

SUSTAINABILITY  
REPORT  
**2022**

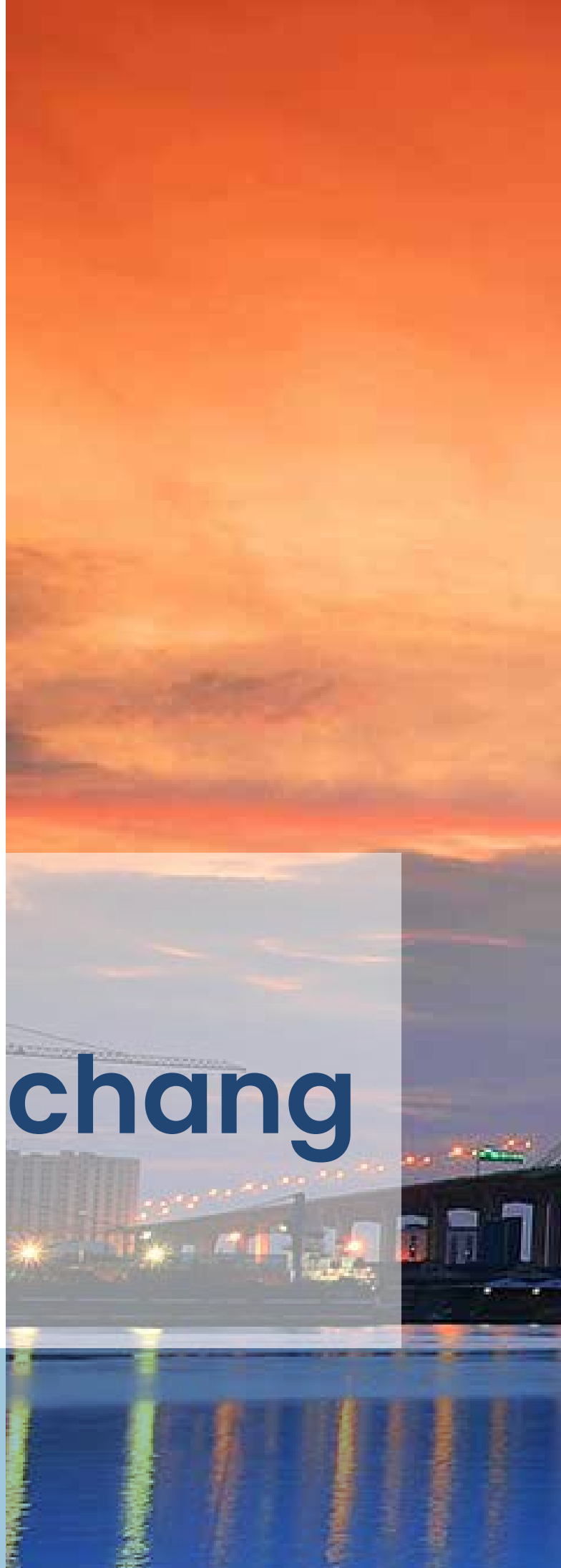


CH.Karnchang  
Public Company Limited

SUSTAINABILITY  
REPORT  
2022

# CH. Karnchang

Public Company Limited





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**Mr. Aswin Kangsiri**  
Chairman of the Board of Directors

**Mr. Plew Trivisvavet**  
Chairman of the Executive Board

**Dr. Supamas Trivisvavet**  
Vice Chairman of the Executive Board

## Message from the Company Board of Directors

(102-14)

2022 was the year which CH. Karnchang celebrated its 50th anniversary of the Company's operation. CH. Karnchang is very proud to have been a part of building the country's advancement, raise the level of living quality for the people and the society, as well as creating shared value throughout the years. The Company has accomplished this by executing various construction projects of quality, taking into account the preservation of the environment, delivering the work on time, investing in basic utility businesses to create stability for the Company, and operating the business with integrity, transparency, and good governance to generate fair returns for shareholders in the long term. We are confident that all our past experiences and operational practices can continue to be built on in order to create new business opportunities and progress with strong organizational growth, being ready to develop sustainable basic infrastructures for people's lives and the society, and ensuring that CH. Karnchang will be able to establish stability in stepping into the next decade.

CH. Karnchang is committed to conducting business on the basis of sustainability based on good governance by integrating the United Nations Sustainable Development Goals (SDGs) to the organization's core operation to create good performance results in economic, social, and environmental terms, including the Green Construction building model, along with taking care of stakeholders in the business and the supply chain. The Company realizes the importance of global transformation in moving forward to becoming Smart & Sustainable City, and thereby focuses on developing the potential of its personnel by creating a learning organization, transferring expertise from current executives to the new generation of executives in accordance with the succession plan, and adopting technology and innovation to increase competency towards excellence in all kinds of construction engineering for the benefits of competition. The Company manages the organization in a way that it keeps up with the modern world and synergizes with its group companies, namely BEM, TTW, and CKP, to operate the construction business and invest basic utilities efficiently and successfully according to the set goals.

## In 2023, the Company has set business goals as follows:

**Economic Dimension:** From the COVID-19 situation in the past, CH. Karnchang has been able to adapt and carry on with its business with efficacy according to the New normal way of life. Construction projects were able to be resumed according to plan without delay and the costs were controlled efficiently. Although there were some fluctuations in the prices of building materials due to uncontrollable external factors, with the technology applied in cost management along with planning and managing risks systematically, the Company was able to maintain its revenue and profit excellently according to the target. The MRT Orange Line Project (Eastern) Contracts no. 1, 2 and 5 and the Rama 3 – Dao Khanong Expressway Project Contract no. 4 will be able to be delivered on time in 2023. In 2022, the Company signed and commenced 2 construction projects, namely the Southern Purple Line Project (Tao Poon – Rat Burana) in Contracts no. 1, 2 and the Bang Ban – Bang Sai flood canal project, with a total value of nearly 20,000 million baht and it is expected that in 2023 CH. Karnchang will be able to sign a hydroelectric power plant project in the Lao People’s Democratic Republic and the MRT Orange Line Project (West) worth approximately 180,000 million baht. This will lead to CH. Karnchang having projects on hand of more than 200 billion baht, and these projects are those in which CH. Karnchang has experience and expertise to create satisfactory performance. We expect that in 2023 the Company will gain revenue from the construction business of not less than 30,000 million baht and a gross profit of about 7%, and be able to create continuous and stable performance results in the long run.

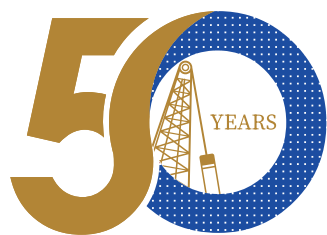
**Social and Environmental Dimension:** The Company gives importance to business operations under sustainable development that will contribute to the transition to a low-carbon economy. In 2023, CH. Karnchang aims to be able to report complete carbon emissions in the work process of all project offices as a guideline to reduce carbon emissions effectively in the following years to promote the transition to the carbon neutral goal of the United Nations Framework Convention on Climate Change (UNFCCC).

In addition, the “Community Technician Innovation Promotion Project,” in which CH. Karnchang has collaborated with the National Innovation Agency (NIA) and the ChangeFusion Institute, aims to develop the potential of “technicians,” which are the heart of the construction business. It has been in operation since October 2019 and 2023 will be considered the 3rd year. We believe that it is a good project that can increase the skills of community technicians and enable them to bring knowledge to further improve and develop innovations for maximum efficiency. In addition, they can apply the skills to practice their occupation as a “technician,” and generate income for the family and community, or develop themselves until they are able to continue working at a national or international level.

In 2022, CH. Karnchang was considered by Thaipat Institute to receive the ESG 100 award (for the 7th year) and was considered for the award from the Investment Analysts Association for Best Investor Relations in Real Estate, Building Materials and Contractors. We believe that it is due to our social and environmental responsibility, ethical performance, good corporate governance and the on-point, complete and accurate disclosure of information that resulted in the Company receiving the valuable award on this occasion.

On behalf of CH. Karnchang’s executives and employees, I would like to take this opportunity to thank all business partners, government agencies, private sectors, investors, and shareholders for the great support provided to CH. Karnchang over the past 5 decades. We will continue to create potential synergies, combine experience, and develop construction innovations to ensure the strength, stability, and solidarity of CH. Karnchang as well as building a sustainable future together with all stakeholders.





# Anniversary

C H . K A R N C H A N G







# 2

## About CH. Karnchang





# Our CH. Karnchang

## About CH. Karnchang

(102-1, 102-3, 102-5)

CH. Karnchang PCL was established on the 27th of November, 1972 in order to operate in the construction industry, accept construction projects from government agencies and state enterprises, as well as from the private sector, in addition to accepting projects both as a (Main Contractor) and as a (Subcontractor). In addition, the Company also operates businesses which invest in public utility projects including :



• Bangkok Expressway and Metro Public Company Limited (BEM)



• TTW Public Company Limited (TTW)



• CK Power Public Company Limited (CKP)



Date of registration on the Stock Exchange of Thailand (SET) :

**October 10, 1994**



Registered capital :

**1,693,899,970 Baht**



Head Office : CH. Karnchang Public Company Limited  
587 Viriyathavorn Building, Sutthisarnvinijchai Rd, Ratchadaphisek  
Subdistrict, Dindaeng District, Bangkok 10400.

Tel: 02-277-0460, 02-275-0026

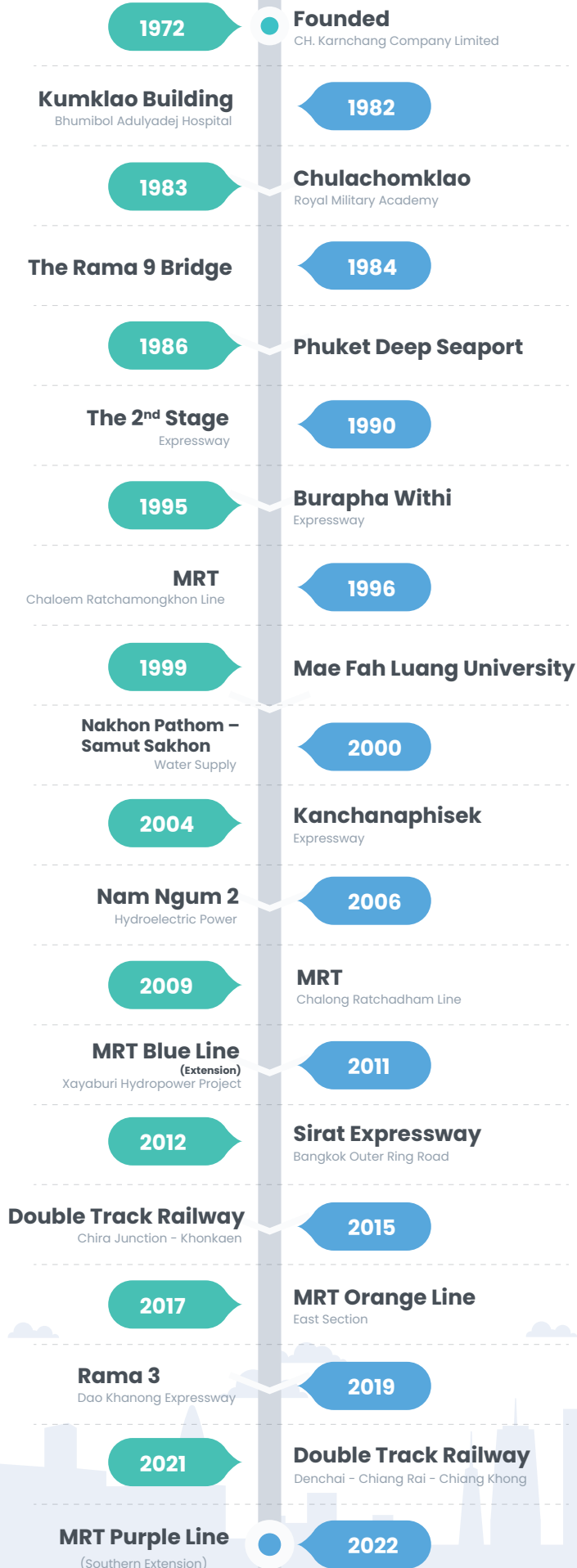
Fax : 02-275-7029

Website : <http://www.ch-karnchang.co.th>



# Journey of CH. Karnchang

(102-10)



# Business Structure of Company Group

(102-2)

The business operations of group companies are divided into two categories as follows :

## Construction Business



## Infrastructure Investment



■ Dividend    ■ Capital Gains

## Construction Business

The construction business operations of the Company, its subsidiaries and joint ventures can be divided into two natures, namely :



### Main Contractor

The Company directly submits proposals in its own name, as contractor through bidding process or negotiation, to project owners. In case of a large-scale project, which requires specialized foreign companies for joint operation, the Company submits proposals in cooperation with specialized foreign companies in accordance with the requirements of the project owners. In the acceptance of projects in this manner, the Company does not solely carry out the entire construction work, but subcontracts parts of such work. In the nomination of subcontractor (s), the Company takes into account the creditability and previous achievements of the subcontractors, without reliance upon or adherence to any particular subcontractor.



### Subcontractor

CH. Karnchang accepts subcontract work from other main contractor that is awarded the work directly from project owner. Most works of this nature will involve a production process utilizing large-sized and sophisticated machinery, which are usually operated by foreign companies. CH. Karnchang will consider accepting subcontract work from companies with reputation and good financial standing, so as to enable it to have the opportunity to accept transfer of technology in respect of engineering, production process and management, as well as creating business alliance with qualified capability to carry out large-scale projects which require more advanced technology in the future.

## Infrastructure Investment

In addition to the construction business, the Company also has invested in regional, comprehensive infrastructure project development business. Currently, the Company has invested in mass rapid system, water system, and energy system. Based on the said manner of the infrastructure investment, the definition of each respective form can be described below.



### 1. BOT (Build-Operate-Transfer)

Private entity shall be granted the right under a concession agreement from the government for investment in construction and implementation to derive returns within a specified period and during the implementation, the ownership of the property shall remain vested in the private entity. After the end of the concession period, the ownership of the invested property shall be transferred to the government in consideration of the grant of the concession.

### 2. BTO (Build-Transfer-Operate)

Private entity shall carry out the design, investment and construction of property, the ownership of which shall be transferred to the government immediately after the construction completion. The private entity shall be granted the right to utilize such invested property under the concession agreement to derive returns within a specified period. During the period the Company is still entitled to utilize such property under the concession period, the Company such property in the form of the right to utilize, which is amortized throughout the concession period.

### 3. BOO (Build-Own-Operate)

Private entity shall carry out construction and management by its own investment. The ownership of the invested property is vested in the private entity. However, the private entity shall have an agreement with the government to guarantee revenue on a long term basis, whereby the government agency shall purchase goods during the term of the agreement, and upon expiration of the concession period, such property shall remain vested in the investing company.

### 4. BOOT (Build-Own-Operate-Transfer)

Private entity shall be granted the concession by the government for financing, design, construction, and service operations during the specified period of time, provided that the ownership of the property shall be transferred to the government upon the end of such specified period of time.

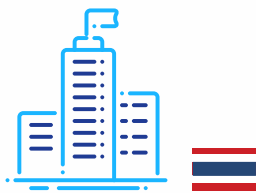
# Map of Operations

(102-4)



# Laos

CH. Karnchang (Lao) Company Limited



# Thailand

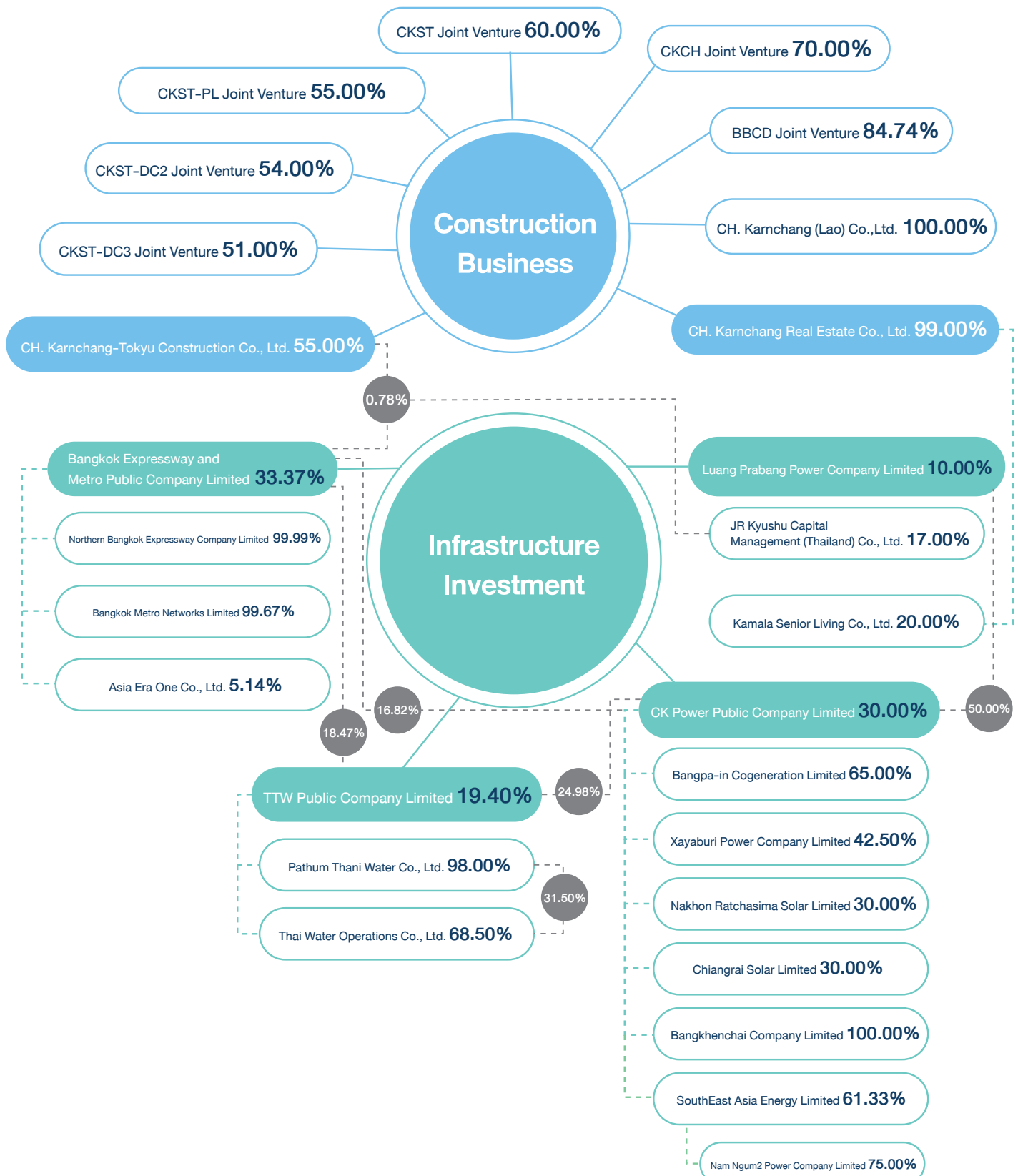
CH. Karnchang Public Company Limited

# Shareholding Structure of Company Group

(102-45)

## Organization Chart of CH. Karnchang Public Company Limited

(As at December 31, 2022)



# Characteristics of Customers

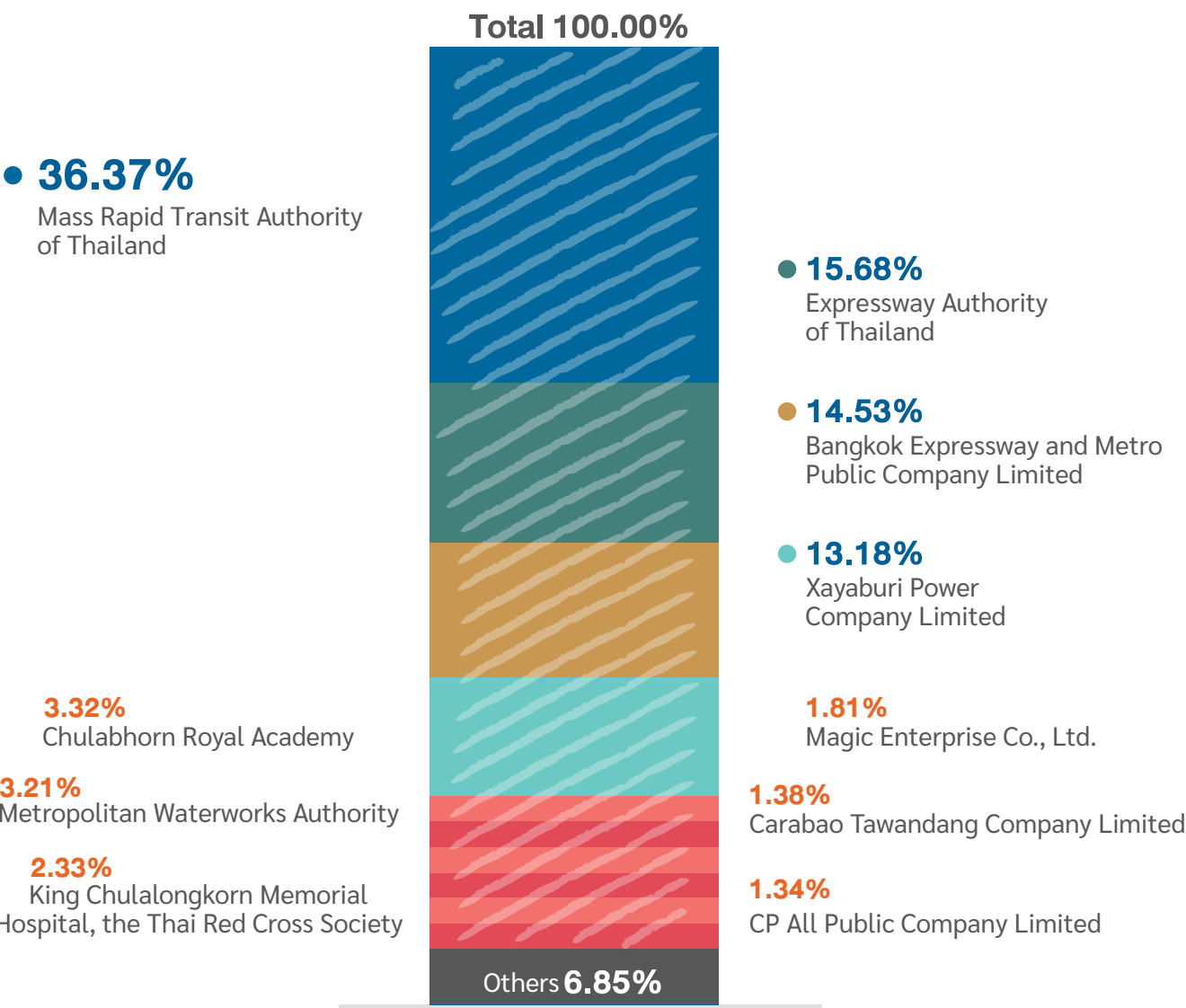
(102-6)

## Construction Business

The construction clientele of the Company and its subsidiaries can be divided into two groups, namely government agencies or state enterprises, and the private sector. The characteristics of the Company’s customers could not be divided into definite ratios given the fact that the customers are different in terms of periods and nature of their projects. However, considering the projects in the past, most of the Company’s customers are the government agencies and state enterprises in the country.

## A summary of the top 10 Major Customers

(As at of December 31, 2022)





## Infrastructure Investment

With respect to concession business, customer groups depends on concession category, per the table as follows :



The Public using the services



TTW Public Company Limited

Provincial Waterworks Authority



CK Power Public Company Limited

Electricity Generating Authority of Thailand  
Provincial Electricity Authority  
Bangpa-In Industrial Estate



# The Company's Overall Operational Policy

(102-16)



In the Board of Directors' Meeting No. 6/2022 on October 20, 2022, the Board of Directors considered approving review of the policies and approved the Company's vision, mission, values and strategies for 2022, as well as establishing the long-term goals to strengthen the synergy towards sustainability to ensure stable and sustainable growth of the Company's business operations while also generating maximum benefits for all stakeholders. To achieve such goals and objectives, the Company has thus adopted the operational policies subject to the principles as follows:

## ■ Vision



“ **Engineering Works by CH. Karnchang for Sustainable Infrastructure Development for Life and Society** ”

## ■ Mission



- Strive to produce quality works for customers while simultaneously being committed to bringing benefits to the society and the country, by taking into account good and fair returns for shareholders and stakeholders of all sectors.
- Conduct professional management based on corporate governance and adhere to good corporate governance.
- Uphold the organization's sustainable development alongside operations with responsibility for communities, society, environment and country.
- Promote the learning organization, with a commitment to human resource and innovative development.

## Core Values (C-K-S-A-T-I)

**C**

Commitment to Quality

**K**

Knowledge and Knowhow

**S**

Synergy and Sustainability

**A**

Agility

**T**

Trust in Teamwork

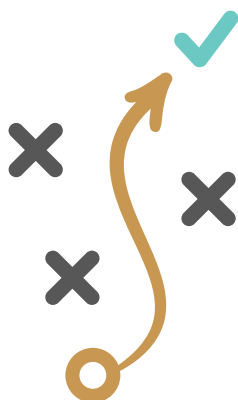
**I**

Integrity and Innovation



# Strategies :

## Enhance Synergy Toward Sustainability



- Strive for the sustainability by selecting to engage in business which makes good contribution to the society and our country as well as bringing good and fair business returns for stakeholders in the long run.
- Manage engineering work under the principles of effective cost management, delivery of quality work and timeliness.
- Strive for being a learning organization and continuous development of personnel and knowledge to create human capital and innovation.
- Maintain CH. Karnchang Group's synergy in the construction industry and its investment in projects involving fundamental public utilities to develop initiatives that serve society and the nation.
- Be ready to prove resilient and develop so as to boost the competitiveness to fulfil the market and global demands.
- Place a high value on the environment, nature, and climate change.

