authorities for proper processing.

The company has implemented waste management policies across all projects to ensure that waste handling in CH. Karnchang construction projects meets legal standards and best practices. This includes tracking the types, quantities, and weights of waste generated from construction activities—such as soil, sand, and materials from construction or demolition. The company also evaluates efficiency and addresses related issues by regularly inspecting construction sites for leftover waste and debris, with weekly progress checks conducted throughout the construction phase. Furthermore, employees are encouraged to recognize the importance of proper waste separation, supporting sustainable waste management efforts.

### **Incorporating Resource Efficiency into Construction Design**

Sustainable construction requires careful planning to minimize resource consumption from the design stage. Several strategies can help achieve this goal:

- Efficient structural design starts with choosing an appropriate system, such as a post-tensioned structure, which allows for a thinner slab, reducing the use of concrete and rebar. Additionally, optimizing column spacing can help minimize the number of foundations and columns, improving overall efficiency.
- Using environmentally friendly alternative materials, such as fly ash to partially replace cement, not only reduces cement consumption but also enhances the quality of concrete.
- The use of technology in structural design and analysis enables precise simulation and evaluation of material usage, reducing errors and minimizing material waste during construction. Additionally, modern structural analysis software enhances the design process by optimizing material efficiency.

Construction methods designed for both building and dismantling should prioritize the use of precast systems, which help minimize on-site material waste and allow components to be reused when a building is demolished. Alternatively, implementing a Design for Deconstruction (DfD) approach enables materials to be repurposed in the future. To further







reduce waste, designers should consider the standard sizes of commercially available materials and align their designs accordingly. This reduces excess material from cutting and leftover scraps. For example, column span lengths should match the standard dimensions of structural steel, and wall heights should be designed to fit available sheet materials.

The selection and design of construction materials should consider lifespan and maintenance. Choosing durable materials with a long service life and minimal maintenance needs helps reduce long-term material replacement. For example, using rust-resistant materials for steel structures in areas prone to corrosion during concrete pouring.

However, all operations must adhere to safety principles and relevant design standards. Proper evaluation and testing are required to ensure that material reduction does not compromise the structural integrity.

#### Target

Indicator	Base Year	Target Year	Performance 2024
The amount of recycled waste is equivalent to 295 tons of carbon dioxide.	2023	2024	It is estimated that 527.3 tons of waste have been recycled, reducing greenhouse gas emissions by the equivalent of 361 tons of carbon dioxide.  This represents an increase of 66 tons of carbon dioxide equivalent compared to last year, or a 22.37% increase from the base year.
Reducing Waste and Scrap Materials Through Landfilling		2024	Recycling has reduced landfill waste by 527 tons, while composting has reduced waste by no less than 500 tons.

In 2024, Ch. Karnchang Company Limited generated 547,640.66 kilograms of non-hazardous waste.





## Performance and Results

### Project on Using Quarry Dust as a Partial Replacement for River Sand in Concrete Mixes

The Luang Prabang Hydropower Project has implemented an initiative to replace a portion of river sand in concrete mixes with quarry dust. The goal is to reduce river sand consumption while making efficient use of waste materials (quarry dust), thereby minimizing environmental pollution caused by its disposal. Through optimized concrete mix design, the project has successfully incorporated quarry dust as a substitute for fine aggregate, exceeding the contractual limit by up to 10%. This translates to 56 kilograms of quarry dust per cubic meter of concrete. As a result, the project has reduced river sand usage, leading to cost savings of 6.85 million baht and preventing 28,560 tons of quarry dust waste from being released into the environment. This initiative was launched in January 2023.

In 2024, the Luang Prabang Hydropower Project produced 510,000 cubic meters of concrete. The stone dust generated during this process was used to replace fine aggregate (sand) in amounts exceeding the contract's specified limit by 10% (the contract allowed a maximum of 3%, but the project used an average of 13%). This equated to 56 kilograms of stone dust being substituted for sand per cubic meter of concrete. As a result, up to 28,560 tons of natural sand from the Mekong River were conserved, helping to reduce the depletion of natural resources.



### Waste Sorting Rewards Program (2024)

This ongoing project has been in operation since 2023 at the construction site and worker accommodations near the Luang Prabang hydropower project. It encourages employees to manage waste properly in accordance with environmental regulations set by the relevant authorities. The initiative starts with waste separation at the source, categorizing waste into construction waste and household waste before sending it to



sorting facilities and incinerators. To raise awareness, the project runs educational campaigns highlighting the importance of waste separation. Color-coded waste bins are provided, clearly labeled in both Lao and English, and color-coded garbage bags are used to match waste types. Bins are strategically placed in accessible locations to encourage participation. Additionally, a reward system has been implemented, allowing employees to earn points for proper waste sorting, which can be redeemed for prizes—helping to maintain engagement and motivation.

The project results showed that it reduced the number of workers needed for waste sorting and decreased the amount of waste requiring sorting at the facility compared to before the project began. It also generated 391,312 baht in revenue for the company in 2024 from selling recyclable waste. Additionally, the project helped cut greenhouse gas emissions from waste management by 361 tons of carbon dioxide equivalent through recycling efforts in 2024.



### Municipal Solid Waste Composting Project

The Organic Waste Composting Project aims to reduce waste volume and simplify disposal processes by sorting biodegradable food and organic waste to produce



fertilizer for activities within the Luang Prabang Hydropower Project. Cafeteria staff will separate food scraps for composting, while environmental department staff will sort waste collected by garbage trucks, extracting food scraps, plant waste, and other biodegradable materials for aerobic composting. Around 200 employees, including environmental and cafeteria staff, are involved in the project.

As a result of the project, the need for organic waste landfill space in 2024 has been reduced by 586 cubic meters, leading to cost savings of 703,200 baht. Additionally, by converting organic waste into fertilizer, the project has helped cut greenhouse gas emissions by an estimated 270 metric tons of CO<sub>2</sub> equivalent.









## Air Pollution Management

### Management Strategies and Compliance with Standards

During construction, total suspended particulates (TSP) and fine particulate matter (PM<sub>10</sub>) are key air pollutants that must be properly managed to minimize environmental and community impacts. Ch. Karnchang has implemented effective dust control measures to mitigate the effects of construction, renovation, repair, and demolition activities, which often release airborne dust. These measures help maintain air quality in nearby areas and reduce potential health risks for workers and surrounding communities.





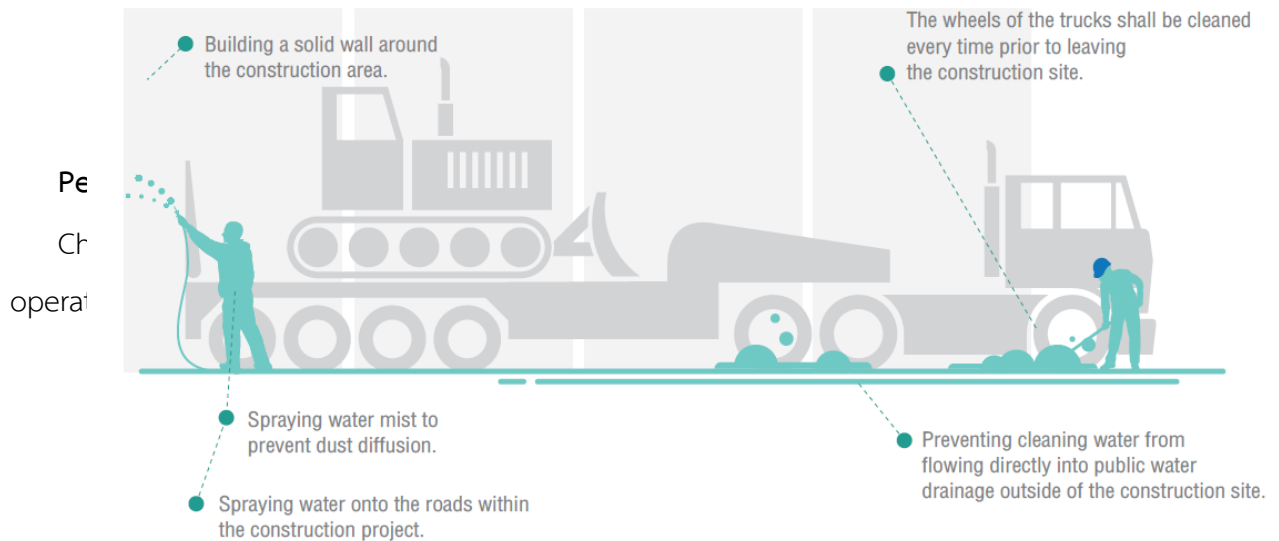
Measures for controlling and reducing particulate matter emissions from construction activities	
	Work with the project owner to ensure compliance with relevant laws, regulations, and best practices for dust control in construction, including the National Environmental Quality Act of 1992, Bangkok city regulations, and the Pollution Control Department's guidelines on managing construction dust.
	Installing a water spray system at the construction site to control dust.
	Lightly spray water over areas with exposed soil, as well as soil and sand piles, to reduce airborne dust.
	Clean the vehicle and its wheels to remove any dirt, mud, or sand before taking it outside the construction site.
	Limit vehicle speed in construction zones to minimize airborne dust.
	Establish guidelines for dust control in construction, identify air quality monitoring points, and strictly adhere to plans and procedures in accordance with government-set standards.

CH. Karnchang continuously monitors and assesses air quality by measuring the 24-hour average of total suspended particulates (TSP) and particulate matter smaller than 10 microns (PM<sub>10</sub>) using a High Volume Air Sampler. Additionally, levels of nitrogen dioxide (NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>) are monitored to ensure air quality remains within regulatory standards.

Additionally, CH. Karnchang has implemented a strategy to manage construction-related dust issues by setting up air quality monitoring points throughout the project site. The company also defines the project boundary, work plans, and operational procedures in compliance with government-mandated environmental standards.







The average concentration of airborne particulate matter should not exceed 0.33 mg/m<sup>3</sup>, with PM<sub>10</sub> levels maintained below 0.12 mg/m<sup>3</sup>

#### Air Quality Monitoring for the Purple Line Railway Construction Project (Tao Poon – Rat Burana)

The company conducted air quality monitoring at the Purple Line railway construction site (Tao Poon – Rat Burana) by measuring total suspended particles (TSP) and PM<sub>10</sub> levels based on 24-hour averages. Monitoring took place from January to December 2024. The results indicated that air quality remained within standard safety levels, and no complaints were filed. Beyond this project, the same air quality monitoring standards were applied to other construction sites. CH. Karnchang remains committed





to upholding air quality control measures to minimize dust dispersion from construction activities.

Water spraying on the road near the entrance of Soi Suan Oi, near Sri Yan Station.



At the entrance of Suan Oi Alley



Sri Yan Station area

Air quality monitoring station near the Royal Irrigation Department and Vajira Hospital.





## Product Quality & Safety



### Stakeholders

- **Community and Society:** Benefit from a cleaner environment, leading to a better quality of life, improved health, enhanced well-being, and greater productivity for residents, while also reducing environmental pollution. However, product prices may rise.
- **Clients:** Receive high-quality building materials that are safe for health and comply with top safety standards.
- **Shareholders, Investors, and Analysts:** Gain long-term business stability, lower operating costs, enhanced company value and reputation, and increased investor appeal.

### Significance

CH. Karnchang engages in construction and large-scale infrastructure investment, emphasizing high-quality materials, energy efficiency, resource conservation, and environmentally friendly practices while maintaining strict construction oversight. These efforts build trust among stakeholders, including customers, communities, employees, and investors. The company prioritizes safety, sustainability, and environmental responsibility at every stage, aiming to minimize environmental impact and workplace risks, foster a positive work environment, reduce operational costs, and strengthen its reputation and brand image. Upholding quality standards enhances confidence and increases company value, ensuring long-term stakeholder satisfaction.







## Management Strategies and Compliance with Standards

The company adheres to environmental management policies and promotes sustainable construction practices (Green Construction), with a strong focus on addressing climate change and biodiversity conservation. To ensure sustainability across its supply chain, the company prioritizes sourcing eco-friendly materials, selecting energy-efficient resources, and implementing guidelines for material reuse and recycling. These efforts help reduce reliance on new raw materials and minimize construction waste. Additionally, the company is committed to lowering greenhouse gas emissions by avoiding construction materials that release volatile organic compounds (VOCs) and eliminating the use of asbestos-based materials. These sustainability initiatives align with the principles of Life Cycle Assessment (LCA), which evaluates the environmental impact of materials throughout their entire life cycle. The company complies with ISO 9001:2015 quality management standards and emphasizes procurement practices that meet customer specifications. Every project management team is required to develop operational plans and maintenance strategies to mitigate environmental and community impacts. Furthermore, a continuous quality assurance system is in place to uphold high standards and build confidence among stakeholders.

The company offers a 36-month construction quality warranty to assure both clients and end users. This warranty includes quality inspections and the correction of any defects that may arise after construction, ensuring the project's strength, durability, and overall quality.

 Environmental management policy, green building, climate resilience, and biodiversity:  
<https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf>

## Guidelines for reusing materials and selecting environmentally friendly materials.

The quality of construction materials is a key determinant of structural safety, durability, and operational efficiency. Ch. Karnchang has developed rigorous standards and best





practices for concrete formwork to ensure compliance with prescribed safety and quality regulations.

### Standards and Best Practice Guidelines

Material Selection	Quality Control Process
<ul style="list-style-type: none"><li>● Use either wooden or steel formwork as needed.</li><li>● Ensure the quality of the form-release agent to facilitate easy removal of the formwork and maintain a smooth concrete finish.</li><li>● Use supporting equipment such as scaffolding, braces, nails, and bolts to reinforce the structure.</li></ul>	<ul style="list-style-type: none"><li>● The formwork is designed and calculated to ensure safe load-bearing capacity.</li><li>● The installation and extension of bracing must comply with load-bearing capacity requirements.</li><li>● Damaged materials or those that could compromise concrete quality must not be used.</li><li>● The formwork must be inspected and leveled to prevent structural sinking or shifting.</li></ul>

CH. Karnchang has developed guidelines to maximize material efficiency in its operations through structured construction planning and the safe reuse of materials. Examples of these practices include treating formwork wood with chemical preservatives or release agents to extend its lifespan and constructing worker accommodations using reclaimed materials that remain safe and of good quality.

#### Before the construction

Ensure the formwork is secure before placing the reinforcing steel.

Clean the formwork to remove any debris or contaminants.

Do not place heavy construction materials on the formwork to prevent damage.

#### Under construction

Install leveling devices to keep the formwork stable and prevent any movement during concrete pouring.

Continuously monitor the strength of the formwork while pouring concrete, and if any settlement occurs, take immediate corrective action.

#### After the construction was completed

The removal of formwork must follow the specified curing period. For example, the side forms of beams, columns, walls, and foundations should remain in place for at least two days before removal. After removing the formwork, additional bracing must be installed to support the structure's weight.

The concrete surface should be inspected, and any defects must be corrected as necessary.





In addition, the company has launched a pilot test for collecting and analyzing material usage data through the SAP: Controlling System. This initiative aims to optimize material usage planning for greater efficiency. Following the completion of the pilot project, the company plans to fully implement the SAP: Controlling System across all operations.

### Integrating Life Cycle Assessment (LCA) in Product and System Design

CH. Karnchang employs Life Cycle Assessment (LCA) as a key tool for reporting analysis and evaluation of environmental impacts and use in planning across every stage of a product or system's life cycle in construction projects—from material sourcing and production to transportation, usage, and disposal. By utilizing LCA, the company can plan and design with sustainability in mind, focusing on reducing resource and energy consumption, minimizing waste and pollution, and prioritizing the use of eco-friendly materials such as recycled or low-impact alternatives.

Additionally, LCA data helps refine construction processes and waste management practices, aligning with Sustainable Development Goals (SDGs), enhancing competitiveness, and ensuring a balance between infrastructure development and long-term environmental conservation.

### Target

In 2024, construction began on the Nan City Art and Cultural Center and the Eastern Lanna Art and Cultural Learning Center, with a strong focus on sustainable development. The project prioritizes both social and environmental aspects, particularly by incorporating a designated percentage of recycled and locally sourced materials.

Key Performance Indicators (KPIs) / Goals	Performance Results for 2024	Certification
Use environmentally friendly materials for at least 10% of the project's total material cost.	CH. Karnchang has successfully met the specified benchmarks and targets outlined in the procurement contract by undergoing	Thailand's Green Label and Carbon Label





Concrete must contain at least 20% recycled materials and be made entirely from local materials.	verification through the Material Checklist. Additionally, materials are inspected for compliance with environmental standards, including: <ul style="list-style-type: none"><li>• Cement contains at least 20% recycled material.</li><li>• Rebar and structural steel contain at least 20% recycled material.</li><li>• Construction materials are certified with the Green Label for environmental sustainability.</li><li>• Paints and sealants are low in volatile organic compounds (Low VOC).</li><li>• Vinyl flooring and laminate wood are certified under the Floorscore standard.</li><li>• Air conditioning systems have a Coefficient of Performance (COP) exceeding 3.7.</li><li>• Air conditioner refrigerants are environmentally friendly (410A).</li><li>• LED (Light Emitting Diode) lighting is used.</li><li>• Fire extinguishers do not contain CFCs (Chlorofluorocarbons).</li></ul>	The inspection conducted by the assigned inspector includes a quality review by experts regarding the Material Checklist.
Rebar and structural steel must contain at least 90% recycled materials and 90% locally sourced materials.		
Lightweight bricks and Mon bricks must be made entirely from locally sourced materials.		
Minimize construction waste in accordance with TREES NC Credit MR 2 by reusing or recycling at least 50% of the waste by weight and volume. (However, the team aims to reduce waste by more than 75%)		

## Performance and Results

### Construction Material Management Project

Managing construction materials is a critical process for ensuring quality and efficiency. By monitoring material usage, the company aims to maximize the quality of final outputs, minimize material waste, and reduce unnecessary construction debris. To achieve this, the company tracks material consumption and continuously establishes acceptable loss percentages for construction materials. This enables ongoing performance assessment and effective monthly planning.

Example Project: Wastewater Treatment (WWT) Pumping Station Construction (Reinforced concrete work scheduled to begin in August 2024) CH. Karnchang has established a maximum allowable loss rate for reinforcing steel at no more than 3%, in compliance with construction industry standards. Materials, including concrete and





reinforcing steel, are subject to strict quality control and closely monitored. Clear quality standards are set, and monthly inspections are conducted to track actual usage. According to the materials management report (as of December 2024), it was found that

- Reinforcement Steel (Rebar): Implementation began in August 2024, with a loss rate of 1.05%, which is below the specified standard. The loss percentage has remained steady at approximately 1.07%, staying within a manageable range.
- Concrete: The monthly loss rate is recorded to compare actual usage with the calculated design quantity. In September 2024, the cumulative loss percentage reached 3.84%, which requires further review to ensure losses remain within acceptable limits.



### Nan City Art and Cultural Center & Eastern Lanna Art and Cultural Learning Hub

CH. Karnchang is committed to constructing the Nan City Art and Cultural Center and the Eastern Lanna Art and Cultural Learning Hub with a strong focus on environmental and social responsibility. The project follows Green Building principles under TREES standards, incorporating sustainable practices such as the use of eco-friendly materials, efficient waste management, and minimizing environmental impact during construction. Additionally, the design is carefully tailored to reflect the local





community's identity and the rich heritage of Lanna culture, ensuring the project's long-term sustainability for both present and future generations.

**1) Use of Sustainable Building Materials**

In addition to incorporating an appropriate proportion of recycled and locally sourced materials, as outlined in the "Goal Setting" section, the project also mandates the use of low-VOC paints, adhesives, and coatings to improve indoor air quality. The building is equipped with energy-efficient glazing and insulation systems designed to optimize temperature control and reduce overall energy consumption. Furthermore, the project prioritizes the use of environmentally friendly concrete, which is officially certified as a Green Label Product.

**2) Construction Waste Management**

- A waste segregation and recycling policy is in place, aiming for at least 95% reuse of construction waste.
- A pollution management plan has been implemented, including measures to control dust and waste to minimize environmental impact.
- Construction waste is regularly monitored, with monthly reports submitted.

**3) Design for Social and Cultural Sustainability**

- The project is designed to reflect Lanna's cultural heritage, incorporating traditional architectural elements and locally sourced materials.
- Existing trees within the site are preserved, and additional greenery is planted in accordance with TREES-NC guidelines to enhance the natural landscape.
- Local hiring is prioritized to support income distribution and strengthen the community economy.

**4) Energy Conservation and Sustainable Resource Utilization**

- Install air conditioning systems with eco-friendly refrigerants (R410A or R32) and an EER > 11.51 to enhance energy efficiency.
- Use LED lighting throughout the project to reduce energy consumption.
- Equip the facility with energy meters and a Building Automation System (BAS) to ensure long-term energy efficiency through continuous monitoring and optimization.

**5) Quality Assurance and Certification Standards**

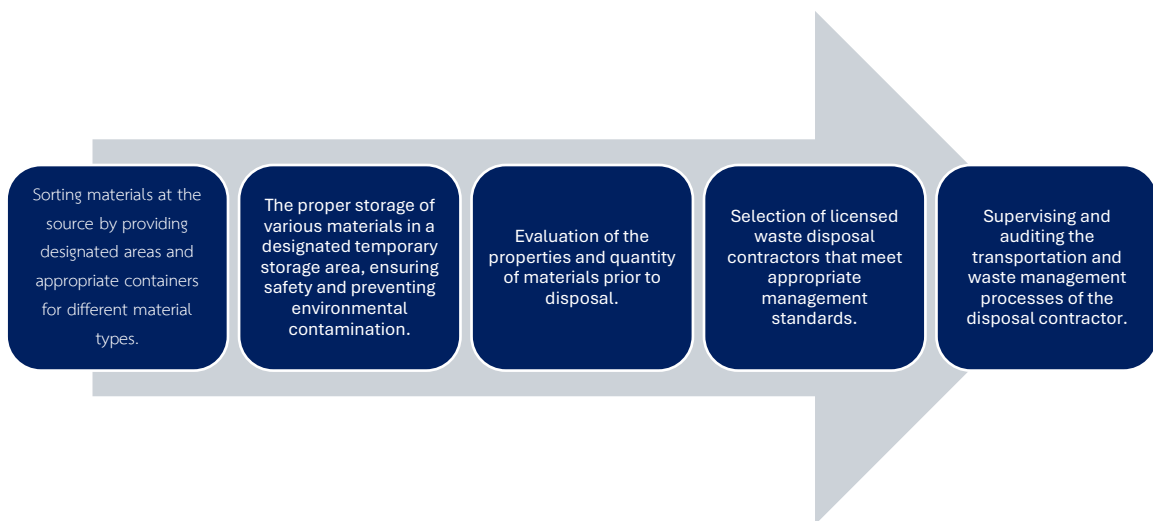




- The project complies with TREES (Thailand's Rating of Energy and Environmental Sustainability) green building standards, developed by the Thai Green Building Institute.
- Quality inspections and commissioning procedures are conducted by experts certified by TGBI (Thai Green Building Institute).
- The energy, water, and sanitation systems are tested and optimized for maximum efficiency before project handover.

### CH. Karnchang's Commitment to Recycling Construction Materials

CH. Karnchang has implemented a systematic approach to managing construction waste, ensuring that materials are carefully sorted and forwarded to legally authorized and specialized waste management providers. These materials are then either recycled or disposed of properly through a structured process, as outlined below:



### Performance and Results

Scrap metal generated from operations is recycled into valuable resources by selling it to buyers, who then supply it to companies or smelting plants for reprocessing and reuse.

### Project on Utilizing Quarry Dust as a Partial Replacement for River Sand in Concrete Mixtures

The Luang Prabang Hydropower Project has implemented an initiative to incorporate quarry dust as a partial replacement for river sand in concrete mixtures. This effort







aims to reduce the reliance on river sand while maximizing the use of waste materials, specifically quarry dust, instead of discarding it and causing environmental pollution. Through optimized concrete mix design, quarry dust has been successfully used to replace up to 10% of the fine aggregate exceeding contract specifications, amounting to 56 kilograms per cubic meter of concrete. As a result, the project has reduced river sand consumption, leading to cost savings of 6.85 million baht, and has prevented 28,560 tons of quarry dust from entering the ecosystem. This initiative commenced in January 2023.

In 2024, the Luang Prabang Hydropower Project produced 510,000 cubic meters of concrete. To replace fine aggregate (sand) that exceeded the contractual limit, the project utilized stone dust at an average rate of 13%, surpassing the contract's specified maximum of 3% by 10%. This resulted in the use of 56 kilograms of stone dust per cubic meter of concrete, reducing reliance on natural sand from the Mekong River by approximately 28,560 tons. This initiative contributes to the conservation of natural resources by minimizing the extraction of river sand.



### Project on Communicating Construction Waste Management Practices to Employees and Contractors

CH. Karnchang has incorporated construction waste management into Toolbox Talks to effectively communicate with employees and contractors, encouraging their active participation in waste reduction and site management. This initiative demonstrates the company's commitment to a systematic and efficient approach to construction waste management, emphasizing the 3Rs principles (Reduce, Reuse, Recycle) to minimize environmental impact and enhance workplace safety.







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## Biodiversity



- **Stakeholders**

- **Community and Society** : Effectively managing biodiversity helps conserve natural resources, promote ecosystem services, and enhance community well-being.
- **Government Agencies** : Collaborating on biodiversity initiatives supports national conservation goals, ensures regulatory compliance, and fosters partnerships with relevant organizations.
- **Shareholders, Investors, and Analysts** : Commitment to biodiversity reflects responsible corporate governance, attracts sustainable investment, and strengthens long-term business resilience.
- **Business Partners and Contractors** : Strict adherence to legal regulations and CH. Karnchang's guidelines is required, particularly in activities impacting local ecosystems. Failure to implement proper biodiversity conservation measures could result in environmental damage, harm the company's reputation and credibility, and lead to public complaints or conflicts that may disrupt operations.

### Significance

CH. Karnchang's construction and infrastructure development projects may have significant environmental and biodiversity impacts, potentially affecting stakeholders through resource shortages, habitat destruction, and species extinction. These consequences could disrupt the supply chain, increase operational costs, and damage the company's reputation. Furthermore, they may lead to public complaints, conflicts with societal expectations, and business disruptions.

To address these challenges, CH. Karnchang is committed to effective biodiversity and ecosystem management, aiming to avoid and minimize biodiversity impacts from its business activities. The company also strives to achieve a Net Positive biodiversity Impact (NPI) on nature while compensating for any negative



effects on biodiversity. It ensures strict compliance with all relevant environmental regulations and continuously assesses biodiversity risks associated with its equipment, processes, and operations.

### Management Strategies and Compliance with Standards


As a construction contractor, CH. Karnchang does not have direct control over project site selection or the ability to avoid areas with high biodiversity, ecologically significant habitats, or designated Key Biodiversity Areas (KBA). This responsibility lies with the project owner. However, the company remains committed to environmental stewardship by implementing measures to avoid and reduce impacts on biodiversity. These efforts include conducting thorough environmental assessments on biodiversity risks, studying local ecosystems, and identifying plant and animal species to ensure that construction activities minimize ecological disruption through existing operational projects and potential new operational projects.

The company adopts a comprehensive biodiversity management plan aligned with environmental management policies, green construction principles, climate considerations, and sustainable biodiversity conservation, all while adhering to international standards. This plan integrates impact prevention and mitigation throughout all project phases—from planning and design to construction and post-construction monitoring.



Strict compliance with environmental regulations is a core principle of CH. Karnchang's operations. The company conducts Environmental Impact Assessments (EIA), in line with government regulation, to evaluate potential effects on both terrestrial and aquatic ecosystems, assess biodiversity-rich areas, and identify associated risks. Where necessary, mitigation and restoration measures are implemented to minimize environmental damage and loss of biodiversity. Additionally, the company actively promotes a net positive environmental impact through habitat restoration, green space conservation, and long-term biodiversity initiatives. Stakeholder engagement and employee awareness programs are integral to sustaining ecological balance and environmental quality across the company's supply chain. Biodiversity conservation strategies include defining clear construction boundaries, preventing encroachment into surrounding natural areas, establishing buffer zones, and preparing ecosystem restoration plans for post-construction recovery. When necessary, relocation plans for affected species are also developed. Furthermore, the company integrates environmental conservation principles into all construction activities, including pollution control, waste management, efficient resource utilization, and site rehabilitation to restore ecosystems as close to their original state as possible.



These initiatives underscore CH. Karnchang’s commitment to ecological responsibility. While the company may not determine project locations, it remains deeply engaged in preserving and protecting natural ecosystems through proactive environmental management and sustainable construction practices.

 **Policy on Environmental Management, Green Construction, Climate Change, and Biodiversity Conservation for Sustainable Development** : <https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-environment-green-building-and-climate-management-policy-th.pdf>

- **Biodiversity Action Plan: Impact assessment and mitigation measures**

Topic	Environmental Impact	Environmental Impact Prevention and Mitigation Measures
<b>Surface water quality and aquatic ecosystems</b> 	Storing construction materials and equipment near water sources can result in debris contaminating the water and obstructing its natural flow. If construction occurs upstream, oil and grease residues may enter the water, reducing oxygen levels and negatively impacting aquatic life, including plankton and benthic organisms	Ensure proper material storage, regularly clean drainage pipes, prevent oil contamination, and monitor the aquatic ecosystem every two months throughout the construction period.
<b>Terrestrial Ecosystem</b> 	The construction process can have both direct and indirect impacts on wildlife in the area. For instance, land preparation for construction may lead to habitat loss and fragmentation, reducing animal and plant populations and potentially leading to extinction over time.	We conduct monthly biodiversity and wildlife impact assessments to promote sustainable coexistence between humans and natural ecosystems. Additionally, we implement conservation measures to protect wildlife and native plants, mitigate soil erosion and land degradation, and prevent illegal deforestation.  <b>Protection of Wildlife and Native Plants</b> <ul style="list-style-type: none"> <li>- Unauthorized encroachment into forest areas is strictly prohibited.</li> <li>- Importing or exporting plants and animals to or from Laos without prior authorization is forbidden.</li> <li>- Hunting of any kind, whether on land or in</li> </ul>



Topic	Environmental Impact	Environmental Impact Prevention and Mitigation Measures
		<p>water, is strictly prohibited.</p> <ul style="list-style-type: none"><li>- The trade of wildlife, wild meat, medicinal plants, and valuable timber is not allowed.</li><li>- Possession of hunting equipment is strictly forbidden.</li></ul> <p><b>- Soil Erosion Prevention and Forest Encroachment Control</b></p> <p>To ensure environmental protection and prevent soil erosion, the following actions are strictly prohibited :</p> <ul style="list-style-type: none"><li>- Unauthorized burning of forests or any other areas without approval from a supervisor.</li><li>- Removing soil from slopes or planting crops on slopes, as this may lead to landslides.</li><li>- Planting vegetation in water drainage channels or surrounding areas, as this may cause soil sediment to accumulate and obstruct drainage.</li><li>- Starting forest fires under any circumstances.</li></ul>

- **Mitigation hierarchy**

CH. Karnchang implements the mitigation hierarchy approach across all operations to prevent business activities from causing significant harm to biodiversity and natural resources, ensuring ecological balance is maintained. The mitigation hierarchy follows four key steps: Avoid, Minimize, Restore, and Compensate





Process	Guidelines and Implementation
Avoid	The project is designed to minimize its impact on biodiversity and natural resources by avoiding the cutting down of mature trees. Instead, trees are transplanted and replanted in a different location, following the No Net Deforestation principle.
Minimize)	Establish measures and regulate operations to minimize impact.
Restore	Rehabilitate and restore affected operational areas to their original condition while ensuring harmony with the surrounding environment.
Restore	Study strategies for environmental compensation, including reforestation and the restoration of lost natural resources and biodiversity, in a sustainable and responsible manner.

