

Biotechnology Beyond Biopower





BIOTECHNOLOGY
BEYOND BIOPOWER

“BBGI PCL” or BBGI, a leading player in the biofuel energy industry and producer of high-value bio-based products (HVP) that promote health, has recently listed its shares on the Stock Exchange of Thailand (SET) under the abbreviation BBGI on March 17, 2022. With over 18 years of experience in the biofuel business, BBGI has a strong foundation as a major producer and distributor of biofuels in Thailand. The company is confident in its operational potential and ready to expand its expertise in biotechnology to develop new HVPs that promote health using synthetic biology technology (SynBio). BBGI aims to support the growth of domestic and international markets in the health and well-being sector.



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Vision

To be leading
Bio-Based Green
Innovation for
Sustainability

Mission

To create high value
product through
innovative biotechnology,
operational excellence
and promote sustainability
development





TRANSFORMATIONS TO SUSTAINABILITY

Core Value BBGI

A M

Agility & Mobility

B

Beyond Expectation

B

Be Empathy

G

Group Synergy

I

Innovation



การประกอบธุรกิจและผลการดำเนินงาน

การกำกับดูแลกิจการ

งบการเงิน

เอกสารแนบ

Our Business

BIODIESEL

BIOETHANOL



HIGH VALUE BIO-BASED PRODUCTS

BIODIESEL

Biodiesel is alternative fuel to replace diesel fuels produced which from natural raw materials and it is regarded as environmentally friendly clean energy. Nevertheless, biodiesel can be produced from vegetable oil or animal fats processed in transesterification when it does reactions with methanol with base as a catalyst. The product is biodiesel and byproduct are crude glycerin which can be distilled as pure glycerin used as a substrate in various industries such as soap, medicine and cosmetic products.

BIOETHANOL

Ethanol or ethyl alcohol is one of alcohols originated from the fermentation of molasses or flour plants. It is clear, colorless liquid which is inflammable and dissolvable in water and other organic solutions. So, it is variously useful by grades of the products. Ethanol can be divided into 3 types as follows.

HIGH VALUE BIO-BASED PRODUCTS

The group of companies aims to be a business related to high value products and high technology health and well – being products.



MESSAGE FROM THE CHAIRMAN

DEAR SHAREHOLDERS

In 2022, the global economy was impacted by the ongoing COVID-19 pandemic and the conflict between Russia and Ukraine. These factors have affected the biofuels industry in various ways, including reduced economic growth rates and decreased consumption and demand for energy. Additionally, inflation from oil prices, the main factor in production, as well as the price of agricultural products, has increased. However, towards the end of 2022, the COVID-19 epidemic situation has improved, and measures have been relaxed to allow foreign tourists to enter Thailand, stimulating tourism and domestic travel. This is a positive factor that helps increase the domestic fuel consumption rate.

BBGI Public Company Limited, a prominent player in the biofuel industry, successfully listed on the Stock Exchange of Thailand last year with the objective of becoming the leading bio-products group with green innovation and adopting a sustainable business approach. In line with the group's vision, Manus Bio is collaborating with innovative business partners, including Biom Company Limited, to leverage synthetic biology technology to enhance product value. The group has established Win Ingredients Singapore Pte. Ltd. in Singapore to serve as an Application Center for developing healthy sweetening product formulas for customers across Southeast Asia. Additionally, the group has established a joint venture company, BSGF Co., Ltd., with Bangchak Corporation Co., Ltd., a public company, to source raw materials, produce, and distribute sustainable aviation fuel from used oil. The group is committed to becoming a leader in the business of high-value bio-based products that promote good health and well-being.

The Company recognizes the significance of achieving business growth through sustainable operations and investments (Social Enterprise), with a focus on the involvement of all stakeholders in terms of the environment (Environment), society (Social), and good governance (Governance). The Company firmly believes that conducting business with social responsibility will not only benefit the public but also facilitate sustainable growth of the company.

On behalf of the Board of Directors, the Management, and the Company Group, we express our sincere gratitude to our customers, business partners, shareholders, employees, and all related parties who have played a crucial role in our pursuit of sustainable business development. We urge everyone to have faith in our development roadmap, which is committed to making us a leader in the production of high-value bio-based products that promote health and well-being. This goal aligns with the government's Bio-Circular-Green Economy ("BCG") model, which serves as a framework for economic development to help Thailand achieve its goal of becoming a high-income and prosperous nation.



On behalf of the Board of Directors, the Management, and the Company Group, we express our sincere gratitude to our customers, business partners, shareholders, employees, and all related parties who have played a crucial role in our pursuit of sustainable business development. We urge everyone to have faith in our development roadmap, which is committed to making us a leader in the production of high-value bio-based products that promote health and well-being. This goal aligns with the government's Bio-Circular-Green Economy ("BCG") model, which serves as a framework for economic development to help Thailand achieve its goal of becoming a high-income and prosperous nation.

(Mr. Pichai Chunhavajira)

Chairman of the Board
BBGI Public Company Limited
December 31, 2022



BOARD OF DIRECTORS



1

Mr. Pichai Chunhavajira

Chairman

2

Mr. Chamroon Chinthammit

Vice Chairman

3

Mr. Surin Chiravisit

Director / Chairman of the
Nomination and Remuneration
Committee / Chairman of
Risk Management and Corporate
Governance Committee



4

Mr. Chaiwat Kovavisarach

Director / Chairman of Investment
Committee

5

Mr. Kittiphong Limsuwannarot

Director / Member of the Investment
Committee / Member of the
Risk Management and Corporate
Governance Committee

6

Mr. Chalush Chinthammit

Director / Member of the
Investment Committee



7

Mr. Chanachai Chutimavoraphand

Director / Member of the Risk Management and Corporate Governance Committee

8

Assoc. Prof. Jaruporn Viyanant

Director / Independent Director / Chairman of the Audit Committee

9

Mrs. Patricia Mongkhonvanit

Director / Independent Director / Member of the Audit Committee



10

Dr. Thitapha Smitinont

Director / Independent Director / Member of the Audit Committee / Member of the Nomination and Remuneration Committee

11

Mr. Matthew Kichodhan

Director / Independent Director / Member of the Nomination and Remuneration Committee / Member of the Investment Committee

FINANCIAL HIGHLIGHTS

BBGI PUBLIC COMPANY LIMITED AND SUBSIDIARIES

Detail (Unit : Million Baht)	Consolidated Financial		
	2020	2021	2022
• Profit and Loss Statement			
Sales Revenue	12,571	14,095	13,374
Gross Profit (Loss)	1,702	1,030	464
EBITDA	1,826	1,859	613
Net ^{1/} Profit (Loss)	845	960	20
• Statement of Financial Position			
Total Assets	12,731	12,907	14,106
Total Liabilities	6,227	6,003	3,825
Shareholder's Equity	6,504	6,904	10,281
Registered Paid-up Capital at the End of the Year	2,532	2,532	3,615
• Shares Information			
Profit (Loss) per Share (THB/Share)	0.83 ^{2/}	0.95 ^{2/}	0.02 ^{3/}
Book Value per Share (THB/Share)	5.94 ^{2/}	6.33 ^{2/}	6.72 ^{3/}
Dividend Paid per Share (THB/Shares)	0.100	0.395	0.250 ^{4/}
Dividend Payment per Net Profit Ratio (Percent)	12	42	1,771
• Financial Ratio			
Profitability Ratio before Interests, Tax & Depreciation (EBIDA)	14.53%	13.19%	4.59%
Net Profitability Ratio	8.84%	8.43%	0.72%
Return on Assets (ROA) Ratio	11.57%	10.85%	1.26%
Liability per Equity Ratio (Times)	0.96	0.87	0.37

Remarks :

^{1/} Profit (Loss) of Owners of the Parent

^{2/} The Company registered a change in the par value from 5.00 baht per share to 2.50 baht per share on January 6, 2022, resulting in an increase in the number of shares from the original 506.40 million shares to 1,012.80 million shares. Therefore, the calculation of the per share ratios for the year 2020-2021 uses the 1,012.80 million shares for comparison.

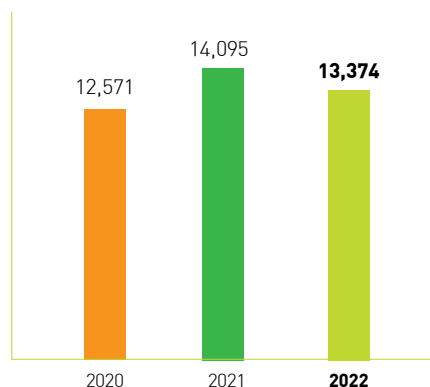
^{3/} On March 15, 2022, the Company increased its paid-up capital by 433.20 million shares, bringing the total number of shares to 1,446.00 million shares. Earnings per share for the year 2022 is calculated from the weighted average number of ordinary shares of 1,359.36 million shares.

^{4/} 2022 interim dividend of 0.20 baht per share and annual dividend are to be proposed to the 2023 Annual General Meeting of Shareholders for approval at the rate of 0.05 baht per share.

COMPARATIVE FINANCIAL FOR 2020-2022

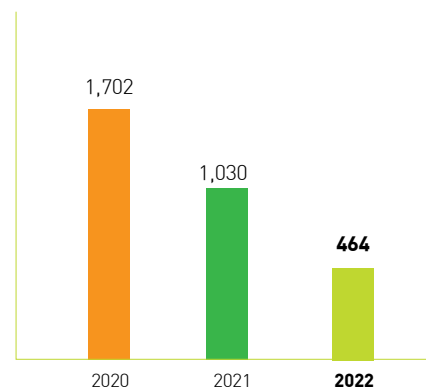
Sales Revenue

(Unit : Million Baht)



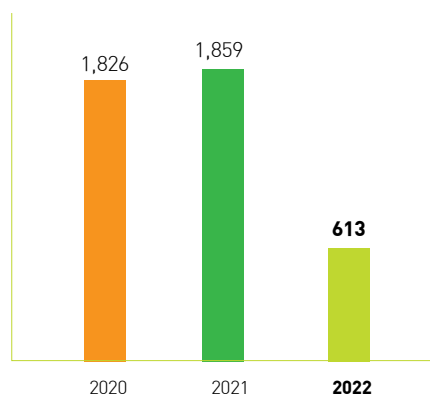
(Unit : Million Baht)

(Unit : Million Baht)



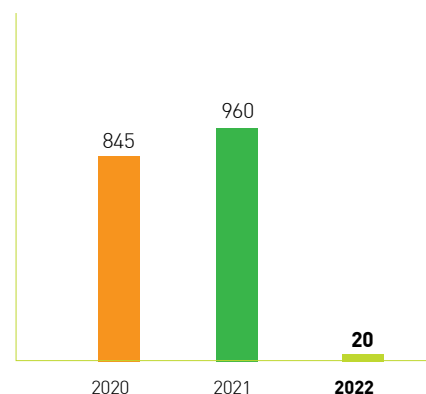
EBITDA

(Unit : Million Baht)



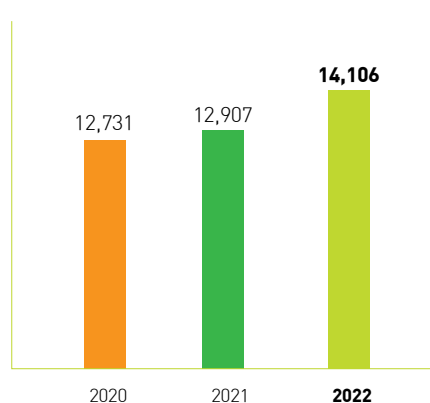
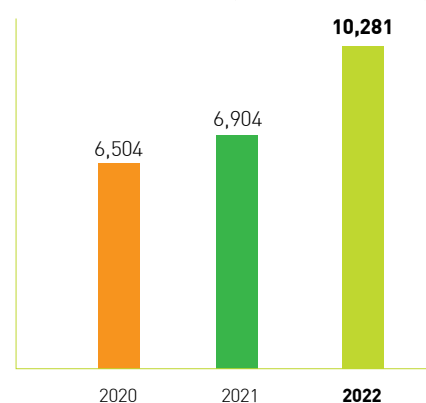
Net Profit (Loss)

(Unit : Million Baht)



Total Assets

(Unit : Million Baht)

Registered Paid-up Capital at the
End of the Year (Unit : Million Baht)



Part 1

Business Operations and Performance

1 BUSINESS OPERATIONS AND PERFORMANCE

1.1 POLICIES AND OVERVIEW OF BUSINESS

Background

BBGI Public Company Limited (“the Company” or “BBGI”) was formed from a business alliance agreement for bio-based products between Bangchak Corporation Public Company Limited (“BCP”) and Khon Kaen Sugar Industry Public Company Limited (“KSL”), a leading operator in the business of biofuel products. The Company operates the business of manufacturing and distributing biological products under a defined scope of business that is clearly separated and does not compete with or invest in competing businesses either directly or indirectly between the group of companies and major shareholders (BCP and KSL), according to the resolutions of the boards of directors of BCP and KSL.