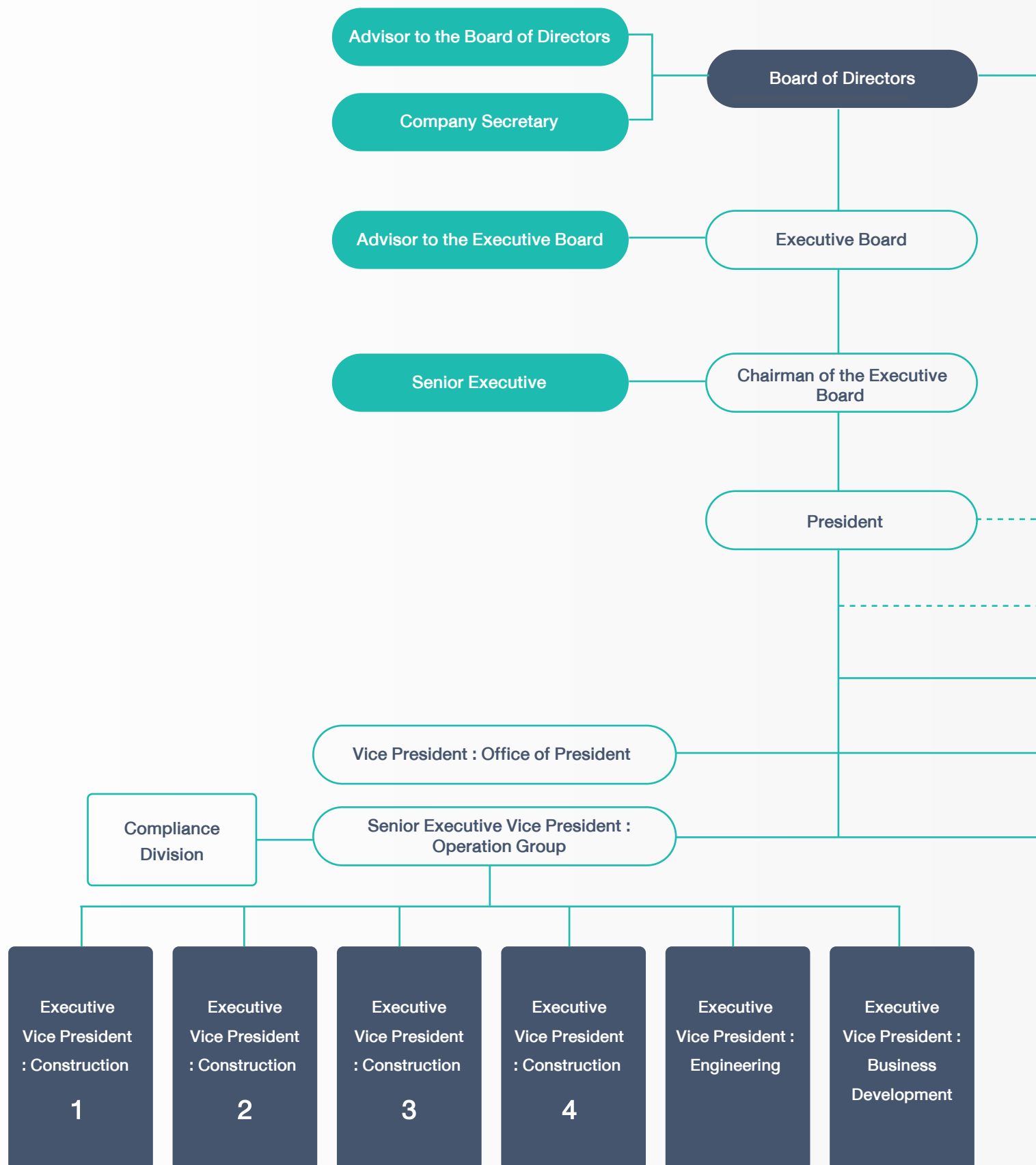
To ensure the Company's business operations in compliance with the policies, the Company has complied with the strategies and action plans in 2022 as follows:

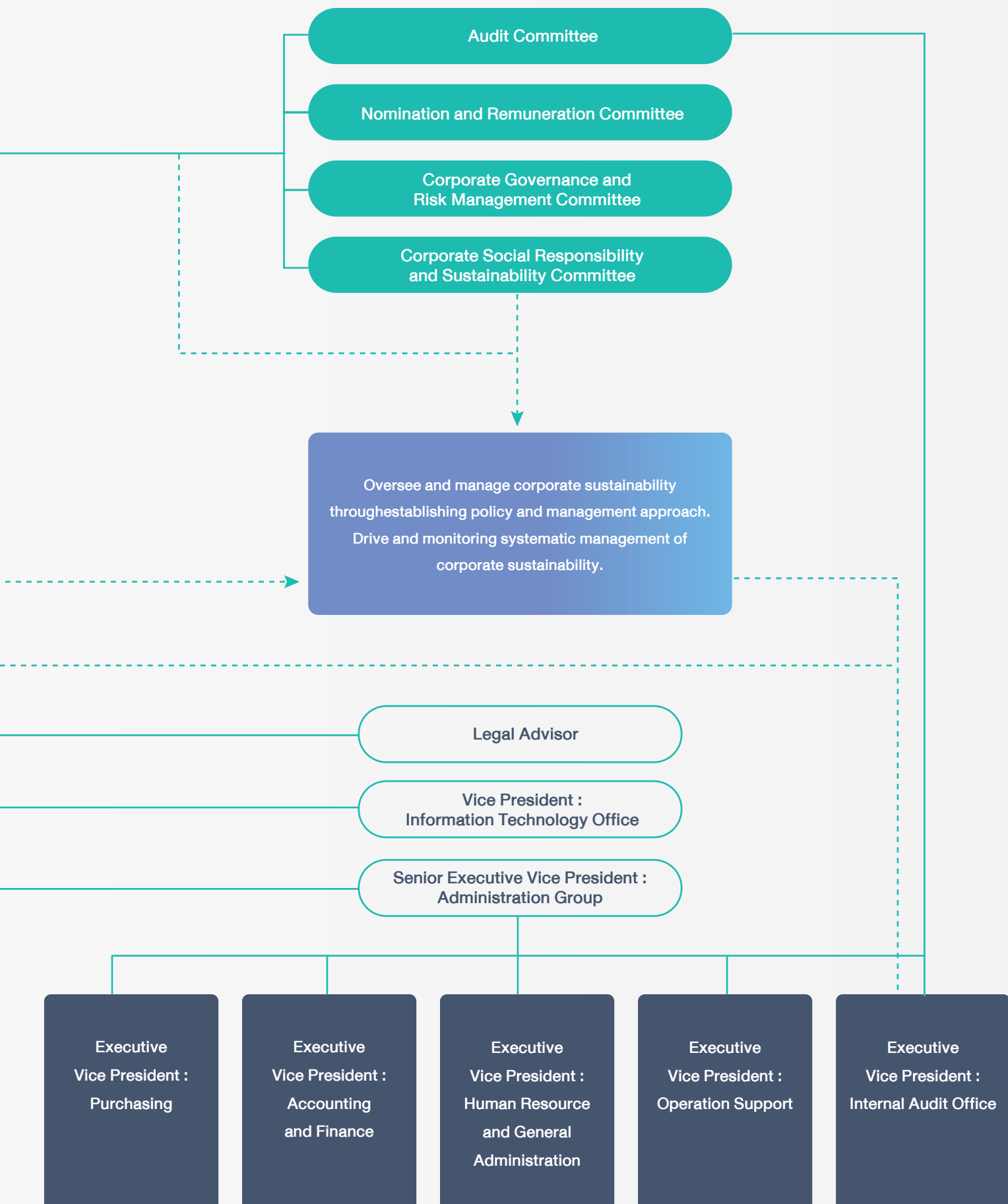
1. The Company carried out construction and performed various related works, with progress according to schedule through development and introduction of new innovations to ensure that they are applied as appropriate;
2. The Company followed the procedures under every project agreement;
3. The Company conducted feasibility studies for operations which considers the impacts on environment and nature, and made preparations for investments in various projects;
4. The Company maintained its liquidity and efficiently managed short-term and long-term investments to generate more revenues, as well as used various financial instruments for risk management, including reduction of finance cost;
5. The Company built a relationship with stakeholders through the social responsibility process and communicates to both internal and external persons for acknowledgement;
6. The Company maintained an efficient, transparent, and auditable management system subject to the good corporate governance principles, including the Quality Management System (ISO 9001:2015), and developed the information system with updated technology to enhance performance.



# Company Sustainability Structure

(As at December 31, 2022)





# Stakeholders' Involvement

(102-40, 102-42, 102-43, 104-44)

CH. Karnchang prioritizes stakeholders from all sectors, as well prioritizing listening to feedback from all groups of stakeholders equally. It has therefore identified stakeholders in groups by using the Company's evaluation process, whether legal rights under related laws or agreements which have been made jointly or protection under basic rights. The Company realizes that the relationship and cooperation with the stakeholders shall be a factor contributing to the sustainable growth of CH. Karnchang. From deliberation, it has been identified that the stakeholders consist of 8 groups which are shareholders/investors and analysts, employees, clients, trade partners, mass media, the general public, communities, and competitors. In this regard, in 2022, CH. Karnchang established engagement and practices towards its stakeholders as follows:



## Summary Table Showing the Engagement Method and Treatment of CH. Karnchang Stakeholders

Stakeholders (102-40)	Expectations and Concerns Of the Stakeholders (102-44)	Practice Guidelines Towards The Stakeholders (102-43)	Engagement Channels (102-43)
<b>1. Shareholders, Investors, Analysts, and Financial Institutions</b> <ul style="list-style-type: none"> <li>Shareholders</li> <li>Analysts</li> <li>Domestic and foreign institutional investors</li> </ul>	<ul style="list-style-type: none"> <li>Legal benefits such as dividends</li> <li>Shareholders' equitable treatment</li> <li>Legal compliance in transparency, verifiable, and under good corporate governance.</li> <li>The Company's business performance and financial situation are in good status that is stable and achieving the desired objectives.</li> </ul>	<ul style="list-style-type: none"> <li>We adhere to the various laws, rules, and regulations to ensure that the shareholders' treatment is in accordance with the principles of good governance.</li> <li>Share information equally, with accuracy, complete, clarity, efficiency, and up to date.</li> </ul>	<ul style="list-style-type: none"> <li>Annual General Meeting (AGM)</li> <li>Analysts' Meeting and rating agencies</li> <li>Press release on business performance</li> <li>Seminars, and roadshows for investors (both domestic and foreign investors)</li> <li>Annual Report</li> <li>Annual disclosure Report (56-1)</li> <li>Sustainability Report</li> <li>Participation in organized by the Stock Exchange of Thailand (SET)</li> <li>Performance summary results (Company Presentation)</li> <li>Telephone, Conference Calls and Video Conferences</li> <li>Newspaper and 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>
<b>2. Employees</b> <ul style="list-style-type: none"> <li>Monthly Staffs</li> <li>Daily Staffs</li> </ul>	<ul style="list-style-type: none"> <li>Receive appropriate compensation and welfare</li> <li>Employees hold equal rights</li> <li>Gain career advancement and stability</li> <li>Safety in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with labor laws by being mindful of human rights principles and the needs of our employees</li> <li>Providing fair and appropriate compensation</li> <li>Establishing communication channels for our employees to make complaints in cases of unfair treatment</li> <li>Implement efficient occupational health and safety practices</li> <li>Puts an emphasis on the development of potential at work</li> <li>Clarification for a common understanding and usage of rules and regulations</li> <li>Establishing various policies for the maximum benefit of the Company and other stakeholders.</li> <li>All practices are in compliance with the law, rules, and corporate governance principles.</li> <li>Control and manage the Company's operations to be in accordance with the established resolutions and policies.</li> </ul>	<ul style="list-style-type: none"> <li>Management and employee meetings</li> <li>Training and seminars</li> <li>Employee Engagement Survey</li> <li>Annual Report</li> <li>Sustainability Report</li> <li>Meeting with CEO</li> <li>Newsletter or online news</li> <li>Communicating through digital platforms and notice board</li> <li>Corporate grievance channel</li> <li>CSR Newsletter monthly magazine</li> </ul>

Stakeholders (102-40)	Expectations and Concerns Of the Stakeholders (102-44)	Practice Guidelines Towards The Stakeholders (102-43)	Engagement Channels (102-43)
<b>3. Customers</b> <ul style="list-style-type: none"> <li>Project Owner, Government</li> <li>Private sector</li> <li>Companies in the CH. Karnchang Group</li> </ul>	<ul style="list-style-type: none"> <li>There is supervision and management regarding occupational health and safety, and measures to control the impact that may occur to the environment.</li> <li>Having efficient and sufficient personnel for operation.</li> <li>Having efficient and sufficient tools, machinery, and equipment for operation.</li> <li>Possess a certain level of competency and experience in the operation of successful construction projects.</li> <li>Comprehensive technical details and prices for the construction of each type of project.</li> </ul>	<ul style="list-style-type: none"> <li>Abide by the format and regulations of the bidding and contracts</li> <li>Delivering projects with quality that meets the standards and requirements</li> <li>Confidentiality for the project owner</li> <li>Projects are guaranteed within the duration specified in the construction contract</li> <li>Conduct a survey on the project owner's satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>Reports/Evidence according to the regulations</li> <li>Meeting with customer representatives</li> <li>Telephone</li> <li>Website</li> <li>Newsletter or online news</li> <li>Annual Report</li> <li>Sustainability Report</li> <li>Customer engagement during ceremonies and festivals</li> <li>Corporate grievance channel</li> </ul>
<b>4. Trade Partners</b> <ul style="list-style-type: none"> <li>Suppliers</li> <li>Subcontractors</li> </ul>	<ul style="list-style-type: none"> <li>Complete payments for goods and wages punctually as per the agreed time.</li> <li>Utilize the goods and services provided by trade partners/subcontractor continuously.</li> </ul>	<ul style="list-style-type: none"> <li>Treats all trade partners with fairness and equity.</li> <li>Has a transparent bidding standard.</li> <li>The procedures are verifiable.</li> </ul>	<ul style="list-style-type: none"> <li>Reports on Purchasing Orders/Contract Hiring Orders</li> <li>Meetings with contractors and retail</li> <li>Annual Report</li> <li>Sustainability Report</li> <li>Activities promoting workplace safety</li> <li>Supplier and contractor meetings in accordance with the procurement process</li> <li>Telephone</li> <li>Email communications as appropriate</li> </ul>
<b>5. Press</b> <ul style="list-style-type: none"> <li>Press, TV, and Radio</li> <li>Online media</li> </ul>	<ul style="list-style-type: none"> <li>Receive information from the company that is clear, precise, and correct.</li> <li>Receive equal amounts of information with other groups of stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Communicate information that is effective, beneficial, swift, accurate, and up to date.</li> <li>Treat all groups of mass media equally with other groups of stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Report and disseminate the company's news and information through press releases, articles, and news</li> <li>Give interviews and arrange meetings with the Executives in order to exchange viewpoints</li> <li>Email</li> <li>Telephone</li> </ul>
<b>6. Public</b> <ul style="list-style-type: none"> <li>General public</li> <li>Users of roads and car</li> </ul>	<ul style="list-style-type: none"> <li>Prevent accidents or negative impacts that are caused by the use of machinery and transportation of oversized equipment.</li> <li>Does not emit pollution into the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Have an assessment measure for the tools and machinery, as well as public impacts that may occur.</li> <li>Carry out construction work efficiently and deliver within the specified delivery time.</li> </ul>	<ul style="list-style-type: none"> <li>Arrange meetings through the Supervisors.</li> <li>Notice Board</li> <li>Facebook Construction Projects</li> </ul>

Stakeholders (102-40)	Expectations and Concerns Of the Stakeholders (102-44)	Practice Guidelines Towards The Stakeholders (102-43)	Engagement Channels (102-43)
<b>7. Communities</b> <ul style="list-style-type: none"> <li>Communities surrounding the construction site</li> </ul>	<ul style="list-style-type: none"> <li>Are not affected by the construction's side effects, including pollution such as air, dust, noise, surface water quality, or in terms of life quality and day-to-day routines.</li> <li>If there is any impact from the construction, it must be rectified as soon as possible.</li> </ul>	<ul style="list-style-type: none"> <li>There are meetings with the community residents in order to inquire and follow up on any impacts that occur from the construction.</li> <li>Survey on the needs of the community residents.</li> <li>Participate in establishing communal practices and supporting those activities.</li> <li>Prevent and create an understanding with the community, as well as participating in the development of the community resident's quality of life.</li> <li>Organize community relations activities in order to develop the skills of the community residents.</li> </ul>	<ul style="list-style-type: none"> <li>Create a report on environmental impacts.</li> <li>Survey on feedback for various activities</li> <li>Visiting communities onsite</li> <li>Community development projects, such as Community relations activities</li> <li>Filing complaints at the construction site office</li> <li>Communicating through social media (Facebook) of Construction Projects</li> <li>Telephone (Hotline)</li> <li>Project Website</li> <li>Annual Report</li> <li>Sustainability Report</li> <li>Meeting with community leaders</li> <li>Corporate grievance channel</li> </ul>
<b>8. Competitors</b> <ul style="list-style-type: none"> <li>Construction companies both listed and non-listed on the Stock Exchange of Thailand (SET).</li> </ul>	<ul style="list-style-type: none"> <li>Refrain from destroying other companies' reputations by making negative accusations.</li> <li>Refrain from accessing information or confidential data of companies within the same industry with dishonest or illegal methods.</li> <li>Treat our competitors correctly and wish for lawful ethics.</li> <li>Non-trade discrimination policy</li> </ul>	<ul style="list-style-type: none"> <li>Operate business within the frame of the law, with ethics, transparency, and verifiable.</li> <li>Refrain from violations of intellectual assets and properties.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings through the Thai Construction Industry Association under royal patronage (TCA) and other relevant departments.</li> </ul>

# 3

## About This Report

(102-50,102-51,102-52,102-54)





## ◆ In 2022,

CH. Karnchang Public Company Limited prepared a sustainability report for the 10th consecutive year to demonstrate its intentions in management, policies, directions, as well as the direction of sustainable development. It also served to demonstrate its commitment to disclosure of important information regarding the Company's sustainable development in terms of economic, social, and environmental issues in order to communicate with the stakeholders for their acknowledgement, which covers the performance results from January 1<sup>st</sup> – December 31<sup>st</sup>, 2022. CH. Karnchang's report has been prepared in accordance with the reporting framework of the Global Reporting Initiative Standards or GRI Standards and the guidelines from (Construction & Materials disclosure) by disclosing information at the indicator level Core option which is gathered by the working committee, risk committee or responsible person from various departments in order to achieve clear and precise information.

Moreover, the Company has integrated its operation to be consistent with the United Nations **(Sustainable Development Goals: SDGs)** and to demonstrate its commitment in responding to the sustainability goals.

## ◆ Reporting Boundary

(102-46)

The disclosure of information in this report has been considered according to business relevance, the readiness of the information, and the impact to the operations under the main business, that is construction, which covers only the businesses of CH. Karnchang Public Company Limited and V.R.T. (51) Company Limited the MRTA Orange line (East Section) between the Thailand Cultural Centre – Minburi Project and King Chulalongkorn Hospital : Integrated Medical Center Building Project. In this regard, this report is yet to be able to disclose information from all construction projects. The reason being that some of the Company's projects were completed during 2019, while data collection is under development in order to report the results in accordance with the Company's standards. However, in order to ensure the completeness and clarity of the content, CH. Karnchang shall prepare a plan to improve the data gathering system for better efficiency which shall lead to quality performance reporting in according with the GRI standards.

# ➤ Establishment Process for Content of the Sustainability Report

CH. Karnchang has a process to evaluate key issues by considering the GRI's content establishment, through engagement of the management and employees, as well as considering the expectations of key stakeholders in order for this report to respond to and communicate with both internal and external stakeholders of the organization, by using the following procedure:

## Step 1

### Identifying the issues of significance (Identification)

In identifying sustainability issues, the working committee considers the sustainability issues from issues that are related to the construction business, expectations of the relevant stakeholders, and sustainability development goals according to the frame laid by the United Nations in order to cover all dimensions including economic, environmental, and social.

## Step 2

### Ranking the significant issues (Prioritization)

The working committee processes and ranks the significant issues of CH. Karnchang through its operational meetings of the representatives from various relevant departments to review the significant sustainability issues by identifying the significance of each issue from 2 viewpoints, which are, the level of influence on the evaluation and decision of the stakeholders, and the level of significance of the impact on the economy, society, and environment, as well as identifying the scope of impacts which may occur from the mentioned significant issues of sustainability.



### Step 3

#### The validation of the significant issues (Validation)

The working committee has verified and presents the significant sustainability issues to the senior management for their consideration and approval in order to ensure that the mentioned issues are complete, comprehensive and accurate, and consistent with the expectations of the stakeholders both internal and external.

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### Step 4

#### Reviewing the completed report (Review)

CH. Karnchang is committed to continuously improving its sustainability reports by giving the opportunity to all stakeholders to share their opinions regarding the sustainability report in order to enhance the report preparation process to be in line with the needs or the expectations of the stakeholders in the next version.

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## ➤ Summary of the Evaluation of Significant Issues and the Scope of the Report

### Sustainability Issues (102-47) : Economics

#### Scope of the Issues

##### Internal

(102-46)



CH. Karnchang  
Public Company Limited



CH. Karnchang  
(Lao) Company Limited

1

Business ethics

2

Good Corporate  
Governance

- Shareholders/  
Investors and Analysts
- Customer
- Trade Partners
- Competitors

- Shareholders/  
Investors and Analysts
- Customer
- Trade Partners
- Competitors

3

Supply Chain  
Management

- Trade Partners
- Clients

4

Economics  
Performance

- Shareholders/  
Investors and Analysts
- Client
- Trade Partners

5

Anti-corruption

- Shareholders/  
Investors and Analysts
- Client
- Trade Partners

6

Risk and Crisis  
Management

- Shareholders/  
Investors and Analysts
- Client
- Trade Partners
- Communities

- Employees
- Customers
- Trade Partners

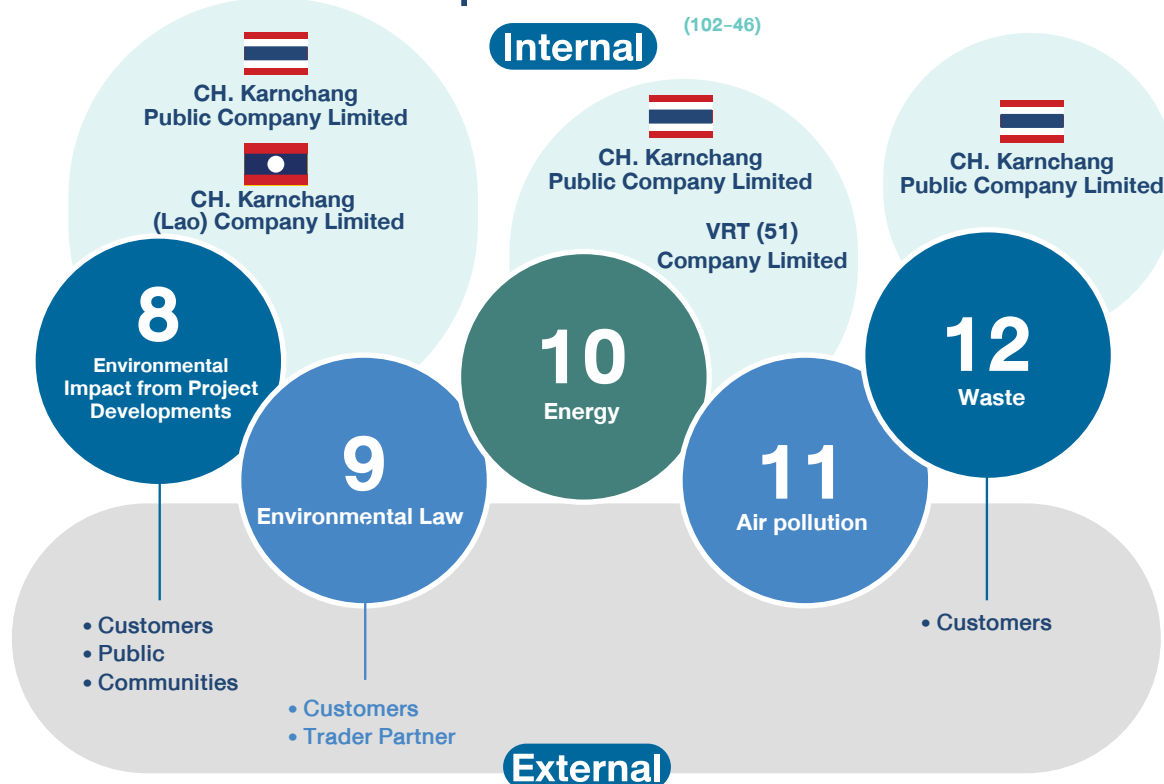
7

Information Security  
and Information  
System

##### External

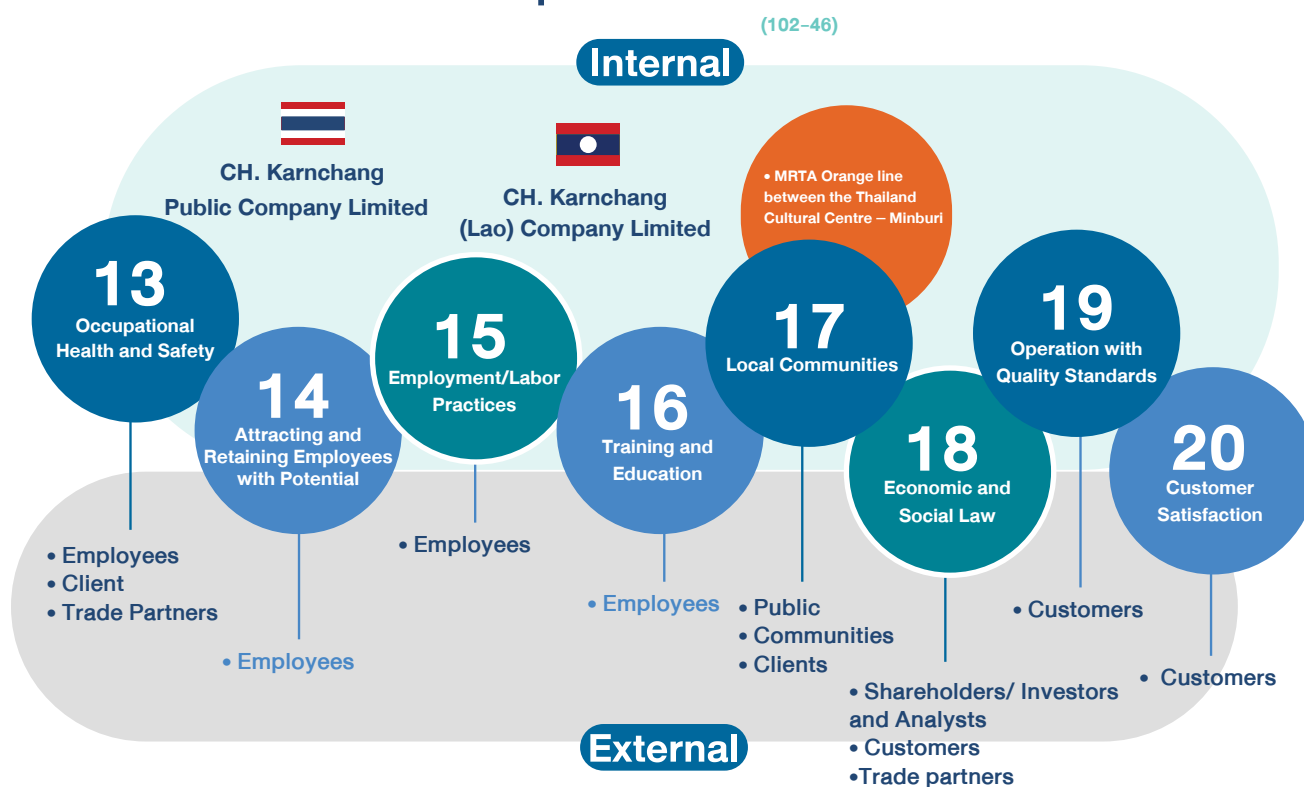
## Sustainability Issues (102-47) : Environment