#### ● Environmental Impact Assessment (EIA) Study





For all project sites, whether new developments or expansions, the company conducts Environmental Impact Assessment (EIA) reports in compliance with the requirements of relevant regulatory authorities. This ensures No Net Loss of biodiversity resulting from the company's operations. Each project's EIA report must include an assessment of ecologically sensitive areas, critical biodiversity areas, environmentally vulnerable zones, or regions home to species classified under the The International Union for Conservation of Nature's (IUCN) Red List.

Additionally, the company has rigorously and comprehensively implemented measures to prevent and mitigate environmental impacts. It also monitors environmental quality in accordance with environmental impact assessment measures, focusing on key parameters such as surface water quality, noise levels, aquatic ecosystems, and terrestrial ecosystems. Environmental monitoring is conducted at least twice a year, alongside the development of appropriate prevention and mitigation strategies for potential impacts. These efforts ensure compliance with environmental standards and contribute positively to ecosystems in the long term.





Furthermore, the company prioritizes fostering engagement with collaborative networks, including government agencies, private organizations, local institutions, communities, locals, and various stakeholders, to ensure the ongoing evaluation and enhancement of environmental management processes. This approach aims to improve the efficiency of environmental quality control while safeguarding and reducing loss of biodiversity and actively promoting sustainable ecosystem restoration.

Government Agency		Collaboration
	Environment Department, Bangkok	Assist in the care and rehabilitation of transplanted trees from the construction site by preparing a suitable area for their recovery, ensuring they can thrive. Additionally, conduct regular monitoring and follow-up to support their growth.
	Mass Rapid Transit Authority of Thailand	
	The Fine Arts Department	Conduct a study on the approach to removing and relocating trees in the construction area by transferring them to a suitable nursery site, especially in sensitive areas of cultural and historical significance, to conserve biodiversity and sustainably preserve the unique identity of the area.
	The Treasury Department	







## Target

Indicators	Base Year	Target Year	Performance 2024	Certification
The objective is to achieve no net loss of nature. (No Net Loss - NNL) <sup>1/</sup>	2020	2030-2035	Support conservation initiatives, restore natural habitats, and expand green spaces to mitigate environmental impacts.	This has not been certified.
Achieve a net positive impact on biodiversity (Net Positive Impact - NPI) <sup>1/</sup>	2020	Achieving a sustainable net positive impact by 2050.	Restore and enhance the natural environment.	This has not been certified.
Ensuring full compliance with the ecological requirements set by the EIA during the construction phase across all sites subject to environmental impact assessment, with appropriate environmental mitigation measures in place.		100%	100%	Environmental Impact Mitigation and Compliance Monitoring Report

Note : <sup>1/</sup> The targets for No Net Loss (NNL) and Net Positive Impact (NPI) at CH. Karnchang, as a construction contractor operating on client-owned sites (without ownership of the construction areas), are defined within the following scope :

- The assessment of impacts and implementation of measures to achieve No Net Loss (NNL) and Net Positive Impact (NPI) apply only to construction activities directly under the company's control.
- For construction sites owned by clients, long-term monitoring and implementation of measures will be subject to agreements and collaboration with the property owners.

## Performance and Results

### • Mobile Hatchery Learning Center Project

The company has allocated 2.4 million baht for this project, distributed over three years at 800,000 baht per year, in collaboration with the Arboriculture Research Institute at Mahasarakham University. This partnership supports the development of the Mobile Hatchery Learning Center in Chaiyaburi Subdistrict, Tha Uthen District, Nakhon Phanom Province. The project aims to enhance aquaculture capacity within local communities, focusing on self-sufficiency and the sustainable use of natural resources. This initiative addresses the challenges posed by environmental changes, water

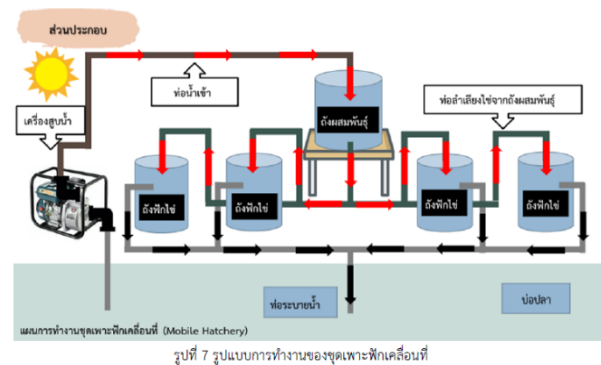






resource degradation, and overfishing, which have significantly impacted aquatic populations in the Mekong and Songkhram Rivers. Beyond restoring biodiversity and regenerating ecosystems, this initiative also creates sustainable economic opportunities and long-term employment for local communities. It is estimated that the project will benefit local residents and contribute 403,775 baht annually to the local economy. Additionally, efforts will be made to establish the Mobile Hatchery Learning Center and a live feed aquaculture system for juvenile fish, positioning Chaiyaburi as a model for future sustainable aquaculture projects.

In 2024, a total of 9 breeding cycles of white barb fish were carried out. Using 16 female white barb fish, a total of 1,075,100 fish larvae were produced. A portion of these larvae, totaling 90,000, was released into the Songkhram River as part of a natural restocking effort.



#### • Biodiversity Conservation Initiative for the Hydropower Plant Project

CH. Karnchang is developing a hydropower plant on the Mekong River in Laos, a region recognized for its rich biodiversity and its critical role in supporting local communities. Understanding the potential environmental impacts, such as habitat disruption for wildlife and aquatic species, as well as increased competition for natural resources, the company has implemented rigorous



mitigation measures. These measures include monthly environmental impact assessments conducted in collaboration with the project owner to ensure compliance with environmental regulations. In 2024, the project conducted 87 orientation training sessions for new employees, reaching 1,192 workers before they began their duties. Additionally, 144 Toolbox Talks were held in the mornings at various work sites, engaging 6,989 employees. In total, over 8,181 employees participated in these awareness programs, designed to educate them on the local biodiversity and foster a deeper understanding of environmental responsibility. These initiatives play a crucial role in minimizing the project's ecological footprint and preserving the area's biodiversity.



- **Tree Relocation Project for Environmental and Biodiversity Conservation**

The company's tree relocation project is designed to conserve ecologically and biologically significant plant species while minimizing environmental impact. By relocating valuable trees from construction areas to more suitable and sustainable locations, the project helps preserve biodiversity and maintain ecosystem balance. Before relocation, each tree undergoes a thorough assessment to ensure a smooth transition without harm to its growth. The process is carried out under expert supervision, ensuring the trees can successfully adapt and thrive in their new environment. This initiative not only supports plant conservation but also promotes long-term ecological sustainability within the construction area.

In the MRT Purple Line Project (Tao Poon – Rat Burana Section, Kanchanaphisek Ring Road), currently under development, the company has prioritized environmental conservation. A total of 127 trees have been carefully transplanted from the construction site to a suitable location for nurturing. Some trees have been prepared for replanting in a new area, while others will be restored to their original positions once construction is completed. The project is committed to minimizing adverse environmental impacts by preserving native plant species and maintaining biodiversity in the area. Every step of the tree relocation process has been conducted with meticulous care to ensure

the trees can thrive in a healthy and sustainable manner. Examples of transplanted trees include *Pterocarpus indicus* (Pradu), *Albizia saman* (Rain Tree), *Intsia bijuga* (Merbau), *Mangifera indica* (Mango), *Aegle marmelos* (Bael), *Millingtonia hortensis* (Cork Tree), *Terminalia catappa* (Indian Almond), *Plumeria* (Frangipani), *Shorea roxburghii* (White Meranti), and *Saraca indica* (Ashoka Tree).



The MRT Purple Line Southern Project (Tao Poon – Rat Burana Section, Kanchanaphisek Ring Road)

Project Site	Number of relocated trees	Tree Species
<b>Contract No. 2: National Library – Phan Fa Bridge</b>		
National library of Thailand	38	Burmese Rosewood Tree, Peltophorum Pterocarpum Tree, Thai Bungor Tree, Mango Tree, Beal fruit Tree, Indian Cork Tree, Indian Almond Tree, Frangipani Tree, White Meranti Tree, Ashoka Tree
Bank of Thailand	18	Madan Tree, Praangsana Tree
<b>Bang Khun Phrom Station, Ventilation Shaft No. 2, and Democracy Monument Station</b>		
Bang Khun Phrom Station	16	Nil Indigo Tree, Thai Bungor Tree, Burmese Rosewood Tree, Pink Trumpet Tree
Democracy Monument	46	Nil Indigo Tree, Thai Bungor Tree, Indian Almond Tree, Pink Trumpet Tree
Ventilation Shaft No. 2	9	Burmese Rosewood Tree, Palm Tree, Paraguayan Silver Trumpet Tree, Indian Almond Tree, Star Gooseberry Tree, Indian Cork Tree



- **Employee and Subcontractor Training Program on Environmental and Biodiversity Management**

To ensure that employees and subcontractors comply with environmental management guidelines and biodiversity regulations, the Luang Prabang Hydropower Project implemented a comprehensive training program in 2024, including:

- Orientation Training: Conducted 87 sessions for new employees before starting work, training a total of 1,192 participants.
- Toolbox Talks: Held 144 sessions as daily briefings across different project areas, reaching 6,989 participants.
- Total Engagement: More than 8,181 individuals have participated in the training sessions. As part of the initiative, informational boards were installed to communicate essential rules, regulations, and best practices.

The training program emphasized Understanding project regulations, workplace conduct, and responsible cohabitation within the project site. Environmental protection measures include: Prohibiting fishing, wildlife hunting, and the trade of forest products. Minimizing pollution and preventing activities that could impact the World Heritage site. Proper procedures for reporting and handling the discovery of ancient artifacts or explosive materials. The training sessions were conducted in alignment with the Environmental and Social Management and Monitoring Plan - Construction Phase (ESMMP-CP) and the Site-Specific Environmental Management and Monitoring Plan (SSEMMP). As a result, in the past year, there have been no reported violations or incidents affecting biodiversity.







In addition, the company invests in employee development by organizing training programs and study visits focused on implementing advanced technology and effective management in projects. These initiatives also cover biodiversity management, ecosystem restoration, and conservation, as well as strategies for mitigating environmental impacts, particularly in the Mekong River Basin for sustainable development. For example, employees participate in site visits to hydroelectric dams on the Danube River in Austria to gain insights into best practices. These efforts aim to improve operational efficiency while minimizing environmental impact.

#### ● Phu Long Forest Reforestation Project

Over the years, Ch. Karnchang has been working with the local community around Phu Long Forest to restore and protect the area. Originally a logging concession, Phu Long Forest serves as the headwaters for key rivers in northeastern Thailand, including the Chi River, Lam Patao River, and several smaller tributaries. It is home to a rich diversity of tree species and native medicinal plants. When the logging concession expired, local villagers recognized the ecological importance of preserving large trees and took action to restore the forest using traditional knowledge. Over time, Phu Long Forest became a vital source of food and livelihood for the community. This led to





increased involvement from private organizations, which encouraged reforestation efforts to rehabilitate deforested areas. Eventually, these efforts evolved into a collaborative project involving the forestry department, national parks, subdistrict and provincial administrative organizations, local temples, and the community forest committee. Despite its conservation efforts, Phu Long Forest remains highly fertile and rich in valuable hardwood species such as teak, Makha Tae, Siamese rosewood, and Yang Na. Unfortunately, this has also attracted illegal logging and poaching, with encroachers exploiting the forest for personal gain. These destructive activities have led to environmental crises, particularly forest fires.

In 2016, a severe wildfire broke out in the community forest, destroying more than 3,000 rai of land. The fire also caused widespread air pollution, filling the area with dust and smoke, and contaminated local water sources used for drinking and daily activities. Less than five years later, in 2020, another massive wildfire swept through Phu Long Forest, damaging over 1,800 rai and severely affecting the region's wildlife. During the incident, local villagers and several monks from Wat Pa Mahawan—one of the first groups involved in conserving the Phu Long Forest—worked together to put out the fire and later assessed the damage after the flames had died down.



CH. Karnchang, leveraging its expertise in construction and design, has actively contributed to the development of an efficient firebreak and wildfire suppression system to mitigate future risks. This initiative includes constructing roads along the Phu Luang ridgeline and the national park boundary to serve as firebreaks, building elevated water reservoirs as backup water sources for wildfire emergencies, installing water pipelines along firebreaks, and implementing sprinkler systems. Furthermore, the company collaborates with local communities, government agencies, and private organizations in reforestation efforts to restore lost forest areas, with a strong emphasis on post-planting maintenance. In 2024, CH. Karnchang conducted additional site surveys for the construction of the 6th and 7th water reservoirs, participated in collaborative network meetings to restore the Lam Pathao watershed forest, and developed an annual wildfire prevention plan for 2025.







- **Vegetation Restoration in the Project**

The Luang Prabang Hydropower Project has implemented a vegetation restoration plan across various areas to stabilize the soil, prevent landslides on slopes, and enhance the project's greenery and aesthetics. The details of the planting efforts are as follows: Batching Plant 1 and 2: Siamese cassia (*Senna siamea*) and Mexican sunflower (*Tithonia diversifolia*) have been planted, covering 57,805 square meters. Precast Yard and Batching Plants 3, 4, and 5: The area has been planted with Siamese cassia (*Senna siamea*), Indian cork tree (*Millingtonia hortensis*), orchid tree (*Bauhinia variegata*), Mexican sunflower (*Tithonia diversifolia*), and Manila tamarind (*Pithecellobium dulce*), covering 42,185 square meters. Main Office Area: The site features golden shower trees (*Cassia fistula*), flamboyant trees (*Delonix regia*), Indian cork trees (*Millingtonia hortensis*), beleric myrobalan (*Terminalia bellirica*), pride of India (*Lagerstroemia speciosa*), Siamese cassia (*Senna siamea*), and ground cover grass, covering 12,447 square meters. In total, the vegetation restoration covers 112,437 square meters. This initiative was officially launched on January 7, 2023.





## Social Sustainability Management



CH. Karnchang's social sustainability management in 2024 focuses on the following key areas:

1. Respecting human rights
2. Employee treatment and human capital management
3. Occupational health and safety
4. Community and social engagement
5. Customer relationship management<sup>1/</sup>




**Note :** <sup>1/</sup> In the evaluation process of key business issues at CH. Karnchang, the company initially classified customer relationship management (Customer Relations) under the corporate governance and economic dimensions. However, for the purpose of this report, it has been presented under the social dimension to align with the reporting guidelines for the 56-1 One Report, specifically under the "Customer Information" section.







## Social Responsibility Policies

 Corporate Governance Policy : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf</a>	 Human Rights Policy : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-human-rights-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-human-rights-policy-th.pdf</a>	 Occupation Health and Safety : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-occupation-health-safety-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-occupation-health-safety-policy-th.pdf</a>
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Social responsibility and human rights initiatives are essential foundations for ensuring an organization's sustainability, especially in the construction and infrastructure development sectors, which impact a wide range of stakeholders, including employees, contractors, communities, and customers. As a result, the organization places great importance on risk management and compliance with relevant standards to foster trust and minimize potential negative impacts. Occupational health and safety in the workplace is another key priority for the company. CH. Karnchang operates in accordance with Thai labor standards (TIS 8001-2553), ensuring a safe working environment, providing appropriate personal protective equipment, and conducting regular safety training.

CH. Karnchang's human rights policy establishes guidelines in line with international human rights principles, such as the UN Guiding Principles on Business and Human Rights. This policy applies to all of the company's stakeholders, including shareholders, investors, employees, customers, business partners, media representatives, local communities, society, the environment, government agencies, and competitors.

The organization's labor practices reflect its commitment to fair employment and the promotion of fundamental human rights, in line with the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work and the Organization for Economic Co-operation and Development (OECD) guidelines for responsible business conduct. To uphold these principles, the organization has developed work processes that promote a healthy work-life balance and provides ongoing training for employees on labor rights and human rights issues.

CH. Karnchang is committed to protecting and promoting human rights for all stakeholder groups, beginning with its employees, who are the company's most valuable asset. The company ensures fair and equal treatment of all employees, respects their rights to unionize and engage in collective bargaining, and provides appropriate compensation and benefits without discrimination. This commitment extends to all stakeholders, regardless of race, ethnicity, religion, gender, age,





sexual orientation, disability, marital status, or nationality. To foster a work environment that upholds human dignity, encourages diversity and equality, and complies with labor laws, CH. Karnchang also ensures appropriate living conditions for its workforce. Additionally, the company maintains a strict policy against child labor, implementing rigorous age verification procedures to prevent underage employment.

The company acknowledges and respects the community's right to access natural resources, conducts thorough community impact assessments before initiating any project, and actively encourages community engagement by providing opportunities for residents to voice their opinions and concerns. Additionally, the company is committed to fostering sustainable community development.

Effective customer relationship management fosters trust and satisfaction, driving long-term loyalty and enhancing the organization's reputation. Simultaneously, engaging with local communities—such as mitigating the environmental and traffic impacts of construction projects—helps establish a "License to Operate" and supports sustainable development.

CH. Karnchang is committed to fair business practices, conducting procurement with transparency, safeguarding business confidentiality, and promoting ethical business conduct among its partners. These principles, established by the company, demonstrate its dedication to upholding international standards, ensuring that business growth is balanced with accountability to stakeholders and communities in every dimension.

Furthermore, the company is strengthening its social responsibility initiatives, particularly by reinforcing human rights practices. A key focus is conducting comprehensive Human Rights Due Diligence (HRDD) to ensure that all operations are carried out sustainably and with accountability to all stakeholders. Over the past year, the company has reviewed and refined its human rights policy to enhance its clarity and comprehensiveness. The key initiatives undertaken are as follows:

- Enhancing policy alignment with international standards, including the OECD guidelines on comprehensive business due diligence for responsible business conduct.
- Clarifying the scope of stakeholder engagement to ensure greater transparency.
- Strengthening awareness and implementation efforts, such as conducting human rights training sessions for executives and employees at all levels.





The revision of this policy provides the company with clear guidelines for protecting the human rights of all stakeholders, ensuring alignment with international standards, and enhancing the systematic monitoring of performance.





## Occupational Health & Safety



### Stakeholders

- **Employees and contractors** expect a safe and well-maintained work environment, along with appropriate safety measures, to enhance efficiency while minimizing workplace hazards. This, in turn, contributes to greater job satisfaction and improved work performance.

### Significance

CH. Karnchang acknowledges the potential risks associated with the construction and infrastructure development industry, including machinery-related accidents, pressure from tight deadlines, and health concerns among employees and contractors. To mitigate these risks, we foster a safe working environment, strictly comply with all relevant regulations, conduct regular training sessions, assess potential hazards, and implement stringent safety measures. Additionally, we are committed to transparency in reporting safety performance and continuously improving safety protocols through rigorous monitoring and evaluation. These efforts are aimed at enhancing employees' quality of life and reinforcing sustainability within our organization.

### Management Strategies and Compliance with Standards

The company is committed to ensuring the safety and occupational health of its personnel and stakeholders. It upholds a comprehensive safety policy that applies to all operations, including construction projects and headquarters. Safety considerations are consistently integrated into work plans to align with established standards. To mitigate risks and prevent workplace hazards, the company conducts thorough OHS risk assessments at every stage of operations, including potential new operations or projects. Additionally, it fosters a strong safety culture by organizing activities, conducting training sessions, and





providing educational resources to enhance employees' awareness and understanding of proper safety measures.

Additionally, CH. Karnchang is committed to achieving Zero Accidents in its operations by continuously enhancing its occupational health and safety practices. The company has set a target to maintain an accident rate of no more than 0.2 per 200,000 work hours for both employees and contractors, using 2023 as the baseline year. To achieve this, Ch. Karnchang assesses and identifies operational risks and implements comprehensive risk control measures that cover both its employees and contractors. The company also conducts regular reviews and enhancements of its safety policies to ensure alignment with evolving industry standards and future requirements. Furthermore, it adheres to the ISO 9001:2015 quality management system to maintain high operational standards. For risks beyond the company's control—such as natural disasters or pandemics—CH. Karnchang has established a Business Continuity Plan (BCP) to enable employees and management to continue operations during emergencies and efficiently resume business activities within an appropriate timeframe.

CH. Karnchang has established a Health and Safety Committee, overseen by company directors, to ensure the safety and well-being of employees and contractors. The committee consists of 11 members, including the Chairman (Project Manager), five supervisory-level members, six operational-level members, and a Secretary (Professional Safety Officer). The committee meets weekly to discuss safety management and workplace health measures. Additionally, a dedicated emergency response unit has been established, comprising professional safety officers, construction managers, project management managers, and safety managers. This team collaborates and coordinates with external agencies such as hospitals, police stations, and emergency hotlines. It is also responsible for assessing risks and implementing occupational health and safety control measures to ensure a secure working environment.






## Occupational Health and Safety Policy



- 1.** We are committed to safety and occupational health.
- 2.** Employees and all project stakeholders must recognize that ensuring safety is everyone's responsibility.
- 3.** All operations must incorporate safety and occupational health measures into work plans.
- 4.** Risk assessments must be conducted for all work
- 5.** We promote safety and occupational health by providing training and ensuring that all employees and workers have the right to stop working when equipment or tools are not in a safe condition or when they observe potential hazards.
- 6.** Safety policies are continuously reviewed and improved to enhance confidence in workplace safety and occupational health.

 Safety and Occupational Health Policy : [ck-occupation-health-safety-policy-th.pdf](#)

### Laws and Relevant Standards

CH. Karnchang ensures full compliance with relevant Thai laws and regulations regarding employee and contractor safety as follows:

1. Ministerial Regulation on Occupational Safety, Health, and Environmental Standards in Construction Work, B.E. 2551 (2008).
2. Occupational Safety, Health, and Work Environment Act, B.E. 2554 (2011).
3. Ministerial Regulation on Occupational Safety, Health, and Environmental Standards (No. 2), B.E. 2553 (2010).
4. Ministerial Regulation on Occupational Safety, Health, and Environmental Standards for Machinery, Cranes, and Boilers, B.E. 2552 (2009).
5. Ministerial Regulation on Occupational Safety, Health, and Environmental Standards for Confined Spaces, B.E. 2547 (2004).





Additionally, CH. Karnchang has established operational guidelines to prevent potential errors by implementing the ISO 9001:2015 standard for quality management system. This system ensures compliance with operational standards across various construction projects and the head office, covering the company's core business activities. Furthermore, the company group has developed a framework for personnel development, focusing on enhancing knowledge, skills, ethics, and accountability to the organization and stakeholders. These measures aim to mitigate and prevent potential risks that could negatively impact operations.

### Employee Health and Safety Measures

CH. Karnchang has implemented a proactive strategy to prevent and minimize workplace risks by developing an Operations Manual and a Health & Safety Management Plan aimed at safeguarding the well-being of employees and contractors. These measures encompass risk management for work-related hazards, as well as preventive and response strategies for incidents such as disease outbreaks. The company also ensures compliance with safety regulations related to construction sites, confined space work, and machinery operation to maintain a safe working environment that aligns with industry standards. In response to disease outbreaks, CH. Karnchang conducts daily worker screenings and has installed cleaning stations along with informational signage to promote preventive measures. These efforts are designed to prevent the spread of disease at the company's construction sites.







## Occupational Health and Safety (OHS) Risk Assessment

At CH. Karnchang, we prioritize the assessment of occupational risks for both employees and contractors operating on-site. We conduct risk assessments for all ongoing (Existing) projects as well as upcoming (Potential) projects, calculating risk scores based on the Likelihood of occurrence and Severity of impact. Our assessment framework employs a comprehensive evaluation method covering critical aspects such as risk factors, probability, impact, and mitigation measures. This process spans the entire value chain of our construction and infrastructure development businesses. Assessment results, along with corresponding risk reduction strategies and mitigation initiatives, are consolidated into a quarterly risk management report for executive review and approval. Project managers, employees, and partners are informed of the findings and take appropriate actions to reduce risks, enhance workplace safety, and optimize operational efficiency.

## Guidelines for Preventing and Reducing Risks

Construction accidents are a common risk factor in the industry. To mitigate these risks, CH. Karnchang has implemented strict occupational health and safety measures in the workplace. Project managers and workers are required to adhere to the following guidelines : (1) Safety planning, (2) Compliance with the safety plan, (3) Regular safety inspections, and (4) Continuous safety improvement. These measures are outlined in the company's Occupational Health and Safety Policy <[ck-occupation-health-safety-policy-th.pdf](#)>

In the 2024 occupational health and safety risk assessment of the work environment, covering both CH. Karnchang employees and contractors, it was determined that the overall risk level at each construction site remains low. The likelihood of accidents and the severity of potential impacts were rated at levels 4 and 1, respectively, according to the company's risk assessment framework. These findings reflect an aggregate evaluation across all construction sites. Nevertheless, CH. Karnchang has reinforced its safety measures to further protect employees. The company now requires project managers, construction managers, the human resources department, and the legal department to collaborate in overseeing safety inspections conducted by experienced





professionals at every stage. These inspections will be carried out in full compliance with CH. Karnchang's occupational health and safety guidelines ensure 100% coverage across all construction sites.

### **Approach to Accident Prevention and Risk Reduction**

Construction-related accidents are a common operational risk. To effectively manage and mitigate these risks, CH. Karnchang has established the Occupational Health and Safety and Working Environment Committee (Board Level), composed of its board members. This committee oversees occupational health and safety for employees and contractors by developing clear policies for accident prevention, workplace hygiene, and overall safety measures. These efforts include comprehensive planning, execution, and detailed inspections to ensure a safe working environment. Additionally, the company implements safety measures tailored to specific job requirements, ensuring all personnel operate under secure conditions.

Additionally, the company is committed to continuously enhancing its safety plans by improving standards and fostering a strong culture of safety. It prioritizes thorough and regular inspections and analyses of work processes while maintaining statistical records for performance benchmarking. An enterprise risk register is established, and emergency response plans are developed for construction project units. The company also implements protocols for monitoring and preventing infectious diseases in the workplace. Furthermore, various risk response drills are conducted, including accident victim evacuation drills from construction sites and fire drills with evacuation procedures. These efforts are aimed at ensuring readiness, aligning with established safety standards, and fostering a secure and reliable working environment.





- Continuously fostering a safety culture
- Implementing safety-promoting measures
- Encouraging a safety-conscious mindset-

#### Safety Development

Establishing  
additional safety

#### Safety Inspection /Investigation

- Reporting, auditing, and analyzing safety conditions
- Encouraging participation from all departments in addressing safety



- Construction projects commissioned by clients
- Pre-construction agreements (with

#### Safety Planning

Establishing a Clear  
Safety Policy

#### Implementation of Safety Plans

- Establishing safety organizations
- Defining safety standards for operational execution
- Conducting training to enhance employees' safety competencies

### Preventive Measures to Avoid Recurrence

To ensure that such incidents do not happen again in the future, the company has taken the following steps :

Incident investigation and analysis	Work process improvement	Training and awareness development	Ongoing monitoring and risk assessment	Implementation of an alert system and emergency response
<ul style="list-style-type: none"> <li>o Conduct a detailed investigation into the incident to determine the root cause (Root Cause Analysis).</li> <li>o Compile an investigation report and share the findings with the relevant team.</li> </ul>	<ul style="list-style-type: none"> <li>o Enhance work practice standards to align with the findings of the investigation.</li> <li>o Strengthen safety measures in high-risk areas, such as installing warning signs, upgrading equipment, or providing additional</li> </ul>	<ul style="list-style-type: none"> <li>o Provide safety training for employees and contractors on specialized tasks.</li> <li>o Foster a strong safety culture by encouraging employees and contractors to report potential hazards.</li> </ul>	<ul style="list-style-type: none"> <li>o Conduct regular workplace safety inspections.</li> <li>o Perform periodic risk assessments to identify and mitigate potential new risks.</li> </ul>	<ul style="list-style-type: none"> <li>o Enhance the emergency alert and response system.</li> <li>o Conduct response plan drills to ensure employees can implement them efficiently.</li> </ul>





Incident investigation and analysis	Work process improvement	Training and awareness development	Ongoing monitoring and risk assessment	Implementation of an alert system and emergency response
	personal protective equipment (PPE).			

### Fostering a Culture of Occupational Health and Safety within the Organization

CH. Karnchang is dedicated to fostering a strong culture of occupational health and safety across the organization. We actively promote workplace safety through various initiatives, including training programs, emergency drills, the dissemination of preventive measures, and encouraging employees to take an active role in enhancing safety processes. Additionally, the company prioritizes cultivating a safety-conscious mindset among employees at all levels as well as among business partners and contractors. We strive to ensure that everyone recognizes the importance of safety—both on an individual level and as part of a collective responsibility.

This safety culture is an integral part of our strategy to create a hazard-free work environment. Employees are well-informed and aware of potential risks, enabling them to avoid hazardous situations while contributing to efficient and sustainable operations through discussions on health and safety with worker representatives. The company regularly monitors and evaluates safety measures, committed to continuously improving them to adapt to future challenges. Our goal is to foster a long-term commitment to health and safety, ensuring a workplace that prioritizes the well-being of all employees.