The Company operates its business by holding shares in other companies (Holding Company), which operates (1) its main businesses, which are the production and distribution of bio-based products and biofuel products, which are ethanol, biodiesel, and by-products, and (2) other businesses, namely high-value bio-based products related to health care and promotion products (health and well-being products) using advanced technology (“high-value bio-based products”).

As of December 31, 2022, the Company holds shares in 4 main business subsidiary companies, namely:

- 1) BBGI Bioethanol Public Company Limited (“BBGI-NP/BP”), formerly known as KSL Green Innovation Public Company Limited, operates the business of production and distribution of ethanol. The Company holds 100.0% of the total paid-up capital of BBGI-NP/BP.
- 2) BBGI Bioethanol (Chachoengsao) Company Limited (“BBGI-PS”), located in Phanom Sarakham District, Chachoengsao Province formerly known as Bangchak Bioethanol (Chachoengsao) Company Limited, operates the business of production and distribution of ethanol. The Company holds 85.0% of the total paid-up capital of BBGI-PS.
- 3) BBGI Biodiesel Company Limited (“BBGI-BI”), located in Bang Pa-In District, Phra Nakhon Si Ayutthaya Province (formerly known as Bangchak Biofuel Company Limited), operates a business of biodiesel production and distribution. The Company holds 70.0% of BBGI-BI’s total paid-up capital.
- 4) BBGI Utility and Power Company Limited (“BUP”) is located in Nam Phong District, Khon Kaen Province, and Bo Phloi District, Kanchanaburi Province, providing utilities and energy services. The Company holds 100.0% of BUP’s total paid-up capital.

In addition, the Company also holds shares in 3 other joint venture companies, namely

- 1) Win Ingredients Company Limited (“WIN”), located in Bangkok, operates the business of manufacturing and distributing high-value biological products. The Company holds 51.0% of WIN’s total registered capital. (Even though the Company holds 51.0 percent of the registered capital of WIN, the Company has no control over the business, and major decisions require unanimous approval from all shareholders, so it is regarded as an associated company.)
- 2) Biom Company Limited (BIOM), located in Nonthaburi, operates research and development of bio-based products using SynBio technology and other bio-based products. The Company holds 20% of BIOM’s total registered capital.
- 3) BSGF Company Limited (“BSGF”), located in Bangkok, operates the procurement of raw materials, production, and distribution of Sustainable Aviation Fuel: SAF from used oil. The Company holds 20.0% of the total registered capital of BSGF.

The Group is Thailand’s leading producer and distributor of ethanol, distributing it to fuel traders in accordance with Section 7 of the Fuel Trade Act, B.E. 2543, which is a major oil trader for the country, including Bangchak Corporation Public Company Limited (“BCP”), The Shell Company of Thailand Company Limited (“Shell”), Esso (Thailand) Public Company Limited (“Esso”), and PTT Retail Management Public Company Limited (“OR”), etc. by the Company Group has 3 ethanol production plants located in Khon Kaen, Kanchanaburi, and Chachoengsao with a total ethanol production capacity of 600,000 liters per day, or equivalent to the production capacity of ethanol according to the shareholding proportion of 577,500 liters per day. The Group’s ethanol production and distribution business accounted for 29.55% of the Group’s total revenue for the year ended December 31, 2022.

The Group is also a leading producer and distributor of biodiesel in Thailand by distributing biodiesel to fuel traders in accordance with Section 7 of the Fuel Trade Act B.E. 2543, which are the country’s major oil traders, namely BCP, Shell, Esso and OR, etc. The Group has a biodiesel production plant located in Phra Nakhon Si Ayutthaya Province with a total biodiesel production capacity of 1,000,000 liters per day, or equivalent to the production capacity of biodiesel according to the shareholding proportion of 700,000 liters per day. The Group’s biodiesel production and distribution business accounted for 70.08% of the Group’s total revenue for the year ended December 31, 2022.

The Group has a stable main source of income from the production and distribution of ethanol and biodiesel. It also intends to generate additional income from the Ministry of Industry’s high-value bio-based products business. In this regard, the total revenue of the Group amounted to 13,418.84 million baht for the year ended December 31, 2022, resulting in a total gross profit of 464.24 million baht for the year ended December 31, 2022.

1.1.1 Vision, Strategy and Business Direction

Vision

The Group's vision for business operation is to "aim to be a leader in bio-based products with green innovations" and to "conduct business in a sustainable manner."

Mission

Build high-value bio-based products and supply chains through biotechnology innovation, operational excellence, and sustainable development.

Core Values

AM	=	Agility & Mobility	Change Together
B	=	Beyond Expectation	Pursuit of Excellence
B	=	Be Empathy	to Put Yourself in Someone Else's Shoes
G	=	Group Synergy	Combining power to create success
I	=	Innovation	Grow with Innovation

Business Goals

The Group is committed to becoming a leader in the health-promoting high-value bio-based products business with products that are commercialized and in development, for example, natural low-calorie sweeteners, natural fruit washing products, fruit and vegetable life extension products, bio-based raw materials for use in the manufacture of cosmetics, or biopharmaceuticals. It is the business that is consistent with the model of the Bio-Circular-Green Economy ("BCG") 2021–2026 of the government that provides a framework for economic development and leads Thailand towards the goal of becoming a high-income country and sustainable development goals.

Strategy for the Overall Operation of the Group

(1) Maintaining Leadership in Domestic Ethanol and Biodiesel Production and Maintaining a Continuous Long-term Growth Rate

At present, the group is the country's largest producer of ethanol with a total production capacity of 600,000 liters per day, or equivalent to 9% of the total domestic ethanol production capacity from all 27 ethanol production plants. In addition, the ethanol plant's Nam Phong branch is under construction to increase production capacity and improve ethanol production efficiency from 150,000 liters per day to 350,000 liters per day. This will increase the Group's total production capacity to 800,000 liters per day, equivalent to 12 % of the total domestic ethanol production capacity. In addition, the group has developed and improved the production process to increase flexibility in the use of raw materials in ethanol production.

For the biodiesel production and distribution business, BBGI-BI is one of the largest biodiesel producers in the country with a total production capacity of 1,000,000 liters per day, equivalent to 10.6% of the total domestic biodiesel production capacity from a total of 14 biodiesel plants. In addition, the Group also employs strategies to maintain product quality and increase production efficiency in order to control production costs and be competitive in the industry.

(2) Maintaining the Certainty of Product Delivery

The Group can consistently deliver products to customers in terms of quantity, quality, and timeliness. As a result, the Group has gained confidence and trust from customers for a long time. This is one of the important factors that customers consider in selecting ethanol or biodiesel producers. The Group has expertise in production planning, especially the quantity and timing of purchasing raw materials that are appropriate, including efficient inventory management. Therefore, the Group has always been able to create satisfaction and confidence among customers and enable them to continuously purchase the group's products.

(3) Maintaining the Standards of Product Quality

The Group places significant importance on the quality of products to build customer confidence. The Group has a policy to control the quality of ethanol and biodiesel production at every step. The details are as follows:

Ethanol Production and Distribution Business

BBGI-NP/BP and BBGI-PS have ethanol quality control policies by regularly collecting ethanol samples for quality checks in order to comply with the criteria of the Department of Energy Business Notification on Characteristics and Quality of Denatured Ethanol 2005. BBGI-NP, BBGI-BP, and BBGI-PS collected ethanol samples before and after conversion to be analyzed for quality before delivering to customers with quality inspection results to increase customer confidence that each delivered product meets quality standards, including keeping set of samples for reference. BBGI-NP and BBGI-BP plants have been certified for quality management according to ISO 9001:2015 and ISO 14001:2015 standards. In addition, the BBGI-NP/BP factory was licensed to display the standard mark for ethanol used in pharmaceuticals (TIS 640), a certificate of compliance with the General Criteria for Food Hygiene according to the Agricultural Standards (GMP), a certificate of compliance with the Hazard Analysis and Critical Control Points and Implementation (HACCP) systems, and in the past year also received Green Certificate Level 4 certification from the Ministry of Industry, and BBGI-PS received a quality management certificate according to ISO 9001:2015.

Biodiesel Production and Distribution Business

The BBGI-BI plant has quality control of biodiesel production at every stage of the production process, starting with controlling and inspecting the quality of raw materials before entering the production process. Samples are collected to check the quality of important processes during the production process, such as samples of the transesterification reaction or the samples of biodiesel purification process, etc., which will be collected consistently. The quality of the biodiesel is checked every time it is

filled into the storage tank to ensure that it meets the criteria of the Department of Energy's notification on the prescribing characteristics and quality of fatty acid methyl ester biodiesel of 2019. In addition, BBGI-BI has to inspect the quality of biodiesel before sending it to customers every time by collecting samples to be used as a reference in the event of a problem with the delivered biodiesel. BBGI-BI's biodiesel plant has been certified for quality management according to ISO 9001:2015, Occupational Health and Safety Management System Certification, OHSAS 18001:2007, Certificate of activities to reduce environmental impact, Green Activity level 2, Kosher Certificate, Halal Certificate, including a laboratory certificate according to TIS 17025-2548 (ISO / IEC 17025-2548 (ISO/IEC 17025:2005) RSP0 (Mass balance), and the quality management system certificate for the production safety of pure glycerin for food additives (HACCP, GHPs).

(4) Maintaining the Ability to Supply Quality Raw Materials throughout the Year

BBGI-NP/BP's strategy is to set up 2 ethanol production plants in close proximity to molasses sellers or sugar factories since molasses is a by-product of the sugar production process. The 2 factories are located in Kanchanaburi and Khon Kaen provinces, which are Thailand's major sugarcane cultivation areas due to their favorable climate and soil characteristics. In addition, BBGI-NP/BP's 2 ethanol plants are located in adjacent areas with sugar factories of the KSL Group, making it convenient to procure molasses from the KSL Group and reducing the risk of a lack raw materials of BBGI-NP and BBGI-BP.

BBGI-PS's ethanol production is located in Chachoengsao Province, an important cassava plantation area in the eastern region. According to the cassava productivity report of the Office of Agricultural Economics for the production of 2022, it was found that Chachoengsao Province and nearby provinces, namely Chonburi, Prachinburi, and Rayong, have a total cassava production of about 2.0 million tons per year, or equivalent to 6.6% of the country's total cassava production. BBGI-PS has the flexibility to procure both fresh cassava and cassava chips from a network of cassava farmers and traders. In addition, BBGI-PS's ethanol plant is a multi-feedstock system. Ethanol can be produced from fresh cassava, cassava chips, starch, molasses, and raw sugar, making it possible to adjust the choice of raw materials according to market conditions, reducing the risk of raw material shortages, and executing production at full efficiency.