### Scope of the Issues

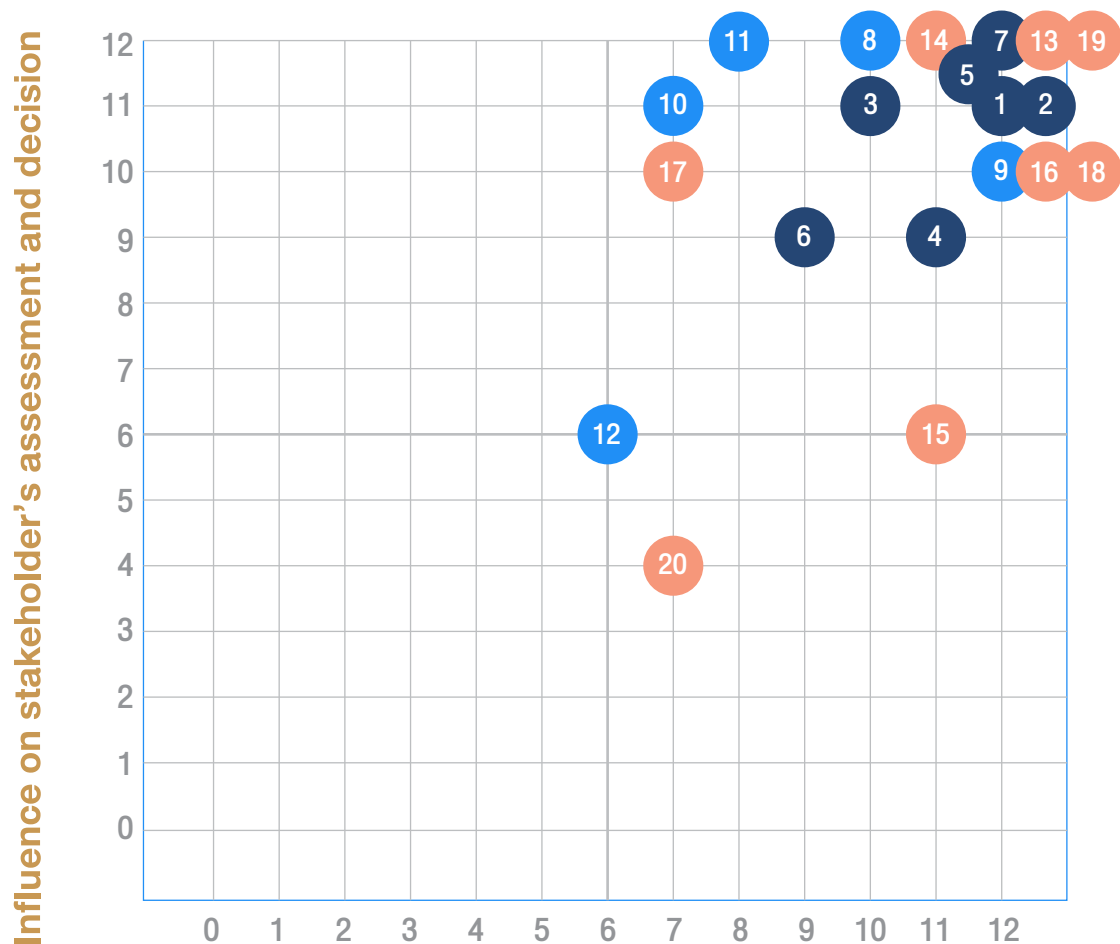


## Sustainability Issues (102-47) : Social

### Scope of the Issues



# Sustainability Materiality Matrix



## 20 Key issues on Sustainable Development

### Economic Dimension (7 issues)

1. Business ethics
2. Good corporate governance
3. Supply chain management
4. Economic performance
5. Anti-corruption
6. Risk and crisis management
7. Information security and information system

### Environmental Dimension (5 issues)

8. Environmental impacts from Construction Projects
9. Environmental law
10. Energy
11. Air emission
12. Waste

### Social Dimension (8 issues)

13. Occupational health and safety
14. Attracting and retaining employees with potential
15. Employment/Labor law
16. Education and training
17. Local communities
18. Economic and social law (child labor, enlisted/forced labor)
19. Operation with quality standards
20. Customers' satisfaction

## ➤ Report Content

(102-49)

The content of this report covers 20 key issues on sustainability, including a consolidation of sub-issues that are managed in a similar manner. In this regard, the information on the performance of the work in each issue is different from the previous report due to the Company having upgraded its information filing system and the report content format to be in accordance with the GRI Standards



In regards to the content on the operations of companies within the group that are not included in this report, they can be referred to in CH. Karnchang Public Company Limited's annual report or [http://www.ch-karnchang.co.th/investor/th/quick\\_download.php](http://www.ch-karnchang.co.th/investor/th/quick_download.php). To download this report please visit <http://www.ch-karnchang.co.th/#/mission/growth-together>.



Download this report

<http://www.ch-karnchang.co.th/#/mission/growth-together>

## Contact Information

(102-53)

This report is prepared for the benefit of stakeholders in all sectors, and has been prepared in 2 languages (Thai and English), as well as displaying information in accordance with the indicator of the GRI Standards. This report and the annual report are available for download on the website of CH. Karnchang. For more information, please contact



**Mrs. Thipwaree Athagrisna**  
**Corporate Secretary**

[company\\_secretary@ckplc.com](mailto:company_secretary@ckplc.com)



**Ms. Sawanya Trivisvavet**  
**Vice President, Office of president**

[ck-ir@ckplc.com](mailto:ck-ir@ckplc.com)





# 4

## Economic Operations





## ➤ Good Corporate Governance

(103-1, 103-2, 103-3)

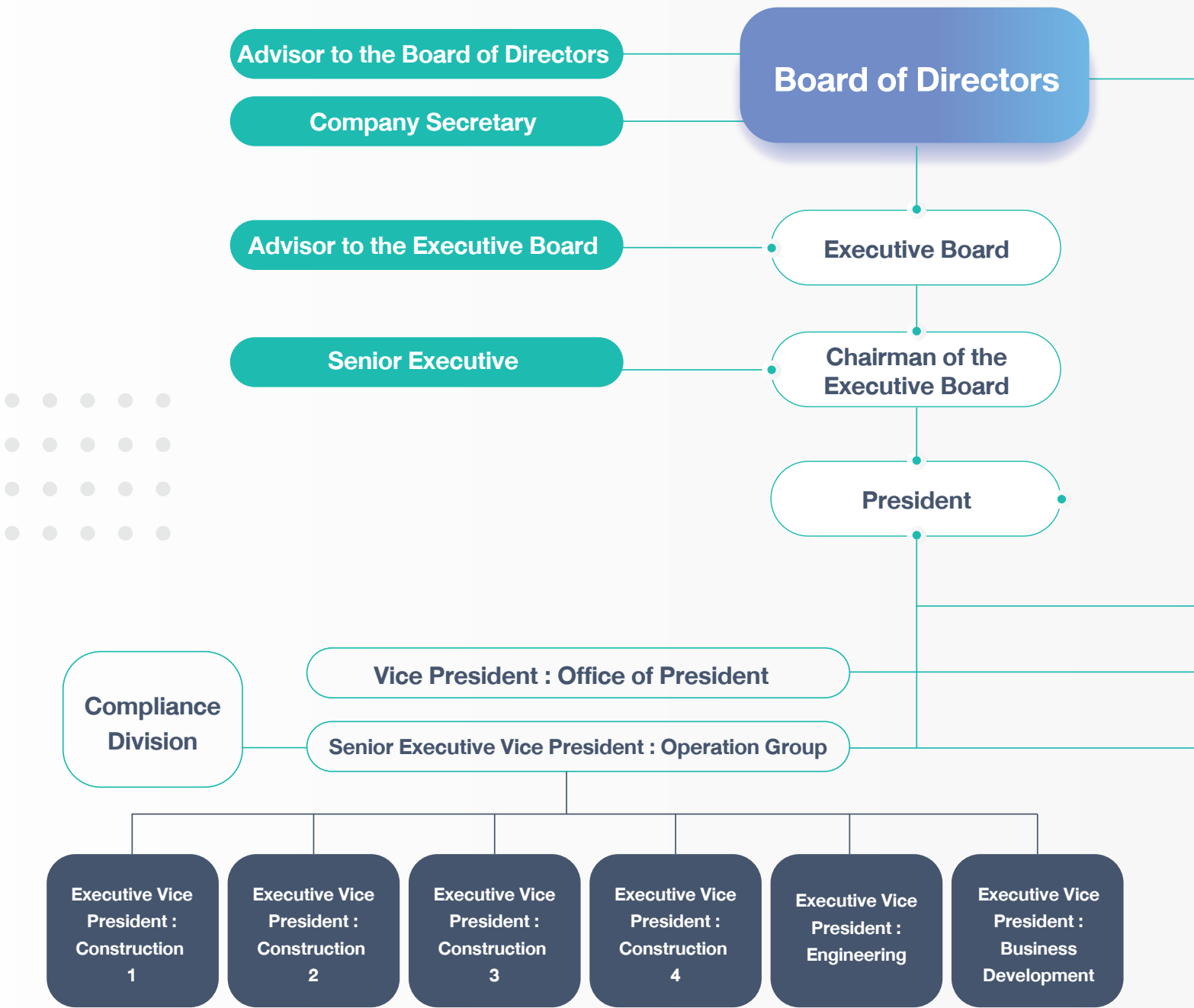
Implementation of the principles of good corporate governance is an important foundation for a business operation that is moving towards business stability and towards long-term organizational sustainability, as well as important issues which all groups of stakeholders are interested in and expect for the organization to carry out the tasks in this area. Therefore, CH. Karnchang and the Board of Directors recognize and place importance on good corporate governance by incorporating good governance policies and management practices into the roles and responsibilities of the Board of Directors, as well as preparations of other policies and practices such as the preparation of an ethics manual, business ethics, and good practices to be a guideline for behavior towards the Company, colleagues, external parties, and society according to the principles of good ethics. Also, the establishment of management and control systems, an implementation authority-balancing control mechanism for the administration to be transparent and verifiable, maintaining the financial credibility and disclosure of information on the business operation with considerations regarding all groups of stakeholders and respecting the equal rights of the shareholders, including the operating standards in accordance with the regulations of the Stock Exchange of Thailand.

(For more information please visit : <http://www.ch-karnchang.co.th/#/governance>)

In order to communicate and promote compliance with ethics in business operations of CH. Karnchang, the human resource department has prepared a written paper on ethics in business operation as mentioned earlier which is given to operating employees. The human resource department has always organized training in compliance with business operation of the company for everyone. In 2022, 19 training sessions were organized and 99 new employees receiving the training.

In addition, executives and employees are given evaluations on their compliance with ethics in the business operation of the company. In 2022, there were 96 executives (starting from the level of section manager up to chief executive officer) who did the evaluation, and all 96 evaluations were returned to the human resource department, which accounted for 100 percent, and the overall evaluation result fell under the “excellent” criterion. For employees (starting from the level of department manager up to operating officer), there were 1,328 employees who did the evaluation, and all 1,328 evaluations were returned, accounting for 100 percent. The overall evaluation result falls under the “excellent” criterion.

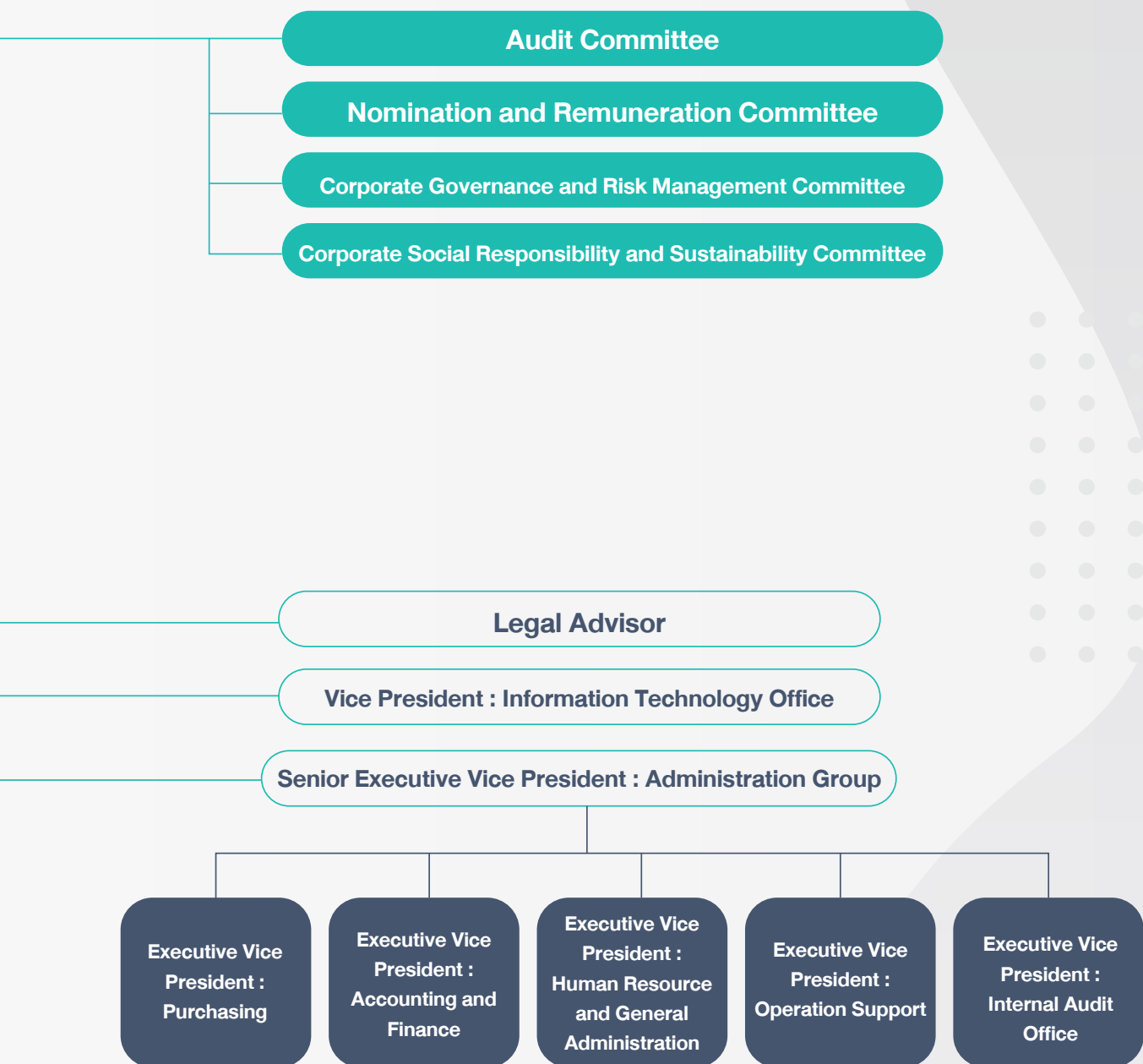
However, in order for the operation on good corporate governance to be more efficient and tangible, CH. Karnchang has designated the Executives to have a role in reviewing issues and risks on corruption prior to presenting to the Corporate Governance and Risk Management committee for approval quarterly. Moreover, the policies are being reviewed at least once every year for their suitability by the Board of Directors under the Company’s management structure, which consists of 5 subcommittees following the Company’s management structure (102.18) as follows:



# Company

## Sustainability Structure

(As at December 31, 2022)



By which, CH. Karnchang has established the operational roles and duties of each Committee within the Board of Director's structure of CH. Karnchang Public Company Limited as follows:

## ► Roles, Duties and Responsibilities of the Subcommittees

Subcommittee	Roles, Duties and Responsibilities
<b>The Executive Board 6 members</b>	<ul style="list-style-type: none"> <li>• Provided guiding policies, supervised, given suggestions and advice for the President and the management</li> <li>• Set up business plan, budget and managerial power of the Company as assigned by the Board of Directors</li> <li>• Inspected and followed up the compliance with the Company's policies and plans with efficiency</li> <li>• Inspected and followed up the compliance with the Company's policies and plans with efficiency; conducted feasibility studies on new projects; and reported on the Company's operational results to the Board of Directors</li> </ul>
<b>The Audit Committee 3 Members</b>	<ul style="list-style-type: none"> <li>• Ensured that the financial statements have been prepared in accordance with the generally accepted accounting standards; supervised and monitored the internal audit tasks to ensure the appropriate and effective audit system</li> <li>• Considered execution of transactions which may have a conflict of interest under the specified procedures and for the utmost benefit to the Company</li> <li>• Ensured that the Company has complied with the securities and exchange law and other applicable laws</li> <li>• Nominating candidates for appointment, determination of remuneration, and assessment of performance of an auditor in an appropriate manner</li> </ul>
<b>The Nomination and Remuneration Committee 5 Members</b>	<ul style="list-style-type: none"> <li>• Followed up on movement, progress, and tendency of good corporate governance</li> <li>• Promoted development and made suggestions on the Company's corporate governance policy</li> <li>• Monitored the evaluation results in respect of the Company's good corporate governance</li> <li>• Considered policies and work plans relating to risk management</li> <li>• Monitored and reviewed the Company's overall risk management, including strategies for risk management, report on risks and actions taken to minimize risks to the Board of Directors</li> </ul>
<b>The Corporate Governance and Risk Management Committee 5 Members</b>	<ul style="list-style-type: none"> <li>• Followed up on movement, progress, and tendency of good corporate governance</li> <li>• Promoted development and made suggestions on the Company's corporate governance policy</li> <li>• Monitored the evaluation results in respect of the Company's good corporate governance</li> <li>• Considered policies and work plans relating to risk management</li> <li>• Monitored and reviewed the Company's overall risk management, including strategies for risk management, report on risks and actions taken to minimize risks to the Board of Directors</li> </ul>
<b>The Corporate Social Responsibility and Sustainability Committee 3 Members</b>	<ul style="list-style-type: none"> <li>• Monitored the movement and progress of the Company's corporate social and environmental responsibility projects (CSR activities)</li> <li>• promoted development and formulated policies for the Company's business operations which are committed to sustainable, stable growth while also generating the maximum returns for stakeholders in all sectors based on the Environmental, Social, and Governance (ESG) responsibilities, as well as having a tangible commitment to sustainability</li> </ul>

Moreover, in order to create confidence among all stakeholder groups, CH. Karnchang therefore has a way to continually improve the Company's good corporate governance practices through reviewing its policies on corporate governance and compliance with such policies at least once a year. In 2022, the Corporate Social Responsibility and Sustainability Committee held meetings to follow up on the progress of the Company's actions regarding social and environmental issues a total of 2 times.

**Additionally, CH. Karnchang has formulated other operational policies which are under the principles of good corporate governance, such as non-discrimination, anti-unfair competition, non-violation of intellectual properties or copyrights, with details as follows:**

#### • Non-Discrimination Policy

CH. Karnchang has established policies and practices based on equality and human rights principles towards all groups of stakeholders, such as opportunities for career advancement, reasonable welfare and compensation based on the nature of the job, as well as arranging operational areas with a safe and pleasant environment for all employees equally. Also, disclosure of business information that is complete, accurate, transparent, fair and verifiable, including granting rights for all major and minor shareholders to attend the annual general meeting without discrimination. Additionally, having a procurement management system, preparation of contracts, and debt settlement that are transparent and fair in order to retain a good relationship between CH. Karnchang and its trade partners, creditors, and debtors equally.

#### • Anti-Unfair Competition Policy (Antitrust / Anti-Competitive Practices)

CH. Karnchang believes that business competitors are the important driving force that allows the company to develop and improve operationally to achieve higher efficiency at all times. Therefore, CH. Karnchang places importance in compliance with the various regulations under free trade laws such as refraining from destroying the competitors' reputation by making negative accusations that are not based on the truth, refraining from accessing the competitors' confidential information dishonestly or by other inappropriate methods which affect the overall business development, including service standards, technology development, and new innovations which bring maximum benefits to society and the country's economy steadily and sustainably in the long run.

#### • Policies and guidelines on non-violation of intellectual property or copyrights

The Board of Directors of CH. Karnchang has established policies and practices regarding non-violation of intellectual property or copyrights by prohibiting the Executives and employees from installing illegal software and make copies of copyrighted software for personal or professional use without permission from the developers of such software to prevent issues which may cause damage to the Company or its reputation.

## ➤ Anti-Corruption

(102-13, 103-1, 103-2, 103-3, 205-1)



As CH. Karnchang is a construction company for large construction projects with high investment value and related to the development of the basic infrastructure system of our country, this is an issue which the Thai Construction Industry Association (TAC) attaches great importance to because the Thai Construction Industry Association under Royal patronage has signed a cooperation agreement with the Anti-Corruption Organization of Thailand to prevent and suppress corruption, and has participated in the Private sector's (Collective Action Coalition Against Corruption: CAC) to promote cooperation in the prevention and suppression of corruption according to the national strategy on prevention and suppression of corruption and to strengthen inter-organizational cooperation in supporting various measures to prevent fraud and corruption.