### Target

Indicator	Base Year	Target Year	Performance and progress for 2024
A total of at least 300,000 work hours completed continuously without any lost-time injuries.	2023	Annually	Total working hours: 13,185,416 hours per year with zero lost-time injuries.
The Lost Time Injury Frequency Rate (LTIFR) For employees and contractors remains below 0.2	2024	Annually	Employees and Contractors = 0 Employees = 0 Contractors = 0
Zero fatalities among employees and contractors	2023	Annually	Employees and Contractors = 1 Case Employees = 0 Case Contractors = 1 Case








Number of employees trained in occupational health and safety standards	2023 (202 people)	-	2,018 peoples
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## Performance and Results

In the past year, the company recorded zero accidents in the production process. The lost-time injury frequency rate (LTIFR) for both employees and contractors was 0 cases per 1 million working hours. However, in 2024, a contractor tragically lost their life in a work-related accident. In all cases of injury or fatality, CH. Karnchang conducts a thorough investigation to determine the cause and provides appropriate support and compensation to those directly and indirectly affected. Additionally, preventive measures are continuously implemented to reduce the risk of recurrence.

	There were no accidents in the production process, nor were there any incidents leading to work stoppages (LTIFR). (The median performance benchmarking on LTIFR for the industry group is 0.86*).
	Fatal accidents: Employees: 0 cases Contractors: 1 case
	The total working hours in 2024 amounted to 13,185,416 hours. Employees: 2,649,780 hours Contractors: 10,535,636 hours

\*Compare the average LTIFR based on the disclosed occupational health and safety performance data of SYNTEC, DL Construction, Hyundai Engineering & Construction, and HOCHTIEF for the years 2023 and 2024.

## Safety Training Programs (Safety Instruction)

CH. Karnchang is committed to enhancing workplace safety through various safety training programs and initiatives. These include emergency drills for evacuating accident victims from construction sites, workplace disease prevention measures, basic first aid training, safe working practices at heights, fire extinguisher use and inspection, and on-site traffic control training. In addition, safety patrols are regularly conducted at construction sites to monitor and assess potential hazards, while pre-work safety talks are held to reinforce proper safety procedures and encourage open discussions among employees. Workers are also trained to conduct initial risk assessments independently and are empowered to halt or modify any activities that may pose a





safety risk. These programs are designed based on previous risk assessments to foster a safer work environment and minimize the likelihood of workplace accidents.



Images from the emergency evacuation drill for accident victims at the CRI project construction site





## Labor Practices & Human Capital Management



### Stakeholders

- **Employees** – The company’s human resource practices and work processes directly impact employees' daily lives, influencing both their work experience and overall job satisfaction.

### Significance

The company’s construction and infrastructure development projects have a direct impact on employees at all levels, including permanent staff, temporary workers, and contractors, in terms of social aspects, human rights, and economic factors. Therefore, effective personnel management is crucial, encompassing skill development, training programs, and various support initiatives to equip employees with the necessary competencies, foster career growth, and ensure fair treatment. Poor management can reduce work efficiency and increase employee turnover. Conversely, strong management enhances business competitiveness by developing essential skills, enabling adaptability to industry shifts, and supporting long-term sustainability.

### Management Strategies and Compliance with Standards

CH. Karnchang manages human resources in strict adherence to Thailand’s labor laws and the company’s human rights policy, ensuring that all employees are well-informed of these principles. The company prevents any activities that violate fundamental human rights and is committed to maintaining an operation free from all forms of illegal labor, including human trafficking, child labor below the legal age, and forced labor, both within the organization and across its supply chain. Additionally, the company emphasizes fair and equitable treatment of all stakeholders, strictly prohibiting any form of discrimination. Clear guidelines of labor standards and non-discrimination, which include race, religion, gender, age, sexual orientation, disabilities, and nationality, are communicated to employees through various channels, such as new employee orientation and online platforms, to foster awareness and ensure compliance with corporate values communicated





globally to employees and translated into relevant languages. The company also upholds employee rights by ensuring equal pay for equal work in alignment with legal requirements. CH. Karnchang actively and commits to promoting employee engagement, employee personal development training, and talent development at all levels, and workplace welfare, prioritizing occupational health and safety to cultivate a positive and sustainable working environment.

#### Employee Association and Engagement

CH. Karnchang places significant emphasis on employee engagement and supports the right to freedom of association to facilitate collective bargaining. To uphold labor rights and enhance workplace welfare, the company organized an election for the Employee Welfare Committee on January 16, 2023, in accordance with Section 96 of the Labor Protection Act B.E. 2541 (1998). The committee is empowered with the following responsibilities :

- Engaging with company management in discussions, addressing labor issues, providing consultation, and offering recommendations to the employer regarding employee welfare initiatives.
- Monitoring, overseeing, and ensuring the proper implementation of employee welfare programs provided by the employer.
- Proposing insights and strategies for enhancing employee welfare to the Labor Welfare Committee.

The Employee Welfare Committee convenes regularly to address key concerns. In 2024, the committee has prioritized employee health measures due to the potential resurgence of COVID-19 and the seasonal prevalence of influenza. As part of its resolutions, the committee has endorsed and expedited various health initiatives, including Comprehensive employee health screenings, Vaccination programs for influenza, pneumonia, and shingles. Workplace wellness initiatives, such as aerobic exercise sessions and fitness challenges aimed at promoting healthier lifestyles and reducing body fat. These initiatives align with CH. Karnchang's commitment to fostering a safe, healthy, and supportive working environment, ensuring long-term well-being for all employees.

#### Employee Capability Development



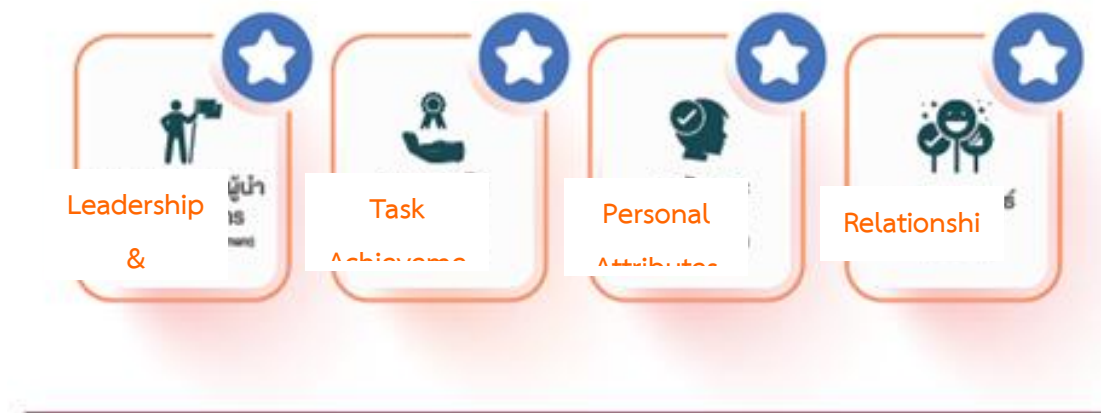


Employees are the driving force behind business operations and a key factor in enhancing the organization's competitive advantage. To adapt to evolving business dynamics and expansion, the company prioritizes employee capability development at all levels. As part of this commitment, the company conducts an annual Employee Development Survey to assess training needs across all functions. This survey evaluates both Core Competencies—essential skills aligned with the organization's strategic goals—and Functional Competencies, which are specific to each job function. Additionally, the company integrates insights from the Performance Management Form to analyze individual and departmental performance before formulating the Fiscal Year 2025 Training Plan. The training plan encompasses 23 structured training programs, including: Occupational Health, Safety, and Workplace Environment Training, Financial Reporting Training aligned with the Thai Financial Reporting Standards (TFRS), Construction Planning and Collaboration Training, focusing on effective coordination between project owners, contractors, and consultants.





## Core Competency



#### Example of a type of Training by CH. Karnchang in 2024

- Organizational Management Innovation and Leadership
- Teamwork Excellence for Organizational Development
- Corporate Fraud Prevention Strategies
- Project Management Strategy
- Application of KU Slope Software in Geotechnical Engineering
- Basic First Aid and Cardiopulmonary Resuscitation (CPR)
- Construction Supervision for Foremen
- Construction Contract Management Strategies
- Managerial Accounting for Executives: Planning and Control
- Innovation in SAP Systems: Introduction to SAP S/4HANA
- Scaffolding Installation, Control, and Inspection Techniques
- Fundamentals of Greenhouse Gas Reduction and Climate Change Adaptation
- Sustainable Structural Systems for Construction in a Changing Environment
- Strategic Development for Construction Executives
- Fundamentals of Upgrading and Renewing Professional Engineering Licenses
- Engineering Professional Ethics
- Use of Safety and Life-Saving Equipment in Confined Spaces



#### Performance Evaluation

The company conducts an annual employee performance evaluation using the Performance Management Form. The assessment is based on key performance indicators relevant to the employee's specific job function. The collected data serves as a basis for determining employee compensation and designing tailored training programs that address individual development needs.



These programs encompass both managerial competencies and specialized professional skills to enhance employee capabilities, in alignment with the previously outlined employee development framework.

Employee performance evaluations take multiple criteria into account, including:

- Achievement of key performance indicators (KPIs)
- Work quality
- Ability to collaborate effectively
- Responsibility for duties, including adherence to company regulations. These criteria are adjusted as appropriate to align with the nature of the work and the specific role of each employee.

#### Talent Attraction and Retention

The company places great importance on retaining talented personnel and attracting high-potential individuals to support future business growth. Our recruitment and selection processes are designed to align with organizational needs, ensuring the acquisition of the right candidates. Additionally, we emphasize the retention of valuable employees through continuous development and enhancement of career progression pathways tailored to each job function. Furthermore, the company is committed to preparing and developing employees under the Talent & Succession Management plan in a structured and strategic manner. Employee well-being and benefits are also prioritized to foster motivation and long-term organizational engagement.

In 2024, the company conducted an employee satisfaction survey, achieving a 100% response rate and a satisfaction score of 91%, surpassing the company's target of 80%. The survey identified the area with the lowest employee satisfaction as the "availability of adequate tools and equipment for operations," including computers and electrical tools, particularly at the initiation of new projects. In response, the company has taken proactive measures to ensure the availability of necessary tools and equipment to enhance operational efficiency and minimize project execution obstacles. Furthermore, the company has communicated the survey results and its responsive





management actions to all employees through the internal intranet system, this sustainability report, and the company's official website.

### Quality of Life and Employee Welfare

The company places great importance on enhancing employees' quality of life by fostering a safe and supportive work environment while providing appropriate welfare benefits. These initiatives are strictly aligned with human rights and labor rights principles. Employees are entitled to various benefits, including performance-based or company profitability bonuses, life and accident insurance, medical expense coverage, and comprehensive health and wellness programs. These include annual health check-ups and wellness promotion activities to ensure employees maintain good health and are fully prepared for their work. As a result, in 2024, the company recorded a total of 206 employee sick leave cases.

### Implementation Examples of Corporate Employee Programs

#### CK The Biggest Fat Loser Project

The company has initiated the "CK The Biggest Fat Loser" program to promote employee health through exercise and healthy eating, fostering sustainable well-being habits. The three-month program engaged 443 employees, comprising 252 from the headquarters and 191 from various project sites. Throughout the program, educational activities were conducted, including expert-led sessions on effective fat reduction methods. Additionally, employees had the opportunity to participate in reward-based activities, with winners determined by the highest percentage of body fat reduction, categorized into male and female groups. This initiative aimed to encourage employees to adopt a healthier lifestyle while maintaining motivation for personal well-being. To further incentivize participation, the company provided a total prize fund of THB 220,000. The program has proven beneficial to both employees and the company, reinforcing a culture of health and wellness in the workplace.

#### The Quadrivalent Influenza Vaccination Program and Pneumonia Prevention Vaccine

The company recognizes the importance of employee health, which directly impacts work efficiency. As a result, it has implemented a vaccination program providing quadrivalent influenza vaccines and pneumonia vaccines to enhance immunity, reduce infection risks, and prevent disease transmission within





the organization. A total of 1,082 employees, accounting for 76.04% of the workforce, received vaccinations under this program. This initiative promotes employee health and well-being, reduces illness and absenteeism, and simultaneously helps lower the company's healthcare expenses.

Moreover, the project enhances employee morale while safeguarding against the spread of infections within the organization. It ensures operational efficiency and strengthens the company's positive image by demonstrating a commitment to the health and well-being of all employees. Additionally, it fosters long-term confidence and trust in the organization.

#### Innovation Training: “Creative Thinking” and “Positive Thinking & Can Do”

In line with the company’s policy to promote innovation in social and environmental business, and with a strong commitment to becoming a sustainable leader in the regional construction industry, the company has launched an innovation training program for employees. This initiative also supports the dissemination of technology and innovation to the public, aiming to enhance society’s overall innovation capacity. In 2024, more than 100 employees of CH. Karnchang participated in the training courses titled “Creative Thinking” and “Positive Thinking & Can Do.” The training was designed to help employees understand the importance, meaning, and perspectives of creative thinking, as well as the key principles behind it. The ultimate goal is for participants to apply the knowledge gained to both their professional work and personal lives

#### Target

<i>Indicators</i>	<i>Base Year</i>	<i>Target (2024)</i>	<i>Performance in 2024</i>
Employee Satisfaction Index	2024*	80%	91%
Average Training Hours per Employee	2023 (9.48 Hours/Person/Year)	8 Hours/Person/Year	11.57 Hours/Person/Year

Note: 2024 marks the first year that CH. Karnchang has set a target for employee satisfaction levels.

#### Performance and Results







#### Employee Hiring and Turnover Statistics for 2024

Total Employee Resignations		Employee Turnover Rate		Total Number of New Hires	
193 Employees		10.2%		277 Employees	
Male	Female	Male	Female	Male	Female
164 Employees	29 Employees	8.7%	1.5%	223 Employees	54 Employees

#### Employee Training Overview Year 2024

Employee Training Overview	Year 2024	Training Goals for 2024
Average training (hours per employee per year)	11.57 Hours/Person/Year	8 Hours/Person/Year
Breakdown by gender		
Male	10.61 Hours/Person/Year	
Female	14.01 Hours/Person/Year	
Breakdown by employee level		
- Senior Executives	20.71 Hours/Person/Year	
- Managers	19.21 Hours/Person/Year	
- Supervisors	9.89 Hours/Person/Year	
- Operational Staff	11.25 Hours/Person/Year	

#### Occupational Safety, Health, and Workplace Environment Law Training Program

The Occupational Safety, Health, and Workplace Environment Law Training Program has been developed based on an employee needs assessment and incorporated into the 2024 annual training plan. CH. Karnchang has implemented this initiative to provide new employees with a comprehensive understanding of relevant laws and regulations governing workplace safety. The program covers key aspects of occupational hazard prevention and control, including physical, biological, and chemical risks. It emphasizes raising employees' awareness of





potential workplace hazards and equipping them with effective risk prevention skills. The primary objective is to minimize workplace accidents, particularly in high-risk construction environments, by ensuring that on-site employees can identify potential dangers and apply appropriate safety measures with diligence and a sound understanding of fundamental safety principles.

To strengthen occupational safety and optimize work performance, employees are encouraged to apply acquired knowledge in practical settings to institutionalize sustainable safety standards, minimize occupational hazards, and cultivate a secure working environment. These measures contribute to long-term workforce stability and improved quality of life for employees. Each training session accommodates 60 participants.





Benefits accrued to CH. Karnchang	Employee benefits and entitlements
<ul style="list-style-type: none"><li>▪ <b>Workplace Safety Improvement and Risk Mitigation</b> : In line with our commitment to workplace safety and operational resilience, the company has effectively reduced the incidence of workplace accidents and hazardous events. This achievement has contributed to minimizing financial liabilities related to compensation claims and disruptions in business operations. In 2024, statistical data indicated a measurable decrease in workplace accident occurrences, reflecting the success of our safety initiatives.</li><li>▪ <b>Optimizing Risk Management Costs</b> : Adherence to stringent safety standards has effectively mitigated regulatory risks, ensuring full compliance and eliminating financial penalties. Consequently, in the past year, the organization incurred no fines or fees related to regulatory violations, from no incidents or instances of labour standards non-compliance, reinforcing its commitment to sustainable and responsible business practices.</li><li>▪ <b>Workforce Development</b> : The structured training program equips 60 employees per cohort with essential competencies to enhance long-term operational sustainability. This initiative strengthens workforce resilience and efficiency, contributing to sustainable human capital development in alignment with ESG principles.</li><li>▪ <b>Enhancing occupational health and safety performance</b> : The implementation of the training program has contributed to CH. Karnchang maintaining a Lost Time Injury Frequency Rate (LTIFR) of 0 in 2024.</li></ul>	<ul style="list-style-type: none"><li>▪ <b>Capacity Building in Workplace Safety, Occupational Health, and Environmental Compliance</b> : Employees will be provided with comprehensive training on relevant legal frameworks and regulatory requirements concerning occupational safety, health, and environmental sustainability. This initiative aims to enhance their competencies and ensure a thorough understanding of their responsibilities, aligning with international ESG, SDGs, and labour standards.</li><li>▪ <b>Enhancing Workforce Competency</b> : Comprehensive training programs equip employees with the necessary skills to identify and mitigate occupational hazards, ensuring strict adherence to safety standards. This contributes to a safer work environment and aligns with corporate sustainability goals related to workplace health and safety under ESG and SDG frameworks.</li><li>▪ <b>Promoting Employment Stability and Workforce Development</b> : The acquisition of relevant knowledge and skills enhances employees' long-term professional capabilities, contributing to improved efficiency, reduced errors, and increased confidence in task execution. These improvements support workforce stability and sustainable employment, aligning with global sustainability goals focused on decent work and economic growth (SDG 8)</li><li>▪ <b>In accordance with career development strategies</b>, employees have been provided with targeted upskilling in essential competencies to</li></ul>





▪ <b>Facilitate the attainment of CH. Karnchang’s annual training target</b> , ensuring that each employee receives at least 8 hours of training per year, in alignment with corporate capacity-building and human capital development objectives.	address skill gaps. Consequently, performance assessment scores improved in 2024, achieving a 90% rating.
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#### SAP S/4HANA System Innovation Training for Enhanced Operational Efficiency in the Construction Sector

As part of the company’s digital transformation strategy, a structured training program on SAP S/4HANA was conducted to enhance employees’ technical expertise in enterprise resource planning (ERP) within the construction sector. The training provided comprehensive knowledge of SAP’s functionalities, with a specific focus on the HCM Solution module, ensuring its alignment with industry best practices and operational efficiency goals. A total of 100 employees participated in the program. Post-training evaluations reflected an overall satisfaction score of 84%, demonstrating the program’s effectiveness in enhancing workforce capabilities. Following the training, employees exhibited improved proficiency in SAP system utilization, leading to increased efficiency in operational workflows, reduced processing time, and minimized errors. These advancements contribute to the company’s broader commitment to sustainable business practices and digital innovation in line with ESG principles.

- The adoption of SAP/4 HANA has significantly improved project resource management, particularly in optimizing material and workforce allocation, thereby reducing unnecessary resource wastage by 10%. This initiative contributes to sustainable resource efficiency, aligning with SDG 12 (Responsible Consumption and Production).
- The system enhances operational efficiency by maximizing resource utilization, achieving up to 80% efficiency in asset deployment, supporting ESG performance metrics related to operational sustainability.
- Enhanced digital integration has improved employee workflows, fostering a more efficient and productive work environment. This has resulted in a 10% increase in the Employee Retention Rates, which supports long-term human capital development.





- By automating workflows and eliminating redundant processes, the system has delivered a total monthly time savings exceeding 1,000 hours, reinforcing operational resilience and corporate sustainability objectives.



## Social & Community Engagement



### Stakeholders

- **Community and Society:** The company acknowledges that its operations may have significant implications for local communities and the public, particularly concerning urban traffic congestion, road safety, and air quality degradation due to airborne pollutants, including particulate matter (PM).

### Significance

CH. Karnchang undertakes the development of critical infrastructure, encompassing road networks, expressways, mass transit systems, and public utilities. Given the nature of these projects, their implementation inevitably influences surrounding communities in multiple dimensions, including traffic congestion, road safety, and air quality concerns arising from particulate matter emissions. Acknowledging these potential impacts, the company remains committed to proactive community engagement, fostering long-term relationships based on transparency and mutual trust. Through ongoing dialogue and corporate social responsibility initiatives, CH. Karnchang seeks to mitigate adverse effects while reinforcing a corporate image grounded in accountability. The company recognizes that community trust is a key determinant of project success, as a lack of stakeholder confidence may result in conflicts that could impact both operational continuity and financial viability.

In alignment with sustainable development principles, the company prioritizes transparent and inclusive community engagement through initiatives that support community development, uphold ethical labor practices, and promote diversity. These efforts are integral to fostering long-term sustainable partnerships. In addition to mitigating potential adverse impacts, the company plays a proactive role in driving positive socio-economic change across multiple dimensions. This includes improving the overall quality of life by



generating employment opportunities and income for local communities, as well as supporting small and medium enterprises (SMEs) through localized procurement strategies. Moreover, the company implements targeted initiatives to enhance community well-being, including vocational skills development, health promotion programs, and active participation in essential infrastructure development. These projects—such as road rehabilitation, water supply enhancements, and electricity system improvements in underserved areas—are designed to create meaningful and lasting improvements in community resilience and quality of life.

These strategic initiatives underscore the company's unwavering commitment to corporate social responsibility (CSR) and the sustainable creation of long-term value for communities. Addressing economic, social, and environmental dimensions, these efforts contribute to building trust and fostering strong stakeholder relationships, thereby enhancing corporate-community engagement in alignment with ESG principles.

#### Management Strategies and Compliance with Standards

CH. Karnchang is committed to fostering sustainable community development in areas surrounding its operational sites, particularly within a 5-kilometer radius, where communities are directly affected by the project. As key stakeholders, these communities fall under the company's responsibility in accordance with the Environmental Impact Assessment (EIA) framework. The company's initiatives in these areas emphasize strengthening stakeholder engagement and enhancing the well-being of local residents to drive long-term socio-economic benefits in alignment with sustainable development goals (SDGs).

In addition, the company is committed to supporting the well-being of communities and society in the vicinity of its project areas, even those not directly affected. Ch. Karnchang has implemented initiatives that align with sustainable development goals by fostering long-term socio-economic and environmental benefits. These initiatives include investments in education, employment generation, and environmental conservation, contributing to an improved quality of life and promoting inclusive growth within society.

The company has integrated Community Investment into its business strategy by promoting sustainable development in its operational areas and extending these benefits to







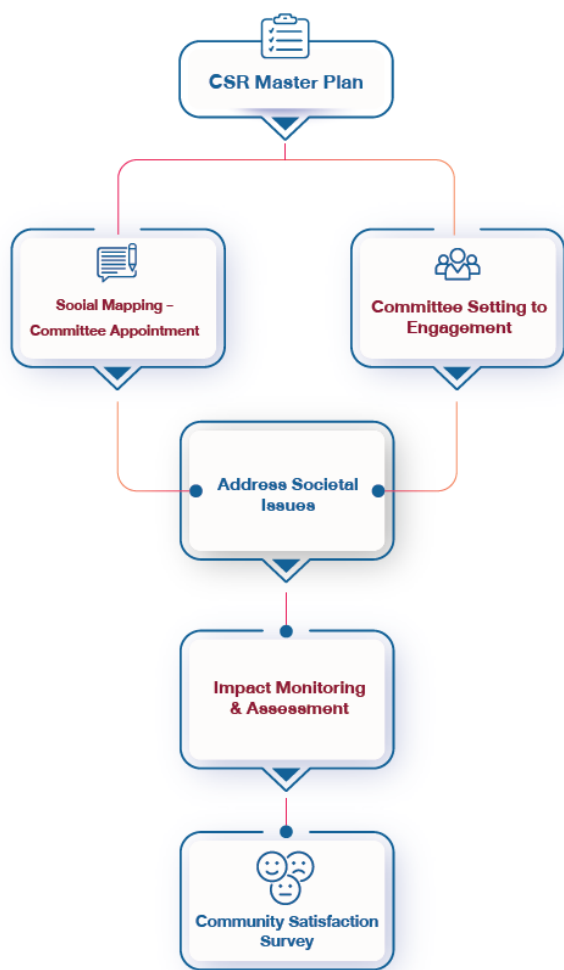
surrounding communities. This initiative aims to balance business operations with genuine social responsibility while minimizing both short- and long-term impacts of construction and infrastructure projects. To achieve this, the company first gathers community feedback and concerns regarding potential negative impacts. These insights inform the planning and execution of projects that align with the company's business activities (CSR in Process). Key initiatives include supporting education, fostering community development through job creation and vocational training, and assisting disadvantaged and vulnerable groups to reduce social inequality. Furthermore, the company leverages the engineering expertise of its Ch. Karnchang employees to support local communities and the public, offering employment opportunities to qualified individuals who meet company requirements (a structure set up to facilitate employee engagement in corporate social responsibility). It also prioritizes enhancing quality of life by promoting sports and recreational activities, health and safety measures, and environmental conservation—both within project areas and on a broader scale. Currently, the company is refining its CSR Strategy to improve the effectiveness of its community engagement efforts.

The company has established a Sustainability and Social Responsibility Committee, which consists of a chairperson and committee members tasked with monitoring and assessing the progress and effectiveness of corporate social and environmental responsibility initiatives. The committee also plays a pivotal role in shaping business policies that foster long-term sustainable growth, ensuring alignment with the interests of all stakeholders. These initiatives are implemented within the framework of Environmental, Social, and Governance (ESG) principles, reinforcing the company's commitment to sustainability through measurable and impactful outcomes.





## Community Engagement Framework



## Continuous Care for the Community and Society



## Channels for Receiving Complaints

	CH. Karnchang Public Company Limited (Head Office)  587 Viriyathavorn Building, Sutthisarnvinijchai Rd.,  Ratchadaphisek Subdistrict, Dindaeng District,  Bangkok 10400, Thailand
	Telephone: 0-2277-0460  Fax: 0-2275-3659  Email : company_secretary@ckplc.com





Contact the Audit Committee

[audit\\_committee@ckplc.com](mailto:audit_committee@ckplc.com)

<https://www.ch-karnchang.co.th>

### Community Engagement in Impact Mitigation and Corporate Sustainability Practices




CH. Karnchang adopts a stringent impact mitigation framework to ensure that all projects align with environmental and social responsibility standards, thereby preventing adverse effects on local ecosystems and communities. As a trusted contractor for large-scale infrastructure projects, the company adheres to the Environmental Impact Assessment (EIA) requirements set forth by the Office of Natural Resources and Environmental Policy and Planning. This compliance process includes proactive stakeholder engagement, incorporating community feedback and addressing concerns at all stages of project implementation, from pre-construction assessments to ongoing operational monitoring.

The company ensures transparency by providing clear information about the project, including mitigation measures for safety and environmental impacts. It has also established communication channels to facilitate community engagement, allowing stakeholders to stay informed and coordinate with the project efficiently. Actively gathering community feedback and recommendations is a crucial aspect of refining operational processes, both on-site and through the company's grievance mechanisms, to facilitate seamless project execution.

Community and Social Management Plan for 2024	Policies and Measures
Employment and Vocational Skill Development 	The company is committed to fostering sustainable community development by utilizing its expertise and workforce capabilities. In alignment with sustainable development goals (SDGs), it has implemented the “Innovation in Community Craftsmanship” initiative for the fourth consecutive year. This program aims to enhance local artisans' skills, promote sustainable economic opportunities, and integrate innovative practices into traditional craftsmanship.







<p>Religion and Cultural Heritage</p> 	<p>The placement of stations should be carefully planned to avoid proximity to cultural heritage sites. If any archaeological artifacts or historical sites are discovered during construction, the relevant authorities, including Thailand's Fine Arts Department, must be notified for an official assessment and preservation considerations.</p>
<p>Forests and Natural Resources Management</p> 	<p>As part of the sustainable development initiatives for the electric rail project, designated parking areas have been integrated with green spaces to support ecological landscaping and urban biodiversity. The selection of tree species prioritizes native Thai flora and other resilient, low-maintenance species that contribute to urban cooling, air purification, and aesthetic enhancement. These trees provide shade, are non-toxic, do not emit strong odors, and possess root systems that mitigate risks of infrastructure damage. Selected species include the Bodhi tree (<i>Ficus religiosa</i>), Mahogany (<i>Swietenia macrophylla</i>), Yellow Flame tree (<i>Peltophorum pterocarpum</i>), Lamduan (<i>Melodorum fruticosum</i>), and Fountain Palm (<i>Livistona rotundifolia</i>), alongside a variety of ornamental and flowering plants to enhance environmental quality.</p>
<p>Community and Social Management Plan – Sports and Recreation</p> 	<p>The development of sports and recreational facilities must adhere to approved design principles while ensuring environmental and contextual suitability. Architectural integration should emphasize the preservation of local identity, harmonizing with the existing landscape to mitigate adverse visual impacts. Key considerations include scale, proportion, color schemes, material selection, and adherence to internationally recognized architectural aesthetics, aligning with sustainable urban development principles. Additionally, contractors responsible for detailed design implementation must engage in ongoing coordination with relevant regulatory bodies throughout the project cycle. This process ensures regulatory compliance, minimizes environmental disruption, and enhances the project's contribution to sustainable and inclusive community development, in line with SDG 11 (Sustainable Cities and Communities) and ESG criteria related to social infrastructure and environmental impact management.</p>
<p>Occupational Health, Safety, Well-being, and Quality of Life</p>	<p>The company strictly adheres to occupational health and safety (OHS) standards and implements comprehensive environmental measures to prevent workplace accidents and mitigate environmental impacts on surrounding communities and society. Additionally, the company provides insurance coverage to safeguard</p>








	against bodily harm, loss of life, or property damage sustained by third parties or the public due to project construction activities.
Water and Sanitation Management 	The organization implements wastewater treatment and solid waste management measures in compliance with established environmental and public health regulations. These efforts aim to mitigate health risks and prevent the proliferation of disease-causing pathogens, ensuring sustainable sanitation practices in alignment with global sustainability frameworks.
Addressing Social Inequality 	To promote transparency and inclusivity, the project aims to provide clear and reliable information to directly affected stakeholders. Furthermore, it ensures that these stakeholders have the opportunity to express their perspectives in alignment with the principle of public participation, reinforcing the commitment to equitable and sustainable development.