While BBGI-BI has a policy to diversify the procurement of raw materials or palm oil (CPO) from multiple palm oil suppliers and has always maintained good relationships with palm oil mills. In addition, some short-term crude palm oil futures contracts (less than 1 year) have been made to ensure that BBGI-BI will be able to supply enough raw materials to meet the demand for biodiesel in the market. Moreover, BBGI-BI manages the risk of raw material price volatility by using the inventory management policy to be consistent with the amount of customer demand.

**(5) Maintaining Efficiency in Managing Transportation Costs.**

Transportation costs are a major factor affecting the Group's competitiveness and profitability. The Group's ethanol production plants are in Kanchanaburi, Chachoengsao, and Khon Kaen provinces, which are close to major oil depots in countries such as Bang Pa-In Oil Depot, Lam Luk Ka Oil Depot, Samut Sakhon Oil Depot, Saraburi Oil Depot, Rayong Oil Depot, and Khon Kaen Oil Depot. This gives the Group the advantage of efficient freight management due to the presence of factories in many regions, which allows for high flexibility in delivery and efficient logistics planning.

In addition, for BBGI-BI 's biodiesel plant located in Phra Nakhon Si Ayutthaya Province, according to information from the Department of Energy Business, it was found that the central region is the area with the highest demand for diesel in Thailand and is home to several oil depots which are the customers of the Group. BBGI-BI has lower product transportation costs compared to other biodiesel plants.

(6) The Group's Aim to Grow in the High Value Bio-Based Products Business Related to Health and Well-Being Products ("High Value Bio-Based Products Business that Promotes Health").

In addition to expanding the ethanol and biodiesel businesses, the Group has continually studied, researched, and developed technologies related to high-value bio-based products that promote health. The criteria for consideration are raw material procurement, technology for the production of high-value bio-based products that can be produced on an industrial scale, and marketing the high-value bio-based products as follows:

- Bio-Ingredients in Dietary Supplements (Bio-Nutrition Ingredients)
- Biocosmetic ingredients
- Bio-Pharmaceutical Ingredients and
- Biomaterials/Bio-Active Ingredients

The aim of the Group is to extend the new businesses and increase profit margins. In the past, the Group has invested in start-up businesses with knowledge and capabilities in advanced biotechnology, both in Thailand and abroad, to allow the Group to access and learn new technologies, including bringing information, knowledge, and experiences gained from joint ventures to expand production business operations and continue to sell high-value bio-based products in Thailand and Asia.

1.1.2 Significant Changes and Development

Year	Milestone
2017	<ul style="list-style-type: none"> June 2017 <ul style="list-style-type: none"> BCP sells investment in the companies, Bangchak Bioethanol (Chachoengsao) Company Limited (“BBE”), Bangchak Biofuel Company Limited (“BBF”), and Ubon Bioethanol Public Company Limited (“UBE”), for ordinary shares in the proportions of 85.0%, 70.0%, and 21.3% to BBP holding Company Limited (“BBH”) , a subsidiary in which BCP holds 100.0% of the shares, according to the bio-based business restructuring plan (Bio-Based) of BCP. July 2017 <ul style="list-style-type: none"> KSL sells its investment in KSL Green Innovation Public Company Limited (“KGI”) for ordinary shares in the proportion of 100% to KSLGI Company Limited which is a subsidiary in which KSL holds 100%, according to the merger plan, the Board of Directors Meeting of BCP and the Board of Directors Meeting of KSL held on July 19, 2017 resolved to approve the amalgamation between BBH, a wholly owned subsidiary of BCP, and KSLGI, a subsidiary in which KSL holds 100% of shares, according to the business alliance agreement for bio-based products business, the Board of Directors Meeting of KSL No. 6/ / 2016 - 2017 held on 19 July 2017 resolved to approve the cancellation of the plan for the issuance and offering of newly issued ordinary shares of KGI to the general public (IPO) and the listing of KGI on the SET due to reaching an agreement and entering into a merger agreement. October 2017 <ul style="list-style-type: none"> BBGI Company Limited (“BBGI”) was formed as a result of the registration of amalgamation between BBH and KSLGI on October 31, 2017 with an initial registered capital of 2,532.0 million baht, divided into ordinary shares of 253.2 million shares with a par value of 10.0 baht each, with BCP and KSL holding 60.0 percent and 40.0 percent, respectively.

Year	Milestone
2018	<ul style="list-style-type: none"> • April 2018 <ul style="list-style-type: none"> • The 2018 Annual General Meeting of Shareholders of UBE on April 9, 2018 resolved to approve the conversion from a limited company to a public limited company, an increase in registered capital, and the issuance of new ordinary shares for an initial public offering (IPO). • The 2018 Annual General Meeting of Shareholders of BCP held on April 25, 2018 resolved to approve the issuance and offering of the Company's newly issued ordinary shares to directors, executives, and employees of the Company and its subsidiaries (ESOP) . This is in accordance with the conditions specified in the Notification of the Capital Market Supervisory Board No. Tor Jor. 32/2008 Re: Offer for Sale of Newly Issued Securities to Directors or Employees (and as amended). • The 2018 Annual General Meeting of Shareholders of the Company, held on April 25, 2018, resolved as follows: <ol style="list-style-type: none"> I. Approved the conversion from a limited company to a public limited company and changed its name to BBGI Public Company Limited II. Change in the par value of the Company's ordinary shares from the original 10 baht per share to 5 baht per share, the number of ordinary shares of the Company increased from 253.2 million shares to 506.4 million shares. III. Increase the registered capital of not more than 1,083 million baht, resulting in an increase of the registered capital from 2,532 million baht to 3,615 million baht, by issuing ordinary shares to increase capital in the amount of not more than 216.6 million shares valued at a par value of 5.0 baht per share for an initial public offering (IPO). IV. Allocation of not more than 216.6 million newly issued ordinary shares of the Company at a par value of 5 baht per share for the initial public offering (IPO) , including but not limited to the offering to (I) the shareholders of BCP and KSL , only those who are entitled to the allotment; (II) the general public; and (III) the directors, executives, and employees of the Company and its subsidiaries (ESOP) , in accordance with Resolutions of the 2018 Annual General Meeting of Shareholders of BCP on April 25, 2018. • June 2018 <ul style="list-style-type: none"> • UBE canceled the application for approval of the initial public offering of ordinary shares (IPO) to the SEC. • July 2018 <ul style="list-style-type: none"> • The Extraordinary General Meeting of Shareholders for the year 2018 of the Company held on July 16, 2018 resolved to approve the sub-division of the allocation of newly issued ordinary shares of the Company to offer for sale to the general public for the first time (IPO) as follows: (I) Shareholders of BCP and KSL who are eligible to be allocated no more than 25 % of the number of ordinary shares offered at this time (II) The general public, including directors, executives, and employees of the Company and its subsidiaries (ESOP) , will own not less than 75 % of the number of ordinary shares offered for sale at this time, and its subsidiaries (ESOP) , in accordance with the resolution of the 2018 Annual General Meeting of Shareholders of BCP held on April 25, 2018.

Year	Milestone
2019	<ul style="list-style-type: none"> • January 2019 <ul style="list-style-type: none"> • KGI Factory, Bo Phloi District Branch, Kanchanaburi Expand production capacity from 200,000 liters per day to 300,000 liters per day. • April 2019 <ul style="list-style-type: none"> • The Company delayed the initial public offering (IPO) due to unfavorable market and economic situations. • July 2019 <ul style="list-style-type: none"> • Bangchak Biofuel Company limited (“BBF”) has improved its production process (de-bottlenecking), resulting in an increase in biodiesel production capacity from 930,000 liters per day to 1,000,000 liters per day.
2020	<ul style="list-style-type: none"> • March 2020 <ul style="list-style-type: none"> • BBGI Utility and Power Company Limited (“BUP”) was established on March 17, 2020 with an initial registered capital of 50 million baht divided into 5 million ordinary shares with a par value of 10 baht per share, in which the Company holds 100% of its shares to provide public utility and energy services to sell biogas to KGI’s ethanol plant, Bo Phloi District Branch Kanchanaburi. • April 2020 <ul style="list-style-type: none"> • The Company invested in convertible preferred shares of Manus Bio Inc. (“Manus”), registered in the United States of America, in a proportion of 5.8 %. Manus operates in advanced biotechnology and has a wide range of expertise in high-value bio-based products. • August 2020 <ul style="list-style-type: none"> • The Company established Win Ingredients Company Limited (“WIN”) on August 6, 2020, with an initial registered capital of 1 million baht divided into 0.1 million ordinary shares with a par value of 10 baht per share, of which the Company holds 100% of the shares for investment in production and distribution. Distribution of high-value biological products. • November 2020 <ul style="list-style-type: none"> • WIN increased its registered capital by 319 million baht, divided into 32 million ordinary shares at a par value of 10 baht per share, with BBGI holding 51.% and Manus holding 49%, resulting in WIN’s registered capital increasing from the original 1 million baht to 320 million baht (paid 80 million baht).

Year	Milestone
2021	<ul style="list-style-type: none"> January 2021 <ul style="list-style-type: none"> The Company cooperates with Biome Company Limited, a research and development company in biotechnology that operates on the knowledge base of researchers from the Faculty of Science at Chulalongkorn University under the incubation of the CU Innovation Hub, the National Science and Technology Development Agency and CU signed a Memorandum of Understanding (MOU) for the production of “enzymatic bio-based products,” which are high-value biological products that have the ability to destroy the chemical structure of pesticide residues in vegetables and fruits. February 2021 <ul style="list-style-type: none"> The Company and BIOM signed an investment proposal (term sheet) to jointly develop a sample product as well as marketing strategies (marketing strategy) to continue commercial distribution. March 2021 <ul style="list-style-type: none"> BUP increased its registered capital from 50 million baht to 100 million baht, divided into 10 million ordinary shares with a par value of 10 baht per share, for investment in the construction of a 3 MW power generation system and 20 tons of steam per hour to sell electricity and steam to KGI’s ethanol plant, Nam Phong District Branch Khon Kaen. April 2021 <ul style="list-style-type: none"> WIN received a registration certificate from the Food and Drug Administration (FDA) for Neotame, a zero-calorie sweetener, on April 1, 2021 for sale in Thailand and is in the process of introducing other sweeteners and asking for permission to register with the FDA in Thailand for importing and selling commercially. On April 29, 2021, UBE applied for permission to offer ordinary shares to the public for the first time (IPO) to the Securities and Exchange Commission. The number of shares offered for sale is no more than 1,370,000,000 shares at par value 1 baht per share, divided into newly issued ordinary shares in an amount not exceeding 1,174,286,000 shares and up to 195,714,000 existing ordinary shares. The existing ordinary shares held by the Company participated in the offering at this time in an amount of not more than 97,857,000 shares. May 2021 <ul style="list-style-type: none"> The Company issued and offered debentures No. 1/2021 on May 11, 2021, with a total issuance and offering value of 1,300 million baht, consisting of 1-year and 6-month unsubordinated and unsecured debentures. Redemption is due in 2022 in the amount of 500 million baht with a fixed interest rate of 2.53 percent per year, and the second series of debentures, which are 3-year unsubordinated and unsecured debentures, is due in 2024 in the amount of 800 million baht with a fixed interest rate of 100,000 baht for 3.30 percent per year. June 2021 <ul style="list-style-type: none"> WIN has appointed distributors of sweeteners in five countries: Thailand, Malaysia, Vietnam, Indonesia, and the Philippines.