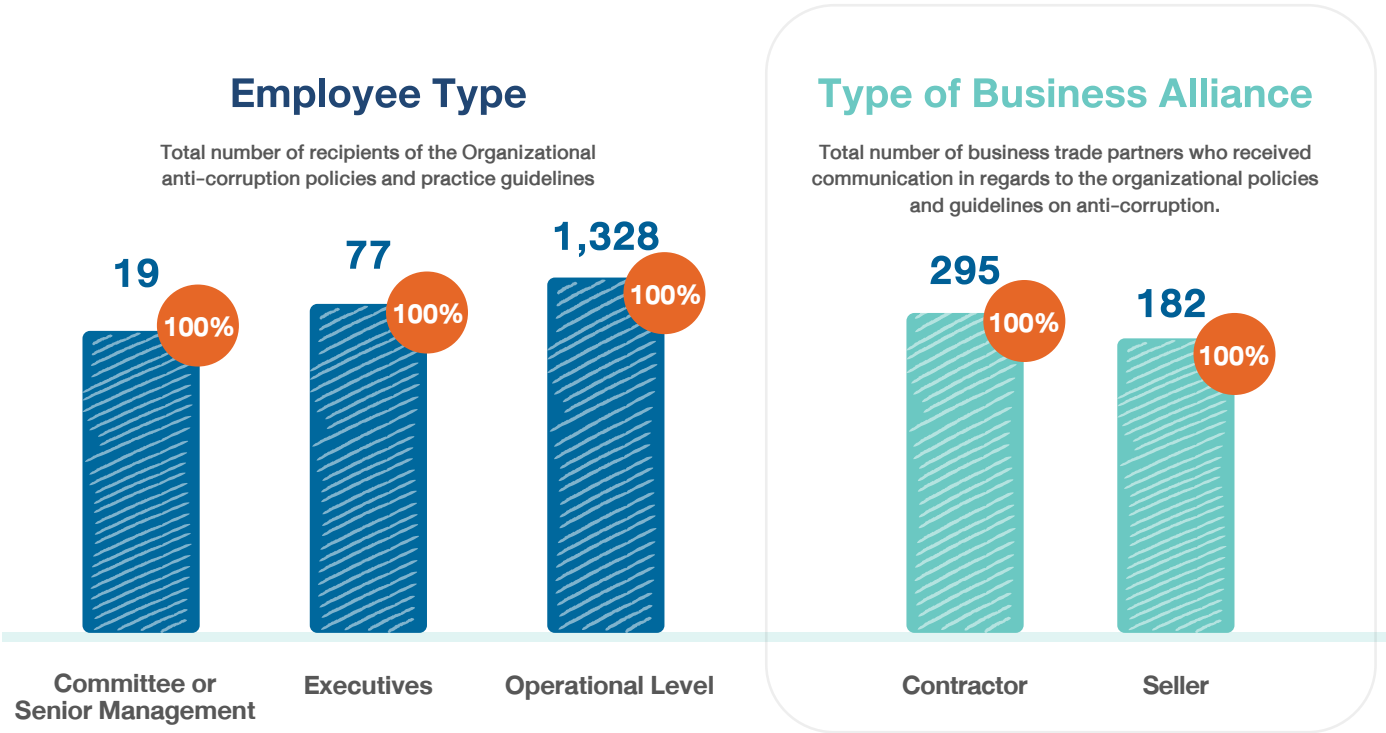
For this reason, CH. Karnchang therefore places great importance on anti-corruption and illegal practices whereby all its business procedures must be based on transparent actions and strictly abide by the relevant laws in order to create confidence for all stakeholders, and to create confidence at the international level. CH. Karnchang has established policies on anti-corruption by incorporating issues on fraud and corruption as part of its organizational risk management, especially risks of corruption caused by employees failing to fulfill their duties with integrity and perform acts which are in violation of the rules or laws both internally and externally, as well as establishing additional operational policies as follows:

- Requirement for the Company's personnel at all levels, including companies within the group, including staff, representatives, affiliated companies, or any individual who acts for or on behalf of a juristic person, whether or not they are authorized in such matter, shall strictly adhere to the policies on prevention and anti-corruption, bribery, and business ethics.
- Practice guidelines in regards to conflict of interest by prioritizing the Company's interests under the law and ethics, with fairness and transparency.
- Practice guidelines in securities trading and usage of internal information by not exposing internal information related to the operation or business management, by which a person acquiring such information through performing their duties, uses such information for their own personal or for other personal gains wrongfully.
- Procurement practice guidelines shall follow the regulations or procedures specified in the procurement regulations, consistent with the operating authority, and fair to all related parties.
- Practice guidelines towards government agencies shall strictly comply with the relevant laws and regulations.
- Practice guidelines in accepting or giving gifts, assets, entertainment, facilitation fees, or any other benefits which may influence a decision.

In order for the implementations on anti-corruption to achieve maximum effectiveness, CH. Karnchang supports and promotes all levels of personnel. This includes employee, representative, subsidiary, or any person who acts for or on behalf of a juristic person, no matter whether the person has authority or not, to be conscious of anti-corruption and fraud in all forms through the communication of anti-corruption policies and bribery, by which all employees shall receive a copy of the policies in writing. In addition to having clear policy formulation, CH. Karnchang also includes issues regarding corruption to be part of the risk of CH. Karnchang. The management department also has the duty to review the issue prior to presenting it to the corporate governance and risk management committee for approval in every quarter, as well as arranging training sessions for the Executives and employees in order to create awareness and understanding as a part of the orientation process or prior to new employees assuming their positions, with details as follows:

Furthermore, CH. Karnchang makes certain that actions are taken according to the policy and there is a review of the appropriateness of the policy by the company’s board of directors at least once a year. Policies on corruption prevention and anti-corruption, as well as giving and accepting bribes are communicated in writing to inform the employees with details as follows:

## Communication of the Organizational anti-corruption policies and practice guidelines (205-2)

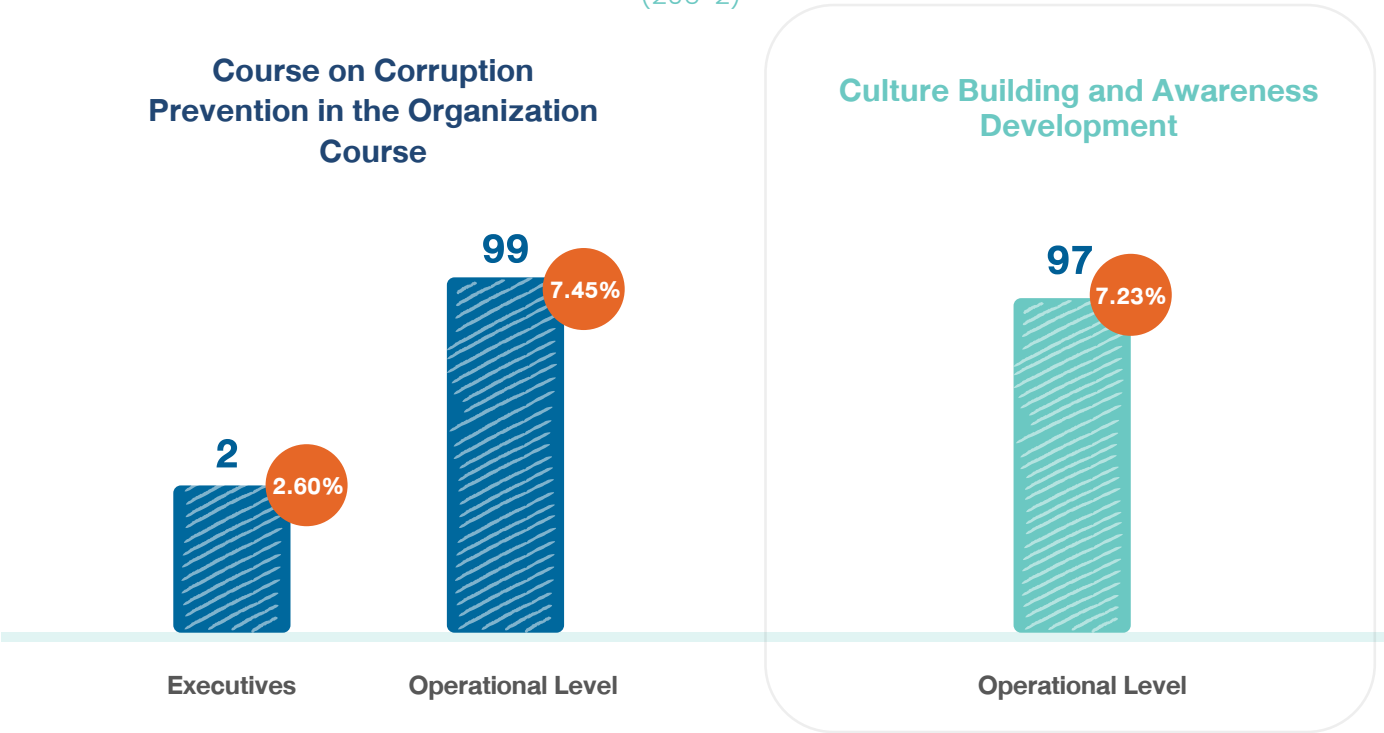


Remarks: The employee level and the type of trade partnership can be divided in accordance with the organizational structure



The human resource department organizes training for employees every year in order to provide education regarding policies and procedures on anti-corruption. In 2022, there were 2 training courses on anti-corruption with details as follows:

◆ **Training course on anti-corruption**  
(205-2)



Remarks: The employee level and the type of trade partnership can be divided in accordance with the organizational structure

Issues on anti-corruption and corruption are issues in which CH. Karnchang, a construction contractor, and a member of Thai Contractors Association, gives high priority. Therefore, in July 2017, the Anti-corruption Organization of Thailand, and Thai Contractors Association under H.M. the King’s Patronage, have signed an MOU in preventing and suppressing corruption problems, in order to promote cooperation in the prevention and suppression of corruption according to the National Strategy on Prevention and Suppression of Corruption. In addition, the company’s board of directors has also assigned a follow-up management department to participate in the study of the procedural guidelines in signing the Letter of Intent for not engaging in corruption by participating in the Thai Private Sector Collective Action Against Corruption Project, in which there are many details that have to be carried out. At present, the company is taking the step of consultations with Thai Contractors Association and companies in the construction business group, for appropriateness in participating in the signing of the Letter of Intent of the Thai Private Sector Collective Action Against Corruption Project together in the future.

## ◆ Channels for receiving complaints on anti-corruption

(103-2, 205-3)



In this regards, CH. Karnchang has established channels for reporting tips and complaints, including protection measures for the informants who witnessed the acts of fraudulence and corruption, according to the principles of good corporate governance regarding roles towards the stakeholders by establishing a reviewing process and protection and mitigation measures for the informants or the complainant, following the policies on whistleblowing and complaints regarding corruption as specified by the company as follows:



In 2022, there were no complaints against directors, executives, and employees of CH. Karnchang for using internal information for personal interests or for violating rules and regulations in working, as well as there were no cases for not in compliance with the laws, both in terms of economic and social aspects. In addition, it did not appear or there were no complaints that personnel of CH. Karnchang violated or acted in violation of ethics in the business operation of the company or there were no corruption, giving or accepting bribes or acts in opposition of unfair competition, or violating rules and regulations in working.

In this regard, from the risk evaluation on corruption of 2022, CH. Karnchang did not come across any risks or complaints regarding corruption, and there were no incidents where an employee was discharged or disciplined due to corruption. There were no findings that the Company entered into an agreement with trade partners or business partners who were engaged in a violation or breach of contracts that are related to corruption. Additionally, no organizations or employees sued the Company for a case of fraudulent actions, and all the aforementioned cases are in line with the Company's objectives which anticipate that the Company's operations are carried out with integrity, free of fraudulence and corruption.

## ◆ Risk and Crisis Management

(103-1, 103-2)

The rapid changes in today's world generate various factors of risks such as changes in technology, competition that is more intense both from competitors in the same business and multi-national businesses that have entered the market, political instability which effects the business operation both directly and indirectly, resulting in risk management becoming an important tool in operating the business in order to achieve the objectives and also an important factor for good corporate governance. In order for the organization to achieve its objectives in terms of economic and relationship-building, as well as responding to the expectations of the stakeholders, therefore, CH. Karnchang has conducted a review on the procedures and the strategy of its current business operation to ensure its readiness in coping with the mentioned changes, by considering the present situations and evaluating the possibility of risks that may occur in the future and new risks as follows:

## ◆ Organizational Risk Management

Risk issues on Sustainability	The Importance of the Risks	Performance
<ul style="list-style-type: none"><li>• Risks from the evolution of technology</li><li>• Risks from losing competitive ability to foreign competitors</li></ul>	<ul style="list-style-type: none"><li>• Risks from the evolution of technology are significant to the increase of competitive abilities in business.</li><li>• Nowadays, foreign competitors have new technological capabilities and financial capital advantages.</li></ul>	<ul style="list-style-type: none"><li>• Appointing a team with specific knowledge and skills in order to monitor, analyze, and evaluate the significant impacts that the changes have on the business, and report to the senior Executives in order to formulate measures to face these changes in a timely manner.</li><li>• Gather the various insights from the construction, challenges, and problem solving methods from the previously completed projects into a knowledge depository in the form of a library for the relevant parties to study, and organize a training session for the employees' acknowledgement.</li><li>• Adjustment of the business strategy in order to retain the competitive edge in terms of cost, technology, and innovation to maintain the Company's sustainable business growth.</li><li>• Co-invest with foreign businesses in order to study, develop, and apply new technologies to existing ones that are being used at present, as well as improving the organizational efficiency.</li><li>• Creating new investment opportunities through the application of new technologies.</li><li>• The improvement and development of the potential of the organization</li></ul>

Furthermore, CH. Karnchang has appointed its Good Governance and Risk Committee to perform duties in formulating policies, risk management operational framework, providing advice to the Board of Directors, and management in regards to risk management, supervision and support for risk management to be successful, determining the Company's key risks that are consistent with the Company's business both from internal and external factors that may affect the business operation and organizational objectives such as investment, financial, security, law and regulations.

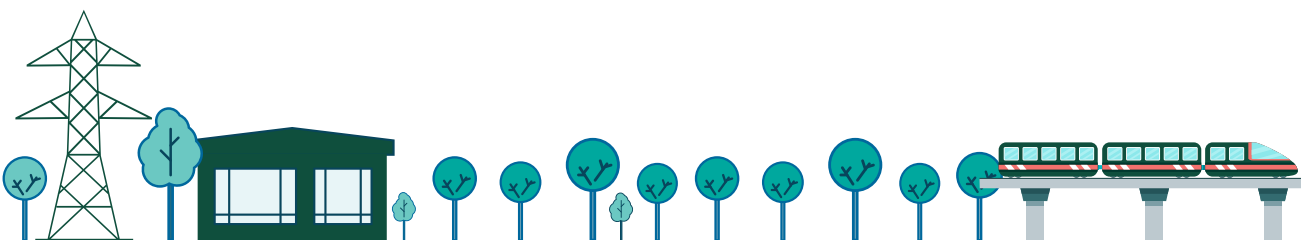
Including making suggestions on methods of protection, methods to reduce the risks to be within the acceptable level, monitoring and evaluating the results, improving the operational plan for continual and appropriate risks reduction, along with reporting the results of risk assessment and actions taken to reduce the risks to the Board of Directors on a regular basis. The Board of Directors must receive a timely report in the event that there are issues which significantly affect the Company in order to prepare a business continuity plan (BCP) to withstand the various incidents that may cause operational disruption to the organization and enable the Company to resume normal operation within the appropriate time, by which the aforementioned execution shall be specified under risk management structure as follows:

#### ♦ Risk Management Structure of CH. Karnchang Public Company Limited

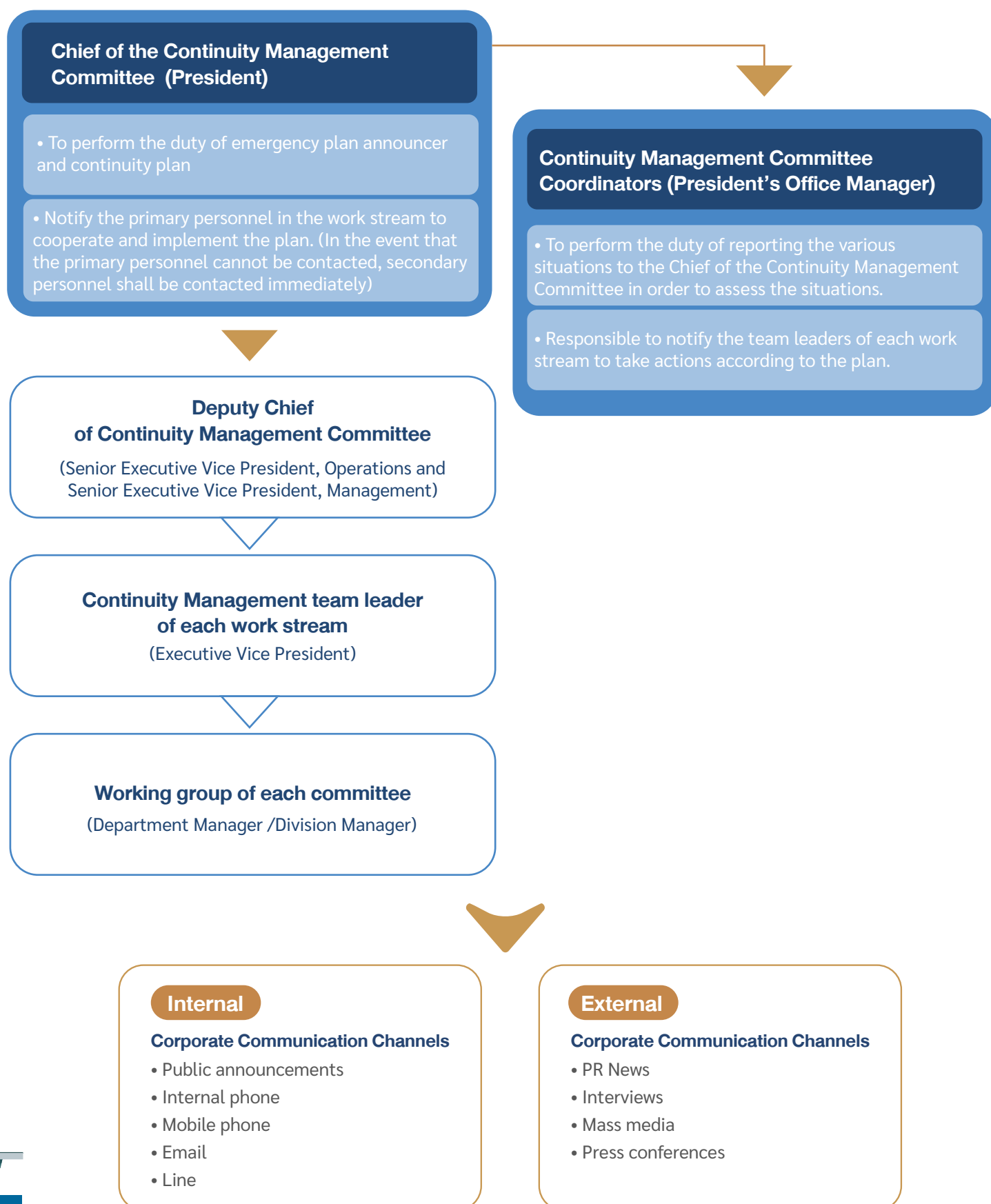


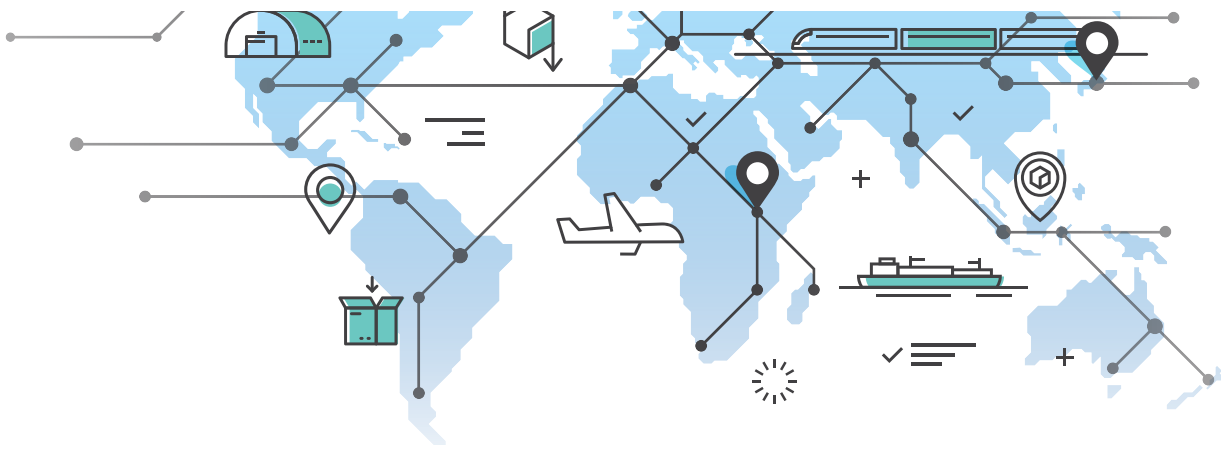
In addition, CH. Karnchang has established risk evaluation guidelines for the business through establishing a risk management system and prevention measures that are effective in covering the entire organization as follows:

- The Board of Directors, Executives, all employees, and every department are the owners of the risks, and are responsible for evaluating, monitoring, and supporting the existence of effective risk management procedures.
- All departments of the Company must implement a process to administrate and manage risks, as well as continuously and systematically evaluate, monitor, and fine tune the process to be suitable with the changes in the business on a regular basis at a minimum of once a year.
- Include risk assessment as part of the annual operation plan for every department by identifying all risks covering the entire organization by taking into consideration the risk factors both from within the organization and from outside, as well as implementing appropriate risk management measures.
- The Governance and Risk Management Committee has a duty to assess the risk management and present their opinions to the Board of Directors.
- Create a corporate culture which generates a mutual understanding and awareness of risks, build a knowledge base where the employees at all level are able to search for information and exchange experiences, which shall lead to the development and improvement in the process of risk management to become an efficient mechanism in strategic management, as well as preparation of a Business Continuity Plan (BCP) to be used in responding and operations in the event of emergencies to enable the key operations of the Company to continue smoothly and be able to resume normal operations within a reasonable period of time, under an emergency management project and process as follows:



## ◆ Structure of the Continuity Management Committee and Communication Plans





## Supply Chain Management

(102-9, 103-1, 103-2)

CH. Karnchang places importance on the management of the supply chain on the basis of good corporate governance principles, especially in regards to Antitrust in the procurement process, for example procurement of materials and mechanical tools used in construction, hiring of subcontractors to work on the construction projects, by which all trade partners entering into the goods and services procurement process, CH. Karnchang has established a selection process for potential contractors based on competition on quality, product prices, experience, performance, appropriate qualifications, including after sales service and dealer's experience, whereby CH. Karnchang shall inspect the prices and the quality of the delivery to be in accordance with the standards specified by the owners of the project in order to minimize the impact on the entire operation system.

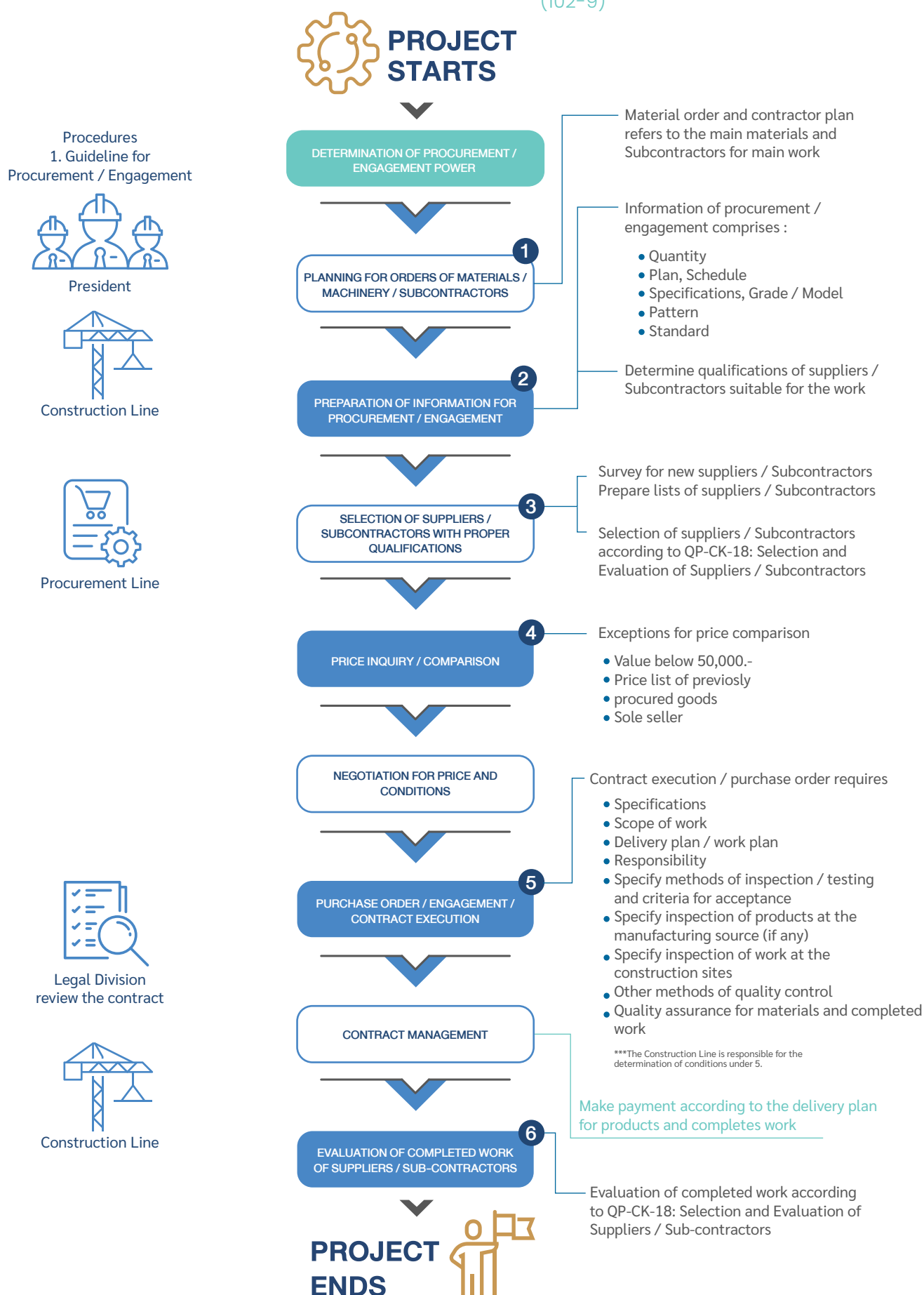
Furthermore, CH. Karnchang has guidelines to increase the potential and improve the procurement process of goods and services by applying an Enterprise Resource Planning (ERP) system in the controlling and recording of purchasing order processing and inventory management to be more systematic. In addition, CH. Karnchang has also installed the SAP Ariba solutions to help increase the company's procurement process and greater cost control capabilities to be more effective, which results in CH. Karnchang's ability to effectively manage the inventory and reduce waste materials in construction projects, as well as placing importance on the selection of building materials which have an impact on the environment, such as avoiding using materials made from asbestos and opting to use substitution materials which don't have an effect on the environment, by which the procurement work stream shall cooperate with the Professional Engineers in planning to procure the correct materials according to the project specifications.