In 2024, a community engagement survey was undertaken for the Purple Line Mass Transit Project, Tao Poon – Rat Burana section (Kanchanaphisek Ring Road), as part of Contract 1 under the construction phase. This contract encompasses the design and construction of running tunnels and underground stations spanning from Tao Poon to the National Library. The survey findings identified key adverse impacts occurring during the construction phase. In alignment with sustainability and ESG principles, the company has promptly implemented mitigation measures to address these issues, ensuring minimal disruption to the community and broader social environment.

Key Identified Impacts	Proposed Mitigation Strategies and Measures for Impact Reduction
Traffic congestion, road obstructions, and necessary route diversions resulting from construction activities under the project framework.	Advance notification and public dissemination of traffic-related changes, such as scheduled road closures, should be ensured to facilitate smooth transportation planning and minimize disruptions.





	
Mitigation of Construction-Related Airborne Particulates 	To control particulate emissions from the construction project, dust suppression measures have been systematically implemented along Phra Sumen Road. These measures include regular water spraying, mechanical street sweeping, and vacuum-assisted road cleaning. Such efforts aim to mitigate airborne particulate dispersion, contributing to improved air quality and environmental sustainability in alignment with sustainable development and environmental, social, and governance (ESG) principles.
Noise Impact from the Construction Project 	To minimize environmental disturbances, construction activities that produce significant noise should be avoided during nighttime hours. In cases where such activities are unavoidable, prior public notification must be issued to ensure transparency and mitigate potential disruptions to the surrounding community.

#### Employment and Local Procurement for Sustainable Development

The company is committed to the principles of sustainable development, emphasizing business practices that generate positive social and environmental impacts. A key aspect of this commitment is the support of local communities through expanded local employment and prioritizing procurement sourcing from community-based suppliers. These initiatives contribute to enhancing community well-being, fostering grassroots economic growth, and reducing carbon emissions and pollution associated with transportation. By embedding these practices into its operations, the company not only generates long-term business value but also invests in a more sustainable future.

#### Performance and Results

##### Community Craftsman Innovation Project

As part of its commitment to sustainable community development, CH. Karnchang has implemented the "Community Craftsman Innovation Promotion Project" for four consecutive years. This initiative aligns with corporate sustainability goals by fostering knowledge exchange between employees and local communities. Through this





program, employees contribute their technical expertise to support community-driven innovation, enabling local artisans and technicians to develop solutions that enhance both their livelihoods and societal well-being. The initiative underscores the company's dedication to social responsibility, skill development, and inclusive economic growth in alignment with the United Nations Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) principles.

### **The process of nurturing outstanding communities' innovative invention.**

- 1** Promote participant collaboration via a shared-interest group conversation setup.
- 2** Train participants on online marketing opportunities (e.g., Facebook, Shopee, and Lazada).
- 3** Train participants on cloud accounting.
- 4** Support participants on the process of social enterprise registration for future benefits (e.g., tax reduction, procurement opportunities, and government funding).

In 2024, a total of 97 technical teams from across Thailand participated in the national competition and successfully passed the qualification process. Among these, 12 teams were selected to receive the Preliminary Invention Development Award in recognition of their innovative contributions. Following this, the top three teams demonstrating the highest potential were honored with the 4th Annual Community Technician Innovation Award, recognizing their advancements in technological solutions for community development.

The award-winning innovations are as follows:

1. Net-Pulling Winch – An innovation from Prachuap Khiri Khan Province designed to enhance efficiency in fishing net operations, supporting local fisheries and sustainable marine resource management.
2. Electric Wheelchair Towing Device – Developed in Samut Sakhon Province, this device aims to improve mobility solutions for individuals with disabilities, contributing to inclusive transportation accessibility.










3. Nakki: Modern Naga – A contemporary interpretation of the Naga, created in Bueng Kan Province, reflecting cultural heritage preservation through innovative design and craftsmanship.



<p><b>Net-Pulling Winch – An innovation from Prachuap Khiri Khan Province</b></p> 	<p>The implementation of a compact winch powered by a diesel or gasoline engine enhances operational efficiency in fishing activities by reducing the required workforce for net retrieval from 2-4 individuals to only 1-2. This mechanization not only mitigates physical labor but also optimizes productivity by allocating more time for fish sorting. Two models are available: a stainless steel version with an 8-horsepower engine, priced at 35,000 baht, and an iron version with a 5-horsepower engine, priced at 20,000 baht.</p>
<p><b>Electric Wheelchair Towing Device – Developed in Samut Sakhon Province</b></p> 	<p>The electric wheelchair power attachment is available in two models, designed for both smooth and uneven surfaces. It has a maximum travel range of 20 km and can be easily detached from the wheelchair. Key features include forward and reverse mobility, integrated headlights, and a maximum speed of 30 km/h. With a price range of 12,000–15,000 THB, this innovation contributes to inclusive mobility by improving the accessibility and affordability of high-performance electric wheelchairs for persons with disabilities.</p>
<p><b>Nakki: Modern Naga – A contemporary interpretation of the Naga, created in Bueng Kan Province</b></p> 	<p>Nakkee is a ceramic product crafted from locally sourced clay, developed in alignment with the concept of "Bueng Kan's Natural and Cultural Identity." The composition consists of 70% indigenous clay from Bueng Kan and 30% high-grade Lampang clay, a material renowned for its ceramic quality. The production process involves firing at 1000°C, followed by a spray-painting finish. With a retail price of 399 Baht per unit, the product achieves a monthly sales volume of 70-100 pieces, generating supplementary income of 500-1000 Baht per month for novice monks.</p>



Supporting community and social projects not only improves the quality of life for local populations but also fosters community engagement, which helps mitigate conflicts or disputes between the company and local stakeholders. This leads to smoother project implementation, lowering the costs associated with dispute resolution. Furthermore, strong community relationships contribute to securing a "Social License to Operate," reducing the risk of project opposition. The company (CH. Karnchang) also gains tangible benefits of community investments from various aspects of its embedded CSR initiatives. Engaging in CSR activities not only delivers value to the community but also helps the company reduce costs and sustainably enhance its long-term economic efficiency, as outlined below :

- Optimize corporate investment in workforce training and capacity-building initiatives

Employee engagement in corporate initiatives, including consultancy, knowledge transfer, and community-driven activities, fosters the development of communication skills, public speaking, and teamwork. By integrating these initiatives, the company can achieve cost efficiencies in employee training, with projected annual savings of 5,000–10,000 THB per employee. This aligns with sustainable business practices by leveraging internal expertise for capacity building and workforce development

- Foster practical experience and enhance competencies in project management

Participation in this program provides employees with hands-on experience in project management and problem-solving, enhancing their capacity to address challenges in real-world scenarios. By fostering internal skill development, the program minimizes the necessity for external training investments or consultancy services, thereby optimizing resource allocation and promoting sustainable workforce development.





- Strengthen employee engagement to promote organizational sustainability and productivity
- Corporate engagement in community-focused initiatives strengthens employee motivation and retention, leading to reduced recruitment and onboarding costs. This aligns with sustainable business practices that promote long-term workforce stability and corporate social responsibility. On average, organizations can achieve cost savings of approximately 50,000 baht per retained employee in recruitment and training expenses, contributing to operational efficiency and sustainable human capital management.

- Minimize financial burdens related to community conflict resolution, ensuring social cohesion and responsible corporate governance

The integration of Corporate Social Responsibility (CSR) initiatives into operational processes enhances community engagement and strengthens stakeholder relationships. This proactive approach mitigates the risk of community opposition or project delays, contributing to sustainable project implementation. Additionally, it can lead to cost savings of up to 500,000 baht per project in conflict management expenditures, thereby improving overall operational efficiency and social impact.

- Promoting the Development of Business Innovations for Society and the Environment

CH. Karnchang has sent employee representatives to participate in the “Community Craftsman Innovation Promotion Project,” which provides vocational training and creates opportunities for exchanging ideas with local technicians involved in the program. This initiative serves as another channel through which the company fosters creativity, driving the development of innovations that benefit both society and the environment.

#### Performance Summary 2023-2024





• Implementation of the Community Innovative Inventors

All Participating Communities 12 Community



### Corporate Social Responsibility Initiatives

Our company is committed to corporate social responsibility (CSR) initiatives as a mechanism to emphasize active engagement from employees and the community throughout the process. These initiatives span social, environmental, and educational domains, fostering long-term collaboration. We aim to enhance quality of life and drive sustainable social progress with stability and resilience. A dedicated working group, operating under the Social Affairs and Sustainability Committee, coordinates with Ch. Karnchang employees who interested in participating in company-led initiatives. The volunteering program and group were communicated throughout the company.

- “Blood Donation Initiative Supporting Public Health and Well-being” Project



On September 12, 2024, Ch. Karnchang Public Company Limited, in partnership with Siriraj Hospital, organized a voluntary blood donation drive at the company’s headquarters. The initiative aligns with Sustainable Development Goal (SDG) 3: Good





Health and Well-being, contributing to healthcare resilience through increased blood supply for medical use.

The event attracted 158 registrants, with 123 successfully meeting eligibility criteria and donating a total of 55,350 cc of blood. A pre-donation screening process resulted in 35 individuals being deemed ineligible due to factors such as inadequate rest or recent medication intake. No financial contributions were collected as part of this initiative.

- “Disaster Relief Initiative by CH. Karnchang: Sustainable Community Support in Response to the Mae Sai Flooding” Project



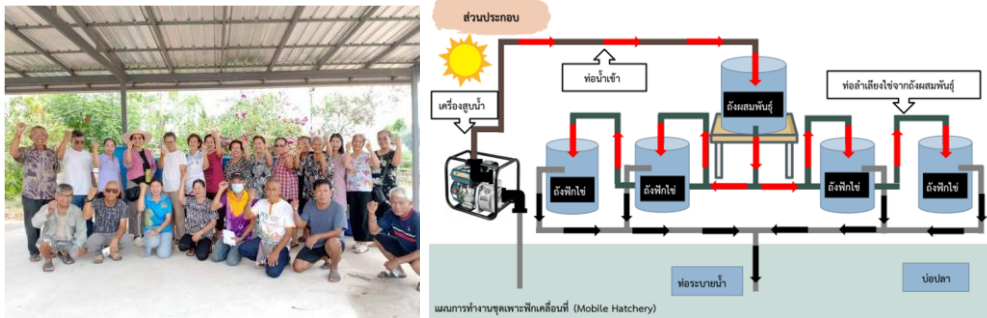
In September 2024, extensive flooding impacted Mae Sai District, Chiang Rai Province, severely damaging residential areas and public infrastructure. As part of its corporate social responsibility (CSR) commitment and alignment with Sustainable Development Goals (SDGs), particularly Goal 11 (Sustainable Cities and Communities) and Goal 13 (Climate Action), CH. Karnchang mobilized a response team comprising senior executives, project personnel, and specialized equipment.

Commencing operations on September 28, 2024, the company collaborated with the Mae Sai Subdistrict Municipality to clear mud and waste, restore essential infrastructure, and rehabilitate public spaces to ensure accessibility and safety. Continuous monitoring of the affected areas was conducted to assess further needs. Additionally, to mitigate the immediate impact on vulnerable households, CH. Karnchang distributed 150 blankets to affected residents, contributing to community resilience and disaster preparedness in alignment with environmental, social, and governance (ESG) principles.





- “Mobile Hatchery Aquaculture Learning Center)” Project



To advance sustainable aquaculture practices, the company has committed a total budget of 2,400,000 THB, distributed over three years at 800,000 THB per year, to support the implementation of the "Mobile Hatchery Aquaculture Learning Center" in Chaiyaburi as a pilot model. This initiative aligns with sustainable development objectives by promoting innovative aquaculture techniques and community-based knowledge transfer.

The project is being executed by the Institute of Arboriculture Research at Mahasarakham University, with field implementation taking place in Chaiyaburi Village, Chaiyaburi Subdistrict, Tha Uthen District, Nakhon Phanom Province. The initiative commenced in December 2023 and is scheduled for completion in November 2024. The research findings and outcomes from this pilot project will contribute to the advancement of sustainable aquaculture methodologies and may serve as a model for further expansion in other regions.

- “Strategic Investment in Early Childhood Development to Advance Sustainable Education (2-3 Years Old)” Project



As part of its commitment to fostering sustainable education and early childhood development, the company has approved an investment of 800,000 baht to enhance early learning infrastructure. This funding supports the "Early Childhood Learning





Development Program at Wat Chai Si Sa-at Early Childhood Development Center, Ban Don Raet Subdistrict, Rattanakaburi District, Surin Province," a project implemented by the Little Children Development Foundation.

This initiative is designed to enhance teacher training and pedagogical capacity-building, ensuring that early childhood educators receive the necessary support to deliver age-appropriate, high-quality education. By strengthening early childhood education systems, this investment aligns with Sustainable Development Goal 4 (Quality Education) and contributes to long-term educational resilience and equity.





## Human Rights



### Stakeholders

- **Shareholders, investors, and analysts:** serve a vital function in ensuring corporate accountability by monitoring and overseeing business operations. Furthermore, shareholders have the right to participate in general meetings, where they can provide input and contribute to decision-making on significant corporate matters. To uphold principles of transparency and good governance, all shareholders are entitled to equal access to accurate, comprehensive, and timely information, supporting their ability to make informed investment decisions in alignment with sustainable development and responsible investment principles.
- **Employees:** are a crucial driver of the company's strategic initiatives. To ensure responsible business conduct, the company is committed to implementing clear and comprehensive internal human rights policies that promote fundamental human rights and align with internationally recognized labor standards. These policies aim to cultivate a safe, just, and inclusive working environment, free from all forms of discrimination, in accordance with global best practices in sustainability and corporate governance.
- **Clients:** must be treated with fairness and equity, adhering to the highest standards of service excellence. Their confidentiality must be rigorously safeguarded, ensuring the provision of accurate, comprehensive, and transparent information. Furthermore, an effective and responsive framework must be established to facilitate timely issue resolution, fostering trust and accountability within the service process.





- **Business Partners and Contractors:** Business partners and contractors are integral to the supply chain, providing essential materials and labor to support seamless operational continuity. In adherence to corporate governance principles and fair competition standards, the company upholds a transparent and equitable procurement process that promotes shared value and sustainable business development. Standardized contractual frameworks are established to ensure consistency, while stringent data protection measures safeguard the confidentiality of business partners.
- **Community and Society:** Recognizing that the company operates in close proximity to local communities, any operational shortcomings could result in substantial socioeconomic and environmental consequences. The company upholds the principle that active community participation is essential to achieving sustainable development. Therefore, it is committed to conducting its business with transparency, in alignment with corporate governance best practices, while carefully assessing potential impacts and promoting inclusive employment opportunities to drive long-term socioeconomic growth.

### Significance

Given that stakeholders are engaged throughout the value chain, the company acknowledges the critical role of its employees in guiding strategic direction and driving projects forward. Employees are responsible for managing the construction and development of infrastructure projects commissioned by clients and business partners. Contractors execute construction activities in accordance with assigned plans to ensure value creation for customers. Concurrently, communities located in project areas may experience direct and indirect impacts from construction activities. To uphold responsible business practices, the company is committed to engaging with all stakeholders to identify and safeguard the fundamental rights of throughout its operations as well as remedy to affected parties. It is imperative that contractor employees, business partners, clients, and local communities are treated with fairness and equality. Inadequate management of human rights risks—such as child labor, forced labor, or discriminatory procurement practices—could result in significant operational, legal, and reputational risks for the company.





## Management Strategies and Compliance with Standards

CH. Karnchang is dedicated to upholding human rights policy standards with utmost diligence. The company aims to prevent and mitigate any potential human rights violations across its entire value chain, encompassing and communicated to all stakeholders, including employees, business partners, suppliers, contractors, customers, and local communities. This proactive approach is undertaken to safeguard the company's reputation and ensure the integrity of its business operations.

The company's human rights policy adheres to internationally recognized frameworks, ensuring compliance with global human rights principles. These include the Universal Declaration of Human Rights (UDHR) under the United Nations, the UN Guiding Principles on Business and Human Rights (UNGPs), and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. This alignment reflects the company's commitment to upholding human rights in business operations, in accordance with Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) criteria, reinforcing responsible corporate governance and ethical labor practices.

In 2024, CH. Karnchang undertook a comprehensive review of its human rights policy, reaffirming its commitment to upholding human rights principles throughout its value chain. The policy revision enhances its alignment with internationally recognized labor standards, incorporating provisions that safeguard employees' right to fair and reasonable working hours, protect children's rights, uphold workers' freedom of association and collective bargaining, and ensure full compliance with national labor laws.

CH. Karnchang Public Company Limited is in the process of conducting a thorough Human Rights Due Diligence (HRDD) assessment to evaluate potential risks, identify mitigation strategies, and establish remedial frameworks in alignment with international human rights standards. This initiative underscores the company's commitment to responsible business practices and sustainable development, ensuring compliance with ESG principles and SDG objectives.

The company mandates that all executives and employees adhere to this policy with diligence and continuity, reinforcing transparent business practices that uphold corporate social responsibility and contribute to long-term sustainability.





## CH. Karnchang Public Company Limited's Approach to Human Rights Governance



Human Rights Policy : [ck-human-rights-policy-th.pdf](#)

### Ensuring Fair Labor Practices in Alignment with Human Rights Principles

CH. Karnchang has implemented a Workplace Welfare Committee and Employee Representation System to uphold and oversee fair labor practices in accordance with human rights standards. This system allows full employee participation, ensuring inclusivity in workplace decision-making and fostering a transparent and constructive dialogue between employees and management. This initiative aligns with Section 96 of the Labor Protection Act B.E. 2541 (1998), which mandates the establishment of employee welfare committees to oversee and enhance workplace well-being. In compliance with legal requirements and best practices in corporate sustainability, the committee holds regular annual meetings to assess and improve employee welfare policies, reinforcing the company's commitment to fair labor practices and corporate social responsibility.

### Governance Responsibilities in Employee Welfare Management

The Workplace Welfare Committee is responsible for overseeing and enhancing employee welfare standards through structured engagements with employers. Its key functions include consulting with employers on welfare provisions, offering expert recommendations to optimize welfare policies, monitoring and ensuring compliance with employer-implemented welfare measures, and submitting policy recommendations to the Labor Welfare Committee. These engagements occur annually to uphold employee rights, ensure equitable access to





benefits, and maintain full compliance with labor laws and international labor standards in alignment with ESG and SDG frameworks.

In addition to its role in overseeing employee welfare, the committee serves as a key mechanism for enhancing employee-company relations, representing employees' perspectives, and collaboratively addressing workplace challenges. These initiatives foster a fair, inclusive, and innovative work environment—an essential component of sustainable business development in alignment with ESG principles and long-term corporate resilience.

### Human Rights Risk Assessment and Impact Mitigation

CH. Karnchang is currently developing a human rights risk assessment plan, which includes the designation of a dedicated committee and responsible units. This initiative aligns with the United Nations Guiding Principles on Business and Human Rights, as outlined below:



1. Defining the scope of relevant human rights issues
2. Assessing human rights risks
3. Mitigating risks and establishing preventive mechanisms
4. Monitoring and reviewing human rights risks
5. Implementing remedial mechanisms for human rights violations

Upon the completion of the planning phase, Ch. Karnchang has designated the Human Resources Department, the Corporate Risk Department, and the Sustainability Committee to jointly enhance awareness of human rights among its employees. In addition, these entities are tasked with identifying and assessing human rights risks across the supply chain, ensuring comprehensive coverage of rights holders and vulnerable groups. These include children, persons with disabilities, women, ethnic minorities, migrants, third-party employees, indigenous peoples, local communities, LGBTQI+ individuals, senior citizens, and pregnant





women. Furthermore, the company will implement high-level risk management standards where applicable to mitigate potential human rights impacts.

### **Whistleblowing Mechanism for Human Rights Violations**

The company has instituted a formal whistleblowing system to enable both internal and external stakeholders to report human rights violations. In alignment with principles of transparency and fairness, comprehensive whistleblower protection measures have been established. Individuals submitting reports or cooperating in investigative procedures are granted the option of anonymity to safeguard their security and uphold the confidentiality of their personal data. These measures reinforce the company's commitment to ethical business practices and responsible corporate governance, in accordance with internationally recognized human rights standards and sustainability frameworks.



In alignment with its commitment to human rights and responsible business conduct, the company prioritizes remediation for individuals impacted or affected parties where it has been identified by human rights violations. Through fair and appropriate processes, the company seeks to mitigate harm and uphold equitable treatment for all stakeholders in compliance with international standards. Furthermore, proactive preventive measures have been implemented to minimize the likelihood of recurrence, reinforcing the company's dedication to sustainable and ethical business practices.







#### Reporting Human Rights Violations

	audit_committee@ckplc.com (Audit Committee)
	company_secretary@ckplc.com (Company Secretary)
	ck.whistleblowing@gmail.com (Executive Vice President : Human Resource and General Administration)
	CH. Karnchang Public Company Limited (Head Office) 587 Viriyathavorn Building, Sutthisarnvinichai Rd., Ratchadaphisek Subdistrict, Dindaeng District, Bangkok 10400, Thailand (For correspondence)

#### Incidents Human Rights Violations in 2024

Indicators	Measurement Unit	Operational Results 2024	Target 2024
Reported Cases of Human Rights Violations	Number of Recorded Cases	0	0

The company has implemented inclusive and systematic policies to enhance labor rights and promote diversity within the organization. Key initiatives include the elimination of child labor and the eradication of forced labor, fostering employee participation in human rights governance, regulating and reducing excessive working hours, and ensuring fair and equitable compensation. These measures align with international labor standards and contribute to the company's broader commitment to sustainable and ethical business practices.

In alignment with ESG and SDG principles, the company is committed to fostering workplace diversity, equity, and inclusion (DEI). It upholds a strict non-discrimination policy, ensuring equal treatment for employees regardless of race, ethnicity, religion, gender, age,





gender identity, disability, or nationality. To promote fair employment practices and career development, the company has implemented structured initiatives, including regular training and capacity-building programs on workplace equity, ensuring all staff trained on human rights policy. These efforts contribute to cultivating an inclusive corporate culture that respects individual differences and enhances organizational sustainability.



## Corporate Governance and Economic Sustainability Management



In pursuit of long-term sustainable development, the company emphasizes comprehensive social governance across all dimensions, ensuring alignment with ESG principles and SDG frameworks. The company is committed to generating shared value for both corporate growth and stakeholder well-being. Its initiatives span corporate governance, regulatory compliance, human rights advocacy, human capital development, customer relationship management, community engagement, and occupational health and safety—integrating these factors to foster responsible and sustainable business practices.



Ensuring compliance with corporate governance principles, transparency, and ethical standards enhances stakeholder confidence, including government agencies, shareholders, investors, and analysts. Effective governance reduces legal risks, optimizes business performance, and contributes to long-term sustainability and competitive advantage. However, failure to comply with regulatory requirements or governance missteps can lead to financial penalties, reputational damage, and operational setbacks. Furthermore, a diminished corporate reputation may negatively impact business continuity and long-term financial value creation, ultimately affecting the company's ability to sustain growth and attract investment.

The company upholds respect for human rights as a core principle of ethical business conduct. A strategic approach to human resource management—combined with comprehensive initiatives to support employees' mental and physical well-being, workplace health, and safety—enhances operational efficiency and contributes to the company's long-term sustainability. To achieve this, the company emphasizes effective governance in workforce management, fosters a culture of employee engagement, and cultivates a secure working environment by embedding stringent health and safety standards across all operations. Furthermore, the company enforces proactive risk mitigation measures to safeguard both employees and contractors, ensuring that all personnel can perform their duties in a safe and confident manner.

In addition, the company is committed to fostering trust and strategic partnerships with local communities in its operational areas to mitigate potential negative externalities, such as traffic congestion, road safety risks, and air pollution. Meaningful stakeholder engagement is essential for ensuring the seamless implementation of projects, ultimately contributing to improved customer satisfaction and reinforcing the company’s corporate reputation in alignment with sustainable development principles.

By integrating these principles across all operational processes, the company reaffirms its commitment to leadership in balancing long-term business sustainability with corporate social responsibility. It also seeks to proactively address the evolving expectations of stakeholders across various sectors. In 2024, the company undertook a comprehensive review of its human rights policy to ensure broader inclusivity and to further strengthen its implementation. This policy prioritizes the protection and respect of fundamental human rights for all stakeholders within the company and across its value chain, in strict adherence to the United Nations Guiding Principles on Business and Human Rights.

**Policies in Corporate Governance and Economic Sustainability**

 Sustainability Policy : <a href="https://www.ch-karnchang.co.th/th/sustainability/sustainability-policy">https://www.ch-karnchang.co.th/th/sustainability/sustainability-policy</a>	 Corporate Governance Policy : <a href="https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-cg-policy-th.pdf</a>
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## Corporate Governance



### Stakeholders

- **Shareholders, investors, and analysts:** Robust corporate governance enhances corporate credibility and fosters investor confidence by ensuring transparency in business operations.
- **Business Partners and Contractors:** Through the implementation of robust corporate governance practices, the company strengthens confidence among its business partners and contractors by guaranteeing fair treatment in accordance with established standards. Moreover, these governance principles ensure that the company's business operations remain transparent, verifiable, and in compliance with regulatory and sustainability frameworks, thereby fostering long-term trust and accountability.
- **Government Agencies:** Adherence to legal and regulatory frameworks by government agencies, ensuring effective governance and the preservation of ethical standards in business conduct.
- **Competitors:** The company's corporate governance framework significantly influences industry competitors, particularly in promoting fair competition standards within the market. By prioritizing transparency and ethical business practices, the company ensures that its operations do not create trade barriers or result in anti-competitive behavior. It upholds integrity by refraining from acquiring competitors' confidential information through unethical means and avoids engaging in any form of reputational harm through false allegations. Compliance with these governance principles contributes to elevating industry standards for fair competition, fostering a more



transparent and sustainable business environment, and reinforcing confidence among stakeholders, including investors and regulatory bodies.

### Significance

CH. Karnchang and its Board of Directors recognize the critical role of corporate governance in fostering sustainable and responsible business practices. The company has incorporated corporate governance policies and management frameworks into the Board's strategic oversight and fiduciary responsibilities. Additionally, comprehensive policies and operational guidelines have been established to ensure effective governance aligned with sustainable development principles.

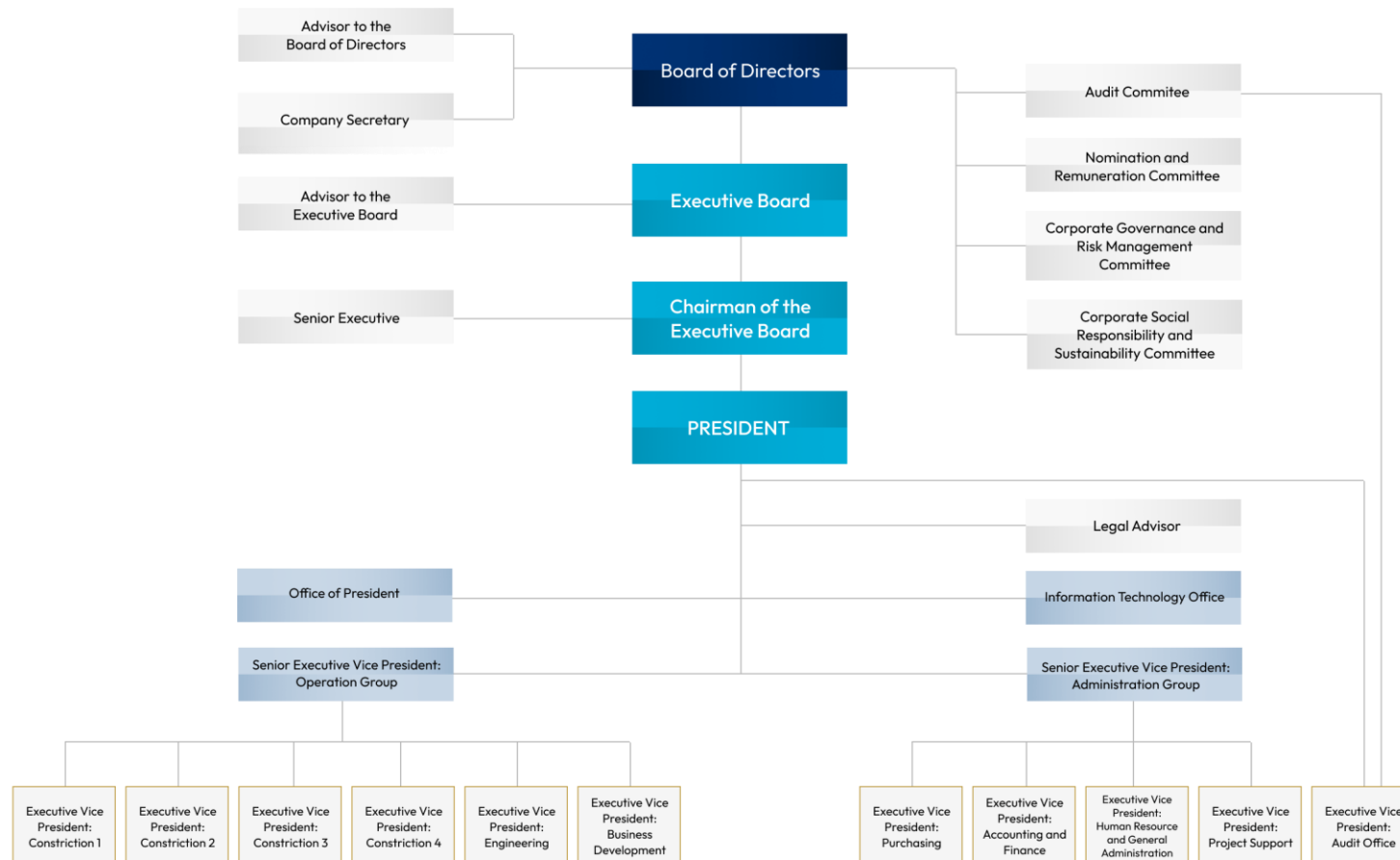
### Management Strategies and Compliance with Standards

The company has developed a Code of Ethics and Business Conduct, along with best practice guidelines, to serve as a standard for ethical behavior towards the company, colleagues, external stakeholders, and society. These principles support effective corporate governance through a robust management and internal control system, the implementation of checks and balances, and transparent, accountable business operations. The company is committed to maintaining financial credibility, ensuring accurate information disclosure, and upholding corporate governance principles that consider the interests of all stakeholders. This includes respecting shareholder rights and promoting equitable treatment, as well as adhering to the regulatory standards set forth by the Stock Exchange of Thailand. To enhance awareness and encourage compliance with the company's ethical standards, the Human Resources Department has formally documented the Business Ethics Code for distribution to all employees. Additionally, regular training programs are conducted to reinforce adherence to these ethical guidelines across the organization.