Year	Milestone
2021	<ul style="list-style-type: none"> September 2021 <ul style="list-style-type: none"> On September 1, 2021, the Company started selling pharmaceutical-grade hand sanitizers certified GMP and HACCP through the business-to-consumer (“B2C”) market after previously selling only business-to-business (“B2B”) and began selling food supplements under the B Nature+ brand. The first product sold was ASTA-IMMU, which is an antioxidant that nourishes the skin and is extracted from red algae (Astaxanthin) via Facebook: @BNaturePlus and LineOfficial: @BNaturePlus. UBE has issued an initial public offering (IPO), in which the Company has offered 97.86 million ordinary shares of UBE that the Company holds in this IPO as well, resulting in as of September 30, 2021. The company’s shareholding in UBE decreased from 21.28% to 12.39%.
2022	<ul style="list-style-type: none"> March 2022 <ul style="list-style-type: none"> The Company was listed on the Stock Exchange of Thailand (SET) and issued an initial public offering (IPO) on March 17, 2022, using the abbreviation “BBGI”. April 2022 <ul style="list-style-type: none"> The Company has entered into a joint venture agreement with Biome Company Limited (“Biom”) to focus on high-value bio-based products. This is the use of synthetic biology technology, also known as “synthetic biology” or “SynBio,” to create value for the product. The Company holds 20% of the shares. May 2022 <ul style="list-style-type: none"> Win Ingredients Company Limited has established Win Ingredients Singapore Pte. Ltd. in Singapore to support business growth from Win Ingredients Company Limited in the future. Win Ingredients Singapore Company Limited will function as a laboratory, presenting products to customers throughout Southeast Asia. July 2022 <ul style="list-style-type: none"> KSL Green Innovation Public Company Limited (KGI) changed its name to BBGI Bioethanol Public Company Limited (BBGI-NP/BP) and Bangchak Biofuels (BBF) changed its name to BBGI Biodiesel Company Limited (BBGI-BI). August 2022 <ul style="list-style-type: none"> Bangchak Bioethanol (Chachoengsao) Company Limited (BBE) changed its name to BBGI Bioethanol (Chachoengsao) Company Limited (BBGI-PS). September 2022 <ul style="list-style-type: none"> The Board of Directors’ meeting held on Tuesday, August 30, 2022, resolved to establish a joint venture company, BSGF Company Limited (“BSGF”), with BCP and Thanachok Oil Company Limited (“TC”), to operate the business of procuring raw materials, producing, and distributing sustainable aviation fuel from used oil with a registered capital of 1 million baht, in which the Company holds 20% of the total registered capital of BSGF.

1.1.3 The use of the proceeds from fundraising

As the Company offers 433,200,000 newly issued ordinary shares to the public for the first time (IPO) at a price of 10.50 baht per share the net amount of money received from the offering of newly issued ordinary shares was 4,450.98 million baht (after deducting the cost of the offering) with the progress of using the proceeds from the above funding as of December 31 , 2022. The details are as follows:

Objectives of Money Spent	Approximate amount of money spent (Million baht)	Estimated time spent	Details / progress of the use of money / reasons and measures to take in case the use of money does not meet the objectives. (Million baht)
1. To be used as an investment to improve and increase efficiency in the group's biofuel business.	380	by 2022	380
2. To be used as an investment for business expansion and investment in high-value bio-based products (HVP) related to the health and well-being products of the group.	2,000	by 2026	30
3. To repay loans to financial institutions and to repay the debentures of the group of companies.	1,300	by 2024	1,300
4. To be used as working capital for the operation of the group of companies.	770.98	-	770.98
Total	4,450.98		2,480.98

1.1.4 Company Information

Company Name	BBGI Public Company Limited
Business Type	<p>Operates businesses by holding shares in other companies (the holding company) that operate the following businesses:</p> <p>1) The core business is the business of manufacturing and distributing biofuel products, namely ethanol and biodiesel, and</p> <p>2) high-value bio-based products related to high-tech health care and promotion products.</p>
Registered Capital	3,615,000,000 baht (three thousand six hundred and fifteen million baht only)
Paid-up Capital	<p>3,615,000,000 baht (three thousand six hundred and fifteen million baht only)</p> <p>Consists of 1,446,000,000 ordinary shares with a par value of 2.50 baht per share.</p>
Head Office Location	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai, Phra Khanong, Bangkok 10260
Company Registration Number	0107561000129
Website	www.bbgigroup.com
Telephone	0 2335 8899
Fax	0 2335 8800

1.2 NATURE OF BUSINESS OPERATIONS

1.2.1 Revenue Structure

The main income from business operations of the group consists of income from the ethanol production and distribution business, the biodiesel production and distribution business, and other income. The revenue structure of the group during 2020 to 2022 is as follows:

Business Group	For the Year Ending on 31 December					
	2020		2021		2022	
	Million THB	Percentage	Million THB	Percentage	Million THB	Percentage
Sales Revenue						
1. Ethanol Production and Distribution ⁽¹⁾	4,428	35.09	4,611	32.63	3,965	29.55
2. Biodiesel Production and Distribution Business ⁽²⁾	8,143	64.52	9,482	67.09	9,404	70.08
3. High-value biological products that promote health	-	-	2	0.02	5	0.03
Total Sales Revenue	12,571	99.61	14,095	99.74	13,374	99.66
Interest Income	1	0.01	2	0.01	11	0.08
Other Income ⁽³⁾	47	0.38	35	0.25	34	0.25
Total Revenue	12,619	100.00	14,132	100.00	13,419	100.00

Remark

⁽¹⁾ Revenue from the ethanol production and distribution business consists of sales of fuel-grade ethanol, industrial-grade ethanol, pharmaceutical-grade ethanol, biogas, and electricity.

⁽²⁾ Revenue from the biodiesel production and distribution business comprises revenue from sales of self-produced biodiesel, revenue from biodiesel procurement and distribution, revenue from contracted biodiesel refining, and revenue from sales. by-products and semi-finished products such as crude glycerin, pure glycerin, etc.

⁽³⁾ Other income consists of dividend income and income from the sale of by-products from scrap raw materials, etc.

1.2.2 Overview of the business and products of the Company

The Company conducts business as a holding company that engage in (1) the main business of manufacturing and distributing bio-based products, types of biofuel products (biofuel), including ethanol, biodiesel, and by-products, and (2) other businesses, namely high-value bio-based products related to health care and promotion products (health and well-being products) using advanced technology (“high-value bio-based products”).

As of December 31, 2022, the group operates businesses related to biofuel products, including ethanol production and distribution and biodiesel production and distribution businesses. It has a total production capacity of 600,000 liters of ethanol per day and a total production capacity of 1,000,000 liters of biodiesel per day, which is equivalent to the production capacity in accordance with the shareholding proportion for ethanol 577,500 liters per day and for biodiesel, 700,000 liters per day, with details as follows:

Company	Proportion of Shareholding (Percentage)	Location	Capacity Production (liters per day)	Capacity Production (liters per day) Production Capacity per Proportion of Shareholding (liters per day)	Main Raw Materials	Product
Ethanol Production and Distribution Business						
Subsidiary companies						
1. BBGI-NP/BP (1) - Nam Phong Factory (BBGI-NP)	100	Nam Phong District Khon Kaen Province	150,000	150,000	Molasses ⁽²⁾	Ethanol Fuel grade and Biogas
- Bo Phloi Factory (BBGI-BP)		Bo Phloi District Kanchanaburi	300,000	300,000	Molasses ⁽²⁾	Ethanol Fuel grade Grade ENA and Biogas
2. BBGI-PS	85	Phanom Sarakham District and Sanam Chai Khet District Chachoengsao	150,000	127,500	Cassava ⁽²⁾	Ethanol Fuel grade

Remark

⁽¹⁾ BBGI-NP is under construction to expand ethanol production capacity (Nam Phong Plant Unit 2) in Khon Kaen. It has a production capacity of 200,000 liters per day and is expected to commence commercial production at full capacity in the first quarter of 2023.

⁽²⁾ The three plants, BBGI-NP/BP and BBGI-PS, can use raw sugar as a supplementary feedstock for ethanol production when the cost of the main raw material is high or insufficient. The company uses raw sugar in massive quantities only in 2020, accounting for approximately 36 percent of the total cost of ethanol raw materials.

Company	Proportion of Shareholding (Percentage)	Location	Capacity Production (liters per day)	Capacity Production (liters per day) Production Capacity per Proportion of Shareholding (liters per day)	Main Raw Materials	Product
Biodiesel Production and Distribution Business						

Subsidiary companies

BBGI-BI - BBGI Biodiesel Company Limited ("BBGI-BI")	70	Bang Pa-in District Phra Nakhon Si Ayutthaya Province	1,000,000	700,000	Crude Palm Oil ("Crude Palm Oil"/"CPO") Palm Stearin ("Refined Palm Stearin"/"RPS") and fatty acids from refined palm oil ("Palm Fatty Acid Distillate"/"PFAD")	Biodiesel and Raw Glycerine
- Pure Glycerin Production Plant			80 Tons	56 Tons	Crude glycerin obtained from biodiesel production process	Pure Glycerin

Sustainable aviation fuel production and distribution business

Associated Companies

BSGF	20	Phra Khanong Bangkok	1,000,000	200,000	Used Oil	Sustainable Aviation Fuel: SAF
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Characteristics and Style of the Product.

1) Ethanol Production and Distribution Business

1.1) Characteristics of Products

The ethanol, or ethyl alcohol, produced by the group company is alcohol derived from the fermentation of molasses or starchy plants. It is a clear liquid, colorless, easily flammable, and can be dissolved in both water and other organic solutions, so it can be used in a variety of product grades.

The ethanol products can be divided into 3 types, as follows:

- Fuel Alcohol has a concentration of 99.5 percent by volume, used in fuel production. It can be used as an octane booster in gasoline. When mixed with gasoline, it is called gasohol.

- Industrial Alcohol is alcohol that cannot be consumed directly. Most of them are used in the industries of food and beverage, medicine, fiber, etc.
- Portable Alcohol or ENA – Extra Neutral Alcohol is alcohol that can be consumed directly. Most of them are used in the production of cosmetics, liquor, and pharmaceuticals.

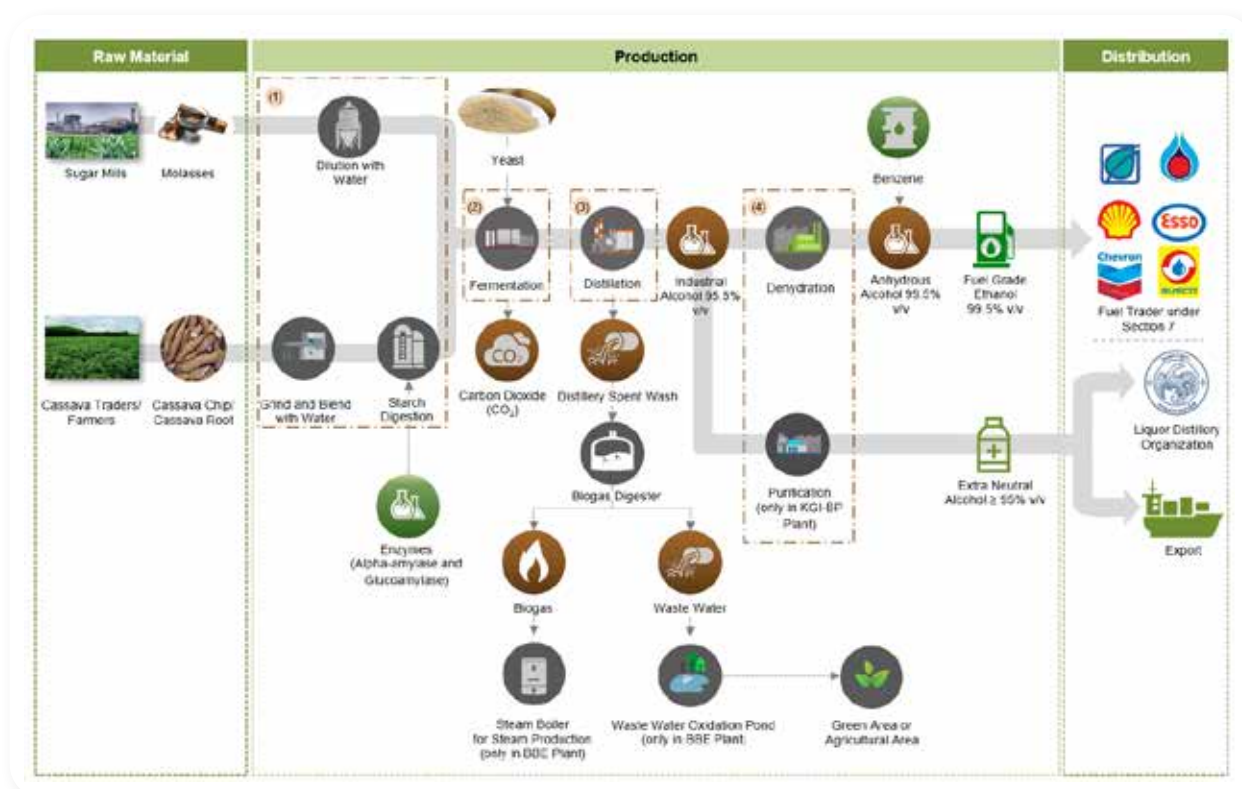
However, the Excise Department have permitted the Company's subsidiaries to produce ethanol with an alcohol purity of not less than 99.5 percent by volume for mixing with fuel to be used as fuel. Ethanol shall be converted by mixing with gasoline according to the method specified by the Excise Department before leaving the factory and directly sold to ethanol-mixed fuel operators only. They are licensed by the Excise Department to sell Portable Alcohol for use in the production of cleaning products to alleviate the spread of the COVID-19 virus, with the right to pay tax at zero rate until December 31, 2022.