In this regard, CH. Karnchang has established measures in the assessment of its trade partners in the selection process of choosing a supplier who shall become the Company's trade partner, whereby the Procurement work stream shall implement measures to control, inspect, and evaluate such trade partners within a specific time frame, which the assessment shall be carried out a minimum of 2 times per year. CH. Karnchang has established measures in trade partner assessment whereby the procurement work stream shall implement measures to control, inspect, and evaluate trade partners on a regular basis, with the scope of evaluation, such as quality of products/service, the delivery, coordination/cooperation including manpower and machinery, by which the number of trade partners to be evaluated shall depend on the number of trade partners that meet the criteria for the evaluation at that time. In principle, the main suppliers and contractors shall be evaluated and for the small trade partners, it shall depend on the volume and the value of the orders at that time. In the event that the trade partner evaluation results do not meet the specified criteria, the Company shall invite the trade partners to jointly discuss the problems in order to find solutions and appropriate methods of improvement. Moreover, regarding trade partners who have been assessed and listed under the procurement management system, if the partner encounters problems or fails to meet the assessment criteria, CH. Karnchang shall invite such partner for a meeting to discuss, notify problems, and find a solution together.



## ◆ Description of Procurement of Raw Materials

(102-9)



## Economic Performance



(102-7, 103-1, 103-2, 103-3, 201-1, 201-3)

The construction business and investments in basic infrastructure projects are the key components in the development of a country's economy and increasing the quality of life for the public. CH. Karnchang therefore is committed to operating its business under policies which take the stakeholders of all sectors into consideration, which includes stakeholders in terms of economic, social, and environmental issues, in order to achieve a strong performance, create sustainable returns for the shareholders, create jobs and distributing income to the industries within the supply chain, sharing benefits with the government in terms of taxes and promoting social activities that are beneficial to communities and society through the use of crafts and engineering potential in the creation of businesses, capital support, and various operational measures.

CH. Karnchang has a strategy in the management of the Company's construction projects by managing the construction projects based on the principles of effective cost management, punctual work delivery to the clients (project owners), selecting construction projects that are beneficial to society and the country, which offer fair business returns, as well as creating synergies in the construction business and investments in basic infrastructures that are beneficial to the country's development in order to manage risks and increase long-term returns to the shareholders from a stable and sustainable income structure from construction business and investments in basic infrastructures.

### Economic Performance in 2022

CH. Karnchang's Operating Performance (201-1)

#### Construction and Other Related Services

(Unit: Million Baht)

18,097



Construction Revenue

405



Other Income

#### Investments in Basic Infrastructure Businesses

(Unit: Million Baht)

1,530



Share of Profits from Investments in Associated Companies

465



Dividends Received

222



Profit from Sale of Investment

471



Other Income

During 2022, the Company signed 4 new projects at a total value of 22,292 million Baht, which resulted in the accrued income pending recognition by the end of 2022 from the projects on hand being 55,867 million Baht, which was in accordance with the Company's strategy to select construction projects that are beneficial to society and the Country with fair business returns.

For 2022, the Company's revenue from the construction business and other related services was 19,660 million Baht and revenue from investments in basic infrastructure businesses was 2,688 million Baht, with a net profit of 1,105 million Baht. Return on assets percentage was 1.30% and the net debt debt-to-equity ratio was 1.59 Return on equity ratio was 4.51% from investment value, and earnings per share were 0.67 Baht. The total revenue earned by the Company was able to be distributed to the various groups of stakeholders as follows:

## ◆ Distribution of Direct Economic Value



(201-1)

### Direct Economic Value Generated

**Revenue** **21,190**

(Unit : Million Baht)

### Direct Economic Value Distributed

(Unit : Million Baht)

Operating Costs	<div></div>	15,585
Employee Wages and Benefits	<div></div>	2,926
Payments to Providers of Capital	<div></div>	2,074
Payments to Government	<div></div>	86
Community Investments	<div></div>	62

**Economic Value Retained**

**457**

(Unit : Million Baht)

Remark : \*Total share of profits from investments in associated companies

\*\*Not including referred income tax

## ➤ Information Security and Information System

(103-1, 103-2, 103-3)

The security of information and information systems are crucial to the management of business continuity in order to create trust, security, and stability of information and information systems, by which the information must be stable, secure, accurate, reliable, and able to protect and maintain the Company's confidential information and information systems, whether it is the Company's own information or information of other persons, in order to reduce the risks of information leakage and the risks of damaging the Company's reputation. For this reason, CH. Karnchang has established practices that are in accordance with the Confidentiality of Information policies with the details as follows:



- Defining the class of data confidentiality and the ways in which the Company's personnel must understand regarding the level of confidentiality in each class and practices to maintain such confidentiality. The Company's personnel must maintain confidentiality in the scope of their responsibilities, ensuring that such confidential information is not exposed to other parties, including other Company's personnel who are not involved.



- The Company must maintain and protect the clients' information, as well as their business information from the Company's personnel and irrelevant external parties, except if required by the law to disclose such information, or disclosure for litigation purposes, or the Board of Directors has approved the disclosure of internal information to be used in the operation and management of the business that is the Company's confidential information not yet disclosed to the public, which, if disclosed will affect the Company and companies within the Group, particularly the value of shares traded in the Stock Exchange of Thailand. The Company's personnel therefore must keep the Company's internal information confidential, and shall not disclose internal information which comes to their knowledge through performing their duties to other parties, or use such internal information for their own benefit or minimizing the benefit of the Company.





- The Company's personnel shall receive a notification and campaign to refrain from using internal information through the Company's communication channels, especially when there are important events such as the issuance of new shares, issuance of bonds, employment of personnel who used to be hired by competitors or the government. The Company must search and study the confidentiality agreements which the personnel have made with competitors or the government, and shall not take any actions which force the personnel to breach the contracts made with competitors or the government which may lead to prosecution.



- Disclosure of information shall be done by authorized personnel of the Company. Any person who does not have the authority to disclose information, if being asked for any information, such person shall advise the inquirer to make the inquiry with the person who is authorized to disclose information to ensure that the information provided is correct and answered in the same direction.



- Regarding the Company's personnel, the data should be kept at a minimum for 10 years by storing it as a paper document and as an electronic document in order to retrieve certain types of document, and store it as per the law's requirements. Once the storage period is due, such documents should be destroyed.

CH. Karnchang improved its Computer Network Security System (Firewall) in order to prevent any mentioned information leakage by adopting the Microsoft Office 365 system to apply in the maintenance and control of information, as well as preparation plans to improve the Computer Network Security System (Firewall) in 2 layers for high-sensitive data departments such as Human Resources and General Management by the year 2020. The effective implementation of information security and an information system resulted in no cases of complaints found in 2022 on these issues. (103-3)

# 5

## Environment-Friendly Business Operation

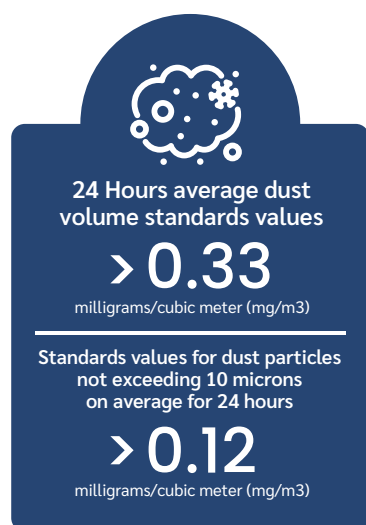




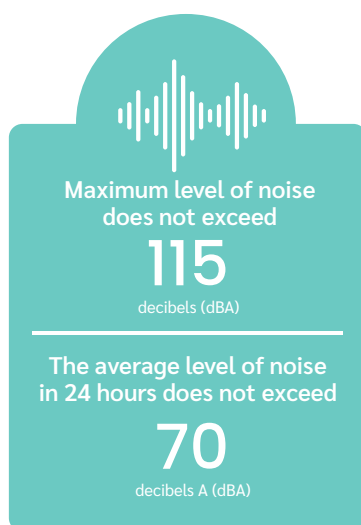
From the concerns regarding the current impacts on the environment causing many organizations to implement policies and various measures to control the operations with greater awareness on the responsibilities towards the environment, CH. Karnchang places great importance to developing the organization to become progressive and sustainable as the leader of the construction business and as an integrated investor in the country's integrated basic infrastructure.

CH. Karnchang is committed in socially and environmentally responsible operations, alongside efficient management. As one of the Company's main businesses is construction, therefore the Company has overseen the effects that may occur from the Company's operation, by implementing supervision in regards to atmospheric air quality, noise level, surface water quality, transportation management and waste management, under an operation called "Green Construction", or construction that is friendly to society and the environment, which is the management method in regards to the environment for all construction projects of CH. Karnchang.

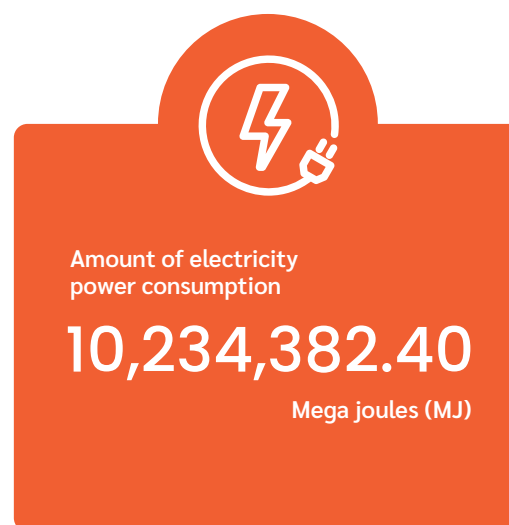
## Key Performance in 2022



In accordance with the specified standards



In accordance with the specified standards







## **Environmental Management from Construction Operations**

(102-11, 102-12, 103-1)

There is strict environmental management for all construction projects of CH. Karnchang, including within the construction areas, project office, and building material storage area, by which during all operational procedures, CH. Karnchang ensures strict compliance with construction related laws in order to mitigate the impact on the environment as a result of construction activities in every project. Alongside this, CH. Karnchang initiates the application of modern technologies and techniques that meet the standards by utilizing a BIM system (Building Information Modeling) in the construction planning to achieve efficiency, which results in faster construction work, ability to control the quality of the construction, and control the usage of resources for maximum benefit, as well as contributing to better cost management.

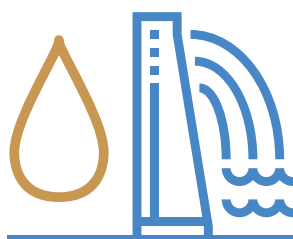
In addition, CH. Karnchang adheres to the quality management system according to the international standards system in regards to the management system which contributes to the clients' satisfaction towards the product or service of an organization, or ISO 9001/2015 and other related requirements which are considered good practice that are accepted as international standards, as well as requiring the management of every project to prepare a management system and operational plan on occupational health, including a supervision plan to mitigate the impacts on the communities and the environment with a regular quality assurance system that is continuous and serious, in order to ensure safety and create confidence in the employees, public, and nearby communities, and ensure that the impacts are minimized by following the measures and management plan efficiently. CH. Karnchang has implemented environmental management from construction projects which cover the various topics as follows:



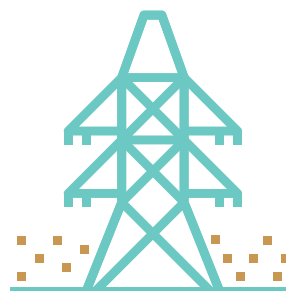
**AIR QUALITY  
CONTROL**



**NOISE QUALITY  
CONTROL**



**WASTE WATER  
TREATMENT  
AND WASTE**



**ENERGY  
CONSUMPTION**

## ➤ Air Quality Control

(103-1)

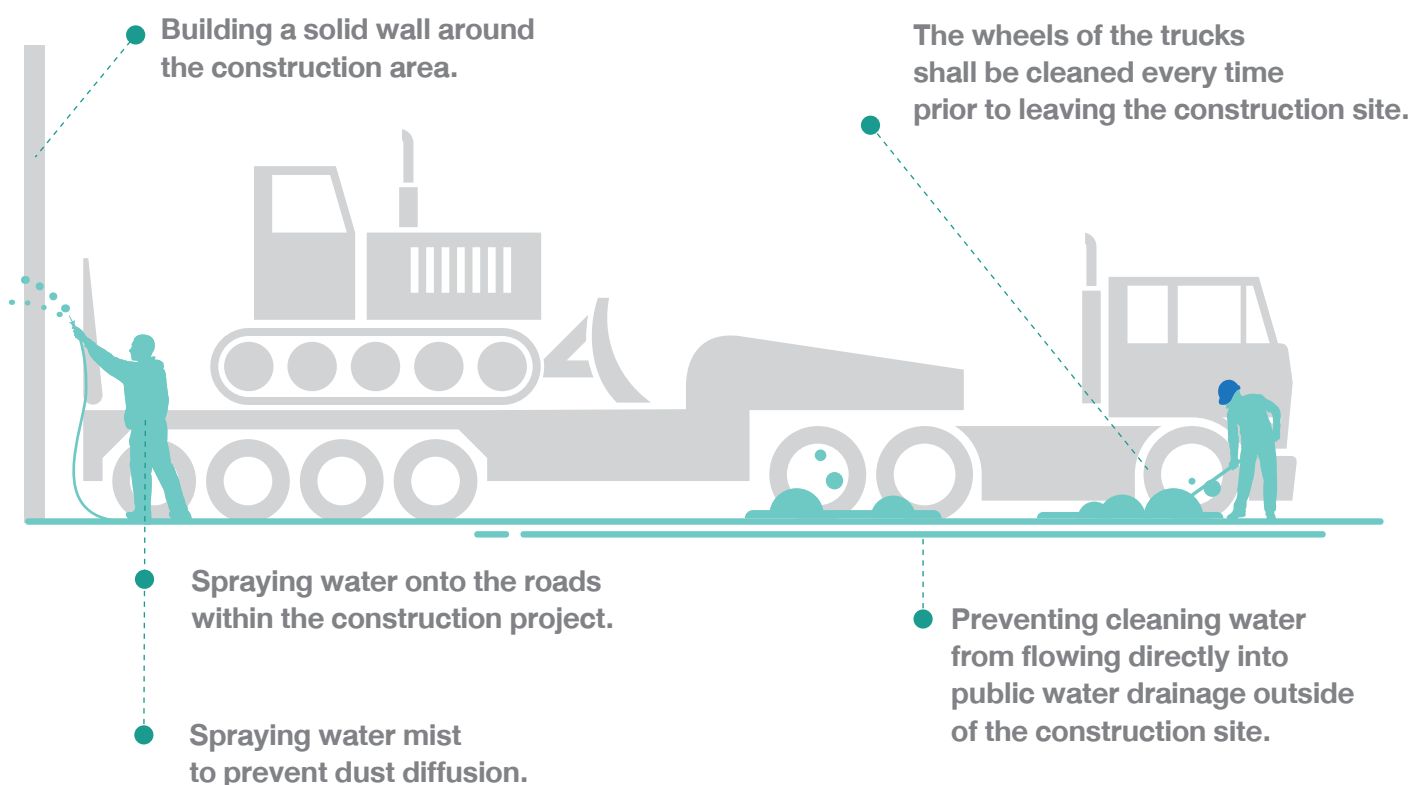


In large construction projects, the key impact from the operation is the air quality from dust issues in construction sites which is a direct responsibility of CH. Karnchang due to various building materials being used in construction which is the cause of dust diffusion during construction activities which may affect the workers and communities surrounding the construction area. It is necessary for CH. Karnchang to implement dust control measures under the conditions of construction work prescribed in the National Environmental Quality Promotion and Conservation Act B.E. 2535 and the Ordinance of Bangkok (Bangkok) and guidelines for dust control during construction by the Pollution Control Department that CH. Karnchang shall follow, together with the owners of the projects, and having government agencies such as the Pollution Control Department, the National Environment Board, etc., oversee and supervise the construction projects.

### ◆ Management Guidelines

(103-2)

CH. Karnchang has established guidelines in managing dust issues during construction by identifying monitoring points to inspect air quality in the construction area, including a plan showing the project's (Boundary Line), operational plan, and process that are under the benchmarks specified by the government agencies. CH. Karnchang provides preventative measures within the project areas as follows:





Building a solid wall around the construction area



Spraying water mist to prevent dust diffusion

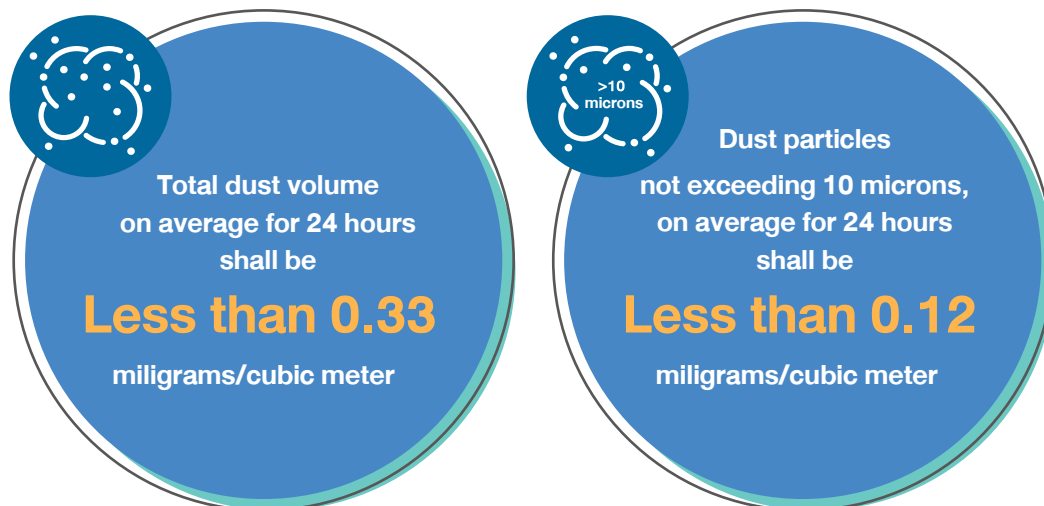


Spraying water on to the roads within the construction project





CH. Karnchang has promoted and developed guidelines to control and protect the air quality from the diffusion of dust during the construction projects in order to keep the dust level within the benchmarks according to the announcement by the National Environment Board, which has been defined as follows:



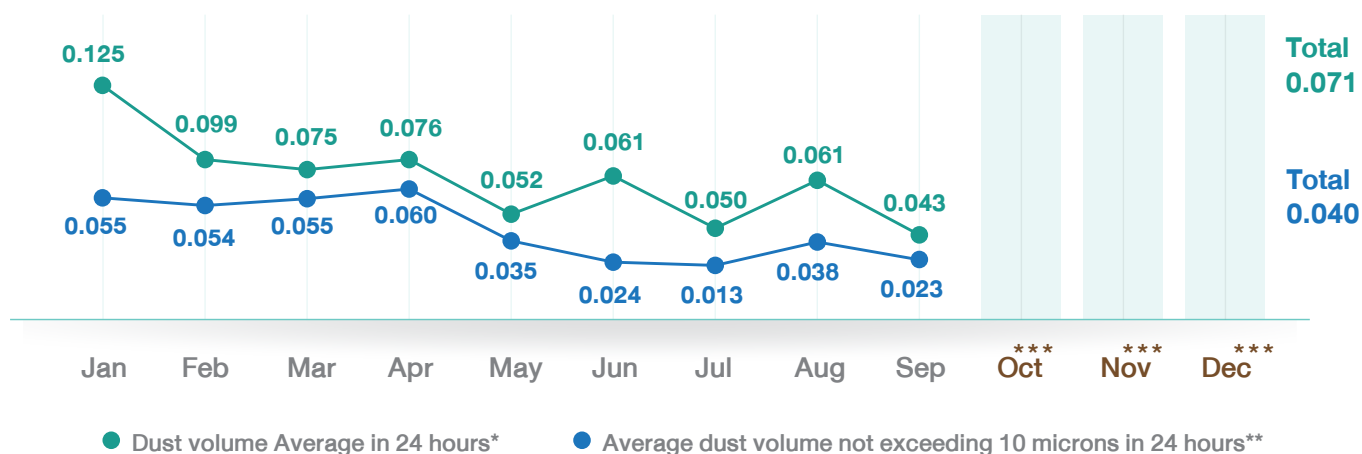
In 2022, CH. Karnchang identified monitoring points to inspect the air quality in the Charnvit School area of the MRT Orange Line project (East Section) : The Thailand Cultural Center-Min Buri and in the construction area of the Integrated Medical Center building, King Chulalongkorn Hospital, by checking the average dust value during 24 hours and the average value of dust particles not exceeding 10 microns during 24 hours (the inspection was carried out between January – Deecember 2022). It was found that the air quality index value was at a normal level. However, CH. Karnchang shall continue to maintain the standard of air quality control and protection measures from dust diffusion in future construction projects.



Installation of air quality monitors in the construction area

## 24 Hours Average Dust Volume and Average Dust Volume Not Exceeding 10 microns in 24 hours

The MRT Orange Line (East Section) :  
The Thailand Cultural Center-Min Buri Project

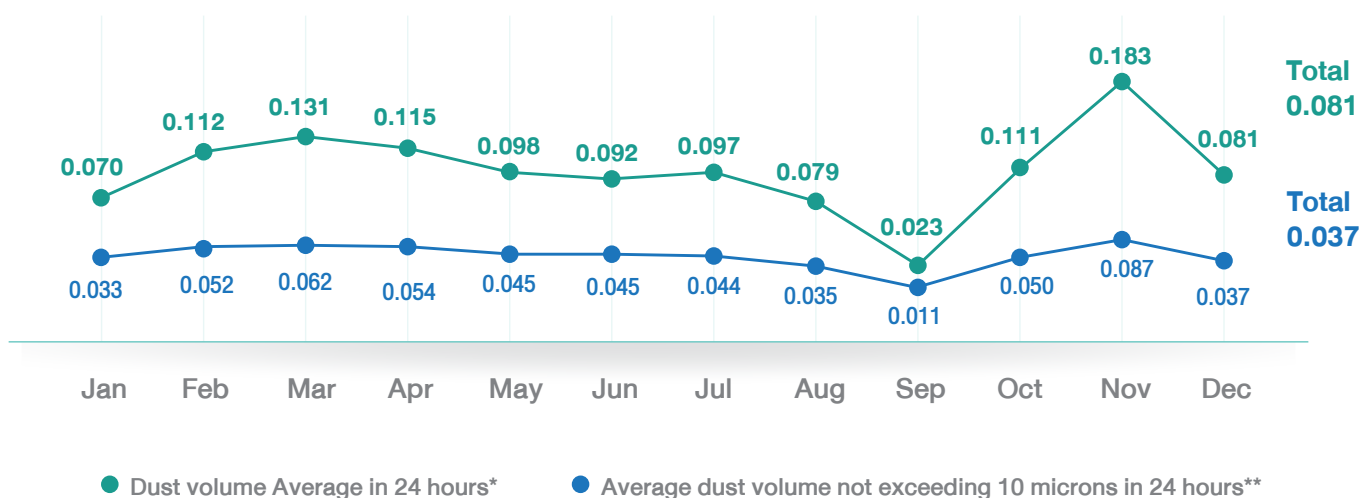


Remark : \*24-hour average dust volume standard value = 0.33 milligrams/cubic meter (mg/m<sup>3</sup>)

\*\* Standard values for dust particles not exceeding 10 microns on average for 24 hours = 0.33 milligrams/cubic meter (mg/m<sup>3</sup>)

\*\*\* From October to December 2022, there was no measurement of dust due to the construction projects having been completed according to the contractual due date in the beginning of October 2022

## The Integrated Medical Center building, King Chulalongkorn Hospital Project



Remark : \*24-hour average dust volume standard value = 0.33 milligrams/cubic meter (mg/m<sup>3</sup>)

\*\* Standard values for dust particles not exceeding 10 microns on average for 24 hours = 0.33 milligrams/cubic meter (mg/m<sup>3</sup>)



## ➤ Noise Quality Control

(103-1)



Noise quality is one of the effects which results from construction activities, which if the noise level exceeds the level specified by the standards, it could severely affect the lives of the people who are living around the construction area. For this reason, CH. Karnchang has established a management plan and various control measures as specified in the conditions of the construction work. The Company is responsible to adhere to the law together with the project owner under the supervision from various state agencies such as the National Environment Board or Municipal officers, for example.

### ◆ Management Guidelines

(103-2)

CH. Karnchang has identified monitoring points to inspect the noise levels in construction project areas with a plan showing the project's Boundary Line to explore the environment, source of noise pollution, characteristics of the noise and the working hours, as well as preparing a plan and operational procedures to control the noise level to be within the level that is specified by the government agencies in order to promote and develop management guidelines to control and prevent noise pollution from construction sites from exceeding the standard benchmarks according to the announcement by the National Environment Board No. 15 (B.E. 2540) By specifying a standard for general noise level as follows:



Installing a noise quality control within the construction site



In 2022, CH. Karnchang monitored and inspected the construction noise level at CH. Karnchang's various construction projects and found that it is within the benchmark index criteria as mentioned above and did not find any complaint cases regarding the level of noise exceeding the standards. Moreover, CH. Karnchang has established measures to reduce the impact from noise as follows:



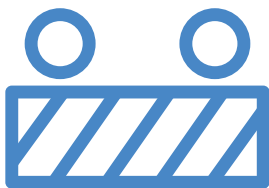
**Maximum noise level not exceeding 115 dBA**

**The Average level of noise  
over 24 hours not exceeding 70 dBA**



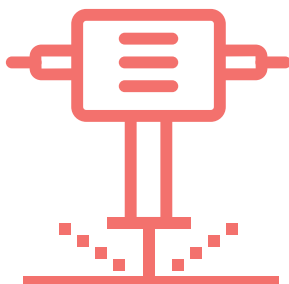
### **Conduct construction activities**

with loud noises between 6:00 am. – 10:00 pm.  
If the activities shall continue beyond the established time,  
it will be communicated to the surrounding  
communities for their awareness.