Organization Chart (as of 31 December 2024)







## Information about the Board of Directors

### Number of board members and independence

Board of Directors	
Number of Directors	<b>Female</b>
11	1 (Accounts for 9.1% of the total)
Executive Directors	<b>Male</b>
6	10
Independent Director	
5	

### Board of Directors Composition

The Board of Directors is composed of highly qualified professionals who demonstrate strong leadership, vision, expertise, and experience across various fields. They possess the necessary skills required by the company in a well-rounded and appropriate manner. Furthermore, they uphold integrity and maintain independence in their decision-making to serve the best interests of the company and its shareholders. The current Board of Directors consists of 11 members with the expertise, skills, and experience necessary to contribute effectively to the company. This includes 6 executive directors and 5 independent directors. The composition complies with the requirements set by the Securities and Exchange Commission (SEC), which mandates that at least one-third of the board members be independent directors, with a minimum of three independent members. Additionally, the company has established an independent Audit Committee, which operates in accordance with the regulations of the Stock Exchange of Thailand. At least one member of this committee must have the requisite knowledge and experience to assess the reliability of financial statements, ensuring proper checks and balances while providing independent opinions. The Chairman of the Board is an independent director, as defined by the Stock Exchange of Thailand, and maintains no affiliations with the management team. Furthermore, the (Non-Executive) Chairman and the Chief Executive Officer (CEO) are separate individuals, reinforcing the company's commitment to strong corporate governance.





The board of directors has established a policy that limits the number of listed companies in which each director may hold a directorship to no more than five, with no exceptions. This limit ensures that directors can dedicate adequate time to their responsibilities and attend meetings regularly. However, the board does not impose term limits on its directors, as their extensive understanding of the company's business enables them to provide valuable insights that benefit both the company and its shareholders. In line with good corporate governance principles, the board has also appointed a corporate secretary to advise on legal and regulatory matters, oversee board activities, and ensure compliance with board resolutions.

The Board of Directors has implemented a policy governing the Chief Executive Officer's external directorships to ensure transparency and corporate governance best practices. Under this policy, the CEO must formally notify the Board of Directors of the rationale and relevant details before assuming a directorship at another entity. Furthermore, the CEO is permitted to hold directorships in no more than five other publicly listed companies to maintain a balanced oversight role and prevent potential conflicts of interest.

In the selection process for the company's board of directors, the president and chief executive officer, and senior executives, the company places a strong emphasis on appointing individuals with extensive experience, relevant qualifications, and essential management competencies, ensuring alignment with its diversity policy. This policy stipulates that the composition of the board must reflect diversity across multiple dimensions, including professional expertise, specialized competencies, and gender representation. To support this commitment, the company has conducted a thorough assessment of the critical skills required for leadership roles and has analyzed existing expertise, competencies, and organizational needs. The assessment findings confirm that the board of directors, the president and chief executive officer, and senior executives collectively meet all competency requirements as defined by the company's strategic objectives. A detailed summary of the expertise and skill sets of the current board of directors is provided below:





## Board Skill Matrix

Expertise Areas/Qualifications	Engineering Development	Advanced Technology	Industrial Sector Growth and Market	International Marketing Strategies	Policy Development and Sustainability	Strategic Planning and Organizational	Corporate and Business Management	Corporate Governance and Ethical	Risk Management and Mitigation Strategies	Financial Management and Accounting	Legal and Regulatory Affairs	Audit, Compliance, and Internal Control
1. Independent Directors and Chairman of the Board of Directors												
2. Directors and Chairman of the Executive Board												
3. Independent Directors												
4. Independent Directors												
5. Independent Directors												
6. Directors												
7. Directors												
8. Directors												
9. Directors												
10. Directors												
11. President												





## Corporate Governance and Leadership Succession

The company upholds a robust and structured approach to the selection of board members, the Chief Executive Officer (CEO), and senior executives, ensuring alignment with corporate governance best practices. The recruitment process emphasizes the appointment of individuals with extensive experience, professional qualifications, and essential competencies to drive sustainable business growth. In adherence to the company's commitment to diversity, the board composition is structured to reflect a wide range of expertise, professional competencies, and gender inclusivity, fostering an inclusive and well-balanced governance framework. A comprehensive skill-gap analysis has been conducted to identify the key competencies required for board members, the CEO, and senior executives. The assessment confirms that the current leadership team possesses the requisite experience, expertise, and capabilities necessary to effectively govern and steer the company towards long-term sustainable development, in alignment with ESG principles and the UN Sustainable Development Goals (SDGs).

## Formation of Board Committees

### Audit Committee

Lists	Position
Mr. Vitoon Tejatussanasoontorn* (Independent Directors)	Chairman of Audit Committee
Mr. Pavich Tongroach (Independent Directors)	Audit Committee
Mr. Patarut Dardarananda (Independent Directors)	Audit Committee

**Note:** A member of the audit committee with extensive knowledge and professional experience in reviewing and verifying the company's financial statements to ensure accuracy, transparency, and compliance with financial reporting standards.

### Executive Committee

รายชื่อ	ตำแหน่ง
Mr. Plew Trivisvavet	Chairman of the Executive Board
Ms. Supamas Trivisvavet	Vice Chairman of the Executive Board
Mr. Phongsarit Tantisuvanitchkul	Vice Chairman of the Executive Board





Mr. Narong Sangsuriya	Executive Director
Mr. Anukool Tuntimas	Executive Director
Mr. Nattavut Trivisvavet	Executive Director

#### Nomination and Remuneration Committee

รายชื่อ	ตำแหน่ง
Mr. Don Pramudwinai (Independent Directors)	Chairman of the Nomination and Remuneration Committee
Mr. Vitoon Tejatussanasoontorn (Independent Directors)	Nomination and Remuneration Committee Member
Mr. Plew Trivisvavet	Nomination and Remuneration Committee Member
Mr. Narong Sangsuriya	Nomination and Remuneration Committee Member

#### Corporate Governance and Risk Management Committee

รายชื่อ	ตำแหน่ง
Mr. Patarut Dardarananda (Independent Directors)	Chairman of the Corporate Governance and Risk
Mr. Vitoon Tejatussanasoontorn (Independent Directors)	Corporate Governance and Risk Management Committee Member
Mr. Plew Trivisvavet	Corporate Governance and Risk Management Committee Member
Mr. Narong Sangsuriya	Corporate Governance and Risk Management Committee Member
Ms. Supamas Trivisvavet	Corporate Governance and Risk Management Committee Member

#### Corporate Social Responsibility and Sustainability Committee

รายชื่อ	ตำแหน่ง
Mr. Pavich Tongroach (Independent Directors)	Chairman of the Corporate Social Responsibility and Sustainability Committee





Mr. Don Pramudwinai (Independent Directors)	Corporate Social Responsibility and Sustainability Committee Member
Ms. Supamas Trivisvavet	Corporate Social Responsibility and Sustainability Committee Member
Mr. Anukool Tuntimas	Corporate Social Responsibility and Sustainability Committee Member

### Board of Directors' Responsibilities

As of December 31, 2024, the Board of Directors comprised 11 members. Throughout the year, the company held seven board meetings in a hybrid format. All directors achieved full attendance, with a 100% participation rate. The following table provides details on board members and their attendance :

Board of Directors	Position	Director Classification	Meeting Attendance	
			Physically Attended	Attended Remotely via Electronic Means
1. Mr. Aswin Kongsiri	- Chairman of the Board of Directors	Independent Director	7	-
2. Mr. Plew Trivisvavet	- Director - Chairman of the Executive Board - Nomination and Remuneration Committee Member - Corporate Governance and Risk Management Committee Member	Executive Director	7	-
3. Mr. Vitoon Tejatussanasoontorn	- Director - Chairman of Audit Committee - Nomination and Remuneration Committee Member - Corporate Governance and Risk Management Committee Member	Independent Director	7	-
4. Mr. Don Pramudwinai	- Director - Chairman of the Nomination and Remuneration Committee - Corporate Social Responsibility and Sustainability Committee Member	Independent Director	5 (Start the first meeting, session 3/2567-7/2567)	-
5. Mr. Pavich Tongroach	- Director - Audit Committee Member - Chairman of the Corporate Social Responsibility and Sustainability Committee	Independent Director	6	1
6. Mr. Patarut Dardarananda	- Director - Audit Committee Member - Chairman of the Corporate Governance and Risk Management Committee	Independent Director	7	-





Board of Directors	Position	Director Classification	Meeting Attendance	
			Physically Attended	Attended Remotely via Electronic Means
7. Ms. Supamas Trivisvavet	- Director - Vice Chairman of the Executive Board - Corporate Governance and Risk Management Committee Member - Corporate Social Responsibility and Sustainability Committee Member	Executive Director	7	-
8. Mr. Narong Sangsuriya	- Director - Executive committee - Nomination and Remuneration Committee Member - Corporate Governance and Risk Management Committee Member	Executive Director	7	-
9. Mr. Phongsarit Tantisuvanitchkul	- Director - Vice Chairman of the Executive Board	Executive Director	7	-
10. Mr. Anukool Tuntimas	- Director - Executive committee - Corporate Social Responsibility and Sustainability Committee Member	Executive Director	7	-
11. Mr. Nattavut Trivisvavet	- Director - Executive committee - President	Executive Director	7	-

### Annual Performance Evaluation of Company Executives and the Board of Directors

The independent directors conduct an annual performance evaluation of the Chief Executive Officer (CEO) to ensure accountability and effective corporate governance. Based on the evaluation results, they determine and propose an appropriate remuneration package and additional benefits, aligning with high-level principles such as corporate governance best practices and sustainability performance criteria. The proposal is then submitted to the Board of Directors for final approval. The evaluation framework is structured into three key categories as follows:

- 1. Progress of Business Plan, Strategic Goals, and Financial Targets:** The report highlights financial and operational advancements, including revenue growth, sales performance, EBITDA, net profit, and Economic Value Added (EVA). Additionally, it underscores strategic initiatives in human capital development and technological







innovation, ensuring sustainable business growth and alignment with global ESG and SDG frameworks.

2. **Performance Evaluation Criteria** The evaluation of performance is based on multiple dimensions, including leadership effectiveness, strategic planning, financial management and execution, governance and board engagement, stakeholder relations, organizational management and workforce interaction, succession planning, industry-specific expertise, and individual competencies. These factors collectively contribute to sustainable corporate growth and responsible business practices, aligning with SDG and ESG principles to enhance transparency, accountability, and long-term value creation for investors and stakeholders.
3. **Corporate Leadership Assessment** : The assessment of corporate leadership is based on the key strengths that a Chief Executive Officer (CEO) should uphold. These include possessing a clear vision, extensive knowledge, expertise, and diverse experience, along with a comprehensive set of skills required by the company. The CEO should demonstrate a strong commitment to continuous self-improvement and the ability to make sound decisions during crises. Additionally, they should prioritize and foster employee development, drive innovation, and effectively inspire and motivate employees across all levels. Moreover, the CEO must ensure that the company's operations integrate environmental, social, and governance (ESG) considerations while actively advancing concrete and measurable sustainability initiatives.





CEO ESG Indicators (Environmental, Social, and Governance)

Environmental	Social	Governance
<p><b>Product and Service Knowledge</b></p> <ul style="list-style-type: none"> <li>Understanding of the company's business model and resource allocation, as well as the broader business and industry environment.</li> <li>Demonstrating creativity and initiative in developing sustainable products and services.</li> </ul> <p><b>Strategy Development</b></p> <ul style="list-style-type: none"> <li>Allocating resources with consideration for the sustainable use of natural resources.</li> </ul> <p><b>External Relations</b></p> <ul style="list-style-type: none"> <li>Promoting environmentally responsible business practices.</li> <li>Raising awareness of eco-friendly products and services.</li> </ul>	<p><b>External Relations</b></p> <ul style="list-style-type: none"> <li>Acting as a representative in communications with stakeholders and local communities.</li> <li>Managing public relations professionally to build positive values and corporate image.</li> <li>Promoting social responsibility and encouraging community engagement.</li> <li>Maintaining good relationships with local communities and external organizations.</li> </ul> <p><b>Personnel Management and Internal Relations</b></p> <ul style="list-style-type: none"> <li>Fostering an organizational culture that attracts and retains talent.</li> <li>Empowering employees appropriately with autonomy and responsibility.</li> </ul>	<p><b>Leadership</b></p> <ul style="list-style-type: none"> <li>Providing clear vision and direction.</li> <li>Serving as a role model for organizational values.</li> <li>Setting high standards for performance.</li> </ul> <p><b>Strategy Development</b></p> <ul style="list-style-type: none"> <li>Developing strategic plans that respond to stakeholder needs.</li> <li>Establishing monitoring and control processes for operations.</li> </ul> <p><b>Enterprise Risk Management</b></p> <ul style="list-style-type: none"> <li>Implementing strategies effectively.</li> <li>Designing an efficient organizational structure.</li> <li>Monitoring performance to ensure accountability.</li> <li>Complying with relevant laws and regulations.</li> </ul> <p><b>Board Relations</b></p> <ul style="list-style-type: none"> <li>Maintaining strong relationships with the Board of Directors.</li> </ul>





Environmental	Social	Governance
	<ul style="list-style-type: none"><li>Developing fair performance evaluation and reward systems.</li><li>Promoting education and personnel development.</li><li>Treating employees fairly without bias or discrimination.</li></ul> <p><b>Personal Attributes</b></p> <ul style="list-style-type: none"><li>Building a positive image for the company.</li><li>Demonstrating respectful behavior and concern for subordinates.</li><li>Using sound judgment to resolve sensitive interpersonal and intergroup issues.</li></ul>	<ul style="list-style-type: none"><li>Adhering to corporate governance principles.</li><li>Ensuring a proper balance of power between the CEO and the Board.</li><li>Providing information to the Board in a professional manner.</li><li>Supporting the Board in fulfilling its oversight responsibilities.</li></ul> <p><b>Succession Planning</b></p> <ul style="list-style-type: none"><li>Reviewing and refining succession plans.</li><li>Establishing leadership development processes.</li><li>Creating opportunities for high-potential executives to demonstrate their capabilities.</li></ul> <p><b>Personal Attributes</b></p> <ul style="list-style-type: none"><li>Upholding high standards of ethics and integrity.</li><li>Continuously developing skills across various areas.</li></ul>





In 2024, the company achieved a performance evaluation score of 98.06, based on a thorough assessment of all relevant indicators. This evaluation encompasses key aspects of environmental management and sustainability, ensuring alignment with ESG and SDG-related performance metrics.

In relation to the annual performance evaluation of the company's board of directors, the report outlines the key performance indicators (KPIs) and corresponding assessment results as follows.

	Collective Performance of the Board of Directors	Evaluation of Individual Board Members	Subcommittee Governance and Oversight
Key Performance Indicators (KPIs)	<ol style="list-style-type: none"><li>Board structure and qualifications</li><li>Roles, duties, and responsibilities of the board</li><li>Board meetings and proceedings</li><li>Execution of directors' duties</li><li>Board-management relationship and</li><li>Director self-development and executive training</li></ol>	<ol style="list-style-type: none"><li>Director Qualifications</li><li>Roles and Responsibilities of Directors</li><li>Board Meetings and Governance</li><li>Execution of Directors' Duties</li><li>Board-Management Relationship and</li><li>Director Development and Continuous Learning</li></ol>	<ol style="list-style-type: none"><li>Qualifications and Competencies of Directors</li><li>Roles, Responsibilities, and Fiduciary Duties of Directors</li><li>Board Meetings and Corporate Governance Practices</li><li>Execution of Duties in Compliance with Governance Standards</li><li>Board Dynamics and Interactions and</li><li>Continuous Professional Development of Directors</li></ol>
Evaluation Results	98.56	97.24	(Refer to the table below for detailed information)
Assessment Levels	Excellent	Excellent	





Assessment of the Subcommittee's Performance	Average Score (Percentage)	Assessment Levels
Executive committee	99.50	Excellent
Audit Committee	99.77	Excellent
Audit Committee	98.90	Excellent
Corporate Governance and Risk Management Committee	100.00	Excellent
Corporate Social Responsibility and Sustainability Committee	99.43	Excellent

### Succession Planning and Leadership Skill Criteria

The company has established a Succession Plan for senior executive roles and other critical positions within key business functions to ensure that future leaders possess the qualifications aligned with the company's direction and needs. This process considers individuals' performance, potential, and readiness.

In addition, the company has developed a Board Skill Matrix and a Leadership Competency Framework to define the essential skills, knowledge, and experience required of organizational leaders—such as strategic expertise, innovation leadership, risk management, and an understanding of sustainability and ESG principles.

### Leadership Competency Framework

- Strategic thinking and decision-making
- Change and innovation leadership
- Talent development and people management
- Communication and stakeholder engagement
- Understanding of ESG issues and sustainability
- Business acumen and risk management





### Audit and Non-Audit Service Fees

For the fiscal year 2024, the company and its subsidiaries have disbursed remuneration for audit and non-audit services provided by the auditors. The breakdown of these payments is as follows:

1. Audit Fee For the fiscal year 2024, the company and its subsidiaries disbursed a total audit fee of 11,827,000 baht to the audit firm of record, including associated individuals and entities affiliated with both the auditor and the firm. The appointed auditor remains consistent with the previous fiscal year.
2. Non-Audit Fee -No non-audit service fees were recorded-

### Anti-Corruption

As a leading construction firm engaged in large-scale, high-value infrastructure projects, CH. Karnchang recognizes the critical importance of anti-corruption efforts, and is committed to avoid and prevent any type of corruption, such as money laundering, obstruction of justice, etc.. Given its involvement in national public infrastructure development, this issue is also a key priority for the Thai Contractors Association. The Thai Contractors Association under Royal Patronage, in collaboration with the Anti-Corruption Organization of Thailand, has demonstrated its commitment to tackling corruption through formal cooperation agreements. Additionally, CH. Karnchang actively participates in the Collective Action Coalition Against Corruption (CAC) initiative to foster collaboration in preventing and addressing corruption. These efforts align with the National Anti-Corruption Strategy and reinforce inter-organizational cooperation in supporting various measures to combat corruption effectively.

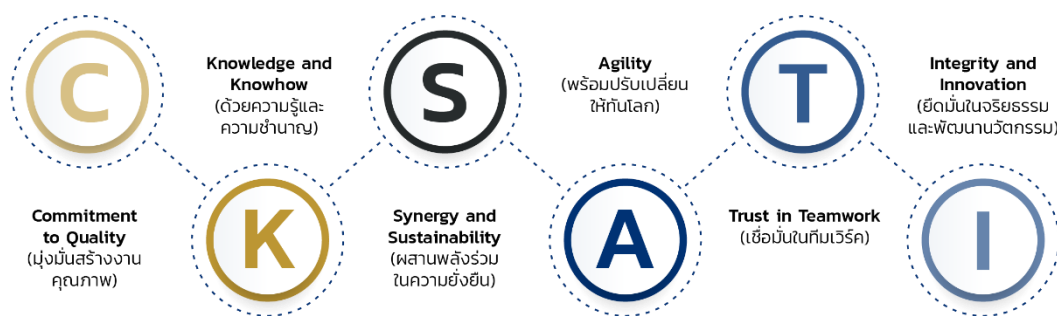
In addition, the Thai Construction Industry Association has entered into a Memorandum of Understanding (MoU) with the Anti-Corruption Organization (Thailand) to enhance cooperative efforts in corruption prevention and enforcement. This collaboration aims to reinforce anti-corruption measures by developing a structured framework to establish a public-private partnership network for corruption prevention and suppression. The initiative seeks to create a unified coalition responsible for monitoring, evaluating, implementing, and refining corruption prevention mechanisms to strengthen governance standards. Currently,



the company is in the process of engaging with the Thai Construction Industry Association and key stakeholders within the construction sector to evaluate the feasibility of joining the Thai private sector's Collective Action Coalition against Corruption, ensuring alignment with best practices in corporate governance and ethical business conduct.

### Business Code of Conduct

The company has established a Business Code of Conduct that aligns with its vision, mission, strategy, goals, and best practices to drive long-term value creation and ensure stable, sustainable growth. This framework operates under the organization's established 'C-K-S-A-T-I values'.



Since 2003, CH. Karnchang has maintained a Business Code of Conduct and Anti-corruption policy to ensure that employees fully comprehend and adhere to ethical guidelines in a manner consistent with corporate governance principles where CH. Karnchang communicates the a Business Code of Conduct and anti-corruption policy to all employees regularly. This code undergoes periodic reviews the effectiveness and revisions to align with evolving business contexts, ensuring continued relevance and applicability. The Business Code of Conduct establishes a structured framework that defines the scope of ethical responsibilities, professional conduct, and behavioral expectations for all personnel. It serves to harmonize corporate operations under the principles of integrity, ethical responsibility, transparency, and accountability. Furthermore, it promotes fairness and inclusivity, reinforcing the company's commitment to fostering a resilient and sustainable business foundation. By embedding these ethical principles into corporate operations, CH. Karnchang strengthens investor confidence, upholds stakeholder trust, and contributes to the broader social and





environmental responsibility agenda. The Business Code of Conduct encompasses the following key focus areas:

- Compliance with laws and human rights principles
- Anti-corruption and fraud prevention
- Mitigation of conflicts of interest
- Customer and consumer relations
- Related party transactions, procurement, supplier engagement, and business partner relations
- Whistleblower protection
- Confidentiality and data protection
- Fair competition and antitrust compliance
- Prevention of insider trading and misuse of confidential information
- Occupational health, safety, and environmental management
- Corporate social responsibility (CSR) and community engagement
- Intellectual property rights (IPR) protection and IT governance

### **Enhancing Corporate Governance and Anti-Corruption Practices**

The company upholds corporate integrity by fostering adherence to governance principles and ethical business conduct. To ensure continuous compliance, an annual ethics compliance review and anti-corruption policy are conducted and communicated to the board of directors, executives, and employees, along with the survey. The survey assesses ethical adherence, and its findings are systematically analyzed to establish a benchmark for reinforcing corporate ethical standards. This initiative aligns with global best practices in corporate governance, contributing to sustainable business operations and reinforcing transparency and accountability within the organization.





In 2024, a total of 88 executives, from section managers to the chairman of the executive board, participated in a comprehensive performance evaluation process. All 88 individuals successfully submitted their assessment results to the Human Resources department, achieving a 100% response rate. The overall evaluation outcomes indicate a consistently high level of performance. Additionally, 1,360 employees, ranging from department managers to operational personnel, underwent performance assessments. All 1,360 individuals completed and returned their evaluations, maintaining a 100% response rate.

The Board of Directors has endorsed and actively promoted the adherence of directors, executives, and employees to the company's Code of Business Conduct, with the objective of embedding ethical principles into the corporate culture. This Code outlines the ethical responsibilities of all personnel in relation to the company, colleagues, external stakeholders, and society, aligning with internationally recognized corporate governance and sustainability standards. Over time, the Board of Directors, executives, and employees have demonstrated a strong commitment to ethical conduct, ensuring that all business activities are carried out with integrity, transparency, and fairness. The Board of Directors also has oversight of anti-corruption policy, which covers any type of corruption and bribery. To reinforce this commitment, the company has systematically communicated and institutionalized the Code of Business Conduct. The Human Resources Department has formalized the Code in written form, distributed it among employees, and established ongoing training initiatives to ensure effective implementation. In 2024, the company conducted 23 training sessions, focusing on ethical business practices and regulatory compliance, with 88 new employees participating.

Employee Classification	Number of employees informed about the policy (persons)	Percentage (%)
Number of employees informed about the organization's anti-corruption policy and compliance guidelines:		
Board of Directors	6	100
Senior Executives	11	100
Executives	75	100
Supervisors	303	100
Employees	1,033	100
Number of employees who have completed training on the organization's anti-corruption policy, anti-bribery, and compliance framework		





Employee Classification	Number of employees informed about the policy (persons)	Percentage (%)
Board of Directors	11	100
Senior Executives	5	26.32
Executives	41	54.67
Supervisors	50	16.50
Employees	312	30.20

### Whistleblowing and Anti-Corruption Reporting Mechanisms

CH. Karnchang has established formal channels for reporting corruption, breaches of company codes or policies, bribery, and ethical violations, ensuring transparency and accountability in alignment with corporate governance best practices. These mechanisms facilitate the submission of whistleblower reports and complaints, reinforcing the company's commitment to ethical business conduct and stakeholder responsibility. To uphold integrity and mitigate corruption risks, the company has implemented a structured review process, incorporating comprehensive protections, confidential and anonymous for whistleblowers and affected parties which cover staff, contractors, joint ventures, parties that working with the company, other external stakeholders and public.



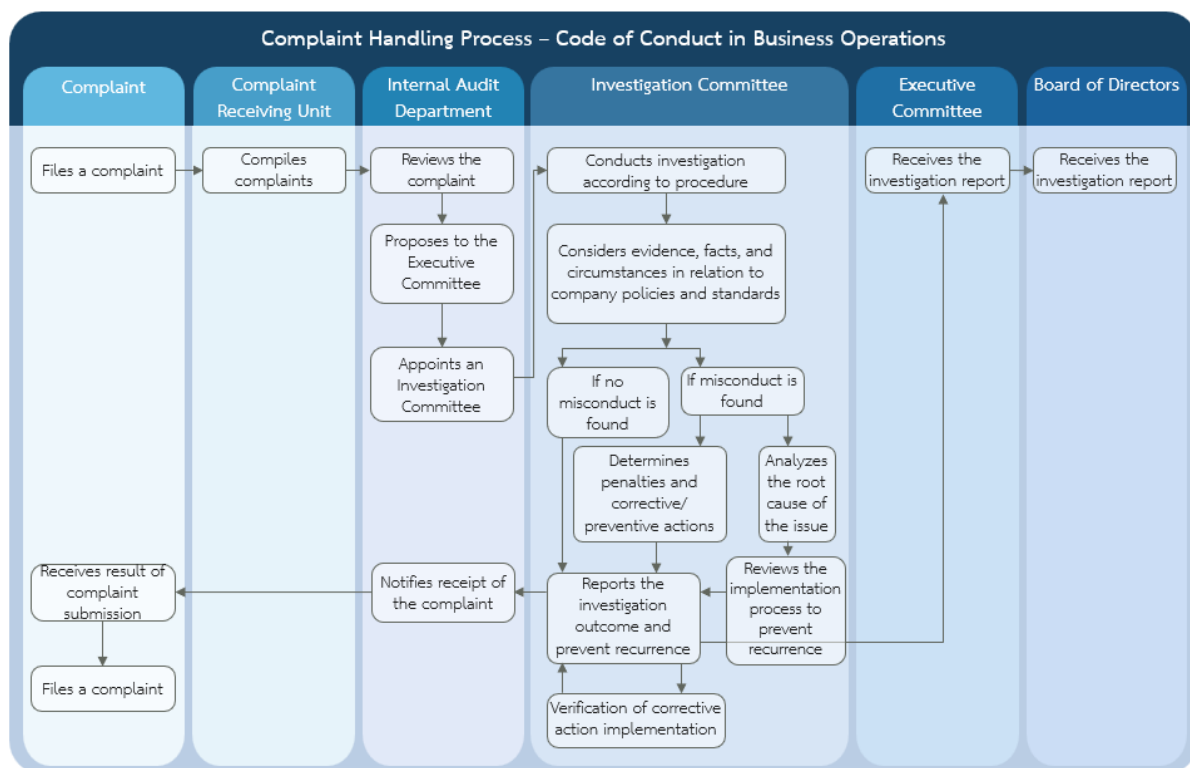


### Code of Conduct Oversight and Compliance Monitoring

In accordance with corporate governance principles and ethical business code of conduct, a structured review process is implemented to address reports from directors, executives, employees, or relevant stakeholders.

1. The designated compliance authority is responsible for collecting factual information and investigating corruption, ethical breaches, or non-compliance, ensuring that whistleblowers and complainants receive protection in accordance with the measures established in the company's business code of conduct.
2. The complaint recipient shall report the facts to the Independent Director, who is responsible for conducting a fact-finding investigation to assess the complaint, covering all type of bribes and corruptions. The investigation must be completed within 30 days, with relevant matters categorized into key areas such as corporate governance, capacity building, and fact verification.
3. Measures for Action: The complaint recipient presents the case to an independent committee for fact-finding and determines measures to suspend violations or non-compliance with the law.

4. Analysis of the Causes of the Problem
5. Consider the disciplinary process for those who violate or fail to comply with the anti-corruption policy and work regulations, as deemed appropriate by the company. Additionally, consider implementing remedial actions to mitigate damages for affected parties.
6. Reviewing Processes to Identify Weaknesses and Implement Improvements to Prevent Recurrence
7. Verifying Compliance with Corrective Actions
8. Reporting of Outcomes: The designated authority handling the complaint is responsible for notifying the complainant of the outcome if they have identified themselves. For critical matters, such as the number of claims or incidents of non-compliance, the findings must be escalated to the Chairman of the Board and/or the Board of Directors. The complaint handling process is also overseen by the Executive Committee.





CH. Karnchang Public Company Limited actively monitors and ensures compliance with good corporate governance principles, focusing on the following key areas:

1. Employee welfare and commitment to non-discrimination
2. Prevention of unfair business practices and anti-competitive behavior
3. Environmental responsibility, workplace health, and occupational safety
4. Information security and data protection

#### Target

Performance Indicators	Base Year	2024 Target	2024 Performance Outcomes	Certifications and Accreditations (if applicable)
Total number of complaints concerning corporate governance and business ethics	2023	0	0	-
Total number of legal proceedings arising from tax compliance issues	2023	0	0	-

#### Performance and Results

##### Complaint submission in 2024

Complaints concerning violations of the business code of ethics, fraudulent activities, and corruption within the organization	Complaints concerning violations of the business code of ethics, fraudulent activities, and corruption involving external entities	Proportion of complaints related to ethical violations, fraud, and corruption that have been successfully addressed
0	0	No complaints were recorded

##### Tax Practices: Tax Policy and Regulation

CH. Karnchang Public Company Limited upholds the principles of corporate governance and tax ethics with a strong commitment to transparency, accountability, and responsible business conduct. The company recognizes its role in contributing to society and engaging with all stakeholders. Its tax policy is designed to ensure that





business growth aligns with economic expansion while supporting sustainable social and environmental development.