1.2) Production Process

Raw materials used in ethanol production are agricultural products in starch and sugar types such as molasses, cane juice, raw sugar, cassava, and corn. BBGI-NP/BP's ethanol production process uses molasses as the main raw material. BBGI-PS uses cassava as the main raw material. It consists of 4 main production processes:

- (1) Raw material preparation process for ethanol production
- (2) Fermentation process
- (3) Distillation process
- (4) Dehydration process

The ethanol production process from 2 types of raw materials is different only in the raw material preparation process. The details of the production process in each step can be summarized as follows:



(1) Preparation of Raw Materials for Ethanol Production

Preparation of Raw Materials for Ethanol Production of BBGI-NP/BP

Molasses and raw sugar are highly concentrated raw materials. Therefore, before starting the raw material preparation process, molasses and raw sugar are measured for their average sweetness content by using a standard and accepted measurement method because sweetness affects the amount of ethanol in the fermentation process. The molasses is placed in a molasses storage tank and diluted with water to a suitable concentration for the yeast to function in the fermentation process.

Preparation of Raw Materials for Ethanol Production of BBGI-PS

Cassava used for ethanol production can be used both as fresh cassava and cassava chips. In this process, cassava is converted into glucose as the following details:

- Grind or reduce the size of the cassava with a chopper. In the case of fresh cassava, it will be washed with water and sent to the slurry preparation. In the case of cassava chips, it will be sent to the milling plant.
- Add water to the reduced-size cassava mashed with a chopper to form starch water.
- Add enzymes and control the temperature appropriately to increase the efficiency of the enzymes. The enzymes will break down the starch water into sugar before going into the fermentation process.

In addition, BBGI-PS's plant has improved its production process to allow partial use of molasses and raw sugar as well. The raw material preparation process is the same as BBGI-NP/BP.

(2) Fermentation Process

The diluted molasses and the sugar obtained from the cassava saccharification process are brought to the fermentation tank along with the yeast prepared. The temperature is controlled to the right level to allow the yeast to convert the sugar into alcohol. The by-products of the fermentation process are carbon dioxide and heat.

BBGI-NP/BP and BBGI-PS ethanol plants can perform both continuous fermentation and batch fermentation processes. However, they choose batch fermentation or the single addition of yeast and nitrogen nutrients to the fermentation tank, as it can easily control and limit damage from infection or yeast mutation in the process. On average, the fermentation process takes about 30 hours for molasses and 60 hours for starch water. However, during fermentation, the temperature is controlled to an appropriate level. The fermented water obtained from this process contains about 8 - 12 percent pure alcohol by volume and will be transported to the holding tank to wait for further distillation process.

(3) Distillation Process

Fermented water from the fermentation process containing about 8 - 12 percent of pure alcohol by volume will be sent to the distillation process by multi - pressure distillation to separate the alcohol in the fermented water from other substances by relying on the different boiling points of various substances in the fermented water. The alcohol obtained from distillation will increase its purity to 95.5 percent by volume or can be called industrial alcohol. However, after the distillation process, there will be distillery slop left that can be used to produce biogas. The biogas from the fermentation process consists of the main gas which is methane. It will be treated with bio scrubbers to adjust the quality before being used as fuel for boilers or sold to customers.

(4) Dehydration and Purification Processes

Dehydration

Alcohol with a purity of 95.5 percent by volume or industrial alcohol from the distillation process will be transported to molecular sieve dehydration to separate water from alcohol by transporting alcohol vapor through molecular sieve, which is a material made from aluminum silicate that is crystalline, highly porous, and has the ability to absorb water molecules well but does not absorb alcohol molecules. Therefore, the molecular sieve retains the water and the alcohol vapor that has undergone the dehydration process is condensed into a liquid that is 99.5 percent pure alcohol by volume or fuel alcohol. It is then transported to a storage tank for distribution after the molecular sieve has absorbed the water. The molecular sieve can be separated from the water for reuse and has a shelf life of about 7 - 10 years. Fuel alcohol obtained from the dehydration process will be converted by mixing with benzene according to the method specified by the Excise Department before leaving the factory and sold directly to professionals selling fuel mixed with ethanol only.

Purification

The Bo Phloi factory has a process to increase the purity of ethanol by bringing alcohol with a purity of 95.5 percent by volume from the distillation process to eliminate certain chemicals that are harmful to consumers. When consumed directly, the product will be extra neutral alcohol (ENA) with a purity of 95.5 percent by volume or higher.

1.3) Production Technology and Maintenance

(1) Production Technology

BBGI-NP/BP's Nam Phong and Bo Phloi ethanol plants, along with BBGI-PS's Phanom Sarakham ethanol plant, use production technology from Praj Industry Limited, India, which is a company with experience in building plants and ethanol production systems. BBGI-NP and BBGI-BP plants are equipped with major equipment, such as boilers, yeast culture tanks, fermentation tanks, distillation columns, molecular sieves, and biogas production tanks. While the BBGI-PS plant has a milling plant and slurry preparation used in the starch preparation process, molasses and raw sugar mixers, boilers, yeast culture tanks, fermentation tanks, distillation columns, and molecular sieves as essential equipment in the ethanol production process.

Ethanol production volumes of the Company's subsidiaries for the years 2020, 2021, and 2022 are as follows:

a. BBGI-NP/BP Ethanol Plant

Details	Year 2020	Year 2021	Year 2022 ⁽¹⁾
Installation capacity per day (liters/day)	450,000	450,000	450,000
Actual production per year (million liters/year)	132.64	126.16	96.75
Utilization rate	89.32% ⁽²⁾	84.96% ⁽²⁾	69.21% ⁽²⁾

Remark

⁽¹⁾ BBGI-NP is under construction to expand ethanol production capacity (Nam Phong Factory Unit 2) in Khon Kaen. It has a production capacity of 200,000 liters per day and is expected to commence commercial production at full capacity in the 1st quarter of 2023.

⁽²⁾ It is calculated from the actual annual production to the annual installation capacity. The annual installation capacity is calculated from daily capacity multiplied by 330 days.

b. BBGI-PS Ethanol Plant

Details	Year 2020	Year 2021	Year 2022
Installation capacity per day (liters/day)	150,000	150,000	150,000
Actual production per year (million liters/year)	46.16	48.38	45.48
Utilization rate	93.25% ⁽¹⁾	97.74% ⁽¹⁾	94.76% ⁽¹⁾

Remark

⁽¹⁾ It is calculated from the actual annual production to the annual installation capacity. The annual installation capacity is calculated from daily capacity multiplied by 330 days.

(2) Maintenance

BBGI-NP, BBGI-BP, and BBGI-PS plants have planned the preventive maintenance by setting an annual maintenance budget in advance. It consists of checking the condition of the machine, cleaning, lubricant filling, and timely replacement of spare parts to help equipment able to work efficiently, reduce the risk of machine downtime, and for worker safety. In addition, there is a process to always monitor the operation of machines and equipment. If there is a force majeure event that causes the machine to stop working, there will be maintenance personnel to inspect and plan immediate corrective action. In general, the Company Group's ethanol plants will stop their production for an average of 30-45 days per year for cleaning, checking the equipment condition, and changing spare parts for scheduled maintenance.

1.4) Raw Material Procurement

Molasses

In general, ethanol plants procure molasses by entering into agreements with sugar factories before the start of the production season to manage the risk of molasses procurement during the production season. At the same time, the sugar factories also need to drain the molasses during the production season. Therefore, making molasses purchase agreements in advance is beneficial to both buyers and sellers. The BBGI-NP and BBGI-BP plants procure most of the molasses from the KSL Group by entering into molasses purchase agreements before the start of the production season each year. The agreements will specify the details of the procedure for determining the quantity of molasses and the trading price referred to the molasses price quoted by the Cane and Sugar Board, Ministry of Industry, used to calculate the price of cane throughout the country each year. If the molasses quality is lower than the specified criteria, the selling price of molasses may be adjusted according to the agreements between the parties.

If the amount of molasses under the agreements is insufficient to meet the demand of the Nam Phong and Bo Phloi factories, BBGI-NP/BP may procure molasses from other sugar factories of the KSL Group and other companies on a spot basis. In every purchase of molasses, BBGI-NP/BP will compare prices and other conditions, such as molasses quality, delivery period, transportation costs, etc. to maximize the benefits of trading for the Company Group. The molasses purchase agreement between BBGI-NP/BP and the KSL Group ensures that BBGI-NP/BP can supply quality molasses and can plan ethanol production more efficiently because it can forecast the amount of molasses that is expected to be traded in each production season. The KSL Group's sugar factories are in areas adjacent to or close to the Nam Phong and Bo Phloi factories. As a result, the Company Group has an advantage in terms of transportation cost of molasses compared to other competitors.

Cassava

BBGI-PS's ethanol plant purchases fresh cassava or cassava chips by posting an announcement of the purchase price of fresh cassava that the starch content in the cassava is not less than 30 percent. There will be a random measurement of the amount of starch. If the starch content is less than 30 percent, the purchase price will be reduced according to the quality of raw materials. In addition, there are also purchase agreements of cassava chips on a spot basis from traders. The agreements will specify the purchase volume and quality such as starch content, moisture content, and sand content in the cassava. The selling price of cassava chips will be as agreed between seller and the buyer.

BBGI-PS has a policy to rent third-party warehouses, considering the location of the warehouse for flexibility in transportation. This enables the supply of cassava into the production process sufficient for the annual production plan. In addition, a survey of farmland is arranged to procure additional raw materials to reduce the risk of cassava shortages, which is the main raw material used in the production of the Company's products in the long term.

1.5) Energy and Public Utilities

Energy and public utilities are key factors in the production process of ethanol, which is divided into 3 types as follows:

- (1) Electricity, the power source of the machine throughout the production process
- (2) Industrial water, an important part of the raw material preparation and cooling of the fermentation process
- (3) Steam, an important part of temperature control and heating in fermentation and distillation processes

As BBGI-NP/BP's Nam Phong and Bo Phloi factories are located in close proximity to KSL Group's power plants, both ethanol plants supply electricity, industrial water, and steam from power plants in the KSL Group mainly. While BBGI-PS' ethanol plant purchases electricity from the Provincial Electricity Authority and supply water from surface wells on BBGI-PS's premises, the irrigation system of the Royal Irrigation Department, and groundwater wells. As BBGI-PS's ethanol plant can generate steam for its own use, therefore, there is no purchase of steam from external manufacturers.