### **Establish measures to prevent effects from noise**

Such as installation of temporary noise  
canceling walls around the construction site.



### **Areas to conduct soil stripping, demolishing, destruction, drilling machines Concrete mix, solid fence**

shall be built around the construction area  
(height not less than 2 meters)

## ➤ Wastewater Treatment and Waste Disposal

(103-1)



As CH. Karnchang is the country's major construction business operator which pays great attention to every process of the construction, including the quality of the construction as well as paying attention to the environment while the construction is in process in order to maximize the efficiency in reducing the impact caused by the construction activities, including the care and management of wastewater and waste which have been implemented in every project of CH. Karnchang, CH. Karnchang is in compliance with the National Environmental Promotion Act 1992 in carrying out the control and prevention of effects on health and safety of the communities and the environment both within the construction area and surrounding areas.

### Management Guidelines

(103-2)



**Wastewater Treatment Management :** CH. Karnchang shall review and assess the quality of the soil surface and ecosystem in the water of the area of the construction projects. When the water is being drained, CH. Karnchang shall tend to, improve, and amend the water quality to be in accordance with the specifications of the law and under the supervision of state agencies such as the Pollution Control Department and the Environment Committee, etc, in order to ensure that the quality of water released into the public canals is in accordance with the law and shall not affect the communities nearby the construction site.



**Waste Disposal Management :** CH. Karnchang shall review the scraps of construction materials, garbage, and waste which occur from the construction site which may affect the communities by separating the waste prior to forwarding it to the district office or other related agencies to collect and dispose of it according to the sanitation principles prescribed by the government agencies.



For 2022, there has been no data collection on the volume of wastewater at the office building and various construction projects of CH. Karnchang, since the construction projects do not release wastewater from the production process. Wastewater from the temporary sanitation system used during the construction period shall be treated at the prefabricated treatment tank prior to releasing to public water sources and the quality of the water shall be in accordance with the standards set by the law.

In regards to the garbage volume within the office building and CH. Karnchang's various construction sites, there is yet to be a collection of data, by which CH. Karnchang is in the process of developing data collection systems that are suitable to the type and nature of future construction projects.



Collecting effluent samples from temporary sanitation systems  
During the construction through the prefabricated wastewater treatment system



The assessment of the quality of the soil surface and ecosystem  
in the water of the area of the construction projects

## Energy Consumption

(103-1)



Energy is an important key factor in the development of a country's economy and society. At present, the demand for energy is continuously increasing, which has resulted in shortages of energy and fluctuations in the increasing cost of production. For this reason, CH. Karnchang attaches great importance to the conservation of energy and energy consumption by managing the energy usage for maximum efficiency.

### Management Guidelines

(103-2)



CH. Karnchang adopts guidelines in the management of energy by supporting the government policies towards energy conservation and encouraging its employees to be aware and pay attention to conservative and efficient usage of energy in order to reduce the consumption and the burden on the Company's expenses on energy.

Starting from the management at the head office, such as turning off the lights in the operation area during lunch breaks or when not in use, supporting the replacement of fluorescent lamps with energy saving LED lamps, setting the time to shut down the air conditioning system before the completion of working hours, and controlling the temperature to be at an appropriate level, as well as starting to substitute electrical appliances in the office to be energy-saving types, for example.

## Electricity Consumption in 2022

(301-1)



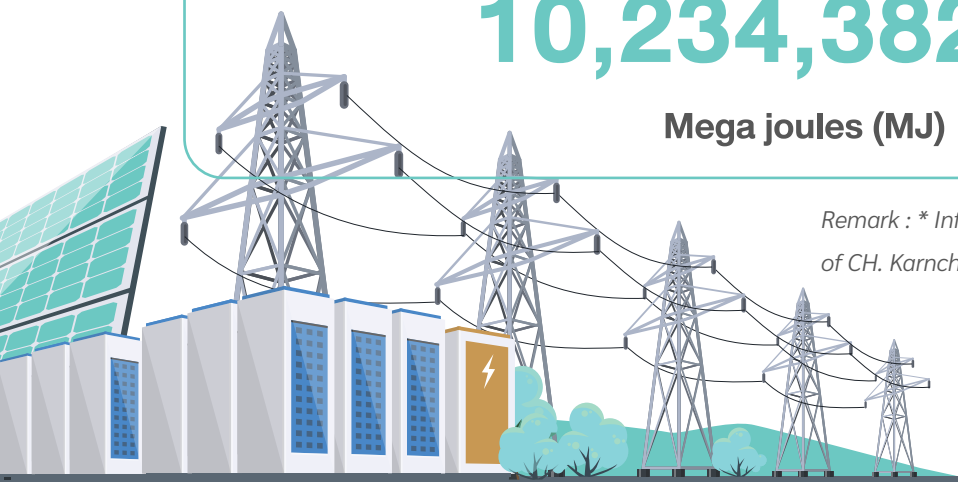
### Amount of electricity consumption

10,234,382.40

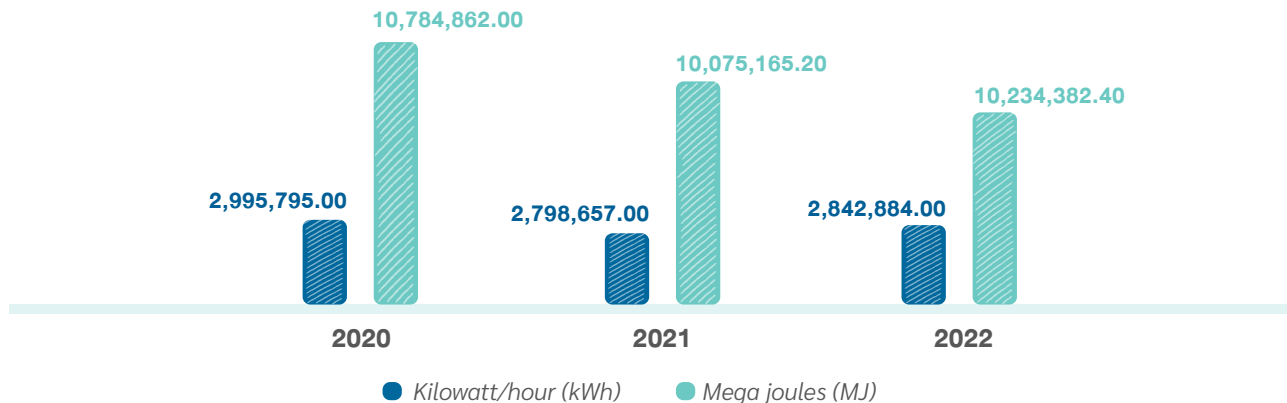
Mega joules (MJ)



Remark : \* Information on the electricity consumption of CH. Karnchang PCL Headquarter only

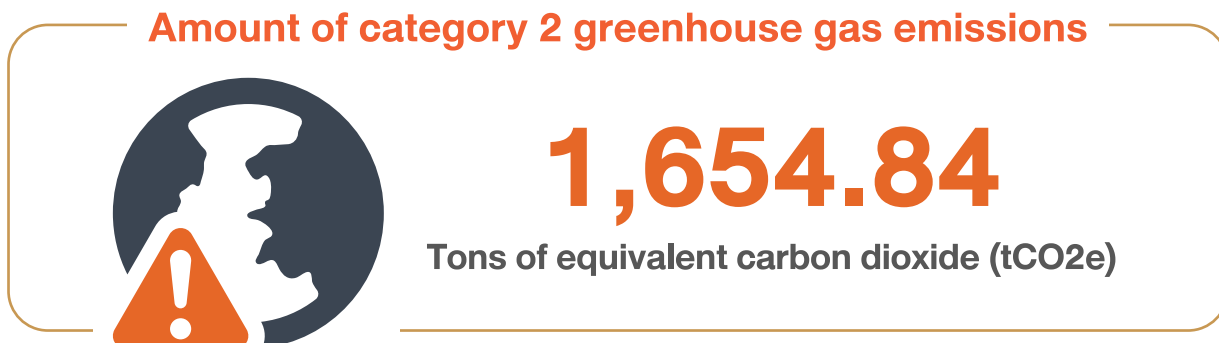


## • Comparison of the Amount of Electricity Consumption from 2020–2022

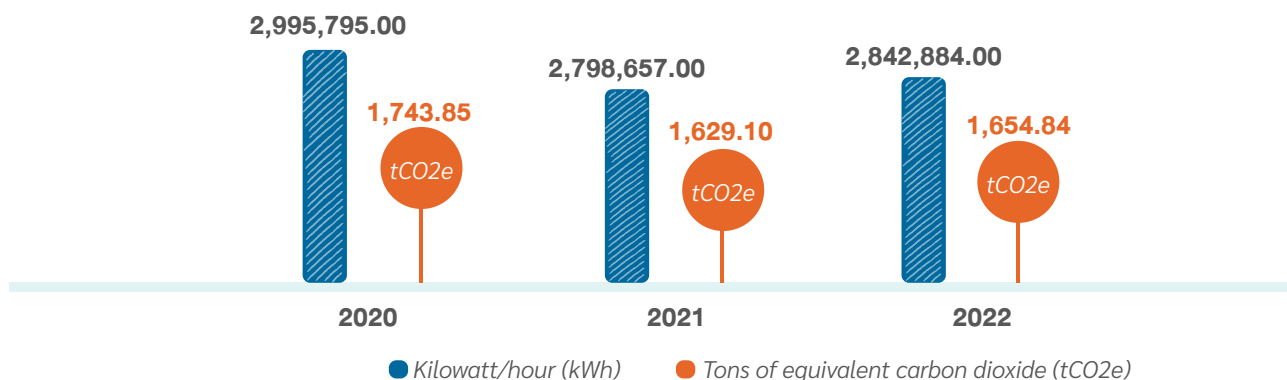


Remarks : \* Information on the electricity consumption of CH. Karnchang PCL Headquarter only

In this regard, from the amount of electricity consumed in 2022, it can be calculated as greenhouse gas emission data 2 (Scope 2) or indirect greenhouse gas emissions resulting from energy consumption (Indirect Energy Emissions) from the purchase of electricity for consumption within the organization as follows:



## • Comparing the Amount of Category 2 Greenhouse Gas Emissions from 2020–2022



Remarks : \* Information on the electricity consumption of CH. Karnchang PCL Headquarter only

# 6

## Employees of CH. Karnchang





## CH. Karnchang (PCL)

is aware that for a business to have good success, this will require efficient management of company's resources. Every operating personnel is part of the company's resources, which the company has to take care of and manage to be in accordance with and supportive of strategies and goals of the business. Management of human resources is based on transparent, fair, equal employment, compensation and welfare, or other fair benefits, as well as importance will be given to the development of knowledge and capability in order to improve work skills and for these skills to be used for the development of the organization.

Policy and guidelines of CH. Karnchang on labor employment take into consideration the principles of basic human rights, corporate governance, and fair conduct, as well as in compliance with the steps of the Labor Protection Act and Labor Relations Act. Furthermore, they are also based on ethical law principles, without any discrimination regarding employment union/work condition, compensation payment, work promotion, or training and development of employees, and non-discrimination on ethnics, religion, gender, race, education institution, or disabilities. They will be considered based mainly on knowledge and capability of work responsibility. Wage rate will be managed appropriately according to the work position, experience, and capability of the employee. This will apply no matter whether the employee is a monthly employee or a daily employee. The goal is for the employees to be able to work happily with the company and reduce the employee turnover rate. In addition, CH. Karnchang's labor conduct is also in compliance with the labor law, and there is no employment of child labor according to the age criteria specified by the law, along with there being supervision of the subcontractors' actions to not be in violation of human rights principles and labor laws.

The employees of CH. Karnchang are a factor of utmost importance for the successful operation of our business. It is necessary for CH. Karnchang to manage its human resources fairly and with consideration to the principles of human rights, which shall be consistent with and supportive of CH. Karnchang's strategy and objectives, which can be achieved by implementing operations that are clear, transparent, fair, and equal in every process of human resources, as well as to support and develop the knowledge, competence, and skills of the employees, employee care and retention, so that employees may remain with the organization as long as possible, including supporting fair compensation and welfare for all employees.

# Key Performance in 2022

48 persons



Selected group of potential employees



7.51  
(hours/person/year)

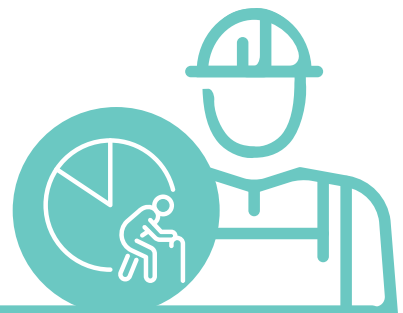
Average number of training hours per person per year

0.01



Injury rate (IR) caused by work

203 persons



Retired employees that are continuously employed

## ► Employment and Labor Law Practices

(103-1)

Personnel are the main resource that CH. Karnchang Public Company Limited values overseeing and managing to be efficient, consistent with and supporting the Company's strategies and operating guidelines on the basis of transparency, fairness, and equal employment opportunities, fair compensation and welfare or other benefits, including giving importance to developing knowledge and skills to further improve and enhance the work potential of personnel. This is an important factor in raising higher operational standards in order to drive the business efficiently and is a guideline for business operations to achieve sustainable goals.

Policy and guideline of CH. Karnchang on labor employment take into consideration the principles of basic human rights, corporate governance, and fair conduct, as well as being in compliance with the steps of the Labor Protection Act and Labor Relations Act. Furthermore, they are also based on ethical law principles, without any discrimination regarding employment union/work condition, compensation payment, work promotion, or training and development of employee, and no discrimination on ethnicity, religion, gender, race, education institution, or disabilities. They will be considered based mainly on knowledge and capability of work responsibility. Wage rate will be managed appropriately according to the work position, experience, and capability of the employee. This will apply regardless of whether the employee is a monthly employee or a daily employee. The goal is for the employee to be able to work happily with the Company and reduce the employee turnover rate. In addition, CH. Karnchang's labor conduct is also in compliance with the labor law, and there is no employment of child labor according to the age criteria specified by the law, along with there being supervision of the subcontractors' actions to not be in violation of human rights

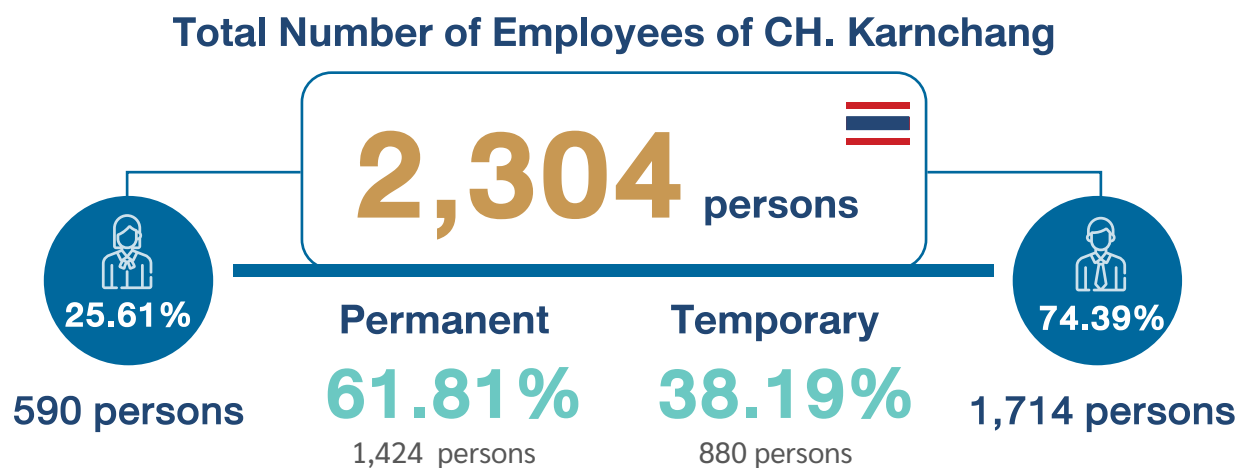
## Management Guidelines

(103-2)

CH. Karnchang has standards and personnel selection systems that are transparent and fair, by starting from the selection planning and communication to create motivation for the target applicants and process to conduct a written examination, English abilities test, and job interviews. The selection criteria are based on the knowledge and skills of each person, the suitability to the position, disregarding their gender, race, religion, or difference in abilities.



## Number of Employees of CH. Karnchang Public Company Limited in 2022 (102-7, 102-8)



Remark : \* Total number of CH. Karnchang Public Company Limited's employees (temporary and permanent employees combined)

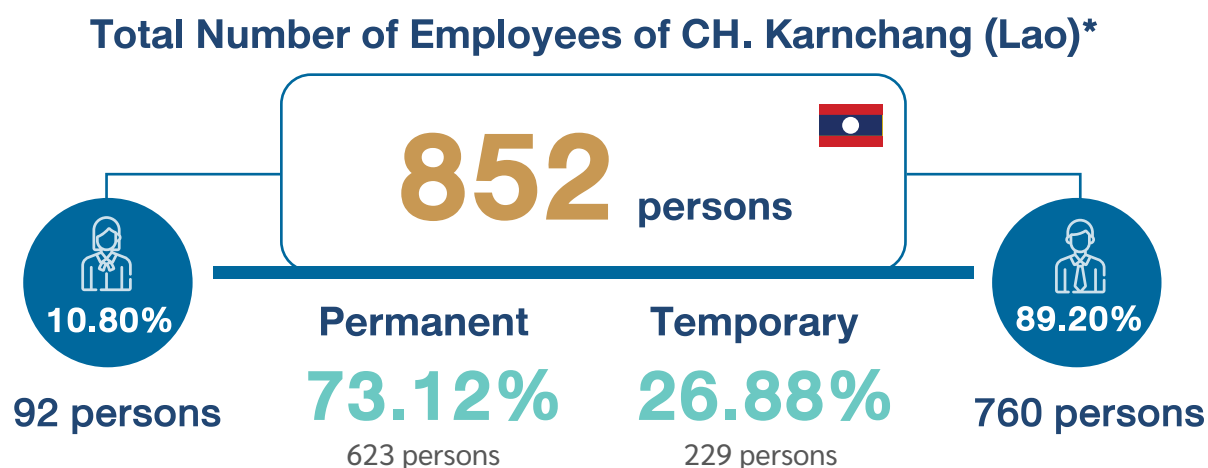
## Number of New Employees of CH. Karnchang in 2022

(401-1)

	2020	2021	2022
Total number of new employees*	198 persons 9.78%	223 persons 11.33%	393 persons 17.06%
Male	164 persons 8.10%	193 persons 9.80%	350 persons 15.20%
Female	34 persons 1.68%	30 persons 1.52%	43 persons 1.87%
Age < 30	72 persons 3.56%	83 persons 4.22%	152 persons 6.60%
Age 30-50	104 persons 5.17%	109 persons 5.54%	182 persons 7.90%
Age > 50	22 persons 1.09%	31 persons 1.58%	59 persons 2.56%
Center	186 persons 9.19%	217 persons 11.02%	362 persons 15.71%
Other regions in the country	12 persons 0.59%	6 persons 0.30%	31 persons 1.35%

\* Remark : Total number of CH. Karnchang Public Company Limited's employees (temporary and permanent employees combined)

## Number of Employees of CH. Karnchang (Lao) Company Limited in 2022 (102-7, 102-8)



Remark : \* Total number of employees of CH. Karnchang (Lao) Company Limited including permanent and temporary employees with Laotian nationality at 1,350 person

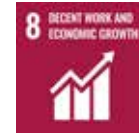
## Number of New Employees of CH. Karnchang (Lao) in 2022

(401-1)

	2020	2021	2022
Total number of new employees*	65 persons 2.82%	25 persons 1.18%	115 persons 13.50%
Male	63 persons 2.73%	19 persons 0.89%	107 persons 12.56%
Female	2 persons 0.09%	6 persons 0.28%	8 persons 0.94%
Age < 30	8 persons 0.35%	11 persons 0.52%	21 persons 2.46%
Age 30-50	48 persons 2.08%	12 persons 0.56%	65 persons 7.63%
Age > 50	9 persons 0.39%	2 persons 0.09%	29 persons 3.40%
Center	0 persons 0.00%	0 persons 0.00%	0 persons 0.00%
Other regions in the country	65 persons 2.82%	25 persons 1.18%	115 persons 13.50%

\* Remark : Total number of new employees of CH. Karnchang (Lao) Company Limited  
(Permanent employees and temporary employees combined)

## ➤ Attraction and Retention of Employees and Potential Employees (103-1)



Once the personnel are employed at CH. Karnchang, the Company shall begin the process of retaining valuable employees with the organization, particularly employees with potential, by which these employees are the main force in the growth development of the Company. Employee retention helps to reduce the cost of hiring new employees which contributes to the Company's sustainable growth. CH. Karnchang has implemented guidelines in attracting employees by establishing a Succession Plan, continuous development of knowledge, a reasonable compensation scheme, and attempts to create a good working atmosphere by establishing good communication within the organization through Microsoft Office 365 system.

Employee's potential assessment criteria, whereby CH. Karnchang shall assess the employee's KPI (Key Performance Indicator) and Competency in their position, by which all employees at every level of CH. Karnchang, accounting for 100%, shall be evaluated, in order to be selected as a group of employees with potential. In 2022, there were a total of 48 employees in this group, calculated into a percentage at 2.34 of the total employees with details as follows:

### Number of Employees Selected as a Potential

**48 persons**



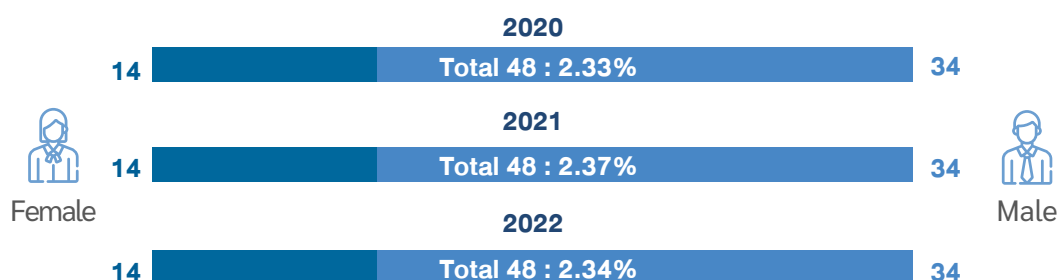
**2.34 Calculated into a percentage of total number of employees**

Remark : \* Includes permanent employees of CH. Karnchang Public Company Limited and CH. Karnchang (Lao) Company Limited




















### % of Employees Selected as a Potential Group (measured by performance) in 2022



### Retention Ratio of Employees in the Potential Group in 2020–2022



Additionally, in order to retain employees with the Company for as long as possible, CH. Karnchang has established compensation, welfare, and allocation of benefits to permanent and temporary employees as follows: (401-2)

Subsidies Welfare	Permanent Employees	Temporary Employees
Marriage subsidies (employees)		
Marriage subsidies (employees' children)		
Employee's death (company's subsidies)		
Employee's death (insurance)		
Subsidies for parents, spouse, and children of deceased employees		
Ordination		
Medical expenses		
Maternity expenses		
Experiencing natural disasters		
Annual health checks		

Moreover, in case of child birth by female employees, CH. Karnchang provides benefits of maternity leave wherein in 2022 there were a total of 9 employees, calculated into a percentage at 0.29 (401-3)

Case of Leave	Male	Female	Total
Number of employees eligible to take maternity leave	0	682	682
Number of employees exercising the right to take maternity leave.	0	9	9
Number of employees exercising the right to take maternity leave and return to work.	0	9	9
Number of employees returning to work after the end of maternity leave and continuing working for a minimum of 1 year.	0	9	9
Return ratio and retention ratio of returning employees After the leave period is over.	0	100%	100%

Remarks: Total number of male and female employees (temporary and permanent employees) of CH. Karnchang Public Company Limited and CH. Karnchang (Lao) Company Limited



# ➤ Personnel Development Policy



Personnel development is an important process of management, which will enable conduct of many activities to be efficient and can also assist in enhancing work potentials. Provision of knowledge and enhancement of work skills are important matters in carrying out work, and can affect career advancement by enabling the person to advance in the work position. Therefore, personnel development has many tools to assist in development, both in terms of training that will help personnel to work efficiently, as well as development of new knowledge at all times.

Training is also a process that can change behaviors systematically so as to gain knowledge and understanding that can lead to capability development creating future skills and expertise. There are many forms of personnel development within an organization. Each organization can choose the format according to its suitability. Many organizations are turning their attention to Virtual Meetings or Online Meetings in the New Normal Era because of the suitability to the current situation as it helps provide good solutions and enable the training system not to be unnecessarily interrupted and can be continued well. These are described as follows:

1. Virtual Meeting training is a live training through ZOOM which will help save costs.
2. E-Training will help save costs of the organization and enable the organization to communicate with trainees conveniently.
3. Orientation is an introduction for personnel or new employees to understand rules and regulations, and procedural guidelines of the organization, in order for the new personnel to learn about the history of the organization, different levels of executives, regulations that must be followed, as well as organization structure.
4. Training, such as lectures, discussion, case studies, is a process created for the personnel to learn and gain expertise with an emphasis on a specific issue and for the personnel to change behavior in the needed direction, help reduce waste of resources, reduce work absence and reduce work resignation, and help to prepare the workforce for the organization's expansion.
5. Brainstorming is to motivate employees to express comments fully in a given topic. It is an appropriate method to be used in resolving complex and difficult problems.
6. Seminar is another popular method at present. It is an exchange of ideas and provides a forum for questions and answers in order to resolve problems.
7. Self-studies training is a training which emphasizes employee's ability to study and form understanding on his/her own, such as audio tape. This method of training is necessary to be used as a complement to other types of training.