- The company is dedicated to full compliance with tax regulations in all operating jurisdictions, ensuring adherence to legal frameworks governing tax management.
- The organization upholds the responsible and lawful utilization of tax incentives, employing tax structures that align with regulatory requirements while preventing any form of tax evasion or aggressive tax avoidance.

#### **Tax Practices: planning frameworks**

- Carry out management and planning for taxation and tax payments in accordance with relevant tax regulations, procedures, and laws to maximize benefits for the corporate group and stakeholders.
- Carry out the submission of taxes or tax refunds accurately, appropriately, and within the timeframe stipulated by relevant laws or regulations. Additionally, uphold the role and responsibilities of being a good taxpayer by complying with tax laws to reflect transparency in tax operations.
- A comprehensive tax impact assessment is undertaken whenever new investment projects, financial transactions, or regulatory changes in tax laws and policies occur. This process ensures alignment with corporate activities, strategic business objectives, and legal compliance while also promoting transparency and maximizing benefits for stakeholders and society.
- The company upholds a strict policy against leveraging disparities in international tax structures for tax avoidance purposes. Furthermore, we refrain from implementing tax structures that lack alignment with our core business activities, ensuring compliance with global tax transparency standards and responsible corporate governance.

#### **Effective Tax Rate and Actual Tax Payment Disclosure**

The company discloses its actual tax payment and effective tax rate as follows:

	2018	2019	2020	2021	2022	2023	2024
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Statutory Tax Rate (%)	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Effective Income Tax Rate* (%)	5.29	6.59	4.33	3.90	1.81	4.96	7.18

*The Effective Tax Rate\* (ETR) represents the actual proportion of corporate income tax remitted to the government. It is determined by dividing the income tax expense, as reported in the financial statements, by the pre-tax operating profit.*

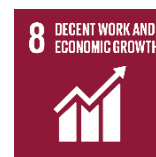
The variance between the effective tax rate and the statutory corporate tax rate arises from the following exemptions:

1. Dividend income qualifies for a tax exemption.
2. The company's subsidiary in the Lao People's Democratic Republic is granted a corporate income tax exemption under a concession agreement.





## Supply Chain Management



### Stakeholders

- **Business Partners:** A fair and transparent procurement process, combined with a collaborative approach to improving product and service quality through stringent screening measures, helps establish new industry standards and strengthens competitive advantages.
- **Employees:** experience improved workplace safety and conditions, along with protections for labor rights. However, they must adapt to stringent safety standards and manage increasing work-related pressures.
- **Clients:** Efficient management practices facilitate the consistent delivery of high-quality, standardized services, ensuring customer satisfaction and adherence to industry benchmarks.
- **Shareholders, investors, and analysts:** Optimizing supply chain management enhances operational resilience, mitigates risks associated with business disruptions, and ensures the generation of sustainable long-term returns.

### Significance

The company prioritizes sustainable supply chain management, acknowledging its critical role in strengthening operational resilience and mitigating long-term risks. Despite the potential for increased short-term costs, this strategic approach contributes to long-term cost efficiency. To ensure adherence to industry standards and regulatory frameworks, the company has implemented stringent screening and assessment mechanisms for suppliers and contractors. Furthermore, financial risk management is reinforced through a transparent and structured payment policy. Concurrently, the company remains committed to advancing occupational





health and safety by fostering awareness and systematically enhancing workplace safety measures for employees and contractors.

Beyond its commitment to mitigating supply chain impacts across all dimensions, the company actively promotes local employment and economic development while advancing the adoption of environmentally sustainable products. These strategic initiatives not only strengthen credibility among both public and private sector clients but also contribute to shareholder and investor confidence by reducing supply chain risks. This approach exemplifies the company's dedication to fostering shared value with all stakeholders, ensuring long-term sustainability and balanced economic growth.

### **Management and Compliance with Standards**







The company is committed to sustainability in the supply chain by prioritizing environmental, social, and governance (ESG) impacts under a sustainable procurement policy and supplier code of conduct. A working group has been established under the Corporate Governance and Risk Management Committee to continuously review risks and develop response plans at both the corporate level and business level, with the Chief Executive Officer (CEO) setting directions and monitoring performance. Meanwhile, operational units, such as the procurement department, are responsible for supplier selection and management, the facilities management department ensures contractor safety, and the internal audit department focuses on transparency. All units collaborate to enhance efficiency and sustainability in the supply chain.

### **Sustainable Procurement Policy**

The company prioritizes sustainable procurement as a fundamental aspect of its business operations. It is committed to ensuring that supply chain management adheres to legal requirements and industry standards while maintaining transparency, integrity, and accountability. Furthermore, the company considers the environmental, social, and governance (ESG) impacts of its procurement practices. All executives and employees are responsible for upholding and strictly adhering to this sustainable procurement policy.





Sustainable Procurement Policy	
 Procurement in accordance with established criteria	Consideration is given to needs, price, service, and product quality for the maximum benefit of the company.
 Business Ethics	Procurement and purchasing by providing accurate and clear information to partners equally and fairly.
 A Transparent and Accountable Selection Process	A fair and auditable competition is ensured, with full compliance with all applicable regulations and legal requirements.
 Advancing Green Procurement Initiatives	The company is committed to promoting sustainable procurement practices by prioritizing environmentally responsible sourcing. This includes procuring goods from local and domestic suppliers to strengthen the local economy while minimizing environmental impact. Additionally, the company actively supports the adoption of eco-certified products that comply with international environmental standards, such as ISO 14001, to enhance sustainability throughout the supply chain.
 Clearly Defined Terms and Conditions	Clearly define the contractual terms and conditions to ensure mutual understanding and fairness, fostering transparency and accountability in accordance with sustainability and governance principles.
 Human Rights	The company is committed to engaging with business partners who uphold human rights, ensure equitable treatment of employees, and strictly oppose any form of forced labor.

- Sustainable Procurement Policy of CH. Karnchang Public Company Limited :  
<https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-procurement-policy-th.pdf>






## Business Ethics and Supplier Code of Conduct

The company has implemented a Supplier Code of Conduct to align its procurement processes with internationally recognized ethical, social, and environmental standards. This framework establishes a compliance benchmark for selecting and evaluating both current and new suppliers, ensuring adherence to principles of corporate governance, human rights, fair labor practices, workplace health and safety, and environmental stewardship. All suppliers are required to meet or exceed legal and regulatory standards, reinforcing the company's commitment to sustainable and responsible business operations.

The company encourages its partners to sign and implement the Supplier Code of Conduct, ensuring that it is put into practice effectively. It also fosters collaboration with partners to identify appropriate practices, assess their capabilities, and monitor their performance to ensure compliance with established standards and business ethics. Additionally, the company holds regular annual meetings with key partners.

- Supplier code of conduct : <https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/20240530-ck-supplier-code-of-conduct-th.pdf>

 100%	100% of partners are fully informed of and comply with the organization's code of ethics, ensuring alignment with sustainable business practices and ethical standards.
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## Screening of New Approved Vendor and Current Approved Vendor

The company has a formal procedure for selecting both new and current procurement vendors, which involves evaluating their capabilities in terms of products and services, as well as addressing key factors related to environmental sustainability, social responsibility, human rights, labor rights, and corporate governance (Environmental, Social, and Governance: ESG). These factors include the vendor's ability to meet delivery requirements, comply with applicable laws, adhere to international human rights standards, obtain environmental certifications, and maintain workplace safety. This evaluation is conducted through the new vendor and subcontractor qualification





assessments, reflecting the company's commitment to building a sustainable and responsible supply chain.

The company has developed a set of criteria for selecting new vendors (New Approved Vendor) and evaluating current vendors (Current Approved Vendor) in accordance with its procurement policy. This evaluation process incorporates assessments of both the quality of products and services, as well as sustainability performance, covering key sustainability issues across the following three dimensions:

- **Social Rights, Human Rights, and Labor Rights dimension:** This section emphasizes the importance of ensuring that human rights are respected and affirms the fair treatment of employees in compliance with all applicable labor and human rights laws, covering aspects such as worker protection, wages, compensation, allowances, and social security contributions. Furthermore, intellectual property rights must be upheld. A safe, suitable, and well-organized work environment must be provided, along with ongoing monitoring, impact assessments, and the establishment of both short- and long-term risk management plans.
- **Environment dimension:** The emphasis is on adhering to applicable laws, critical standards, and environmental regulations, prioritizing the management of waste and pollution, along with the effective use of resources to minimize adverse environmental impacts.
- **Business Ethics dimension:** This principle emphasizes the importance of conducting business with ethical integrity, transparency, and in full compliance with applicable laws. It involves the disclosure of necessary business information, including risk management strategies and the safeguarding of intellectual property. Additionally, the systematic tracking of project and contract histories is integral to this approach. Furthermore, fostering an environment for the exchange of knowledge and experiences is key to driving collaborative business innovation, which is central to developing a sustainable supply chain that aligns with global sustainability goals.

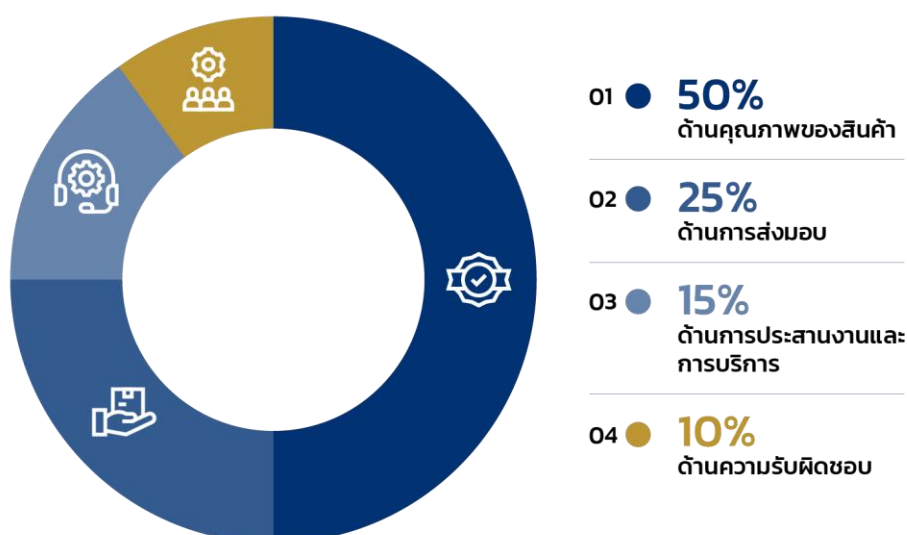
The company has established selection criteria for approved vendors in procurement, which include the following social and environmental considerations, aligned with





sustainable development goals (SDGs) and environmental, social, and governance (ESG) principles.

- **Ethical Standards** : Ensuring compliance with legal regulations, contractual obligations, and mutual agreements, in alignment with the principles of sustainable development.
- **Safety Measures** : Compliance with workplace safety regulations, encompassing the proper organization of equipment and the implementation of standardized work procedures, in line with sustainable development goals and environmental, social, and governance (ESG) standards.
- **Environmental Aspects** : Management of dust control and pollution arising from construction activities, as well as the proper disposal of construction waste.



Monitor compliance with the Supplier Code of Conduct, which addresses key social and environmental concerns

The company has established a set of evaluation criteria for suppliers, which are divided into four critical areas:

1. Product quality - 50%
2. Timeliness of delivery - 25%
3. Coordination and service levels - 15%







#### 4. Accountability and responsibility - 10%

The allocation of evaluation criteria in this context underscores the prioritization of product quality as the primary consideration, aiming to reduce operational risks and minimize the costs associated with potential rework. Secondary importance is placed on delivery, highlighting the significance of time management within construction projects. The evaluation of coordination and responsibility serves to identify and cultivate partners who exhibit ethical practices and professionalism, ensuring the development of sustainable, long-term partnerships aligned with the principles of sustainable development and corporate social responsibility (CSR).

### Key Supplier Analysis

The company classifies its suppliers into three categories: Critical Tier 1 Suppliers, Non-Critical Tier 1 Suppliers, and Critical Non-Tier 1 Suppliers (suppliers that do not engage directly with the company). This classification is based on Spend Analysis (evaluation of expenditure), Critical Analysis (assessment of the importance of products or services in procurement), and Dependent Analysis (measurement of reliance on suppliers). This structured approach allows the company to develop informed operational strategies and efficiently assess supplier-related risks.

The company's suppliers are categorized into Critical Tier 1 Suppliers, who provide essential materials, and Non-Critical Tier 1 Suppliers, who supply general goods and services. These include contractors, machinery suppliers, material and equipment distributors, waste management firms, and logistics providers, among others.

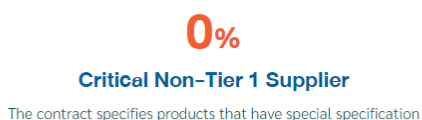




Critical Tier 1 Supplier	Non-Critical Tier 1 Supplier	Critical Non-Tier 1 Supplier
Strategic direct partners are those with high-value, long-term contractual engagements. These partners provide specialized expertise that is critical to operations and cannot be readily replaced.	General direct partners typically engage in contracts of moderate to low value, with correspondingly lower risk exposure.	Contractual agreements include provisions for products with unique technical specifications, classified under Special Specification, ensuring compliance with industry and sustainability standards.



General direct trading suppliers with moderate contract volume or low contract value with moderate or low levels of risk.



Key Indicator	Year: 2024 (B.E. 2567)
Total Tier 1 Suppliers (Critical Tier 1 Suppliers)	1,597 suppliers (27 critical suppliers)
Vendors (Critical Vendors)	479 vendors (11 critical vendors)
Contractors (Critical Contractors)	1,118 contractors (16 critical contractors)

## Supplier Risk Assessment and Management





The company's supplier risk management strategy, including supplier development plans, is implemented to assess and mitigate risks associated with suppliers, ensuring minimal impact on business operations while reducing environmental, social, and governance (ESG) risks across the supply chain. The assessment covers economic factors such as product quality, timely delivery, and service coordination, alongside sustainability criteria, including ethical business practices, labor and human rights compliance, environmental management, and corporate social responsibility (CSR) toward communities and society.

The company implements a rigorous evaluation process for all business partners (100%), assessing both corporate-level and operational risks concerning environmental, social, and corporate governance (ESG) criteria. Each assessment area is detailed as follows :

#### 1.1.1 Economic Risk Assessment

**Risk Management and Risk from Project Delays** Project delays can stem from the project owner, contractor, or other unforeseen circumstances, particularly disruptions in supply chain logistics and procurement. A critical risk factor is the shortage of construction materials, which can significantly impact project timelines. To mitigate these risks, the company implements proactive procurement strategies by securing long-term supply agreements for essential materials such as cement and steel. This approach ensures resource availability for projects with signed contracts and minimizes potential disruptions due to material shortages.

**Management Strategy :** As part of its proactive supply chain management, the company has entered into advance procurement agreements for key construction materials. This includes securing contracts for cement and steel to ensure seamless execution of projects with finalized contractual commitments.

**Risk Factors Related to Construction Material Costs, Labor Costs, and Oil Price Volatility :** The management of construction contracts directly impacts gross profit, relying on precise cost estimation and effective cost control to align actual expenses with projections. Key factors influencing cost management include fluctuations in construction material prices, changes in labor costs driven by supply and demand dynamics, and volatility in oil prices, which serves as an indirect cost affecting overall operations.





**Management Strategy :** The company manages construction projects through two types of contracts

In cases where construction contracts incorporate price adjustments through an escalation factor (K), this factor is calculated based on variations in production costs. While the formula may not comprehensively account for all increases in raw material and labor costs, it is structured to address unforeseen price escalations, thereby minimizing the impact on overall construction costs. The majority of projects undertaken by the group are for public sector clients.

For fixed-price or lump-sum construction contracts where the contract does not specify or cannot determine an adjustment factor (K value), this model is primarily used for Turnkey Projects. The total project value typically includes contingency costs to account for fluctuations in construction material prices. These contracts are most commonly used by private sector clients.

#### 1.1.2 Environmental, Social, and Governance (ESG) Risk Assessment

The company conducts an evaluation of its business partners to assess the likelihood and severity of risks associated with environmental, social, and governance (ESG) factors. The assessment provides a detailed analysis of each ESG component as outlined below.

**E - Environmental Risk Considerations** Key environmental risks include compliance with environmental laws, efforts to mitigate greenhouse gas emissions and combat global warming, management of noise and vibration pollution, responsible water usage and wastewater treatment, energy consumption control, waste and hazardous material management, and adherence to environmental standards through certifications or regulatory compliance (ISO 14000/EIA).

**S - Social Risk Factors** These include compliance with legal regulations and international human rights standards, workforce management, occupational health and safety, and adherence to relevant laws.

**G - Governance-Related Risk Factors** The key governance-related risks encompass anti-corruption frameworks, quality assurance and safety measures within production processes, adherence to fair business competition principles, and the protection of intellectual property rights.





In 2024, a comprehensive risk assessment covering economic, environmental, social, and corporate governance (ESG) factors was conducted for all 309 newly engaged business partners, representing 33% of the company's total business partners. The assessment did not identify any material risks.

### Supplier Performance Evaluation

The company has an ongoing process to monitor, audit, and evaluate supplier performance through an annual On-site Audit as part of the Yearly Performance Evaluation. This ensures that suppliers adhere to the company's operational standards and comply with the Supplier Code of Conduct, relevant legal requirements, and corporate governance principles while minimizing negative impacts on society and the environment.

In 2024, the company conducted on-site audits for four current business partners. These audits included site visits by representatives from the procurement department or relevant user departments (2nd party assessment) and evaluations by an independent certification body (Supplier On-Site Assessment by a Third Party). The assessments were conducted in accordance with internationally recognized standards, such as ISO 9001 and ISO 14001, and covered the following key areas:

**Ethical Standards** Adherence to labor laws, human rights principles, and other relevant legislation, as well as the contractual terms and conditions.

**Workplace Safety** This encompasses the appropriate work procedures, operational steps, and the utilization of suitable equipment, ensuring a safe working environment in line with best practices for safety standards.

**Environmental management** in compliance with established laws, ensuring the proper management of water resources, pollution, waste, and hazardous materials

### Social Responsibility and Community Engagement

In 2024, the company carried out assessments of 134 partners and 58 subcontractors, evaluating criteria such as workforce capacity, machinery, quality, planning, cooperation, and safety. The results of these evaluations were predominantly rated as good or excellent, with no vendors or contractors identified as requiring improvement. Furthermore, in the past year, there have been no reports of operational issues or complaints concerning violations of labor rights, human rights, or breaches of good governance and business ethics.





Grade	Number of Suppliers	Percentage (%)	Number of Subcontractors	Percentage (%)
A Excellent	93	69.40%	28	48.28%
B Good	39	29.10%	29	50.00%
C Satisfactory	2	1.49%	1	1.72%
D Requires further improvement	0	0.00%	0	0.00%
<b>Total</b>	<b>134</b>	<b>100.00%</b>	<b>58</b>	<b>100.00%</b>

The company continues to prioritize offering guidance and support to enhance the capabilities of unassessed partners, ensuring that their operations are in alignment with the established standards and stakeholder expectations, while fostering sustainable development throughout the company's supply chain, in line with its commitment to sustainability and ESG principles.

#### Payment Management to Partners

Effective credit risk management is a crucial element of the company's operations, as it directly influences the stability and overall performance of the business. To mitigate financial risks, the company has implemented clear debt repayment policies, which are aligned with the payment schedule set by project owners.

The company has classified its business partners into distinct categories, namely vendors, subcontractors, and labor contractors. Payment terms are clearly specified within the purchase and work order documents for each group. Labor contractors and smaller subcontractors are typically paid within shorter timeframes compared to larger subcontractors and vendors. It is widely recognized by major vendors that any payment delay exceeding 60 days from the agreed-upon terms could adversely affect both the partners involved and their trust in the company's credit. In 2024, the company successfully maintained exemplary debt repayment standards, ensuring no payments were overdue by more than 60 days, thereby reinforcing its commitment to financial responsibility in line with sustainable business practices.





Key Indicators	Year: 2024 (B.E. 2567)
Single-installment vendors and contractors (average)	45 days
Two-installment contractors	22 days

📄 The payment terms policy of CH. Karnchang Public Company Limited : <https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-supplier-of-credit-term-policy.pdf>

## Performance and Results

### 1.1.3 Collaboration through the innovative, sustainable products of SCG Green Choice business partners

CH. Karnchang has collaborated with SCG to advance and implement the SCG Green Choice product line, which aligns with sustainable development goals. This includes the use of energy-efficient building materials, such as incorporates innovative solutions made from 15-50% recycled materials, including lightweight bricks and concrete, which support circular economy principles. Furthermore, the line features water-efficient sanitary ware and tiles with 99% antibacterial properties, as well as advanced air filtration systems that help mitigate the impact of PM2.5 dust, contributing to both environmental and public health benefits.

This demonstrates the company's commitment to executing projects that prioritize environmental sustainability, energy efficiency, and the enhancement of quality of life. In addition, the company aligns with key sustainable development goals (SDGs) by promoting efficient resource utilization, addressing climate change, and fostering innovation for environmental sustainability. The company continues to expand the integration of sustainable products into its projects while advancing new innovations in collaboration with strategic partners.







1.1.4 The project supports the establishment of a fire-rated test room at the Fire Safety Research Center, Faculty of Engineering, Chulalongkorn University.

A leading Thai construction industry company, in partnership with Shino-Thai and Sukulthai, has developed a Fire Rated Test room at the Faculty of Engineering, Chulalongkorn University. This facility has received certification from the Industrial Product Standards Office, Ministry of Industry. It marks a significant advancement in construction standards, offering a solution that reduces the costs and time previously required for sending materials abroad for testing. This initiative supports domestic education and research while advancing ESG goals, such as reducing greenhouse gas emissions and enhancing transparency. Additionally, it makes standard testing more accessible to small and medium-sized enterprises (SMEs), thereby improving safety and reducing long-term dependence on foreign countries.





#### 1.1.5 The event for showcasing and granting support for 'The 4th Annual Community Crafts Innovation Excellence,

CH. Karnchang Public Company Limited, in collaboration with the National Innovation Agency (NIA) and Change Fusion Institute, has implemented the "4th Annual Community Innovation Craftsman Project." This initiative seeks to cultivate an innovation ecosystem at the community level by combining Design Thinking methodologies with local wisdom, complemented by expert consultation. The project aims to enhance the competencies of community craftsmen in developing innovative solutions to address pressing social and environmental issues, in alignment with the principle of "Creating Shared Value." This approach integrates business and societal objectives, extending beyond traditional Corporate Social Responsibility (CSR) to actively support sustainable development strategies in human capital, innovation networks, and grassroots economic development. The 12 teams supported by the project serve as exemplary models of collaboration between the private sector, government, and local communities. This initiative reinforces the company's commitment to driving sustainability through innovation, creating a positive and lasting impact on society and the environment. (For more details on the outputs and outcomes from the collaboration between CH. Karnchang and its partners in the 4th Community Craftsman Innovation Project, please visit the Social and Community Engagement section on the website.)





### 1.1.6 Sustainable Innovation in Green Construction for the Preservation of Cultural Heritage

CH. Karnchang Public Company Limited has collaborated with Insee Superblock Company Limited to change the construction materials specified in the contract from lightweight concrete block walls to reinforced lightweight concrete walls. This was done by employing Building Information Modeling (BIM) in the construction planning and production process. The aim is to improve work quality, increase speed, reduce machinery and labor usage, minimize construction waste, and lessen environmental impact.

This implementation confirms the effectiveness of the working method the company previously applied in earlier projects, which received high satisfaction from designers and owners. In summary, the benefits of this change include:

1. Using reinforced lightweight concrete walls inside the building at varying heights according to each floor level. These walls can be designed to bear loads and lateral forces as required, are water-resistant, can be cut to specified lengths, reduce leftover construction waste, optimize resource use, and lower disposal costs.
2. The production uses over 40% recycled materials by weight, 100% local materials, holds a green certification label, and has passed fire resistance tests up to 4 hours, ensuring all areas using these walls have fire protection.
3. Construction reduces the number of workers, transportation trips, and/or lifting operations to the building, significantly shortens the construction time, and improves

the quality of the finished work as well as site cleanliness, far better than the previous method.

Additionally, a precast system has been applied as an alternative method. This ensures the size, dimensions, and surface finish of each component are consistent and neat, addressing the problem of inconsistency common in conventional construction due to the repetitive and detailed nature of works such as window frames and reinforced concrete fences.



**รูปที่ 1** การวางแผนการผลิตด้วย BIM และการขนส่งชิ้นงาน ตามตำแหน่งที่กำหนดในแบบ

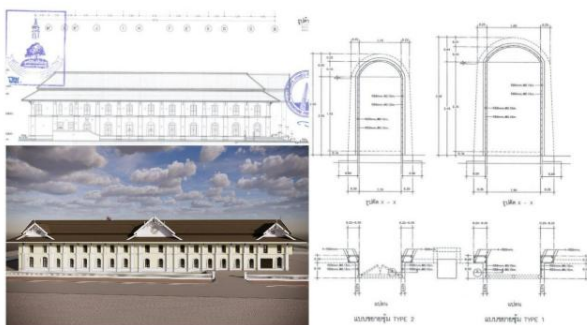


**รูปที่ 3** การติดตั้งด้วยผนังคอนกรีตมวลเบาเสริมเหล็ก





รูปที่ 4 พื้นผิวหลังจากที่แลวเสร็จ



รูปที่ 1 รูปแบบซุ้มหน้าต่าง และการติดตั้งจริง



## Risk and Crisis Management



### Stakeholders

- **Employees:** A well-structured and effective risk management system enhances employment stability, financial security, and occupational safety, particularly in high-risk construction zones. Furthermore, it fosters ongoing professional development and career progression for employees. By mitigating workplace uncertainties, the system also contributes to reducing occupational stress and pressure, thereby promoting a more sustainable and resilient workforce.
- **Shareholders, Investors, and Analysts:** An organization's ability to effectively identify, assess, and manage risks plays a crucial role in mitigating potential operational impacts. Robust risk management not only safeguards against financial losses but also reinforces corporate confidence and stability, fostering sustainable long-term growth and success.
- **Business Partners and Contractors:** Effective risk management enhances business continuity, facilitates strategic planning and cost control, increases opportunities for securing new projects through compliance with established risk management standards, and mitigates the risk of shared liability in the event of unforeseen incidents that may impact project outcomes.

### Significance

In today's rapidly changing world, businesses face a wide range of risks, including technological advancements, heightened competition from both industry rivals and multinational corporations, and political uncertainties that impact operations both directly and indirectly. As a result, risk management has become an essential tool for corporate



governance, ensuring that organizations can achieve their economic objectives while maintaining strong relationships and meeting stakeholder expectations. In response to these challenges, the company has reassessed its current business strategies and processes to enhance its ability to adapt to evolving conditions by evaluating present circumstances and anticipating future risks.

### Management Strategies and Compliance with Standards

The company has implemented a comprehensive risk management policy, underscoring its commitment to operating as a responsible construction contractor that generates positive societal and national impacts. This policy is founded on core business principles of integrity, fairness, and stakeholder value maximization, ensuring alignment with social and environmental responsibilities.

In its operations, the company has established a risk management framework that aligns with recognized standards, following the international guidelines of COSO ERM 2017: Enterprise Risk Management Integrating with Strategy and Performance. This framework emphasizes a comprehensive approach to risk management across the organization, at both the corporate and departmental levels. It outlines the structure, roles, responsibilities, and duties associated with risk management, alongside a risk management process that empowers risk owners to achieve their objectives and goals. This process supports the efficient execution of operations, driving value creation and fostering sustainable growth for the organization.

In addition, the company has established a Governance and Risk Management Committee responsible for formulating policies and the operational framework for managing risks. The Committee provides guidance to the Board of Directors and senior management on effective risk management strategies, oversees the implementation of risk management processes, and ensures the achievement of risk management objectives. The Committee also evaluates significant risks in alignment with the company's business objectives, considering both internal and external factors that may impact operations, including investment, financial, safety, legal and regulatory concerns, as well as ESG-related risks. Furthermore, the Committee is tasked with recommending strategies for risk prevention and mitigation, ensuring that risks are reduced to acceptable levels. The Committee monitors and evaluates the effectiveness of risk management efforts and regularly reports on risk assessments and mitigation activities to the Board. In the event of significant risks that could materially affect the company, these are







promptly reported to the Board for timely decision-making and the preparation of a Business Continuity Plan (BCP) to address potential disruptions and ensure the company can resume operations within a reasonable timeframe. These activities are governed within the framework of the company's risk management strategy, ensuring continuous improvement in line with sustainable development objectives.



Risk Crisis Management Policy: <https://www.ch-karnchang.co.th/storage/downloads/corporate-governance/corporate-governance-policy/ck-risk-policy-th.pdf>

#### Risk Management Structure of CH. Karnchang

The Corporate Governance and Risk Management Committee is responsible for establishing and reviewing policies related to risk management. The executive team plays a key role in overseeing and approving the organization's overall risk management processes. Each department is tasked with monitoring, assessing, and preparing quarterly risk management reports, which are submitted to the executive team for approval. Upon approval, the reports are presented to the Corporate Governance and Risk Management Committee for final approval and subsequently reported to the Board of Directors for acknowledgment.

**Note:** In order to maintain independence, the Corporate Governance and Risk Management Committee reports directly to the Board of Directors and is not part of the business operations.