1.6) Marketing and Distribution Channels

Ethanol

BBGI-NP/BP and BBGI-PS have purchase agreement for denatured ethanol with main target customer groups who are oil traders under section 7 or Thailand's main oil traders, with BCP being a major customer of the Company Group with sales of approximately 61.4%, 82.3% and 86.1% of total ethanol sales in 2020, 2021 and 2022, respectively, because the Company Group has a long-term denatured ethanol fuel purchase agreement with BCP. In general, denatured ethanol purchase agreements may specify a price based on a reference price agreed with the buyer or a fixed price due to competitive bidding with other denatured ethanol suppliers. The price to be sold to oil traders under Section 7 will be considered from many factors such as the price announced by the Energy Policy and Planning Office ("EPPO"), Ministry of Energy, industry ethanol price forecasts, cost of ethanol production, and the price that the buyer will be able to purchase during that time. Conditions in the denatured ethanol purchase agreements with each customer may be varied depending on the agreement with each customer.

BBGI-NP/BP and BBGI-PS can deliver ethanol both at the ethanol production plant and the delivery point. Ethanol specified by the purchaser in any case, transport trucks will be weighed before and after packaging of denatured ethanol. It is controlled by a supervisory control and data acquisition (SCADA) system throughout the process of filling the denatured ethanol into trucks and collecting ethanol samples on trucks for quality checking. When the filling is complete, the staff from the Excise Department will attach seals to ensure that the denatured ethanol that leaves the factory must be delivered to customers who are oil traders under Section 7 only

because BBGI-BP plant has an extra neutral alcohol (ENA) production unit. Nowadays, the Liquor Distillery Organization can hire private sectors to produce ENA for use in the production of medicines and medical supplies for domestic distribution. BBGI-BP plant is ready to produce ENA when hired by the Liquor Distillery Organization. However, during the 2/2020 quarter, due to the outbreak of the COVID-19 virus, the Excise Department has allowed ethanol producers to sell industrial alcohol and ENA to be used as disinfectants and alcohol gel to alleviate such situation.

Biogas

At present, BBGI-NP plant sells biogas to Khon Kaen Sugar Power Plant which is a subsidiary in which KSL holds 100.0 percent of shares. Due to its location in the vicinity, the biogas will be transported to the customer via a pipeline connecting the Nam Phong factory and the customer. In the past, BBGI-NP/BP entered into a purchase agreement with the KSL Group at a fixed price throughout the contract period. While BBGI-PS's ethanol plant uses biogas as fuel to generate steam to be used in the production process of ethanol without being sold to third parties.

1.7) Environment

BBGI-NP/BP's ethanol plant has environmental measurements and reports as required by applicable laws, such as measuring the level of emissions into the atmosphere, effluent quality, etc. In the production process of the Nam Phong and Bo Phloi factories, (1) distillery slop from production process, which is water with high organic compound concentration, and (2) sludge such as yeast sludge, sulfur sludge, and sludge from production process are generated. BBGI-NP/BP entered into an agreement to buy and sell land and premises with machinery from KMS on November 1, 2019, to manage distillery slop and waste from the production process. While distillery slop after biogas production of BBGI-PS will have reduced chemical oxygen demand ("COD") to the point that it can be biochemically treated by adding air to the oxidation pond. The oxidation pond is designed to be shallow to allow sunlight to penetrate the entire pond so that the microorganisms inside the pond can decompose organic matter in distillery slop by aerobic reaction. The treated water will be reused in the process of washing fresh cassava in order to reduce environmental pollution.

2) Biodiesel Production and Distribution Business

2.1) Characteristics of Products

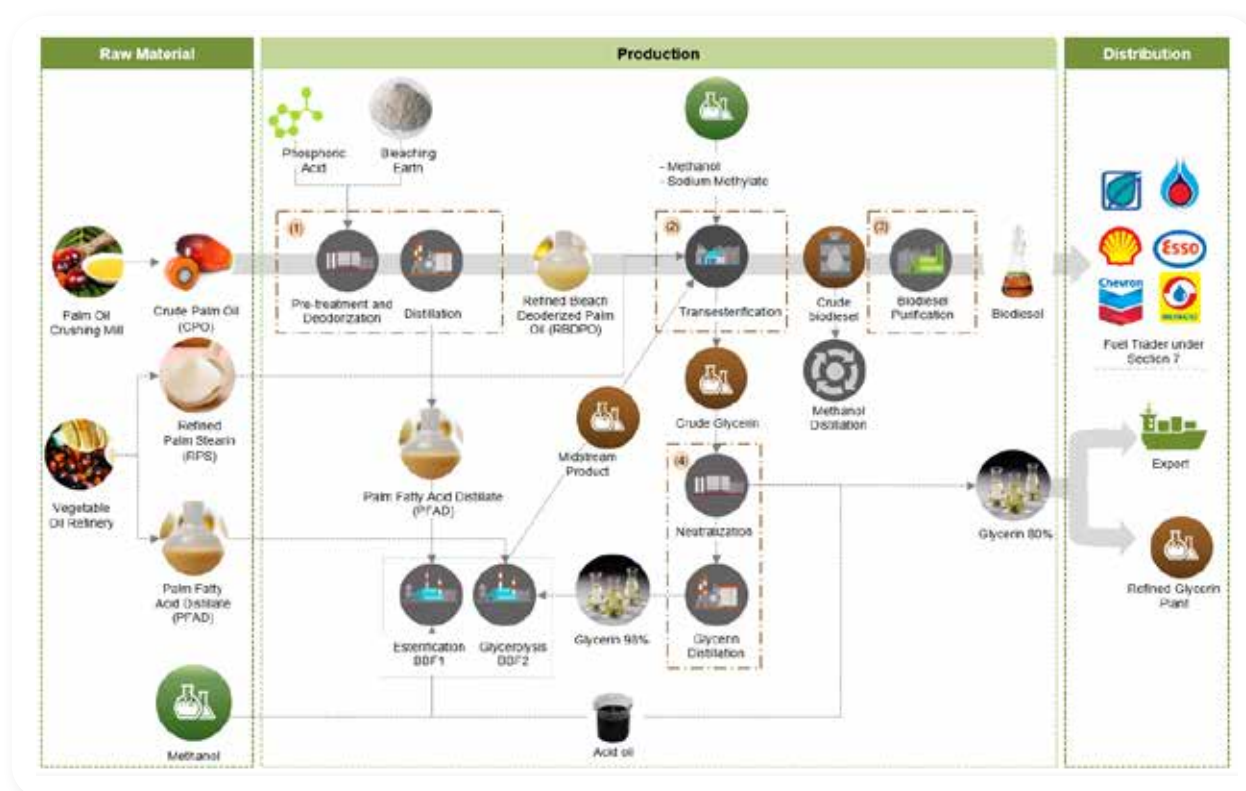
Biodiesel is a fuel alternative to diesel fuel which is produced from natural raw materials and is considered a clean energy that is environmentally friendly. Biodiesel can be produced from vegetable oil or animal fat in a chemical process known as transesterification by reacting with methanol and alkali as a catalyst. The result will be biodiesel and a byproduct of crude glycerin which can be distilled into refined glycerin to be used as an important precursor in various industries such as soap production, pharmaceutical, and cosmetic production. BBGI-BI is licensed by the Department of Energy Business to operate the business of producing and distributing acid oil methyl ester biodiesel, as well as being registered as an oil trader under Section 7.

2.2) Production Process

In general, biodiesel can be produced from a variety of raw materials. However, Thailand is a large plantation of oil palm due to the right weather conditions. BBGI-BI's biodiesel production plant, therefore, uses crude palm oil (CPO) as the main raw material. The biodiesel production process comprising:

- (1) Process to purify crude palm oil (Pre-treatment)
- (2) Transesterification
- (3) Biodiesel purification, and
- (4) Crude glycerin pretreatment

The details of biodiesel production process are as follows:



(1) Process to Purify Crude Palm Oil (Pre-Treatment)

The biodiesel production process prepares crude palm oil (CPO) to be of higher purity. CPO undergoes a process of conditioning and deodorizing by absorbing impurities contaminated in crude palm oil and entering a vacuum distillation process to separate acid oil from CPO. The final products obtained from this process are refined bleached deodorized palm oil (RBDPO) and palm fatty acid distillate (PFAD).

(2) Transesterification

Transesterification is the reaction of RBDPO from step (1) with methanol with sodium methylate as a catalyst. After the process is completed, it will be brought into the holding tank to separate the layers of crude biodiesel and its by-products, or crude glycerin. After that, crude biodiesel will be taken through the methanol distillation process.

(3) Biodiesel Purification

The crude biodiesel obtained from step (2) is decontaminated using acid-treated water. The decontaminated biodiesel will be taken into the dehumidification process using heat at the vacuum system which will produce biodiesel with a purity of more than 99.5 percent by volume.

(4) Crude Glycerine Pretreatment and Distillation Process

Crude Glycerin Pretreatment

Crude glycerin, a by-product from step (2), will be reconditioned before being sold to customers.

- Adding acid in crude glycerin to remove contaminated fat will produce crude glycerin and acid oil.
- Glycerin is neutralized by adding alkali and heating to make it pure. The result is crude glycerin with 80 percent purity that can be sold.

Distillation Process

Crude glycerin with a purity of 80 percent will be further purified to become refined glycerin with a purity of more than 99.7 percent to be sold as a product to customers in the production industries of food, chemicals, etc., with details as follows:

- The process of converting acid oil that is contaminated with crude glycerin is conducted by saponification reaction or adding alkali to convert acid oil into soap.
- Evaporation of water from crude glycerin is conducted by heating.
 - The process of distilling crude glycerin to obtain refined glycerin by heating it in a vacuum system produces 3 types of products and by-products which are second grade glycerin, glycerin pitch, and refined glycerin products.
 - Completely refined glycerin will be taken into the second distillation process at the deodorizer and the temperature will be lowered to a suitable level that allows the distilled glycerin to enter the bleaching process.
- The process of bleaching glycerin with activated carbon is done to improve the color quality of refined glycerin. Refined glycerin that has been bleached will be stored in refined glycerin tanks to assess the quality before distributing.

2.3) Production Technology and Maintenance

(n) Production Technology

BBGI-BI's biodiesel plant uses leading production technology from Desmet Ballestra, an international company from Italy with important equipment and machinery as follows:

- Crude Palm Oil Distillation Column
- Reactor to Turn RBDPO into Biodiesel
- Methyl Ester Drying Column
- Methanol Recovery Column
- Glycerin Distillation Column
- Refined Glycerin Plant

Biodiesel production volumes of BBGI-BI for 2020, 2021 and 2022 are as follows:

Details	Year 2020	Year 2021	Year 2022
Installation capacity per day (liters/day)	1,000,000	1,000,000	1,000,000
Actual production per year (million liters/year)	258.02	238.60	205.99
Utilization rate	78.19% ⁽¹⁾	72.31% ⁽¹⁾	62.42% ⁽¹⁾

Remarks

⁽¹⁾ It is calculated from the actual annual production to the annual installation capacity. The annual installation capacity is calculated from daily capacity multiplied by 330 days. The utilization rate has decreased due to the impact of the spread of the COVID-19 virus.

(2) Maintenance

BBGI-BI's biodiesel plant has planned the preventive maintenance by setting an annual maintenance budget in advance. It consists of checking the condition of the machine, cleaning, lubricant filling, and timely replacement of spare parts to help equipment and machines able to work at full efficiency, reduce the risk of production downtime, and for worker safety. BBGI-BI biodiesel plants typically shut down their production for annual maintenance for an average of approximately 30 days per year for regular maintenance.

2.4) Raw Material Procurement

Crude Palm Oil (CPO)

BBGI-BI uses CPO as the main raw material for biodiesel production. It will purchase crude palm oil (CPO) with specified quality and competitive price from private crude palm oil mills and agricultural cooperatives. Most of them are in the southern and eastern regions of Thailand. BBGI-BI will have 2 ways of crude palm oil (CPO) procurement which are (1) Making a crude palm oil purchase agreement in advance for a period of not more than 1 year with a supplier, and (2) Spot purchases of crude palm oil. The proportion between advance purchase agreements and spot purchases each year will vary depending on price, quantity, quality, and delivery conditions of crude palm oil (CPO).