8. Workshop is a training format that promotes employee's ability to learn, both in terms of theory and practice, and is able to apply to real work situation. Knowledge gained from the lecturer will help enhance knowledge and understanding of the employee to be able to resolve work problems, determine work guidelines and improve work.

9. Job rotation is when an employee is changed from one work position to another in order for the said employee to be able to work in a higher position, gain more knowledge and skills, help to enhance his/her understanding and good relations with employees in other sections, and promote awareness for everyone to realize that all work positions are of equal importance.

10. Coaching emphasizes providing explanations of work details and does not necessarily have to be done at the workplace only coaching may be done outside of the work area. The direct supervisor will be the one who conducts coaching for the employee.

11. On the job training (OJT) emphasizes training in actual work practice. OJT is taught by the head chief or assigned officer to follow up on the employee in order to provide explanations and advise about the work. This tool is beneficial if applied in complement with coaching.

12. Job enlargement emphasizes assigning a greater workload. The new workload assigned can have a similar work procedure to the original work or may be of a different type of work; however, it will not be work that is too complicated.

13. Work delegation emphasizes distributing to the subordinate work under the responsibility and authority of the Supervisor in making decisions within the specified scope to conduct on the Supervisor's behalf. The majority of the work delegated will be routine work.

14. Job rotation emphasizes having an employee rotate from one work to another in order to learn about that work in a specified time period. It is mostly used as a tool in developing the capability of the employee to have more well-rounded knowledge.

15. Consulting emphasizes providing advice and recommendations to the employee when they faced with problems from work under their responsibility. The Supervisor has the duty to provide guidelines and an approach so the employee will be able to resolve the problem.

16. Self-learning emphasizes practicing by oneself through different learning sources/channels such as reading or studying of the system from work instructions or internet researches.

17. Internal trainer emphasizes creating an employee who has the ability to transfer knowledge, loves to teach, and is knowledgeable on the lectured topic. The said employee can be assigned as an internal trainer and has the duty to conduct training for employees within the agencies and projects.

18. Site visits emphasize studying the system and procedure of other organizations as an example on the topic of the site visit. This is for the employee to recognize the concept and practice principles that are successful and which can be adapted for further application within the company.

19. Training with experts (Counterparts) emphasizes actual practice training with experts and experienced persons on that particular topic. Experts are invited to provide training to the employees.

All of these training methods are tools and guidelines for the development of employees of CH. Karnchang which will help employees gain knowledge and improve the ability to work efficiently, and also to prepare the employees to be ready for advancement towards being executives, who have to be ready as a good leader and have potentials appropriate to the executive position, especially for the development of change management, visionary strategy, and innovation. The purpose is to motivate personnel to always develop oneself at all times and to be able to apply knowledge from actual work conducted through practice and experience instilled within the person for work benefits, as well as having Key Performance Indicators used along with Competency factors in evaluating work for concrete results. The company also sets up a career path as it is a strategy to maintain employees and to provide incentives for employees to recognize advancement in the profession. A succession plan is carried out to find and select good and capable individuals who are appropriate for the position. The said selection is done within the organization, the consideration of which is based mainly on work performance and potential. This is conducted periodically in order to evaluate the situation and make predictions. Development of knowledge and capability, and skills required by the position is also carried out in order to prepare personnel for replacement at all times.

## ➤ Training and Education

(103-1)



Providing training and education to our employees is an activity which CH. Karnchang has always implemented in order to develop the competencies of our employees at every level to be able to carry out their duties efficiently and support the Company in dealing with the changes that have occurred. The focus is to increase the employees' (knowledge), create the right (understanding), raise their working (skills) and adjust their (attitude).

## Management Guidelines

(103-2)

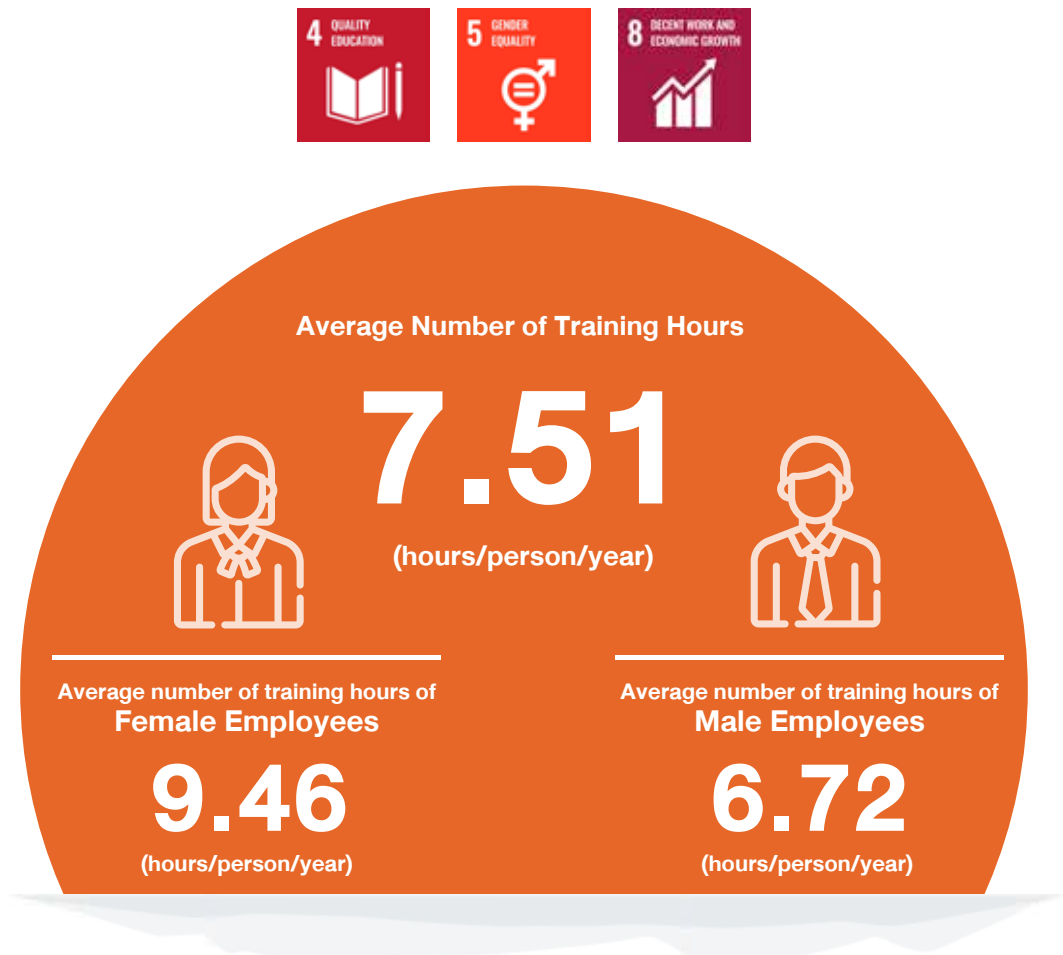
In regard to personnel training and development, the process begins from identifying training needs, creating and building a training course for the employees, including follow-up and training evaluation, whereby the mentioned process can be applied to the development of personnel through training for all positions and being consistent with the organizational goals, contributing to the Company achieving its goals with excellence. In 2022, the training courses were divided into different types as follows:



*\*Remark : In 2022, CH. Karnchang (Lao) Company Limited no training courses are organized because the construction project is completed.*

# Average Number of Training Hours Per Person Per Year in 2022

(404-1)



Average Training Hours Separated by Employee Level (hours/person/year)		
Practitioner level	Middle Management	Senior Management
7.10	13.51	12.00
Average number of training hours (hours/person/year)		

*\*Remark : CH. Karnchang Public Company Limited’s aim for training and education is at 8 hours/person/year*

The goal in providing training and education of CH. Karnchang is to emphasize human and work development so that employees can improve knowledge, skills, and attitudes and have higher potentials, and at the same time the organization can have better performance. That is, training will help improve the work system of the organization to be in the same direction, help increase capacity and develop potential of the personnel, along with enhancing for a greater work efficiency of the organization.

## ➤ **Benefits Obtained by The Company from Developing Potentials and Promoting Advancement of the Employees**

By providing development of personnel, both in terms of skills and work expertise, both the employee as well as the organization will benefit. Personnel will have more expertise in doing the work and there will be fewer mistakes, which will result in higher output, quality products, and better company performance, all of which lead to sustainable growth. These things will bring about love, loyalty, and the devotion of employees to the organization. Employees will work happily. This is one approach that will help the organization to develop and progress alongside growth and compete with other business proudly. When the company has personnel who are efficient or skilled in doing the work, the opportunity in career advancement will be greater respectively, which results in the company gaining benefits from the development of personnel as follows:

- Help reduce the cost of organization, reduce work absence, and reduce turnover rate of skilled employees
- Employees have love, loyalty, and devotion to the organization, as well as being more attentive to work, which will help the organization to achieve its goals
- Personnel can develop his/her own capability in order to enhance work efficiency and achieve greater success
- New body of knowledge is created within the organization which will benefit the work of the organization
- The organization has clear work directions and objectives which can be reached easier

## **Measurement of Benefits Gained by Employees from Potential Development and Promotion of Career Advancement for the Employee**

Development of personnel in an agency for professional advancement is considered an important matter in which one's own profession should be developed coupled with enhancement of skills in order for employees to have education and understanding of different techniques, methods, and new knowledge that are required by work position of such profession. There should also be evaluation of employees by using evaluation methods to follow up on work efficiency after training in order to see how much the work method can be improved when skill development received from the training is applied. The emphasis will be on potential development and self-development to enhance potential as well as development of ability to work with others, in order to create work participation and the ability to co-exist with one another happily, along with having work efficiency that can achieve the set goal and development of general management skills. Knowledge, skills and ability in general management are to be developed in order to prepare the employees who will be advancing to the executive position or personnel in the management career path who will be advancing to become an executive of higher level, to have appropriate potential to assume the management position in the future.

Promotion of personnel in an agency for professional advancement is an important matter which will help the employee plan his/her career advancement and see that there is future in his/her own work. This can be achieved by setting clear work goals of each employee, connecting the goal of employees with the main goal of the organization, and developing oneself to have characteristics well suited to the current and future work position.



## Employee Occupational Health and Safety

(103-1)

CH. Karnchang operates a business in large-scale construction of various types, where the Company mainly requires manpower in order to operate and have various machinery and technology as a support. For this reason, the Company is considerate of employees' occupational health and safety in essence by continually integrating good occupational health and safety management in order to reduce the and control employees' operational accidents. Additionally, it is also a response to the Company's quality policy regarding security management and it effectively enhances the quality of life of the personnel at work.



### Security Policy

(103-2)

**1.**

Be responsible for safety and occupational health.

**2.**

Employees and relevant parties of the project must be aware that safety is everyone's duty.

**3.**

Safety and occupational health must be incorporated into various operational plans.

**4.**

Risk assessment is established in all operations.

**5.**

Promotes safety and occupational health by organizing training and education for all employees.

**6.**

Constant improvement of the security policy to create confidence regarding safety and occupational health.

CH. Karnchang recognizes that construction work must be carried out alongside awareness of safety and occupational health, whereby the Company's security policy is one of the main policies implemented to ensure that the operations are safe and that they are carried out efficiently at every step, as well as to prevent and lessen the losses from accidents which may occur to the employees under the Occupational Safety, Health, and Environment of the Work Place Act.

Therefore, CH. Karnchang attaches great importance to our security policy, and regards the policy as the highest standard, by committing to conducting safe operations under the Occupational Safety and Health law of Thailand such as:



- Ministerial Regulations on the Prescribing of Standards for The Administration and Management of Safety, Occupational Health, and Environment in the Workplace for Construction Works B.E. 2551



- Occupational Safety, Health, and Environment Act B.E. 2554



- Ministerial Regulations on The Prescribing of Standards for The Administration and Management of Safety, Occupational Health, and Environment in the Workplace (Volume 2) B.E. 2553



- Ministerial Regulations Prescribing Standards for the Administration and Management of Occupational Safety, Health, and Environment in the Workplace for Works Involving Machines, Cranes, And Boilers, B.E. 2552



- Ministerial Regulations Prescribing the Administration and Management of Occupational Safety, Health, and Environment in the Workplace for Confined Space Workplaces, B.E. 2547

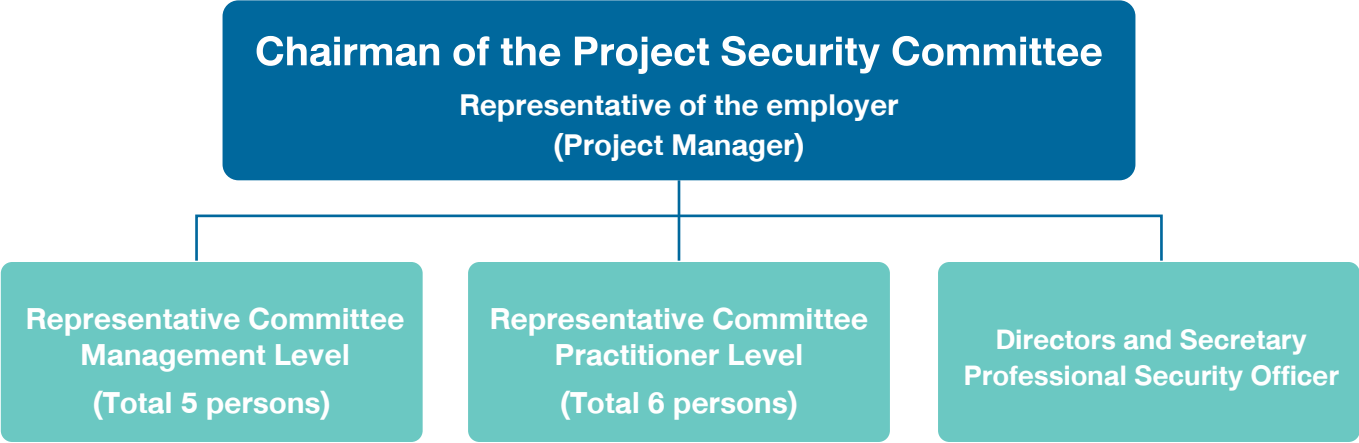


By which, the details have been included in the Occupational Health and Safety Management Plan of CH. Karnchang's employees to allow all employees to be aware of and pay attention to their health and safety at work. In addition, CH. Karnchang's contractors shall strictly comply with the regulations of the Safety and Occupational Health plan to ensure that the operations on safety are conducted efficiently. There shall be an appointment of Safety, Occupational Health, and Environment in the Workplace Committee for every construction project belonging to CH. Karnchang with an objective to determine the standards and establish policies for the operations to be carried out efficiently, in which a meeting is required to be held once every week to ensure safety, and also as a measure to control losses caused by accidents at work



Security Committee on the Project site

(403-1)



Safety, Occupational Health, and Environment in the Workplace Committee shall consist of not less than 11 persons including

Chairman	Committee	Directors and Secretary
Authorized by the employer, which is the Project Manager	5 persons: appointed as the management representative committee 6 persons: qualified as the practitioner level representative committee	Professional Security Officer

Besides the appointment of and the Safety, Occupational Health, and Environment committee, CH. Karnchang has guidelines to manage Occupational Health and Safety in accordance with the law and international standards based on the principles of prevention and control to avoid accidents that may occur from unsafe operations such as inappropriate selection of machinery or not wearing protective equipment as per the regulations, for example.

In this regard, the implementation of Occupational Health and Safety at CH. Karnchang is done in accordance with the Company’s quality policy, ISO 9001:2015 standards, and consistent with general international practices in order for continual development, by supporting the budget and resources such as providing sufficient protective equipment, as well as organizing training to increase their skills, knowledge, and competence regarding Occupational Health & Safety, and continually strengthen the awareness of the Company’s employees and relevant parties.

## Injury Ratio (IR), From The Operations of All projects from 2020–2022 (403-2)



### Injury Ratio (IR)

“ Working hours not less than 300,000 consecutive hours without injuries forcing a leave from work\* ”

CH. Karnchang has continuous and systematic guidelines in the development of work management, starting from the planning process of safety management, putting the plans into action, inspection and improvement in order to elevate the objectives and increase the efficiency of safety management according to the format of a continuous development cycle.



## Coronavirus Disease 2019 (COVID-19)



The situation of the outbreak of the coronavirus disease 2019 (COVID-19) since 2020 until 2022 has resulted in the Company's implementation of preparation on how to handle the situation if any pandemic with serious impact on the society and the operation of the Company should reoccur in the future. The Company has formulated a Risk Management and Business Continuity Plan (BCP) which has led to the Company being affected by COVID-19 at a very low level and it did not affect the Company's finances in any way.

In 2020, the Company was affected by COVID-19 in an indirect way through companies that the company invests in, such as Bangkok Expressway and Metro Public Company Limited (BEM), whose number of passengers had decreased, but only for a period of time. After the government relaxed various measures, BEM was able to operate in a new normal way, and the number of people who use the Skytrain or expressway returned to using the service as usual. When the COVID-19 (2019) pandemic began spreading again in 2021 and continued until 2022, with the Company's good preparation to prevent such problems, the situation did not have any significant impact on the Company in any way.

### The impacts from the situation of the COVID-19 outbreaks could be summarized as follows:

Effects	Action
<b>1. Impact on business operations</b>  <b>No impact.</b>	<ul style="list-style-type: none"> <li>• Formulation of a risk management plan and Business Continuity Plan: (BCP) to prevent and reduce the impact on the business of construction projects and the head office.</li> <li>• Take full care of the safety and hygiene of human resources.</li> </ul>
<b>2. Impact on revenue and profit</b> <ul style="list-style-type: none"> <li>• No impact on the construction revenue.</li> <li>• Indirectly affected by profit sharing from associated companies invested by the Company.</li> </ul>	<ul style="list-style-type: none"> <li>• Disbursement of construction revenue is in line with the plan.</li> <li>• Invest in basic infrastructure concession companies.</li> <li>• Less impact compared to other businesses.</li> <li>• Closely monitor and assess the impact of various companies that the Company invests in.</li> <li>• Manage cash and plan finances prudently.</li> </ul>
<b>3. Impact on future business operations and bidding plans.</b>  <b>No impact on future projects.</b>	<ul style="list-style-type: none"> <li>• Projects in the bidding plan are important projects of the country's foundation, which are the main engine to help restore the economy.</li> <li>• The bidding plan gradually came out as planned.</li> <li>• Ready to move forward to support various projects of the government to restore the economy to the new normal.</li> </ul>

However, the spread of COVID-19 was a crucial problem that the Company monitored closely. The Company is not concerned if such problems will arise in the future because the Company has appropriate risk management and various measures to cope with problems well; therefore, the Company does not expect to be significantly affected by the situation.

## ➤ Employee Promotion and Preparation for Retirement

(201-3)

Employees are the most important driving force of business growth and keeping up with the changing global society. Therefore, CH. Karnchang is focused on developing the Company's personnel in order to enable them to fully utilize their potential by giving equal development opportunities to all personnel at every level from the first day until their retirement day, whereby CH. Karnchang has arranged a skills management plan and lifelong learning that facilitates continuous employment and assists our employees with managing their lives after retirement.

CH. Karnchang has established both internal and external training plans for our employees by assessing whether the organized training courses can be beneficial to our employees themselves and the duties that they perform within the Company, as well as developing their working skills to increase their effectiveness, such as:

- Project management with Primavera program for construction supervision.
- Construction cost management by applying a new project management technique using Earned Value Analysis (EVA).
- Project Management Innovation by using Critical Path Method (CPM)
- BIM (Building Information Modelling)
- Guidelines for the prevention of corruption in the organization includes principles for applying personal data protection laws and using personal data documents.
- Techniques for controlling project costs with Construction Cost Control and Earned Value Management (EVM) systems.
- Quality Control of Construction Projects
- Knowledge of Construction Laws.
- Adaption of an accountant in the digital age to deliver analytical reports.
- Thai Financial Reporting Standards (TFRS) 2021
- Tax Planning : Corporate Income Tax and VAT to help reduce the corporate tax burden.
- Using the right to leave without pay for further education and being able to return to work as usual.

Moreover, CH. Karnchang has guidelines for life management after retirement, which includes social security planning, retirement savings, money saving and spending after retirement, and providing knowledge with regards to provident funds, which is another option to help save money for retirement and the funds can continue to grow even after retirement, by inviting guest speakers to share various knowledge that is beneficial to the employees in the future. The company has set up a provident fund, a long-term compensation when employment by the company is terminated or in case of retirement, in which executives pay into accumulated fund in the ratio of 10–15 percent of the salary according to the work period and the company will contribute the same rate to the fund. However, the maximum contribution by the company shall not exceed 10 percent of the wage. Furthermore, in 2022, CH. Karnchang allocated provident funds for the Executives and employees in the amount of 76,632,481 Baht, (1,148 persons) in order for the employees to have saving prepared in the event of retirement, resignation, disability or as insurance for their families.

## Number of Dismissed Employees of CH. Karnchang In 2022 (401-1)



	2020	2021	2022
All employees are dismissed*	138 persons 6.82%	230 persons 11.68%	212 persons 9.20%
Male	110 persons 5.43%	206 persons 10.46%	188 persons 8.16%
Female	28 persons 1.38%	24 persons 1.22%	24 persons 1.04%
Age < 30	33 persons 1.63%	71 persons 3.61%	73 persons 3.17%
Age 30-50	77 persons 3.80%	115 persons 5.84%	114 persons 4.95%
Age > 50	28 persons 1.38%	44 persons 2.23%	25 persons 1.09%
Center	116 persons 5.73%	228 persons 11.58%	206 persons 8.94%
Other regions in the country	22 persons 1.09%	2 persons 0.10%	6 persons 0.26%

\*Remark : No. of dismissed employees of CH. Karnchang Public Company Limited (combining permanent and temporary employees)

## Number of Dismissed Employees of CH. Karnchang (Laos) In 2022 (401-1)



	2020	2021	2022
All employees are dismissed*	40 persons 1.73%	24 persons 1.13%	12 persons 1.41%
Male	32 persons 1.39%	21 persons 0.99%	11 persons 1.29%
Female	8 persons 0.35%	3 persons 0.14%	1 persons 0.12%
Age < 30	4 persons 0.17%	0 persons 0.00%	3 persons 0.35%
Age 30-50	21 persons 0.91%	13 persons 0.61%	6 persons 0.70%
Age > 50	15 persons 0.65%	11 persons 0.52%	3 persons 0.35%
Foreign countries	40 persons 1.73%	24 persons 1.13%	12 persons 1.41%

\*Remark : No. of dismissed employees of CH. Karnchang Public Company Limited (combining permanent and temporary employees)

## Retired Employees that are Continuously Employed (As at December 31, 2022)

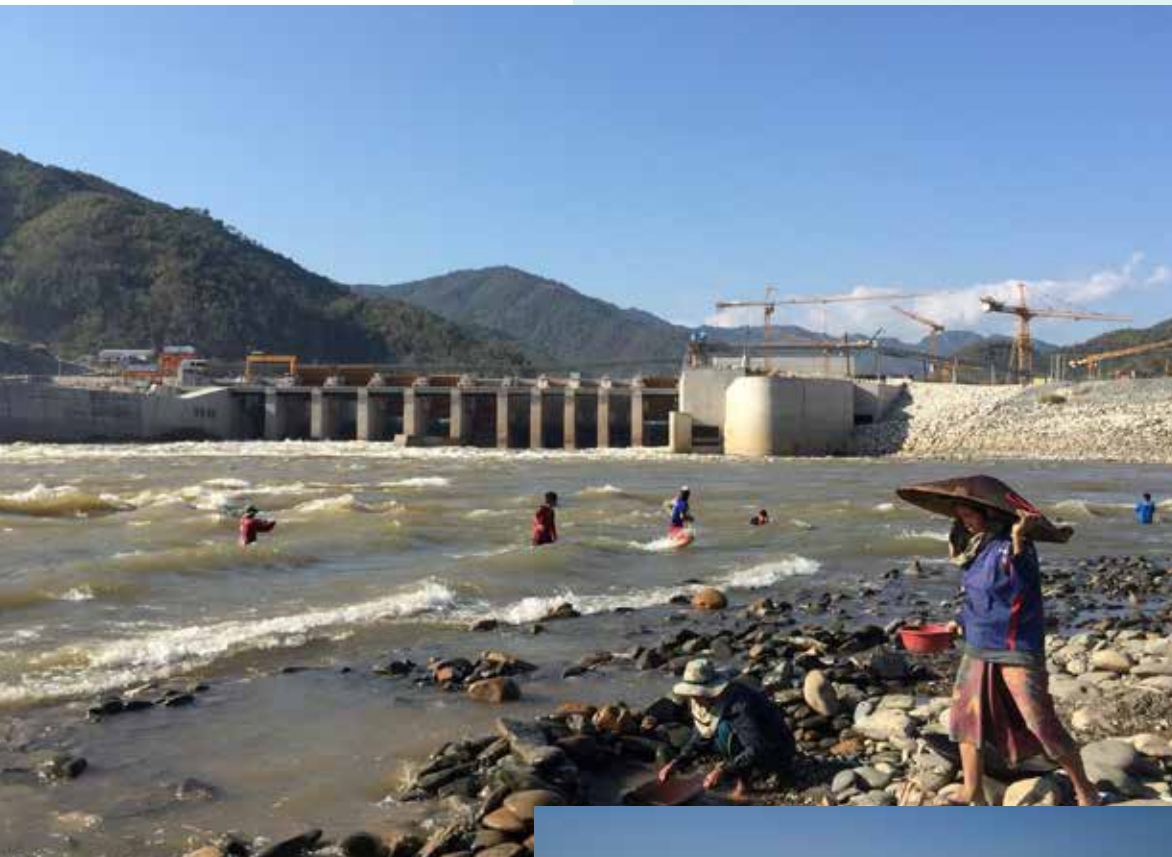
**123** 5.34%

CH. Karnchang Public Company Limited

**80** 9.39%

CH. Karnchang (Lao) Company Limited





# 7

## Communities Community Engagement and Development





CH. Karnchang's aspiration is that business operations must go hand in hand with community development and environmental care by avoiding actions that will cause negative impacts to the community, as well as caring for all personnel, as a fair reward to the stakeholders both inside and outside of the organization and as a means to create mutual sustainability.