Position	Key Roles and Core Responsibilities
Board of Directors	<ul style="list-style-type: none"><li>Establish the organization's strategic direction and objectives in alignment with its mission, vision, and core values, ensuring they support sustainable development goals (SDGs).</li><li>Supervise the integration of risk management practices across the organization, ensuring executives and employees effectively implement and manage risk mitigation strategies in line with environmental, social, and governance (ESG) principles.</li><li>Hold quarterly discussions with the Corporate Governance and Risk Management Committee to evaluate the performance of risk management strategies, ensuring</li></ul>





Position	Key Roles and Core Responsibilities
	<p>transparency and accountability.</p> <ul style="list-style-type: none"><li>● Conduct an annual review of the risk management policy and compliance with the Code of Conduct, as presented by the Corporate Governance and Risk Management Committee, to ensure continued alignment with SDG and ESG objectives and approve modifications as necessary.</li></ul>
Corporate Governance and Risk Management Committee	<ul style="list-style-type: none"><li>● Develop and establish key policies and strategies for effective risk management, aligning with organizational objectives and sustainable development goals.</li><li>● Actively promote and oversee the integration of risk management practices throughout the organization, reviewing the effectiveness of the process and ensuring adherence to established guidelines.</li><li>● Conduct ongoing reviews and monitoring of critical risks across all operational areas, ensuring the implementation of comprehensive risk management plans, and evaluating the overall effectiveness of risk mitigation strategies.</li><li>● Maintain a thorough understanding of potential risks that could substantially impact the organization's sustainability and ensure that appropriate actions are taken to mitigate these risks.</li><li>● Provide well-informed recommendations and approve risk management approaches, ensuring alignment with code of conduct, sustainable development goals and environmental, social, and governance (ESG risks) standards.</li></ul>
The Executive Management Team for Project Risk Management.	<ul style="list-style-type: none"><li>● Consider setting an acceptable level of risk and establishing a comprehensive risk management framework in alignment with sustainable development objectives.</li><li>● Implement an organization-wide risk management plan to reasonably ensure that the organization will achieve its goals with quality, in accordance with the principles of enterprise-wide risk management.</li><li>● Encourage organizational leadership and staff to recognize the critical importance of effective risk management.</li><li>● Evaluate the interrelationships of various risks, monitor the progress of the implementation of the risk management strategy, assess its alignment with the plan's objectives, and provide strategic recommendations to enhance and refine risk management practices.</li><li>● A quarterly report on risk management and governance is presented to the Governance and Risk Management Committee to ensure that the company's key risks are consistently monitored and managed within acceptable thresholds. This process is integral to supporting the company's operational activities, ensuring alignment with its strategic goals and contributing to the achievement of predefined objectives.</li></ul>
Secretary of the Corporate	<ul style="list-style-type: none"><li>● Coordinate and organize meetings for the Corporate Governance and Risk</li></ul>





Position	Key Roles and Core Responsibilities
Governance and Risk Management Committee	<p>Management Committee, the Executive Meeting for the Risk Management Project, and the Working Group for the Risk Management Project.</p> <ul style="list-style-type: none"><li>● Collect and analyze risk assessment data for each operational unit, prepare relevant materials for discussions, and continuously assess the adequacy of the risk management system in coordination with the Office of the CEO, ensuring alignment with sustainable development goals and governance standards.</li><li>● Collaborate with the Office of the CEO to develop the company's risk management plan and present it to the Corporate Governance and Risk Management Committee.</li><li>● Collaborate with the Managing Director's Office to develop and report the company's risk management outcomes, and present these to the Corporate Governance and Risk Management Committee.</li></ul>
Risk Management Department	<ul style="list-style-type: none"><li>● Develop and/or review risk management policies, frameworks, and acceptable risk levels, as well as the key risk management processes for the organization.</li><li>● Provide support and expert advice on identifying the critical risk factors for each department, aligning with sustainable risk management practices</li><li>● Monitor the risk assessment process and the implementation of risk management measures by each department or risk-owning unit, to aggregate them into organization-wide risk (Corporate Risk).</li><li>● Developed a Corporate Key Risk Indicator (KRI) to track risk trends and monitor potential threats.</li><li>● Prepare the organization's risk management report as scheduled and present it to the Corporate Governance and Risk Management Committee.</li><li>● Monitor the risk management report to ensure that the risk management process is consistently applied across the organization and is aligned with the strategic plan.</li><li>● Coordinate to integrate the risk management process with strategic planning.</li><li>● Provide guidance to executives and staff on the proper implementation of risk management processes in accordance with the established framework.</li></ul>
Risk Management Working Group	<ul style="list-style-type: none"><li>● Conduct a thorough risk analysis within the department, assess potential opportunities and the impacts of identified risks, and submit the findings to the Assistant Managing Director for approval. Upon approval, the findings will be forwarded to the Secretary of the Corporate Governance and Risk Management Committee for further consideration.</li><li>● Attend quarterly meetings to review and approve the risk assessment results for all departments, prior to presenting them to the Risk Management Program Executive Committee for final deliberation</li></ul>





Position	Key Roles and Core Responsibilities
Business Unit	<ul style="list-style-type: none"><li>Identify and report risks associated with operations, contribute to the development of risk management plans, and ensure their implementation.</li></ul>

#### Corporate Governance and Risk Management Committee

List of Names	Position	Independent Director / Executive
1. Mr. Patarut Dardarananda	Chairman of the Corporate Governance and Risk Management Committee	Independent Director
2. Mr. Vitoon Tejatussanasoontorn	Corporate Governance and Risk Management Committee Member	Independent Director
3. Mr. Plew Trivisvavet	Corporate Governance and Risk Management Committee Member	Executive Director
4. Mr. Narong Sangsuriya	Corporate Governance and Risk Management Committee Member	Executive Director
5. Ms. Supamas Trivisvavet	Corporate Governance and Risk Management Committee Member	Executive Director

The company has established a Corporate Governance and Risk Committee to oversee the creation of policies, operational guidelines, and risk management strategies. This committee is responsible for proposing methods to mitigate and reduce risks to acceptable levels, as well as monitoring, evaluating, and continuously enhancing risk management plans to ensure they remain suitable and effective. The committee will regularly report the results of risk assessments and the progress of risk reduction efforts to the Board of Directors. In the event of significant issues that could substantially impact the company, the committee must promptly inform the Board for consideration, enabling the preparation of a Business Continuity Plan (BCP) to manage situations that may disrupt operations. This plan ensures that the organization can resume normal operations within an appropriate timeframe. The operations described above will be incorporated into the company's risk management structure as outlined below:





## Risk Management Framework

### 1.1.1 Systematic implementation of risk management practices

The company employs Enterprise Risk Management (ERM), a systematic process that is applicable across all organizations and industries. It identifies key risk indicators (KRIs), assesses risks, prioritizes them through a Risk Matrix, and manages them effectively. This approach allows the company to evaluate its risk appetite (the level of risk it is willing to accept) or risk tolerance (the level of risk it can endure) in order to create value for shareholders. The risk management framework provides the organization with the tools to manage uncertainty, risks, and business opportunities efficiently. The Risk Matrix helps assess the likelihood and potential impact of critical risks, and the company continuously monitors and evaluates its risk management strategies to ensure effectiveness.

Risk management is an ongoing process that begins with the management team establishing clear policies or objectives. This process is carried out through the organization's defined risk management mechanisms, complemented by internal auditing and control systems, until the success of the objectives can be evaluated. This evaluation drives continuous improvements in the risk management process to increase its efficiency. The organization's risk management process is therefore divided into six steps, as follows:





1. C	manage risks. Objectives at both the organizational and departmental levels will be defined to ensure that each level has appropriate goals or missions that align with the company's overall objectives.
2. Risk Identification	<p>The department responsible for managing risk will assess both internal and external risk factors. This may involve methods such as workshops, interviews, or brainstorming sessions to identify potential risks and the underlying causes that could impact the achievement of objectives, both at the organizational and departmental levels. The key approaches for risk identification are outlined.</p> <ul style="list-style-type: none"><li>• Limitations or issues that have already occurred should not be classified as risks.</li><li>• Framework for identifying and assessing risks.</li><li>• Categories of risks that the company may encounter.</li></ul>
3. Risk Assessment	<p>The designated risk management entity will assess the severity of risks by evaluating both the potential impacts and the likelihood of events that may hinder the achievement of business objectives, at both the organizational and departmental levels.</p> <ul style="list-style-type: none"><li>• The risk levels for assessing the impact and likelihood of risks are categorized into five levels: Very Low (1), Low (2), Medium (3), High (4), and</li></ul>







Step	Provide a summary of the details
	<p>Very High (5).</p> <ul style="list-style-type: none"><li>• The overall risk level is determined through an evaluation of both the potential impacts and the likelihood of occurrence, which are categorized into five levels: very high, high, medium, low, and very low. This classification is visually represented in a risk heatmap.</li><li>• In accordance with sustainable development protocols, the method for evaluating risk severity should align with the table of criteria used to assess both the impact level and the probability of risk occurrence.</li><li>• In instances where more than one criterion is employed to assess the impact level, the highest score attained should be adopted as the final conclusion.</li></ul>
4. Risk Prioritization	The risk management entity prioritizes risks based on key factors, including adaptability to risk, complexity, speed of onset, duration, and the effectiveness of risk mitigation measures.
5. Risk Mitigation Response	<p>The agency responsible for managing risks determines the appropriate responses or risk management strategies by evaluating the significance of the risks, their acceptable levels, severity, and the associated costs and benefits. Risks deemed unacceptable are those at a moderate level or higher. In such cases, the agency must develop a risk management plan, establish risk response strategies, and implement control activities.</p> <ul style="list-style-type: none"><li>• Risk responses are classified into five types: acceptance, avoidance, reduction, transfer, and pursuit. The risk owner agency is tasked with determining and executing control activities to ensure that the risk response follows the established plan. They are also responsible for monitoring and reporting the effectiveness of these controls. Furthermore, the risk owner agency must ensure that the control information in the risk register is kept up-to-date.</li><li>• Control activities are categorized into three approaches: preventive, detective, and corrective.</li></ul>
6. Monitoring and Evaluation	The risk-owning department is responsible for monitoring the status of identified risks and ensuring the risk register is kept up to date. This includes tasks such as risk identification, existing controls, risk assessment, risk management, and





Step	Provide a summary of the details
	setting completion dates. After preparing the risk register, the risk-owning department must report to management. The register must then be reviewed and approved by a supervisor who holds a higher management level than the risk owner. The department should also define Key Risk Indicators (KRIs) by analyzing risk events and their root causes. The KRI results and monitoring can be effectively presented using a KRI Dashboard.

### 1. Risk Identification






Risk identification is a critical step in identifying potential risks and their underlying causes or contributing factors, considering both internal and external elements that may affect the organization's objectives and outcomes. According to the established risk management framework, the identification process must accurately determine the root causes of risks, allowing management to develop targeted risk mitigation strategies. These strategies aim to address the identified causes of risks and reduce their impact in an effective and efficient manner. The sources of risk factors are divided into two categories, as outlined below.

1. Internal organizational factors include objectives, policies and strategies, work processes, professional experience, organizational structure, and management systems.
2. External organizational factors encompass government policies, economic conditions, actions of relevant agencies, external regulations, natural events, social conditions, and political factors.

Risk identification can be conducted by individuals or groups, such as management teams or relevant personnel, utilizing experience, brainstorming sessions, or questionnaires. It is crucial for the identification, description, causes, and potential impacts of risks to be clearly articulated.

The company has classified risks into five categories, considering the shared characteristics of each risk, including those resulting from interconnected risk factors or those that impact objectives in a comparable manner.



 Strategic Risk	<p>This represents a risk associated with the development and ineffective implementation of strategic plans, compounded by the misalignment between policies, objectives, strategies, organizational structure, competitive landscape, resources, and external factors. Such misalignment can negatively affect the achievement of an organization's strategic objectives or goals.</p>
 Operation Risk	<p>This risk arises from internal operations within the organization, including factors such as employees, work processes, infrastructure, and the potential for corruption, which could significantly affect organizational performance and alignment with sustainability goals.</p>
 Financial Risk	<p>This pertains to risks associated with financial liquidity, management, and financial reporting, encompassing market risks linked to fluctuations in economic factors, credit risks arising from counterparties' non-compliance with contractual obligations, as well as risks stemming from interest rate volatility and exchange rate fluctuations</p>
 Compliance Risk	<p>This represents a risk associated with non-compliance with applicable laws, regulations, and rules, encompassing both internal and external entities responsible for overseeing the organization's operations.</p>
 Environmental, Social and Governance Risk: ESG Risks	<p>This represents a risk with potential impacts across all three domains: environmental, social, and governance, driven by the organization's activities, which are shaped by both internal and external factors.</p>

## 2. Risk Assessment

The risks identified and recorded in the organization's risk register will be assessed to understand how the severity of each risk impacts the achievement of the company's strategic goals and business objectives. The results of the risk assessment will influence the selection of appropriate risk response strategies. Once the severity of the risks is



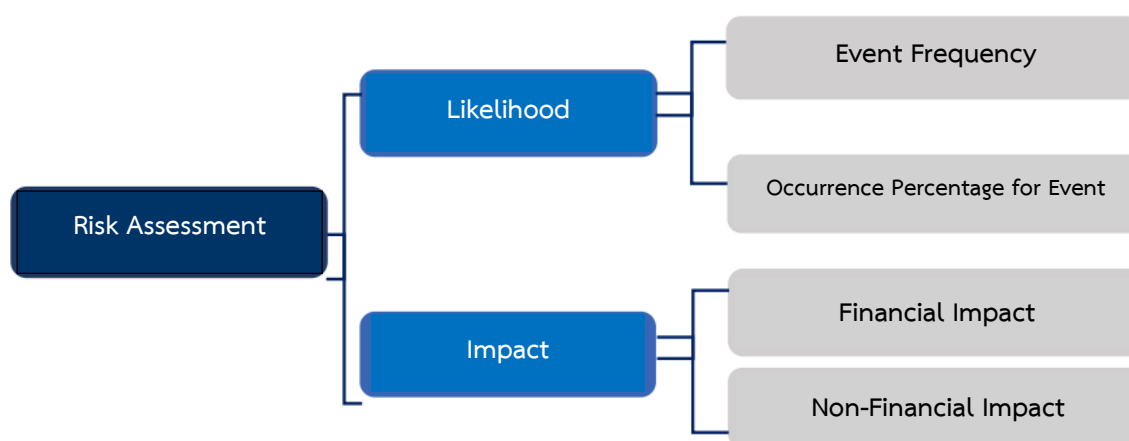
understood, senior management will make decisions regarding the necessary resources and expertise to ensure that the risks are maintained at an acceptable level.

#### Benefits of Risk Assessment

- Serves as critical data for evaluating risks in relation to risk management strategies and policies.
- Pinpoints risks deemed unacceptable by the company.
- Provides foundational information to inform the selection and prioritization of risk mitigation actions in alignment with strategic objectives.

#### Risk Assessment Using a Risk Matrix

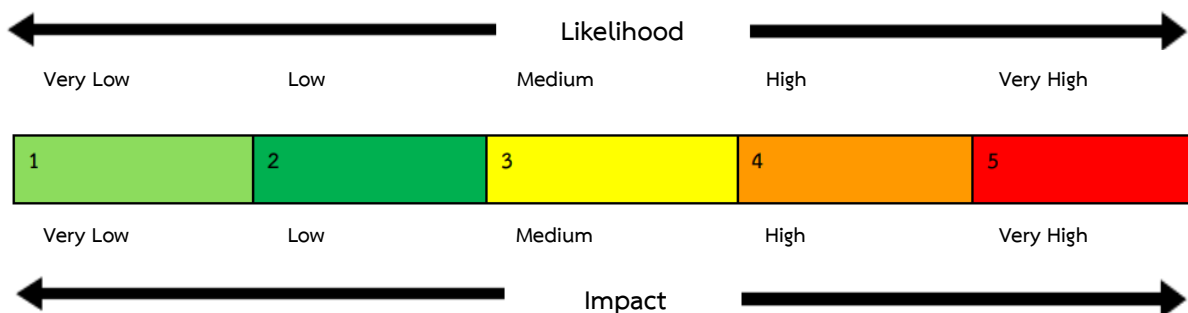
This is the process of evaluating both the likelihood of a risk occurring and the severity of its impact in order to determine the overall risk level for each event according to established criteria. Management should prioritize risks with both high impact and a high likelihood of occurrence, addressing these first. The risk level is calculated by multiplying the scores in both categories.





Likelihood	Impact
<ul style="list-style-type: none"><li>Establish a time frame for assessing potential risks. It is crucial not to overlook risks that could arise over the long term.</li><li>The potential for this can be demonstrated through multiple approaches, including<ul style="list-style-type: none"><li>Qualitative/Frequency: "The likelihood of an event or situation arising that may impact business objectives [within a defined timeframe, such as 12 months] is estimated to occur once every 12 months."</li><li>Quantitative: "The probability of an event or situation occurring that could impact business objectives [within a specified timeframe, such as 12 months] is 25%."</li></ul></li><li>Provide an explanation of the potential risks, categorized from level 1 to level 5, with an emphasis on their likelihood and impact.</li></ul>	<ul style="list-style-type: none"><li>Select the criteria to be used by considering both financial and non-financial factors, ensuring alignment with the organization's objectives and performance evaluation.</li></ul>

The likelihood and impact of potential risks will be evaluated and categorized on a scale from 1 to 5, as detailed below





## Enterprise Risk Matrix

Risk Appetite

Likelihood	Impact					
	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)	
	Very High (5)	5	10	15	20	25
	High (4)	4	8	12	16	20
	Medium (3)	3	6	9	12	15
	Low (2)	2	4	6	8	10
	Very Low (1)	1	2	3	4	5

## Overall Risk Assessment

Risk Evaluation Score	Score	Strategic Risk Management Framework
Very High	20 - 25	The company must promptly evaluate and implement appropriate risk management strategies or enhance internal control mechanisms to ensure robust governance and operational resilience.
High	13 - 19	The company must promptly assess and implement appropriate risk management strategies or enhance internal controls with urgency, ensuring these measures are prioritized immediately below the highest risk category.
Medium	7 - 12	The company is required to evaluate and implement additional risk management measures as deemed appropriate, ensuring that these measures are prioritized after addressing high-risk factors. Furthermore, strict adherence to existing internal control frameworks is essential to mitigate potential financial, operational, or environmental risks that may arise.
Low	4 - 6	The company does not presently require the implementation of additional risk management measures. However, it is essential to ensure continuous monitoring and reinforcement of internal control systems to uphold corporate governance standards and mitigate potential risks.
Very Low	1 - 3	The company does not presently require the implementation of additional risk management measures. However, it is essential to ensure continuous monitoring and reinforcement of internal control systems to uphold corporate governance standards and mitigate potential risks.

continuous alignment with dynamic business conditions and regulatory expectations.





### 3. Risk prioritization

Risk prioritization is essential for organizations to make informed decisions regarding risk response strategies and the optimal allocation of resources. This process typically involves both quantitative and qualitative assessments, including factors such as the probability of risk occurrence, potential impact, the uncertainty surrounding the risk, and the organization's risk tolerance. The severity of risks is compared with the organization's predefined acceptable risk level, with risks nearing this threshold being deemed more critical. Various relevant factors determine the prioritization of risks, such as:

- The organization's capacity to adapt to and manage risks effectively, ensuring long-term sustainability in the face of challenges : The organization's ability to effectively adapt to and respond to risks, incorporating strategic planning and resilience measures aligned with sustainability goals.
- Complexity : The scope and nature of risks impacting an organization's success, particularly the risks associated with dependence on external organizations for business operations, often contribute to an increase in operational complexity.
- Speed : The rapid emergence of risks can have a significant impact on an organization. Such speed may cause deviations in the organization's performance from the accepted standards of operational efficiency, affecting its alignment with sustainability goals and ESG criteria.
- Duration of Risk Impact on the Organization : Describes the period during which risks (such as environmental, financial, or social) influence the organization's performance and sustainability goals, often analyzed in ESG-related assessments.

### 4. Risk Response Strategy

Management is responsible for selecting and implementing risk response strategies that are appropriate for all identified risks. The evaluation of risks will consider their severity and prioritization, as well as the business context and objectives of the organization. Furthermore, the risk response approach will be aligned with the operational goals of the organization. This process adheres to the COSO ERM 2017 framework, ensuring a structured and comprehensive approach to risk management.



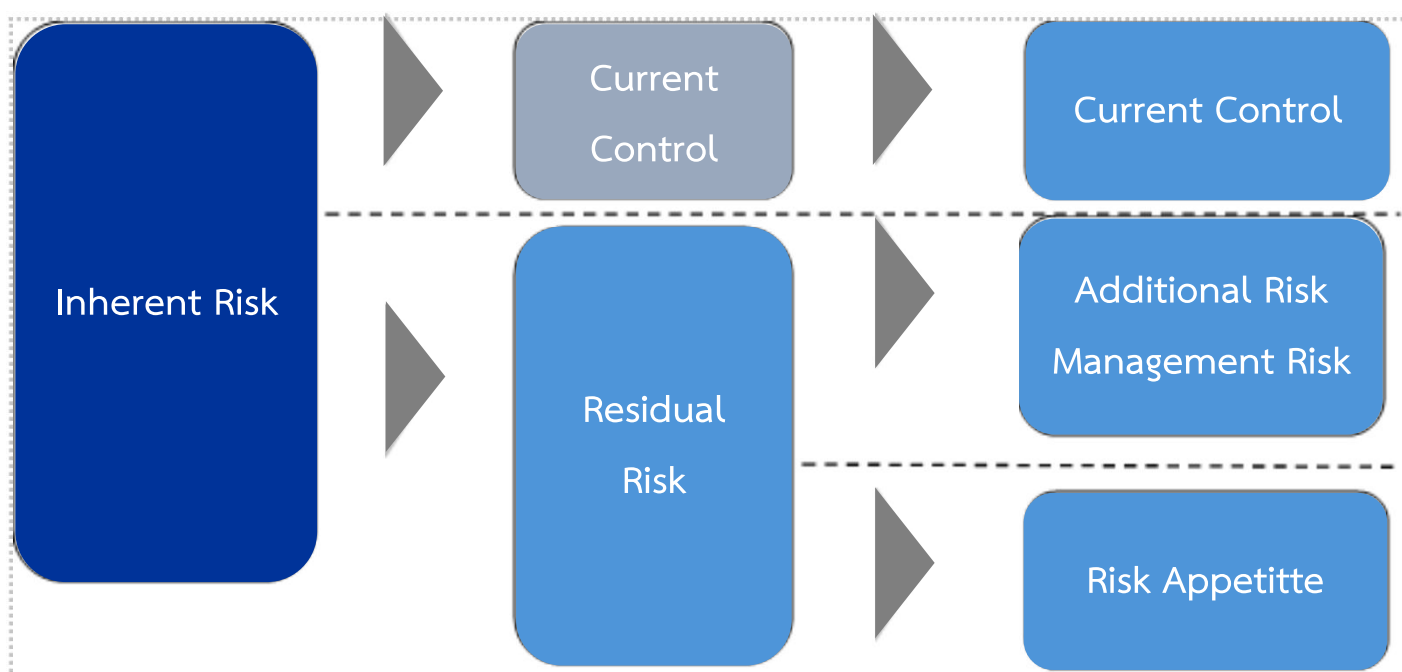




The process of determining risk response strategies is initiated after the organization has identified and assessed its risks. It is essential that these risks be managed to minimize their likelihood of occurrence and mitigate their potential impact to levels deemed acceptable by the organization. This should be achieved through the implementation of the most appropriate and cost-effective risk management strategies. The reduction of residual risks can be accomplished by developing additional risk management plans or by avoiding activities that give rise to these risks, ensuring alignment with sustainable development goals (SDGs) and environmental, social, and governance (ESG) objectives.

In evaluating the inherent risk and existing control measures, residual risk persists. Consequently, it is imperative to manage the residual risk to ensure it remains within an acceptable threshold, aligning with established risk management frameworks

#### Assessment of strategies for mitigating risks.



management team, reviewed by the board of directors, and serves as a guiding framework for strategic decision-making. By integrating risk considerations into corporate strategy, the company assesses both financial and non-financial performance objectives while implementing measures to effectively manage uncertainties, ensuring resilience and sustainable growth in line with ESG principles and SDG targets.


The company has identified the following acceptable levels of risk.






	Investments should be avoided in countries with political and economic instability or where there is an inadequate understanding of risk management, as this may compromise long-term sustainability and financial resilience.
	The company is committed to conducting business in a manner that contributes positively to society and fosters long-term sustainability. This commitment must not disrupt business operations and requires strict adherence to all relevant laws and regulations.
	The company refrains from engaging in projects that may negatively impact its reputation, regardless of their potential for high financial returns. This approach aligns with responsible business practices and sustainable investment principles.
	We do not invest in projects where there is an insufficient understanding of risk management or where the necessary capabilities and resources for effective implementation are lacking.
	The company refrains from participating in bids for projects with a low internal rate of return (IRR) or those characterized by intense price competition, ensuring sustainable investment strategies and financial viability.
	The company acknowledges the value of establishing business partnerships. However, such collaborations must uphold product and service quality standards and must not negatively impact the company's corporate reputation, ensuring alignment with sustainable business practices and stakeholder expectations.

## 6. Risk Monitoring

A structured risk monitoring and reporting framework facilitates a comprehensive understanding of the interrelationship between risk, corporate culture, and organizational performance across all levels of personnel. This process enhances strategic decision-making, strengthens corporate governance, and ensures greater integration between operational activities and overarching business objectives.

 <b>Risk Management Reporting</b>	<p>The results of risk management facilitate the identification and assessment of emerging risks, enabling executives to evaluate their potential impact on strategic and operational objectives. This process ensures the effective implementation of key risk management measures and mandates the reporting of any critical incidents. Additionally, it reinforces corporate governance by providing the board of directors with assurance that the organization's overall risk exposure aligns with its long-term strategic direction.</p>
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 <p>Risk Register</p>	<p>The Risk Register is a structured document that systematically records and evaluates organizational risks. It details risk descriptions, current mitigation measures, assessed residual risk levels, designated risk owners, and strategic risk management plans. This register serves as a critical tool for risk oversight, ensuring proactive risk governance in alignment with sustainable development and ESG principles.</p>
 <p>Risk Heat Map</p>	<p>The risk diagram is designed to offer a high-level overview of identified risks and their prioritization. As a key analytical tool, it is utilized for:</p> <ul style="list-style-type: none"> <li>• Communicating the results of qualitative risk assessments in a structured manner</li> <li>• Mapping the relative positioning of various risk factors for comparative analysis</li> <li>• Providing a rationale for the overall risk assessment, ensuring alignment with risk governance frameworks</li> </ul>
 <p>Key Risk Indicators: KRIs</p>	<p>Key Risk Indicators (KRIs) are essential tools in risk management, providing early warning signals to pre-emptively address potential risks before they materialize. These indicators play a critical role in evaluating:</p> <ul style="list-style-type: none"> <li>• The effectiveness of risk mitigation strategies within corporate sustainability frameworks.</li> <li>• The evolution of risk exposure and its potential fluctuations over time.</li> <li>• The classification of indicators, which are broadly divided into: <ul style="list-style-type: none"> <li>○ Leading indicators, which facilitate proactive risk management by identifying early signs of emerging threats and supporting preventative action.</li> <li>○ Lagging indicators, which assess historical data to measure the effectiveness and efficiency of existing risk controls, ensuring alignment with corporate governance and regulatory compliance.</li> </ul> </li> </ul>

## 7. Reporting Risk Management to the Board of Directors

The company has established a formal process for reporting the outcomes of its risk management practices to the relevant stakeholders, as outlined below:

- **The meeting of the Corporate Governance and Risk Management Committee**  
In accordance with the company's risk management framework, the remaining risk assessment results will be reviewed and approved quarterly. A comprehensive meeting report will be prepared for the board of directors' acknowledgment and further action.
- **The meeting of the project management team for risk management** To periodically review, track, and assess the outcomes of risk evaluations on a quarterly basis, with the Secretary of the Corporate Governance and Risk



Management Committee, in collaboration with the Office of the Chief Executive Officer, acting as the coordinating body to present the findings to the Corporate Governance and Risk Management Committee for approval consideration.

- **The meeting of the Risk Management Task Force** To ensure the regular review, monitoring, and evaluation of risk assessment outcomes on a quarterly basis, the Secretary of the Corporate Governance and Risk Management Committee, in collaboration with the Office of the CEO, will serve as the coordinator for reporting results to the Risk Management Executive Committee and the Corporate Governance and Risk Management Committee. These committees will then provide approval and further consideration, in alignment with governance and risk management frameworks, for ongoing compliance with sustainable development goals (SDGs) and environmental, social, and governance (ESG) standards.

#### Emerging Risk

The construction industry is confronted with an array of emerging risks, encompassing legal, technological, climatic, economic, and supply chain-related challenges. Effective risk management necessitates a holistic approach, integrating strategic planning, the adoption of technological innovations, and ongoing capacity-building of human resources. Such an approach is essential for maintaining competitiveness and achieving long-term sustainability in business operations. The two most significant emerging risks identified by the company for 2024 are:



## 1. Economic Recession, Geopolitical and War Risk



<b>Risk Characteristics :</b>	The ongoing global conflicts and economic slowdown, coupled with inflationary pressures and the rising interest rates, present significant challenges for sustainable development and financial stability.
<b>Risk Impacts :</b>	<ol style="list-style-type: none"> <li>1. Delays in the implementation of government investment plans have hindered the ability to engage in competitive bidding for new projects.</li> <li>2. The cost of construction materials and specialized machinery that must be imported has increased, driven by rising international prices.</li> <li>3. Volatility in foreign exchange rates has significantly impacted costs, particularly for imports, adding financial strain to projects reliant on foreign currency transactions.</li> </ol>
<b>Risk Management Strategies :</b>	<ol style="list-style-type: none"> <li>1. Continuously track market conditions, economic developments, and relevant events to adjust strategic plans in accordance with the prevailing market trends and economic environment. This includes evaluating potential investments in emerging markets, safeguarding company liquidity, and deferring investments that do not generate meaningful economic returns.</li> <li>2. Ensure construction costs remain within budget, such as by monitoring fluctuations in the cost of construction materials, machinery, and equipment systems dependent on international suppliers. Evaluate delivery schedules, insurance costs, tax rates, and establish contingency measures for securing alternative suppliers with comparable qualifications, as well as exploring alternative transport solutions to meet project deadlines.</li> <li>3. Align foreign currency revenues and expenses (Matching Cost) and employ foreign currency forward contracts to mitigate exchange rate risks (Forward Contract).</li> </ol>



## 2. Climate Regulation and Climate Action Risk



<b>Risk Characteristics :</b>	Recent legal reforms aimed at advancing environmental cooperation are influencing corporate strategies and the potential economic benefits available to businesses. Failure to comply with these regulations could result in diminished access to both economic advantages and vital funding opportunities. Additionally, government policies and regulatory frameworks set by stakeholders, such as the Carbon Border Adjustment Mechanism (CBAM), may lead to increased product costs within the supply chain. It is imperative that companies remain attuned to these developments, as proactive adaptation will enable them to maintain sustainable business operations in alignment with broader sustainability goals.
<b>Risk Impacts :</b>	<ol style="list-style-type: none"><li>1. The management of construction and financial costs has increased as a direct consequence of the implemented policy.</li><li>2. Tax-related exclusionary measures.</li></ol>
<b>Risk Management Strategies :</b>	<ol style="list-style-type: none"><li>1. Enhance the efficiency of the production process, aligning with sustainable development goals and ensuring optimal resource utilization in accordance with ESG standards<ul style="list-style-type: none"><li>- Minimize waste generation during the construction process by effectively managing design and production procedures. Ensure the selection of materials and appropriate quantity determination aligns with efficient inventory management, reducing unnecessary procurement or excessive stock that does not align with the project's operational needs. This includes construction materials such as structural steel, concrete, formwork timber, PVC piping, chemicals, and surface coatings, among</li></ul></li></ol>





	<p>others</p> <ul style="list-style-type: none"><li>- The machinery and vehicles employed in construction undergo regular inspections to ensure optimal performance. In addition, rental equipment is selected based on its relatively low age to reduce fuel consumption</li></ul> <ol style="list-style-type: none"><li>2. Examine the development of innovative energy technologies that can be implemented in corporate settings, including electric vehicles and other sustainable transportation solutions.</li><li>3. Implement energy-saving initiatives at the corporate headquarters and across all associated projects</li><li>4. The adoption of alternative energy solutions, including solar panels (solar power), serves as a complementary strategy to reduce electricity consumption within the office spaces of construction projects. Additionally, measures are implemented to minimize paper usage, ensuring optimal efficiency in resource utilization.</li><li>5. Develop a sourcing and materials management plan by diversifying suppliers to mitigate the risk of over-reliance on a single vendor, and by securing long-term purchase agreements to lock in prices and hedge against potential future price volatility. Additionally, optimize inventory management to reduce storage costs and prevent material shortages.</li></ol>
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## Enhancing the organization's Risk Culture

### 1.1.2 Framework for fostering a risk management culture across the organization

The company is committed to fostering a strong risk management culture throughout the organization by integrating risk considerations into its core values. To ensure alignment with these values, structured communication initiatives have been implemented to enhance collective understanding and risk awareness. A centralized knowledge management system has been established to facilitate access to information, promote knowledge sharing, and support collaboration between risk owners and the risk management function. Risk factors are embedded within the organization's development framework, driving the continuous enhancement of risk management processes to serve as an effective mechanism for strategic decision-making. Furthermore, risk management performance is incorporated into the organization's key performance indicators (KPIs), reinforcing accountability among both designated risk owners and the broader corporate structure.