Refined Palm Stearin (RPS)

BBGI-BI will procure refined palm stearin (RPS) to be used as raw material for biodiesel production instead of crude palm oil (CPO) based on major customer's orders. During the high CPO price, BBGI-BI's cost can be controlled. BBGI-BI will have 2 ways of RPS procurement which are (1) Making crude palm oil purchase agreements in advance for a period of not more than 1 year with a supplier, and (2) Spot purchases of palm stearin. The proportion between advance purchase agreements and spot purchases is not fixed depending on the price, quantity, quality, and delivery conditions of palm stearin (RPS).

Palm Fatty Acid Distillate (PFAD)

Although BBGI-BI's biodiesel plant can produce palm fatty acid distillate (PFAD) from the process to purify crude palm oil (pre-treatment), in BBGI-BI's biodiesel production process, the demand for PFAD is greater than that produced by itself. Therefore, BBGI-BI's biodiesel plant needs to procure PFAD from manufacturing companies, including oil producers for consumption. BBGI-BI will purchase PFAD on a spot basis or enter into a short-term agreement in advance no more than 1 year with specified details of the purchase volume and price as agreed by seller and buyer.

Chemicals

The main chemicals used in BBGI-BI's biodiesel production are methanol and sodium methylate. There are 2 types of trading: (1) Yearly purchase agreement and (2) Spot agreement with specified purchase volume as well as reference price to determine the purchase price throughout the contract period.

2.5 Energy and Public Utilities

Energy and public utilities are important factors in the production process of biodiesel, which is divided into 3 types:

- (1) Electricity, the power source of the machine throughout the production process
- (2) Natural gas, a fuel for steam production for use in various processes, and
- (3) Water, a key factor of steam production and purification process

BBGI-BI has long-term contracts for the supply of electricity and natural gas, as well as groundwater well and treated water from production process.

2.6 Marketing and Distribution Channels

BBGI-BI's main target customer groups are oil traders under Section 7. In the past, BBGI-BI has entered into a long-term biodiesel purchase agreement with BCP with a price calculation method and a minimum trading volume throughout the contract period. In addition, BBGI-BI has contracts with other oil traders under Section 7 on quarterly or annual contracts. The terms of the contract will vary depending on what has been agreed between BBGI-BI and each customer. Crude glycerin or by-products from the production process will be sold on a spot basis, with those interested in crude glycerin bidding and BBGI-BI will consider determining the amount to be sold based on price, quantity, and other conditions of the refined glycerin purchase offeror. BBGI-BI began its first commercial sale on December 5, 2020, divided into 2 forms: (1) long-term purchase agreements for 2 years and (2) Spot purchases. Purchase conditions depend on many factors such as price, quality, purchase volume, and delivery conditions which will be different as agreed by seller and buyer.

2.7 Environment

BBGI-BI's biodiesel plants regularly conduct environmental measurements and reports as required by relevant laws, such as water quality measurements, air quality, etc. As BBGI-BI focuses on monitoring the quality of the environment within the factory, various environmental quality measurement plans have been established. The frequency must not be less than those specified in the relevant announcements. This includes the quality of the measured water and air must not exceed the pollutants specified by the relevant laws. In addition, BBGI-BI has received ISO 45001 Occupational Health and Safety Management certification. For waste management from the biodiesel production process, BBGI-BI has a systematic plan to accommodate and manage waste such as wastewater and solid waste. Wastewater is divided into 2 types: (1) Wastewater from the biodiesel production process and the refined glycerin production process which will be brought into the wastewater treatment system in the factory, and (2) Wastewater generated from equipment that is a production support system which will be taken to rest in the pond and reused within the factory. As for solid waste, for example, bleached starch will be used in the ceramic industry, and activated carbon from the glycerin bleaching process will be disposed according to laws, etc. The Company Group have continued to expand production capacity and improve efficiency in order to assure customers that it have sufficient product supply to meet future demand and continue to maintain the growth rate in line with the industry trends continuously.

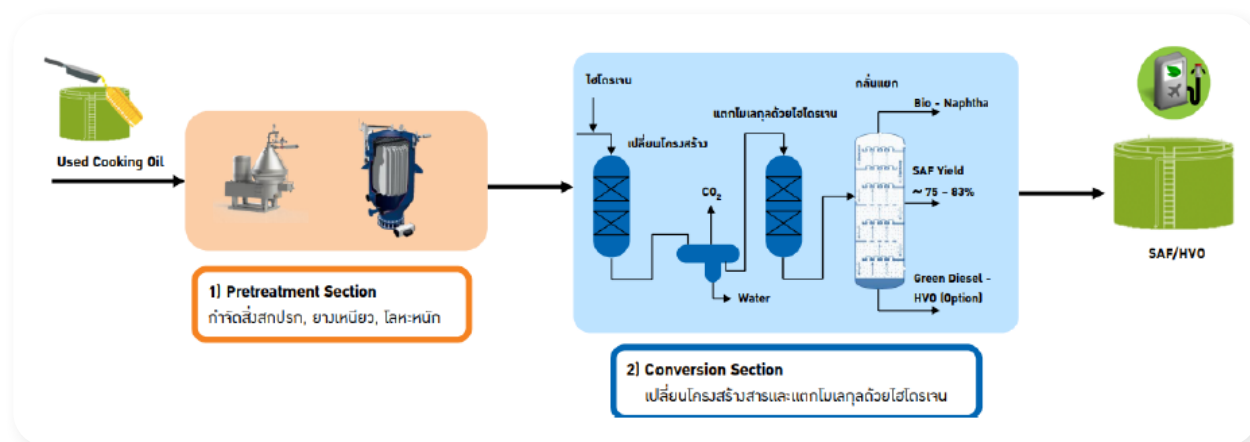
3) Sustainable Aviation Fuel Production and Distribution Business

The Company jointly established a joint venture BSGF Company Limited ("BSGF") with BCP and Thanachok Oil Light Company Limited ("TC") to operate the business of sourcing raw materials, producing, and distributing sustainable aviation fuel from used oil. The Company holds 20 percent of the total registered capital of BSGF.

Sustainable aviation fuel (SAF) will be mixed with fossil fuel to be bio-jet fuel, which can be used as refueling fuel for aircraft in accordance with the standards certified by the International Civil Aviation Organization. In this regard, the resulting bio-jet fuel will have properties equivalent to fuel derived from petroleum oil, but it has advantages in terms of higher cetane number, lower aromatic substances and sulfur, and result in less pollution to the environment.

Sustainable aviation fuel production plant from used oil located in Bangchak's oil refinery which is close to the source of hydrogen gas (H₂) with an initial production capacity of 1,000,000 liters per day. The production process is designed and installed as hydro processed esters and fatty acids ("HEFA") which is the use of oil based precursors, such as waste oil, palm fatty acid distillate (PFAD), and palm oil mill effluent (POME). These oils contain triglycerides and free fatty acid (FFA) according to different types of raw materials. Through the hydrogenation process, it is used to convert from unsaturated fat to saturated fat by hydrogenation. Propane (C₃H₈) is then separated to FFA by hydrogenation in saturated triglycerides. After that, it will be reacted to get rid of the COOH group by the decarboxylation process or remove oxygen by hydrodeoxygenation process. The resulting hydrocarbon liquid is subjected

to hydrocracking to reduce molecular size using hydrogen and hydro-isomerization to increase the octane using hydrogen. This will result in various forms of fuel, such as SAF, Bio Naphtha, LPG, etc.



The sustainable aviation fuel plant is expected to begin commence commercial operation in the 4th quarter of 2024, which will reduce greenhouse gas emissions from the aviation industry by approximately 80,000 tCO₂e per year. (Compared to the greenhouse gas emissions of today's aviation fuels.)

4) High-Value Bio-Based Products Business Related to Health and Well-Being Products Using Advanced Technology (“Health-Promoting High-Value Bio-Based Products Business”)

Health-promoting high-value bio-based products business refers to high-value bio-based products that exist for the purpose of promoting the health or well-being of consumers. It refers to dietary supplements (i.e. products that are taken apart from the normal diet in the form of tablets, capsules, powders, flakes, liquids, or other forms which are not conventional foods, cosmetics, beauty products, products for youth, cleaning products, and any products that promote good hygiene for users. Advanced technology means technology that is patented or protected by intellectual property laws that is owned or licensed by the Company or its subsidiaries or associates, such as Synthetic Bio technology that belongs to Manus Bio Inc. (“Manus”), etc.

The Company’s experience and expertise as one of the leading biofuels companies in Thailand, coupled with the development of the biotechnology business and the growing trend of health and environmental care, enables it to see an opportunity to develop health-promoting high-value bio-based products business by utilizing its strengths in biotechnology expertise. In this regard, the Company has a strategic plan to invest in the vertical integration of the whole value chain of the industry of health-promoting high-value bio-based products business, starting from the upstream, midstream, and downstream businesses, which will help the Company have a competitive advantage, including creating added value from the synergy of the entire value chain.



Initially, the Company has operation strategy for each value chain as follows:

(1) Upstream Business or Research & Development

Health-promoting high-value bio-based products use advanced biotechnology, such as synthetic biology. It is the use of natural raw materials through a synthesis process with a fermentation process to create desirable and environmentally safe products. The Company plans to invest and become an alliance with companies both domestically and internationally engaged in research and development in advanced biotechnology to participate in research, development, invention, and application of such knowledge in further development into new products.

The Company has invested and partnered with Manus Bio, an advanced biotechnology company from the United States, on April 16, 2020. In addition, the Company and Manus Bio have jointly established WIN to bring Manus products and technologies for commercial sale in 12 countries: Thailand, Vietnam, Singapore, Philippines, Myanmar, Malaysia, Laos, Indonesia, Cambodia, Brunei, Japan, and South Korea.

In addition, the Company has jointly invested with BIOM Company Limited (or “BIOM”), a research and development Company in biotechnology led by researchers from the Faculty of Science, Chulalongkorn University under the incubation from CU Innovation Hub and the National Science and Technology Development Agency in April 2022. The Company has partnered with BIOM to develop enzyme-based biological products or bio-based products, including products that can eliminate the toxicity of pesticide residues in fruits and vegetables for commercial sale in the future.

(2) Midstream Business or Business of Manufacturing Products Using Advanced Biotechnology

To establish a factory to produce health-promoting high-value bio-based products, the aforementioned midstream business has brought research and development of the upstream business to develop a factory to produce products for commercial distribution. Moreover, the Company is developing an investment project to construct a factory of developing, manufacturing, and distributing health-promoting high-value bio-based products (contract development and manufacturing organization) with a partner who specializes in this area.

(3) Downstream Business or Distribution Business and Marketing of Health-Promoting High-Value Bio-Based Products

In the 3rd quarter of 2021, the Company has started commercial distribution in 2 forms which are Business to Business (B2B) and Business to Consumer (B2C) under the brand of the Company.

Based on the aforementioned operational strategic plans combined with experience and expertise in the biotechnology industry, the Company is confident that it has potential and can grow in the business of health-promoting high-value bio-based products. It can also be beneficial from the growing trend of health and environmental care. In addition, the health-promoting high-value bio-based products business will diversify its business revenue streams to diversify business risks and increase profitability of the Company Group.

Although the health-promoting high-value bio-based products business is in its infancy, the Company expects that it will be a business that can generate significant growth for the Company in the future (New S-Curve) according to the good growth trend and the current trend of health and environmental protection.

The health-promoting high-value bio-based products of the Company Group can be divided into 2 categories:

- 3.1) Business of importing, production outsourcing, and distributing health-promoting high-value bio-based products
- 3.2) Business of manufacturing and distributing health-promoting high-value bio-based products derived from advanced bio-innovations, such as synthetic biology

The details of the products are divided by business types as follows:

- 3.1) Business of importing, production outsourcing, and distributing health-promoting high-value bio-based products can be divided into 2 types as follows:
 - 3.1.1) Business of importing and distributing bio-based raw materials.