**Key Performance in 2022**

# CH. Karnchang

**Operations,  
No Legal Dispute**

## ► Mitigation of Impacts on Communities

(103-1)

Communities are considered one of the stakeholders that CH. Karnchang places great importance on, on the grounds that during a construction period, the communities may be affected both directly and indirectly in regards to social and environmental issues. Therefore, the Company has an assessment and planning process to prevent impacts that may occur to the communities during construction activities, promotes involvement with the communities, and ensures that the needs of the communities surrounding the construction area are being conformed to, in order for the Company to gain acceptance and trust from the communities surrounding the construction area.

In the construction process, CH. Karnchang follows the control measures prescribed in the construction conditions, by which the Company has a responsibility to adhere to the law together with the project owner and committees from the community under the supervision of various government agencies such as the National Environment Board, officials from local agencies, etc.

### • Management Guidelines

(103-2)

CH. Karnchang has initiated community information studies (Social Mapping), data collection from stakeholders, appointed a community committee which consists of representatives from the government, project owner, community, and representatives from the Company to participate in discussions (Engagement) and identify the main operation plan (Master Plan), monitoring points and objectives, as well as assessment on the impacts (Impact Assessment), and stakeholder satisfaction survey.

Each of CH. Karnchang's project offices will be responsible for establishing measures and taking actions in mitigating any negative impacts that are significant to the community by allocating personnel to conduct community relationship activities and community engagement, including an arrangement of publicity signage and publishing the construction project details on the website for the public's acknowledgement regarding the project's construction plans, subcontractors' details, number of workers, construction plan and traffic management plan, as well as a construction site warning sign around the nearby areas of the construction site.

Additionally, a communication channel to report complaints shall be established in the areas where the construction activities are ongoing by publicizing through the project signage along the construction area and and public relations media via social media, specifying the name of the project's safety officer on site, including the contact number for reporting complaints, along with cooperation with the complainants to assess the impact and rectify the problems according to the Company's quality system.



Public relations sign of the project, Complaint and Suggestion Box // Nameplate and Coordinator Phone

## • Traffic Management in the Project Area

To manage, alleviate, and reduce traffic problems for the residents in the area, CH. Karnchang has implemented a transportation operation plan to search for measures to reduce traffic impacts from construction by referring to various methods, including:

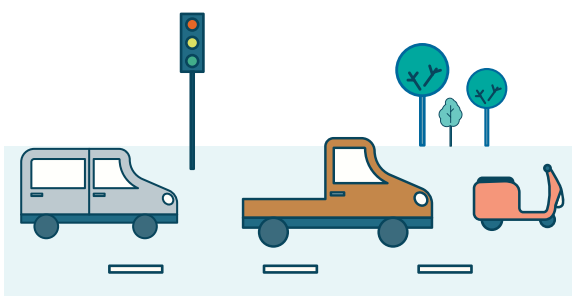


- Identifying areas for **monitoring**.
- Creating traffic plans that are consistent with the construction phase at various times.
- Meeting to discuss traffic management methods with local police officers and other relevant local officers.
- Assigning safety officers to participate in supervision with government officers.
- Preparation of accident statistics and causes of traffic accidents on the routes of users and pedestrians.

CH. Karnchang has managed and amended the traffic management around the construction area throughout the project operation period and found that major causes of traffic accidents are unrelated to the construction, such as violation of fire signals/ traffic signs, driving in close proximity (rear end crash), scraping, sudden lane changes, etc. Therefore, the ways to correctly manage traffic and prevent accidents is to increase the number of safety officers on duty to help supervise during rush hour in order to control the speed and traffic lanes, as well as increase lighting during the night hours, for example.



Periodic traffic management plan during the construction



Periodic traffic management plan during the construction



CH. Karnchang recognizes the importance of business operations that are consistent with ethics, law, rules, regulations, and various operational standards whether it is the labor law, international trade law, human rights law, laws regarding infrastructure systems and tax laws, etc, in order to prevent the effects that may occur to the operation of the business, such as reputation damage, payment of fines, or being suspended from operations that are not in legal compliance.

## • Management Guidelines

(103-2)

Every Executive and employees of CH. Karnchang has the responsibility to support, promote, and carry out their operations consistent with good practices in compliance with the economic and social law, with details as follows:

1. The Company's personnel shall have a thorough understanding of the laws that are directly related to their duties and responsibilities and to follow them strictly. Advice from the legal department shall be requested if there are any doubts, and no operations shall be carried out if such doubt persists.
2. In the event that the Company's personnel must travel to fulfill their duties abroad, that person must study the law, customs, traditions and cultures of the destination country prior to making the trip in order to ensure that the products or materials and equipment, including travel documents, travel purpose, and the operation at the destination country are not illegal, nor against the customs, traditions, and culture of the destination country.
3. The Company has compiled the laws and official regulations into categories for the Company's personnel to appropriately study the relevant laws and arranged to have orientations and educational training regarding the laws that are related to the business operation for the Board of Directors, Executive committees, and employees of the Company.
4. The Company must strictly adhere to the principles of international human rights, enhance the knowledge and understanding on the principles of international human rights for the employees to adopt as part of their operation, and shall not support any business that violates the principles of international human rights.

As of December 31st, 2022, the Company or the subsidiaries do not have a legal dispute in which the Company or the subsidiary is a party or a counterparty, that may have a negative impact on the assets of the Company or subsidiaries which are higher than 5% of the shareholders' equity at the latest fiscal year end. Including no lawsuits that significantly affect the Company's business operations and the Company does not have any lawsuit that does not arise from the Company's usual business operation in any significant way.

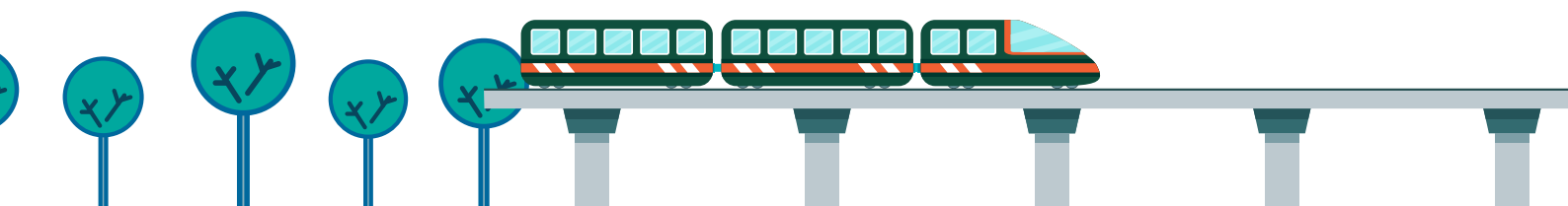




Furthermore, the Company's Board of Directors attaches great importance to the internal control system of the Company continuously, in order to prevent and reduce risks that may arise from corruption during one's duties, or non-adherence with the laws on economic and social issues, as well as the various regulations that are related to the Company's business operation. The Company has assigned the Audit Committee, which consists of independent directors, to review and evaluate the internal control system with the internal audit department reporting directly to the committee, to perform duties of reviewing the operation systems of each department of the Company according to the annual audit plan, which has been approved by the Audit Committee. The aim is to ensure that the Company adheres to all laws related to the business operation in all sectors, the operations are effective and efficient where the Company's resources are being maximized in value and benefit, as well as having control of the preparation of financial reports that are accurate, reliable, and delivered in a timely manner with compliance to the policies, legal regulations, and rules of the government and related agencies. Moreover, the effectiveness of the internal control system is reviewed continually to ensure that the business operation creates maximum benefit to the shareholders based on fairness to the interests of all stakeholders.

Additionally, the Audit Committee is responsible for engaging in considerate selection and nomination of an auditor, as well as his/her compensation and review of the disclosure of the Company's information to ensure the accuracy and completeness in the event that there are connected transactions or transactions that may cause a conflict of interests in order for the internal audit and the supervision of the Company's operation to be carried out efficiently. The Company therefore has appointed Mr. Viboon Angkapipatanachai, Executive Vice President of the Internal Audit Office, as the Chief of Internal Audits, who the Audit Committee is of opinion that Mr. Viboon Angkapipatanachai has the knowledge, ability, and work experience suitably qualified to perform the duty as the Company's Chief of Internal Audits effectively. In the appointment, removal and transfer of the person holding the position of Chief Internal Audit must be approved by the Audit Committee, and Ms. Kuntika Anantakarn, Regulatory Manager, has been appointed as the Company's Operational Supervisor to be responsible in overseeing together with the President's Office by coordinating with the Corporate Secretary.

In this regard, in 2022, the Company's Board of Directors, Audit Committee, and Auditor established consensus that the Company's operation was in accordance with the principles of good corporate governance with compliance to the law regarding both economic and social regulations by the government and relevant agencies correctly and completely, and the Company's business operation is transparent and verifiable with appropriate and efficient internal control systems and risk management which can protect the Company's assets from being misused or used without authority by the Executives or employees.



The Company's Board of Directors not only places importance on the Company's internal control system but also recognizes the importance of using internal information to seek personal benefit or benefit for the relevant parties, whereby the Company monitors the use of internal information according to the law and good corporate governance as follows:



## 1. Policies and Procedures in monitoring the Directors and Executives

The Company has notified the Directors and the Executives to acknowledge the relevant notifications of the Securities and Exchange Commission which requires the Directors and Executives to take responsibility in reporting changes in the holding of securities to the Securities and Exchange Commission according to section 59 of the Securities and Exchange Act B.E. 2535 within 3 business days counting from the date that the change occurs, as well as to inform the Corporate Secretary in order to record the changes and summarize the number of securities held by the Directors and Executives individually and present them to the Board of Directors at the next meeting. Furthermore, a notification on penalties for violations or non-compliance with the mentioned regulations has been given to the Board of Directors and Executives for their acknowledgement and to strictly comply with the policies and laws related to the use of internal information.



## 2. Measures regarding the maintenance of internal information

2.1 Refrain from using internal information for personal or other parties' benefits

2.2 Specify and restrict the persons who may have access to the internal information, whereby the persons authorized to access the internal information shall not disclose the mentioned information to other parties until the information has been disclosed to the public in accordance with the various criteria.

2.3 Disclosure of information that is significant to the Company's performance through the channels of the Stock Exchange of Thailand for general acknowledgment prior to disclosing to particular groups of investors.

2.4 Insiders shall refrain from trading securities or wait until the information is disseminated to the general public and provide a sufficient time for them to assess the information.



## 3. Storage and prevention of internal information usage

3.1 The Company has policies and practices to monitor the use of internal information by the Directors, Executives, and employees to prevent incidents where the Directors, Executives, and employees retract internal information and use for personal or other parties' benefits. The Company's work regulations prohibit the Company's employees from revealing the Company's confidential information to outsiders or using their positions to improperly seek benefits for themselves or others. If there are violations it will be considered as a disciplinary offense.

3.2 The Company has a system to control the use of the Company's information by applying an information security system to control access to the system by specifying the suitable level of access to the Company's information for employees at different levels in accordance with their responsibilities.

3.3 The Company prohibits Executives with knowledge of internal information to take any action that is against section 241 of the Securities and Exchange Act, as well as other related rules.



Whereby in 2022, the Company did not have a legal dispute in which the Company was a party or counterparty, that may have a negative impact on the assets of the Company which are higher than 5% of the shareholders' equity at the latest fiscal year-end, including no lawsuits that significantly affect the Company's business operations and the Company does not have any lawsuit that did not arise from the Company's usual business operation in any significant way. (307-1, 419-1)

## Community Innovative Inventors



Dr. Supamas Trivisvavet, Vice Chairman of the Executive Board of CH. Karnchang Public Company Limited (top row, 5th person from left).

Dr. Pan-Arj Chairat, Director of the National Innovation Agency (Public Organization) (top row, 4th person from left).

Sunit Chrettha, Director of ChangeFusion Institute (Top row, 6th person from left).

CH. Karnchang Public Company Limited in collaboration with the National Innovation Agency (Public Organization) and Change Fusion Institute under the Foundation of Rural Integration of Thailand announced the selection of three winners for the “2nd Annual Best Community Technician Innovation” award consisting of Solar Insect Traps from Nakhon Pathom province, Tricycle Cart Solar Cell from Ratchaburi Province, and a Community-Level Automatic Candle Maker from Loei Province. The three winners were presented with an award worth 300,000 baht. CH. Karnchang is ready to move forward with “The 3rd Annual Chang Chum Innovation Promotion Project” to develop innovation and raise the skills of community technicians in a concrete way and to help strengthen the community, which is the cornerstone of sustainable national development.

In 2022, the Community Craftsmanship Innovation Promotion Project selected three teams of three innovations that won the 2nd Annual Best Community Technician Innovation Award, namely :

- **Solar Cell Insect Trap by Mr. Chamnan Duangsno**

Insect trapping devices that save farmers from spraying pesticides that would harm consumers. These can be moved around and pinned at various locations within the agricultural plot as needed. The device collects electrical energy during the day to light up insects at night, reducing pest control costs for farmers.



- **Tricycle cart for pumping solar cells by Mr. Wichai Khemthong**

Mobile solar cells for use in agricultural areas. These do not require the installation of multiple fixed solar cells, thus reducing costs for farmers, and can also be shared in the community.





- Automatic candle making machine at a community level by Mr. Somsri Phupanna**

Candle producing machines in various forms are built from scrap materials that can be obtained locally, adapted for commercial candle production, which help to create jobs and increase income for the people in the community, especially women, the elderly, and the underprivileged, to produce candles for distribution throughout the country.



In addition, CH. Karnchang has contributed to helping the society in the past years, as follows:



CH. Karnchang Group donates money to build a National Geriatric Medicine Science Center Faculty of Medicine Siriraj Hospital.



CH. Karnchang supports the Faculty of Arts Chulalongkorn University in improving the computer center to establish a digital humanities center.

## ► Responsibility Towards Customers and Products

Based on the operating experiences of over 50 years and as a leading construction company in Thailand, CH. Karnchang emphasizes the importance of the customers by focusing on quality operations, ensuring work delivery by the due time with a quality of work that is effective and safe, in accordance with the standards required by the clients.

## ► Key Performance in 2022



**All construction projects of CH. Karnchang comply with the quality and safety standards.**



**CH. Karnchang's customer satisfaction survey results in the past years for every project have been within the average criteria of "good" and "very good"**

## ► Compliance With Standards and Safety

(103-1)

In the construction of various projects, CH. Karnchang is constantly aware of the standards, quality, and safety by upholding the achievement of the standards and safety as a mandatory practice in every construction project. In addition, standards and safety are also important tools that CH. Karnchang adopts in the management of procedures and in determining the steps during construction activities in order to ensure that the completed construction works are in accordance with the format and regulations following the various construction standards, as well as regulations on safety management at work both within the construction site and surrounding area.

### • Management Guidelines

(103-2)

CH. Karnchang has conducted studies on the specifications and various construction standards prescribed in the contracts and applies them to the various construction processes in order to achieve efficiency which shall be able to create trust from the construction inspector and the project owner at each step of the construction inspection. CH. Karnchang has also implemented construction plans and checking & corrective actions, which includes work scheduling and allocation of resources which will be used in the activities according to the work process appropriately throughout the duration of the construction project until its completion.

## Progress of the Construction Projects in 2022

(As at December 31, 2022)

Projects	% of Completion
1. MRT PL : M&E Systems, Contract 4	99.7
2. MRT PL : Maintenance and E&M Systems	84.8
3. MRT PL (Southern Extension) : Underground Civil Work, Contract 1	4.5
4. MRT PL (Southern Extension) : Underground Civil Work, Contract 2	4.4
5. MRT BL : M&E, Contract 6	99.7
6. MRT BL : Hua Lamphong - Bang Sue, Maintenance Service and E&M	57.3
7. MRT OL : Underground Civil Work, Contract 1	92.3
8. MRT OL : Underground Civil Work, Contract 2	87.4
9. MRT OL : Depot and Park & Ride, Contract 5	89.4
10. MRT OL : Underground Manholes & Ductbanks, Contract 2	89.7
11. MRT OL : Water Supply Pipeline, Contract 2	99.4
12. Double Track : Chira - Khon Kaen	99.9
13. Double Track : Denchai - Chiang Rai - Chiang Khong Contract 2	5.1
14. Double Track : Denchai - Chiang Rai - Chiang Khong Contract 3	4.6
15. Xayaburi Hydroelectric Power	99.9
16. Rama III - Dao Khanong Expressway : Cable-Stayed Bridge, Contract 4	91.9
17. Rama III - Dao Khanong Expressway : Underground Manholes and Ductbanks	81.2
18. Motorway : Bang Pa-in - Nakhon Ratchasima, Contract 3	94.3
19. Motorway : Bang Pa-in - Nakhon Ratchasima, Contract 6	94.0
20. Construction & Improvement : Si Rat (B+) & Repair : Si Rat Expressway	99.4
21. Maintenance and Improvement of the Si Rat and the Si Rat (B+) Expressway	91.0
22. Maintenance and Improvement of the Udon Ratthaya Expressway	99.0
23. Maintenance and Improvement : Si Rat, Si Rat - Outer Ring Road and the Udon Ratthaya Expressway	0.1
24. King Chulalongkorn Hospital : Integrated Medical Center Building	64.0
25. H.R.H.Princess Chulabhorn's Commemorating : Learning & Research Centre	32.0
26. Banglen Water Treatment : Transmission - Distribution Systems	53.0
27. Water Transmission Tunnel : Bangmod - Samrong Pumping Station	32.0
28. Bang Ban – Bang Sai Flood Drainage Canal with Appurtenant Structures, Contract 4	9.4
29. Other Projects	93.8

In 2022, all construction projects of CH. Karnchang were in compliance with the quality and safety standards which were required procedures and agreed upon under the construction contracts. Therefore, 100% of CH. Karnchang's construction projects were in total compliance with the related quality and safety standards and have passed all evaluations on quality and safety compliance by the construction inspector and the project owners for every project during the inspection process. In this regard, in 2022, CH. Karnchang did not receive complaints from any project owners regarding non-compliance with the related quality and safety standards.

## ➤ Customer Satisfaction

(103-1)

CH. Karnchang pays the highest attention to the satisfaction of our “customers” or the “project owners” on the grounds that CH. Karnchang is a business providing construction services where there are expectations that the construction work delivered will be of quality, meet the standards of integrity, safety, punctuality, and engaging in social and environmental responsibilities during the operation.

During the operation of CH. Karnchang, operation is consistent with the quality management system ISO 9001/2015, and therefore it has been specified that a survey must be carried out at every construction project to check the satisfaction of the project owners/customers with data collection procedures including both qualitative and quantitative in order to receive information that is transparent and complete, and present the customer satisfaction survey results to the Company’s Executives. If any comments or suggestions from the project owners/customers are observed, CH. Karnchang shall proceed to analyze and improve the operation to be consistent with the demands of the project owners/customers. Each year, CH. Karnchang sets the target satisfaction level of the project owners/customers to be no lower than the benchmark of “good”, whereby the project owners/customers satisfaction data shall be collected on a monthly basis.

### • Management Guidelines

(103-2)

CH. Karnchang has established methods for the issue of customer satisfaction by closely monitoring the various construction processes and procedures in terms of the quality of the construction, construction timing, safety of the operation, and the coordination to be within the frame of the established policies and operation plan, as well as establishing good relationships with our customers as the project owners, supporting the participation of the customers in providing feedback and suggestions in order to increase the customers’ level of trust and satisfaction.

## ➤ Customer Satisfaction Survey

CH. Karnchang arranges to have an evaluation of the customers’ satisfaction by organizing a Customer Expectation and Satisfaction Questionnaire using the method of inquiring at meetings, interviews, or survey responses which are conducted on a monthly basis according to the Company’s quality system. By which, the customer expectation and satisfaction questionnaire shall consist of the following:



Satisfaction on the quality of the results, Materials, Equipment, and Personnel.



Time satisfaction, such as progress compared to the time and potential for work acceleration.



Satisfaction in work safety Public and environmental protection.



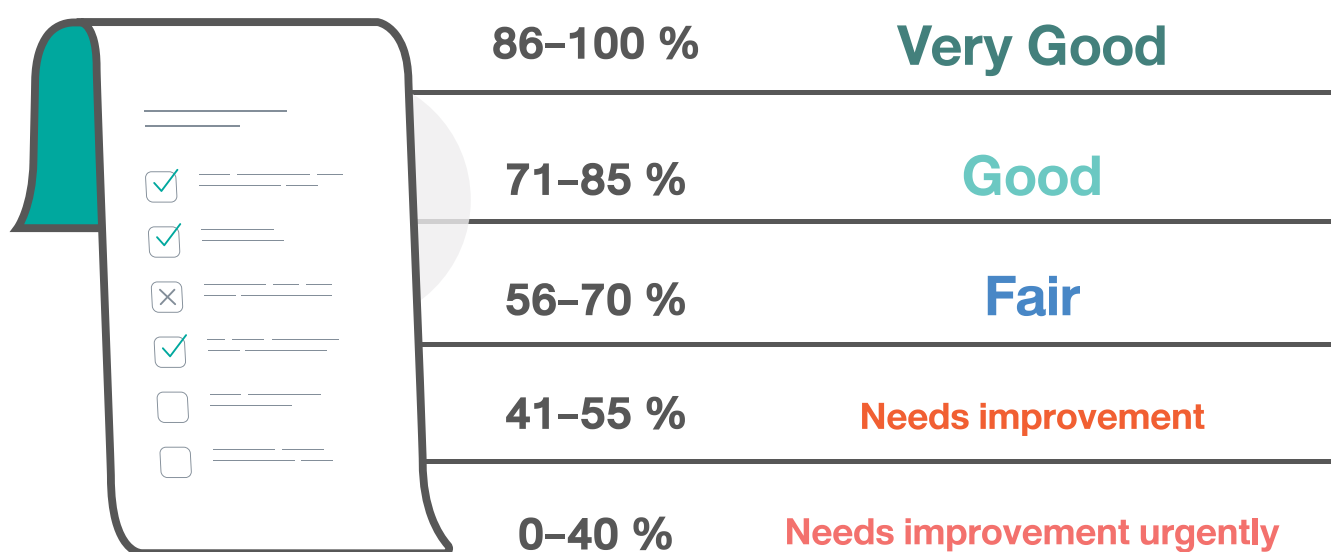
Satisfaction in communication and coordination.



In which, if the customers have shared their opinions and suggestions regarding the construction project, this will be stated in the questionnaire and will be brought up for consideration. The evaluation results achieved from the mentioned questionnaires shall be used further to continuously improve the confidence and satisfaction level from the customers.

### • Customer Satisfaction Survey Results

Average score criteria from the customer satisfaction survey results are to be used as an indicator to determine the customers' satisfaction as follows:



In this regard, CH. Karnchang's customer satisfaction survey results in the past years for every project have been within the average criteria of "good" and "very good".

In 2022, CH. Karnchang received complaints from the operation of every project a total of 28 times, whereby CH. Karnchang proceeded to improve and correct the results from the operations in order to respond to the needs and increase the customers' satisfaction.

### Complaints report from all projects' operations between 2020-2022

Items	2020	2021	2022
Total number of complaints	24	32	28
Number of complaints that have been addressed and rectified (100%)*			

Remarks: \*The number of complaints which have been rectified



# 8

## CH. Karnchang's Awards and Pride





## ➤ CH. Karnchang's Awards and Pride

- **Good Corporate Governance Award for Thai Listed Companies of 2022**

CH. Karnchang Public Company Limited received a score of “Excellent” in the assessment of corporate governance of Thai listed companies of 2022 from Thai Institute of Directors Association (IOD).



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- **Shareholder's General Assembly Meeting Quality Assessment**

CH. Karnchang Public Company Limited received an assessment score in the quality of Shareholders General Assembly meeting (AGM Checklist) in 2022, in the range between 90-99 by the Thai Investors Association.



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- **ESG 100**



CH. Karnchang Public Company Limited has been selected to be in the list of ESG100 Companies of 2022 from Thaipat Institute for the 7th consecutive year.

In the evaluation of ESG Emerging and ESG100 for the year of 2022, Thaipat Institute has evaluated a total of 851 listed company's securities using information relating to ESG from more than 15,760 data points. The selection criteria are considered from securities with outstanding ESG performance for which information has been disclosed, including operations that reflects ESG in various dimensions.









# 9

## GRI Context Index



# GRI Context Index

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# 50<sup>th</sup> Anniversary

CH. KARNCHANG







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