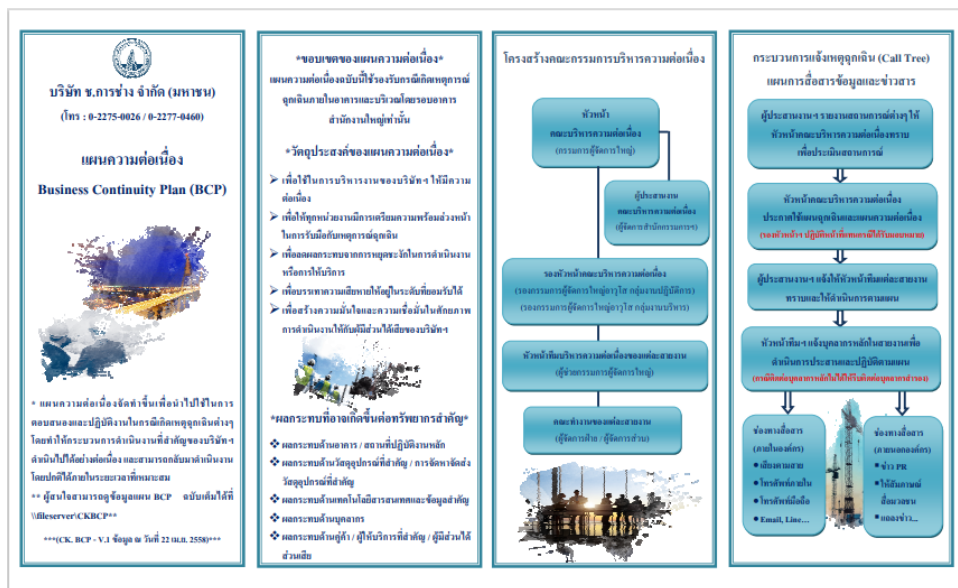


### 1.1.3 Provide comprehensive training on risk awareness and risk management to personnel across all organizational levels

To promote organizational culture, the company has organized training on risk and risk management for directors, senior executives, and employees. The purpose is to ensure understanding of the risk management framework and individual responsibilities in managing and communicating risk-related information. Organizational training should take into account key issues, including differences in levels of responsibility in risk management, existing knowledge of risks and risk management within the organization, and the need for all new employees to be trained so that they understand their responsibilities regarding risk and the risk management process.

Risk Training and Communication in 2024	
Board of Directors:	The Board of Directors of CH. Karnchang attended risk training sessions conducted during meetings, where external speakers provided knowledge on sustainability risks (ESG Risk) in accordance with the International Financial Reporting Standards (IFRS).
Executives:	Executives of CH. Karnchang participated in risk training through a strategic project management course designed to enhance their skills in project risk management and conflict resolution within projects.
Employees:	CH. Karnchang disseminated risk-related information through brochures and infographics to raise awareness among employees throughout the company. In addition, CH. Karnchang conducted specific risk training for departments directly involved with risk management.





a risk communication brochure image



Infographic for risk information dissemination

#### 1.1.4 Crisis Management and Business Continuity Framework

The company has established a Business Continuity Plan (BCP) to mitigate risks that may disrupt its operations, including those catastrophic events arising from fires, natural disasters, terrorism, and other unforeseen events. This plan also encompasses comprehensive strategies to manage public health risks, such as the spread of infectious diseases like the coronavirus disease 2019 (COVID-19), ensuring continuity in line with sustainable development goals and public health standards by creating scenario planning and having in place response plans.



## Customer Relationship Management



### Stakeholders

- **Clients** : Customer relationship management is a critical component of effective business operations. When a company excels in fostering strong customer relationships, it not only fulfills customer needs and expectations but also enhances service quality, which contributes to long-term customer loyalty and the sustained use of services. This practice aligns with sustainable business strategies, driving customer retention and contributing to overall business sustainability.

### Significance

CH. Karnchang places the highest priority on ensuring client satisfaction, recognizing the significant expectations of both clients and project owners within the construction services sector. These stakeholders anticipate receiving construction services that adhere to rigorous quality standards, ensure safety, meet deadlines, and demonstrate a commitment to social and environmental responsibility throughout the project lifecycle. Furthermore, the company upholds strict confidentiality regarding client information, reinforcing trust and security in its operations, consistent with sustainable development and ESG principles.





### Management Strategies and Compliance with Standards

Survey of satisfaction of project owners/clients

The company operates in compliance with the ISO 9001:2015 quality management system. As part of this, it mandates that every project conduct a customer satisfaction survey. The survey covers four main areas, as outlined below:

<Graphic>



Quality satisfaction 	Satisfaction with time management 	Safety satisfaction 	Satisfaction with Communication and Coordination Processes 
<ul style="list-style-type: none"> <li>• Work quality</li> <li>• Quality of materials and equipment</li> <li>• Quality of personnel in the project</li> </ul>	<ul style="list-style-type: none"> <li>• Project progress in alignment with the established timeline.</li> <li>• The potential to expedite project delivery in alignment with strategic objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• Mitigating risks and ensuring the safety of personnel involved in the project</li> <li>• Implementing measures to safeguard public welfare and protect the environment</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring the accuracy and integrity of documentation</li> <li>• Enhancing accessibility for stakeholders requesting meetings</li> <li>• Effective governance and cross-sector collaboration</li> </ul>

Furthermore, survey respondents have the opportunity to provide additional feedback, which CH. Karnchang will utilize to enhance operational efficiency, optimize service delivery to clients, and implement appropriate corrective actions for complaints. The company will analyze customer satisfaction survey results and prioritize improvements in areas with lower average scores to drive continuous service quality enhancements. The details are outlined as follows:

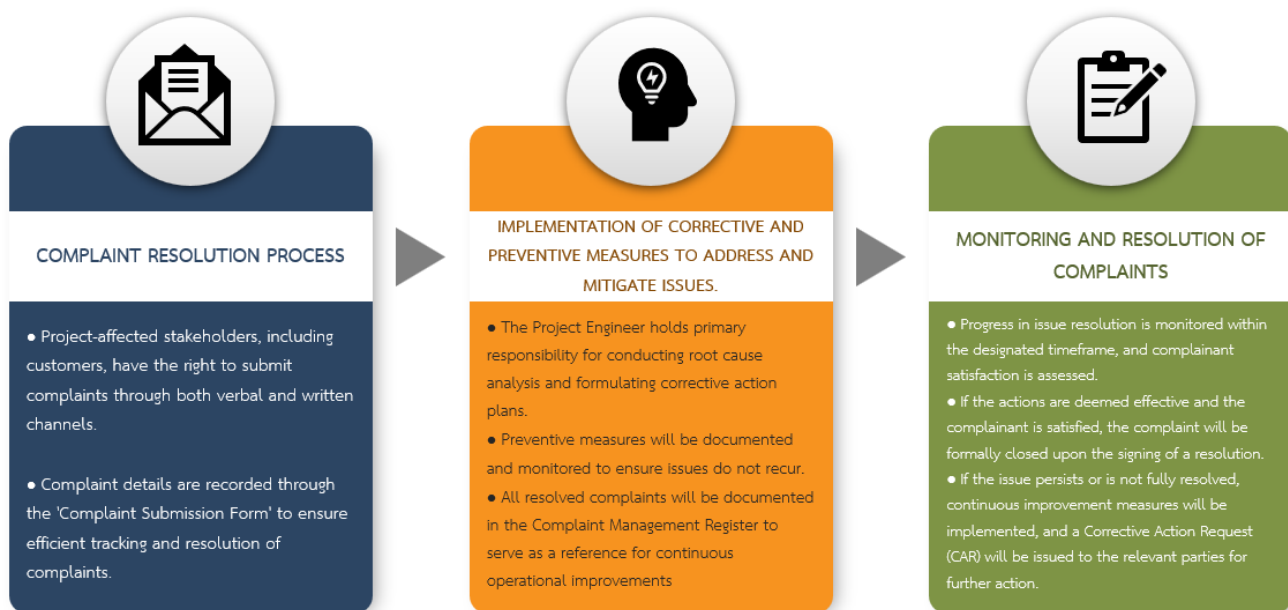
<Graphic>

Outstanding Performance	Good Performance	Adequate Performance	Improvement Needed	Urgent Improvement Required
86-100 %	71-85 %	56-70 %	41-55 %	0-40 %

The satisfaction target for project owners and clients must meet or exceed the "Good" standard. Satisfaction data will be collected monthly. In 2024, all clients of Ch. Karnchang rated their satisfaction as either "Good" or "Very Good."

## Complaint Resolution Process

CH. Karnchang has established a Complaint Management Manual, providing clear guidelines for effectively addressing and resolving issues to enhance customer satisfaction.



The Complaint Resolution system facilitates the company's ability to address concerns and issues raised by customers and the surrounding community. By implementing a standardized approach to handling complaints, the system helps mitigate potential problems before they escalate to direct customer complaints. This approach serves as a preventive mechanism to reduce conflicts between customers and CH. Karnchang. An efficient system for receiving and resolving complaints contributes to the continuous improvement of company operations, the reduction of disputes, and the establishment of sustained trust with customers.

## Effective communication between CH. Karnchang and the project owner/client

The company maintains regular communication with customers regarding its operational plans and progress to cultivate positive relationships and trust. This approach ensures that customers are informed about the progress of operations and reassured that the company is fully committed to addressing their needs. The



company offers a range of engagement channels, such as project reports, meetings with project stakeholders, phone calls, websites, emails, and letters, to facilitate transparency and ongoing dialogue with its clients.

#### Data management and preservation for project owners and clients

The confidentiality of customer data is of paramount importance to the company, as outlined in its Human Rights Policy and Code of Conduct. This policy ensures that customer data is not disclosed to unauthorized employees or external parties, except where required by law, for legal proceedings, or with the express approval of the Board of Directors. Employees are required to maintain the confidentiality of the data they manage, even after they retire, resign, or leave the company. The company actively promotes awareness among employees to prevent the misuse of customer information outside of their designated roles. All customer data must be securely retained for a minimum period of 10 years, both in physical and electronic formats. Upon completion of the retention period, sensitive documents are to be securely destroyed. (For detailed information, refer to the CH. Karnchang Code of Conduct for Business and Best Practices, available in the document [ck-code-of-conduct-for-business-th.pdf](#))

#### Management of complaints

In managing complaints from complainants regarding customers, customer representatives, and the public affected by construction projects, CH.Karnchang has developed a comprehensive complaint management manual. This manual outlines the process for receiving complaints, including a formal complaint acknowledgment form to ensure all issues and the needs of customers or complainants are fully documented. Once submitted, the complaint form is forwarded to the project's chief engineer, who is responsible for the affected project. The chief engineer will then analyze the cause, develop corrective actions, and implement preventive measures to avoid recurrence. A timeline for resolving the complaint will be set, along with the designation of the individual responsible for carrying out these actions.

Upon resolution of the complaint, the project chief engineer is tasked with following up with the complainant and recording their satisfaction with the corrective measures. Should the actions fail to deliver satisfactory results or the complainant remain dissatisfied, additional corrective measures will be implemented. All pertinent documentation must be





signed by either the project manager or the Executive Vice President : Construction Department to formally acknowledge the outcomes of the corrective actions.

### Target

Indicators	Target (2024)	Performance Results (2024)
Customer Satisfaction Score	100% of customers reported satisfaction levels as good or very good	100% of customers reported satisfaction levels as good or very good
The percentage of complaints resolved	100%	100%

### Performance and Results

CH. Karnchang employs a structured approach to customer relationship management, incorporating regular customer satisfaction evaluations and efficient complaint resolution mechanisms. This ensures that construction projects are carried out smoothly, meeting industry standards and aligning with the expectations of both customers and stakeholders

#### Customer Satisfaction Evaluation

The customer satisfaction survey conducted by CH. Karnchang aims to evaluate performance and gather customer feedback on the quality of construction services. In 2024, 100% of CH. Karnchang's customers rated the company's services as either Good or Very Good. As a result, no recommendations for improvement were made based on the satisfaction survey, and its findings have not been directly applied to the development or enhancement of the company's products or services.

Although the customer satisfaction evaluation process does not provide direct suggestions for improvements, CH. Karnchang has a complaint management system that enables the company to address the concerns and issues raised by both customers and the surrounding community. This system follows a standardized complaint management procedure. Complaints received from customers and the community are processed according to the company's established complaint handling procedure. The root causes of complaints are analyzed, and corrective measures are taken to prevent the recurrence of issues. Additionally, community complaints can







help resolve concerns before they are escalated to customers, serving as a preventive mechanism to reduce potential conflicts between CH. Karnchang and its customers.

Leveraging data collected from complaints and suggestions to continuously improve and refine the construction processes

In 2024, CH. Karnchang received a total of 63 complaints regarding its operations. In response, CH. Karnchang has implemented improvements to its operational outcomes to better meet customer satisfaction.





Indicators	Target	Performance Results			
		2024	2023	2022	2021
Total number of complaints reported (instances)		63*	16	28	32
The percentage of complaints resolved	100%	100%	100%	100%	100%

\*Note : In 2024, the number of complaints significantly increased compared to 2023, nearly quadrupling. This increase is primarily due to the company's implementation of two large-scale infrastructure projects: 1. The Denchai-Chiang Rai dual-track railway project (Contracts 2 and 3), and 2. The southern section of the Purple Line electric rail project (Contracts 1 and 2). Both projects span several kilometers, and as the dual-track railway project entered its main construction phase, the volume of complaints rose relative to 2023.

Complaint resolution measures and projects undertaken to alleviate customer concerns and sustain customer satisfaction

CH. Karnchang has systematically implemented corrective measures in response to the complaints raised, utilizing a thorough root cause analysis approach and adhering to established engineering and environmental standards. Additionally, proactive measures have been put in place to mitigate potential future risks, ensuring the uninterrupted execution of the project while minimizing any adverse effects on the surrounding communities.



 1. Complaint Issues	 2. Root Cause Analysis	 3. Corrective Actions	 4. Preventive Measures
<ul style="list-style-type: none"> <li>Structural cracking in the foundation and concrete floor system.</li> </ul>	<ul style="list-style-type: none"> <li>The issue stems from the structural stress and the weight of construction materials, leading to the formation of cracks.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct repairs on the cracks in the foundation structure and the entrance surface to ensure structural integrity and safety.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a structural monitoring plan utilizing force measurement instruments and conduct periodic inspections for cracks,</li> </ul>
<ul style="list-style-type: none"> <li>The impacts of construction activities, including noise, dust, and vibrations, on local communities surrounding the project.</li> </ul>	<ul style="list-style-type: none"> <li>In order to reduce the environmental impact, it is imperative to optimize the structural installation process, ensuring minimal disturbance to the surrounding area.</li> </ul>	<ul style="list-style-type: none"> <li>Additional safety protocols are being instituted within the construction zone to minimize any potential adverse effects on the public</li> <li>Ensure the proper installation of pressure measurement instruments and monitor structural displacement to mitigate future risks</li> </ul>	<ul style="list-style-type: none"> <li>Establish supplementary environmental and safety standards to ensure the project adheres to more stringent compliance criteria</li> </ul>
<p>There is ongoing communication with the community and relevant authorities to proactively address potential concerns and prevent future complaints</p>			

### Example of Product/Service Development and Improvement by CH. Karnchang

One of the projects received a customer complaint regarding the safety of the building. In response, CH. Karnchang invited experts in Geotechnical Engineering and Ground Improvement Techniques to review documents, interview the designers, and conduct an on-site assessment of the building's condition. The experts recommended installing additional building tilt measurement instruments (Tilt Meters). Accordingly, CH. Karnchang has installed the tilt measurement instruments as advised. The company also shared this experience with



project management teams and applied the lessons learned to other projects within CH. Karnchang.



GRI content index: GRI 2



GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	e-One Report Page/ Website	OMISSION			SDG Linkage			
				REQUIREMENT(S) OMITTED	REASON	EXPLANATION				
GRI 2: General Disclosures 2021	1. The Organization and its Reporting Practices									
	2-1	Organizational details (a, b, c, d)	e-One Report	PDF p. 13	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.					
	2-2	Entities included in the organization’s sustainability reporting (a,b,c)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p.1)						
	2-3	Reporting period, frequency and contact point (a, b, c,d)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p.1)						
	2-4	Restatements of information (a)	N/A	N/A						
	2-5	External assurance (b)	e-One Report	PDF p.96						
	2. Activities and Workers									
	2-6	Activities, value chain and other business relationships (a,b,c)	Website: Business Value Chain	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-value-chain-and-stakeholder-th.pdf (PDF p.1-9)						
	2-7	Employees (a, b)	e-One Report	PDF p. 102, 205-206						
	2-8	Workers who are not employees (a)	e-One Report	PDF p. 206						
	3. Governance									
	2-9	Governance structure and composition (a, b, c)	Website: Corporate Governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p.7-10)						
			e-One Report	PDF p. 174-188						
	2-10	Nomination and selection of the highest governance body (a, b)	Website: Corporate Governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p.3-9)						
			e-One Report	PDF p. 213						
	2-11	Chair of the highest governance body (a, b)	Website: Corporate Governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p.4)						
			e-One Report	PDF p. 177, 179						
	2-12	Role of the highest governance body in overseeing the management of impacts (a, b, c)	Website: Sustainability Governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-sustainability-governance-th.pdf (PDF p.2-3)						
			e-One Report	PDF p. 187-188, 179						
	2-13	Delegation of responsibility for managing impacts (a, b)	Website: Scope of CK Sustainability Reproting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p.7)						
			e-One Report	PDF p. 197						
	2-14	Role of the highest governance body in sustainability reporting (a, b)	Website: Sustainability Governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-sustainability-governance-th.pdf (PDF p.1)						
			e-One Report	PDF p. 197						
	2-15	Conflicts of interest (a, b)	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p.14-18, 20)						
			e-One Report	PDF p. 218						
	2-16	Communication of critical concerns (a, b)	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p.17-19)				CK is in the process of data collection.		
	2-17	Collective knowledge of the highest governance body	e-One Report: Director Development	PDF p.146						
	2-18	Evaluation of the performance of the highest governance body (a, b, c)	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf(PDF p.10-13)						
			e-One Report: Criteria for Evaluation of Performance of the Board of Directors	PDF p.217-223						
	2-19	Remuneration policies (a, b)	e-One Report	PDF p.225-228						
	2-20	Process to determine remuneration (a, b)	e-One Report	PDF p.225-228						
	2-21	Annual total compensation ratio	N/A	N/A						
	4. Strategy, Policies, and Practices									
	2-22	Statement on sustainable development strategy	Website: Message from CEO	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-ceo-message2024-th.pdf (PDF p.1-3)						
	2-23	Policy commitments (a,b,c,d)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p. 2-5)						
			Website: Sustainability governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-sustainability-governance-th.pdf (PDF p.1)						
			Website: Sustainability Policy	https://www.ch-karnchang.co.th/storage/downloads/sustainability/ck-sustainability-policy-th.pdf (PDF p.1-2)						
	2-24	Embedding policy commitments (a)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p. 1-8)						
			Website: Sustainability governance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-sustainability-governance-th.pdf (PDF p.1)						
			Website: Message from CEO	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-ceo-message2024-th.pdf (PDF p.1-3)						

	2-25	Processes to remediate negative impacts (a, b, c, d, e)	Website: Scope of CK sustainability reporting	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf</a> (PDF p. 8)	
			e-One Report	PDF p. 78-84, 163, 233	
			Website: Building Communities Strengthen : Empowering through Sustainable Development	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf</a> (PDF p. 17-19)	
	2-26	Mechanisms for seeking advice and raising concerns (a)	Website: Building Communities Strengthen : Empowering through Sustainable Development	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf</a> (PDF p. 17)	
			Website: Social & Community Engagement	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf</a> (PDF p.4)	
	2-27	Compliance with laws and regulations (a, b, c, d)	Website: ESG Awards of Pride	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-esg-award-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-esg-award-th.pdf</a> (PDF p.1-2)	
			Website: Corporate Governance and Compliance	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf</a> (PDF p. 14, 19-20)	
			Website: Occupational Health and Safety	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf</a> (PDF p.4-10)	
			Website: Social & Community Engagement	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf</a> (PDF p.4-6)	
	2-28	Membership associations (a)	Website: Corporate Governance and Compliance	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf</a> (PDF p. 14)	
5. Stakeholder Engagement					
2-29	Approach to stakeholder engagement	Website: Value chain and Stakeholder Engagement	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-value-chain-and-stakeholder-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-value-chain-and-stakeholder-th.pdf</a> (PDF p.1-9)		
2-30	Collective bargaining agreements	Website: Labor Practices & Human Capital Management	<a href="https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf">https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf</a> (PDF p.2)		



GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location	Page/ Website	OMISSION			SDG Linkage
				REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Material Topics							
GRI 3: Material Topics 2021	3-1	Process to determine material topics (a, b)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p.6-8)		-	
	3-2	List of material topics (a, b)	Website: Scope of CK sustainability reporting	https://www.ch-karnchang.co.th/storage/downloads/sustainability/overview/ck-reporting-scope-th.pdf (PDF p.6-8)			
Economic Dimension							
Corporate Governance and Compliance							
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p. 1)		Goal 12, Goal 16	
Economic Performance							
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed (a, b)	e-One Report	PDF p.15-18			
	201-2	Financial implications and other risks and opportunities due to climate change (a)	e-One Report	PDF p.69, 73			
Anti-Corruption							
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption (a, b)	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p. 16-20)			
	205-2	Communication and training about anti-corruption policies and procedures (a, b, d, e)	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p. 16-17)			
	205-3	Confirmed incidents of corruption and actions taken (a, b,d)	e-One Report	PDF p.231-234			
Anti-Competitive Behavior							
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Website: Corporate Governance and Compliance	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-corporate-governance-th.pdf (PDF p. 14-15, 20)			
Tax							
GRI 207: Tax 2019	207-1	Approach to tax (a)	e-One Report	PDF p.324			
	207-2	Tax governance, control, and risk management (a, c)	e-One Report	PDF p.111-112, 115-116			
	207-3	Stakeholder engagement and management of concerns related to tax (a)	e-One Report	PDF p.111-112, 115-116			
	207-4	Country-by-country reporting (a, b, c)	e-One Report	PDF p.121-126, 366-368			
Supply Chain Management							
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Supply Chain Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf (PDF p.1)		Goal 8	
Supplier environmental assessment							
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria (a)	Website: Supply Chain Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf (PDF p.8-10)			
	308-2	Negative environmental impacts in the supply chain and actions taken (a, b, c, d, e)	Website: Supply Chain Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf (PDF p.8-10)			
Supplier social assessment							
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria (a)	Website: Supply Chain Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf (PDF p.8-10)			
	414-2	Negative social impacts in the supply chain and actions taken (a, b, c, d, e)	Website: Supply Chain Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-supply-chain-management-th.pdf (PDF p.8-10)			
Risk and Crisis Management							
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Risk and Crisis Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-risk-crisis-management-th.pdf (PDF p.1)		Goal 8	
Customer Relationship Management							
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Customer Relationship Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-customer-relationship-management-th.pdf (PDF p.1)		-	
Customer health and safety							
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories (a)	Website: Customer Relationship Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-customer-relationship-management-th.pdf (PDF p.1-2, 4-5)			
Environmental Dimension							
Environmental Management							
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.1)		Goal 8, Goal 12	
Water and Effluents							
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource (a, b, c, d)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.4)			
			e-One Report	PDF p. 89-91			
	303-2	Management of water discharge-related impacts (a)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.4)			
			e-One Report	PDF p. 89-91			
	303-3	Water withdrawal (a, b)	e-One Report	PDF p. 89-91			
	303-4	Water discharge (a, b, c)	e-One Report	PDF p. 89-91			
	303-5	Water consumption (a)	e-One Report	PDF p. 89-91			
Material							
GRI 301: Materials 2016	301-1	Materials used by weight or volume (a)	e-One Report	PDF p. 34-37			
Waste							

306: Waste 2020	306-1	Waste generation and significant waste-related impacts (a)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.9)		
	306-2	Management of significant waste-related impacts (a)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.10-11)		
	306-3	Waste generated (a, b)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.11)		
	306-4	Waste diverted from disposal (a, c, d, e)	Website: Environmental Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-environmental-management-th.pdf (PDF p.11)		
Energy and Climate Change Management						
GRI 3: Material Topics 2021	3-3	3-3 Management of material topics	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.1)		Goal 7, Goal 12, Goal 13
Energy						
GRI 302: Energy 2016	302-1	Energy Consumption within the organization (a, b, c, d)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.3)		
	302-4	Reduction of energy consumption (a, b)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.3)		
	302-5	Reductions in energy requirements of products and services (a)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.3)		
Emissions						
GRI 305: Emission 2016	305-1	Direct (Scope 1) GHG emissions (a, b, c)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.10)		
	305-2	Energy indirect (Scope 2) GHG emissions (a)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.10)		
	305-3	Other indirect (Scope 3) GHG emissions (a, b, d)	Website: Energy and Climate Change Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-energy-climate-change-management-th.pdf (PDF p.10)		
Biodiversity						
GRI 3: Material Topics 2021	3-3	3-3 Management of material topics	Website: Biodiversity	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-biodiversity-th.pdf (PDF p.1-2)		Goal 15
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas (a)	Website: Biodiversity	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-biodiversity-th.pdf (PDF p.4-5)		
	304-2	Significant impacts of activities, products and services on biodiversity (a)	Website: Biodiversity	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-biodiversity-th.pdf (PDF p.4-5)		
Social Dimension						
Occupational Health and Safety						
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p.1)		Goal 3, Goal 8
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system (a, b)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p.1)		
	403-2	Hazard identification, risk assessment, and incident investigation (a, b, c, d)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p.8-9)		
	403-3	Occupational health services	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p.1-5)		
	403-4	Worker participation, consultation, and communication on occupational health and safety (a)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 9)		
	403-5	Worker training on occupational health and safety	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 10-13)		
	403-6	Promotion of worker health (a)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 5)		
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships (a)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 6)		
	403-8	Workers covered by an occupational health and safety management system (a, b, c)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 1-2)		
	403-9	Work-related injuries (a, b, c, d, e, f, g)	Website: Occupational Health & Safety	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-occupational-health-safety-th.pdf (PDF p. 9-11)		
Social and Community Engagement						
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Social & Community Engagement	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf (PDF p.1)		Goal 4, Goal 10, Goal 16
Local Communities						
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs (a)	Website: Social and Community Engagement	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-social-community-engagement-th.pdf (PDF p.7-10)		
Human Capital Management						
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.1)		Goal 5, Goal 8



Employment						
GRI 401: Employment 2016	401-1	New employee hires and employee turnover (a, b)	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.8)		
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees (a, b)	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.5)		
Training and Education						
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee (a)	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.9)		
	404-2	Programs for upgrading employee skills and transition assistance programs (a)	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.10-11)		
	404-3	Percentage of employees receiving regular performance and career development reviews	Website: Labor Practices & Human Capital Management	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-capital-management-th.pdf (PDF p.4-5)		
Human Rights						
GRI 3: Material Topics 2021	3-3	Management of material topics	Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.2-3)		Goal 1, Goal 3
Diversity and equal opportunity						
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees (a, b)	e-One Report	PDF p.177, 205		
	405-2	Ratio of basic salary and remuneration of women to men (a, b)	e-One Report	PDF p. 206-207		
Non-discrimination						
GRI 406 Non-discrimination	406-1	Incidents of discrimination and corrective actions taken (a, b)	Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.5)		
Freedom of association and collective bargaining						
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk (b)	Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.2)		
Child Labor						
GRI 408 Child Labour 2016	408-1	Operations and suppliers at significant risk for incidents of child labor (a, b, c)	e-One Report	PDF p.99-100		
			Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.5)		
Forced or compulsory labor						
GRI 409 Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor (a, b)	e-One Report	PDF p.99-100		
			Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.5)		
Rights of indigenous peoples						
GRI 411 Rights of	411-1	Incidents of violations involving rights of indigenous peoples (a, b)	Human Rights	PDF p.99-100		
			Website: Human Rights	https://www.ch-karnchang.co.th/storage/downloads/sustainability/sustainability-development-report/ck-human-rights-th.pdf (PDF p.5)		