Based on the Company's operational strategic plan as mentioned above, together with the potential growth in the market for high-value bio-based raw materials such as bio-based raw materials for use as ingredients in the production of cosmetics or dietary supplements, the Company is interested and initiates to do business in such market. In the beginning, the Company will import high-value bio-based products from the world's leading manufacturers selected by the Company for business to business (B2B) in the country. In addition to the revenue that the Company will receive from commercial sales, what is more important to the Company is the knowledge, experience, and insights of the high-value bio-based products industry both in Thailand and abroad which is considered important to be able to extend the business and determine the future strategy of the Company.

Product Procurement

In the first phase, the Company will import bio-based raw materials from high-quality world-class producers for distribution of business to business (B2B) in Thailand. However, in the future, the Company may procure some of raw materials from the Company Group's production facilities by investing in its manufacturing facilities to take advantage of the Company's strategically planned health-promoting high-value bio-based products business ecosystem.

Distribution Channels

The Company distributes bio-based raw materials through distributors in Thailand.

The Company has appointed leading distributors in the country who have knowledge and expertise that match each product type to be distributors for business to business (B2B).

3.1.2) Business of production outsourcing and distributing dietary supplements, beverages, and health products under the Company's brand.

Due to the Company selling high quality portable alcohol that is certified by GMP and HACCP to industrial customers (B2B) and hand sanitizer for consumer customers (B2C), the Company begins to see more potential and growth trends in the consumer market (B2C). Therefore, it begins to pay attention to and study products that could meet the needs of consumers. It is found that the growing popularity of health care among consumers around the world has resulted in the business of dietary supplements and healthy beverages tending to grow in the same direction. Studies and research also find that consumer groups that concern about health care and have high purchasing power such as the "silver age" or "silver generation", refer to people aged 55 years and above.

Therefore, the Company has foreseen the opportunity in such business from the dietary supplement market which has a relatively high growth potential, together with the confidence in the Company's potential to be able to develop high quality products that meet the needs of consumers in the market. The Company, therefore, begins to develop food, beverage, and health products under the brand "B Nature+", which is the Company's own brand. There are pharmacists and nutritionists who determine the main ingredients that are suitable for the market. They also select manufacturers and control the quality of dietary supplements to meet the specified standards. The dietary supplements in the "health and well-being" group that consumers are interested in are wellness, bone & joints, digestive system, immune booster products, etc.

In 2021, the Company started selling dietary supplements containing astaxanthin extract, which is highly sought after by consumers in the market under the name "Asta-Immu". It has outstanding properties in helping to strengthen the immune system of the body under the product brand "B Nature +" for consumer customers (B2C).

In 2022, the Company launched new products under the brand "B Nature +" and new product brands as follows: "Asta-Vis" and dietary supplement Calcium-LT Plus UC2, and 4 probiotic products: Probiotics-IMMU, Probiotics-FIT, Probiotics-Balance, and Probiotics-Smile.

Characteristics of Products

Since the main target customers of dietary supplements, beverages and health products are consumer groups (B2C), the Company has developed products in the dietary supplement group under the product brand "B Nature +" to meet the needs of retail consumers who are health conscious. The Company's products that have been released, including Asta-Immu dietary supplements containing 6 milligrams of astaxanthin extracts that help with anti-aging and extracts for immune system care:

- Beta glucan extract from yeast
- Plukaow extract powder and elderberry extract: It can enhance the function of the immune system to trap and destroy foreign substances better, including reducing the risk of illness from various infectious diseases.

- Asta-Vis dietary supplement contains 6 milligrams of astaxanthin extract that helps with anti-aging and eye care extracts, such as bilberry, lutein from marigold flower extract, and fish oil that can prevent degeneration of the optic nerve cells, increase blood flow to the eyes, reduce eye fatigue from hard work, protect the eyes from blue light, and prevent the occurrence of degenerative macular degeneration in the elderly.
- Calcium-LT Plus UC2 dietary supplement is a product that contains calcium L-threonate derived from corn and type-II collagen, including turmeric extract which meets the needs of the elderly in terms of bones and knee joints.
- Probiotics products are available in 4 formulas as follows:
 - Immu Probiotics is a formula that helps to increase the number of good bacteria in the body while also providing adequate amounts of vitamin C and vitamin D to meet the daily needs of the body. It has a positive effect on the functioning of the immune system, making overall health stronger and ready to fight against pollution and today's rapidly changing environment.
 - Fit Probiotics is a formula that helps to increase the number of good bacteria in the body that affects the balance of the digestive and metabolic systems to be complete and to help control weight with good results and does not harm the health of losing weight in the wrong way.
 - Smile Probiotics is a formula that helps to increase the number of healthy bacteria in the mouth, reduce the chance of tooth decay and bad breath to freshen your breath for good oral health with hygiene.
 - Balance Probiotics is a formula that helps to increase the amount of good bacteria to balance the digestive system to return to normal because the unbalanced amount of bacteria in the intestine will cause the body to get sick. On the other hand, when the digestive system is balanced, regular bowel movements will lead to a strong body and overall good health.

The Company is still in the process of studying and developing many other dietary supplements for commercial distribution and further development to make "B Nature +" become one of the leaders in health products in the future.

Product Procurement

The Company selects high-quality key ingredients that are marketable both domestically and internationally to produce the Company's products. In the first phase, the Company will produce products through outsourced manufacturers with high production standards, expertise, and experience. Such outsourced manufacturers are world-class factories that have been certified by international institutions, have specific knowledge and expertise in the business. They are also factories that have been trusted to produce products under many leading world brands. Therefore, consumers can be confident that products under the brands "B Nature +" of high quality standards.

Distribution Channels

The Company has sold dietary supplements through online channels such as Facebook, Line Official, and online marketplace, e.g. Lazada and Shopee. However, in order to increase product distribution channels for consumers to access more products, the Company has started marketing through pharmacy chains, such as Bangkok pharmacies and other pharmacies, which are in the process of importing products, such as Fascino, Watsons, Boots, and supermarkets in leading department stores in the future. In 2022, the Company developed an additional sales channel through TV shopping, which is True Shopping Channel for B Nature + products by bringing Asta-IMMU, Asta-Vis, and probiotic products to distribute through this channel. Consumers have received it well. In addition, during December, the Company organized events at places according to target groups, such as hospitals, office buildings, mid-town markets throughout Bangkok and its vicinity to distribute the Company's products directly to consumers.

3.2) Business of Manufacturing and Distributing Health-Promoting High-Value Bio-Based Products from Advanced Bio-Innovations, e.g., Synthetic Biology

The current awakening in the bio-industry around the world has stimulated the creation of new biotechnology in many fields. As one of the leaders in the biofuel industry which is considered initial biotechnology, the Company has anticipated opportunities to enter an industry that uses advanced bio-innovations, which leverage the Company's long experience in the bio-industry to effectively build on the Company's knowledge and capabilities. For rapid growth, the Company will use a strategy to invest in and partner with companies that own advanced bio-innovation patents. Regarding the model of operation, the Company will invest in the shares of companies that own advanced bio-innovative patents and extend cooperation with partner companies by developing, marketing, and commercializing the products.

The advanced bio-innovation focused by the Company is the field of synthetic biology or advanced technology that combines science, technology, and engineering knowledge to design, select, improve, modify, or modify molecules and genetic material in living organisms such as microorganisms, plants, and animals to have the desired characteristics and biological properties. The business of manufacturing and distributing health-promoting high-value biological products derived from advanced bio-innovations is as follows:

3.2.1) Business of Developing, Producing, and Distributing Health-Promoting High-Value Bio-Based Products from Advanced Bio-Innovations in Collaboration With Manus

In June 2022, Win Ingredients Company Limited received a food recipe registration certificate (Form A. 18) allowing Win Ingredients to distribute Reb M sweeteners to customers in Thailand. In 2022, customers interested in Win Ingredients' products were up to 250, each of which has been in the development stage to use the product in own recipes. And in 2022, the Company started selling Reb M products in Thailand and Indonesia at 439 kg and expects sales from other countries soon.

Product Characteristics

Product information for sweeteners under the brand "NutraSweet" that have been registered in the food recipe (Form A. 18) with the FDA can be found below:

- (1) The "Neotame" sweetener product is 6,000 – 10,000 times sweeter than sugar. It is widely used in the pharmaceutical industry as an additive in liquid medicines such as cough syrups, where it helps to adjust the taste for easier consumption and has a high heat resistance property. Neotame is used in many types of heated food industries such as bakery products and ready-to-eat food products. It can also be used as a sweetener in confectionary, dairy products, and frozen food.
- (2) The "Reb M" sweetener product is a natural sweetener extracted from stevia and converted through synthetic biology to a sweetener that tastes very similar to sugar. It can be used as an ingredient in foods and beverages and is 250 times sweeter than sugar. Reb M is a natural zero-calorie sweetener that helps to reduce excess calories from daily food and beverage consumption and reduce the risk of diabetes. The Company plans to sell such products to industrial customers (B2B) at coffee shops, restaurants, and hotels.

Product Procurement

In the first phase, the Company will import products for distribution. The Company is studying the feasibility of investment in building a manufacturing facility for health-promoting high-value bio-based products and sweeteners with biotechnology, collaborating with Manus, to be a production and distribution base in Asia and Southeast Asia in the future.

Distribution Channels

Since 2021, the Company Group has appointed distributors in the country as well as distributors in foreign countries, namely Vietnam, Malaysia, Indonesia, and the Philippines, to increase distribution channels and reach consumers, which will lead to further expansion of overseas markets.

1.2.3 Industry Outlook, Marketing, and Competition

Thailand's Economic Situation in 2022

From the 2022 monetary policy report of the Bank of Thailand, it shows that the situation of the Russian-Ukrainian conflict that erupted on February 24, 2022, causes the United States and the European Union to impose sanctions on Russia. This affects not only Russia but also the entire world in many dimensions, including Thailand, and can be divided into 3 topics as follows:

- It impacts rising prices for energy and other goods as Russia is a major global producer and exporter of oil and natural gas. The rising world energy prices affect the cost of production of goods and services in Thailand. As a result, the inflation rate in the country increases as well as the domestic demand, which is decreased in both consumption and investment, resulting in a slowdown in the overall recovery of the Thai economy.
- The economic impact on trade partner countries affects the Thai economy through 2 main channels:
 - 1) The impact on the export of goods is because since Thailand exports to the European Union at a rate of about 10 percent.
 - 2) The impact on tourism is due to airspace closures, causing European tourists' travel costs to rise. In addition, Chinese tourists are unable to leave the country due to the strict epidemic control measures (the "Zero-COVID policy") of the Chinese government. However, after Thailand accepted travel without checking documents related to COVID--19 on October 1 , 2022, the number of tourists, both Europeans and Russians, began to recover.
- The impact on financial markets due to severe sanctions initially caused the global investment climate to slide into a risk-off state. With investors reducing their exposure to risky assets, as a result, risky asset prices fell around the world before rising after investor concerns eased. However, the impact is limited, in part, due to Thailand's strong external stability due to high international reserves and low external debt.

The effects of the war resulted in higher inflation around the world, including in Thailand. According to the Thailand Consumer Price Index data from the Office of Trade Policy and Strategy (TPP), it was found that the 11-month average inflation rate (Jan.–Nov.) in 2022 increased by 6.10 percent compared to the year before. The main factor came from the energy category, which rose by 25.46 percent compared to the previous year, when the Bank of Thailand gradually increased the policy rate from 0.50 percent to 1.25 percent in 2022 in order to be in line with the recovery direction of the economy and inflation outlook.

Inflation affects global commodity prices as well as domestic agricultural products, which are the main raw materials for the company's production, such as prices of palm, sugarcane, and cassava, as well as energy such as natural gas as the main fuel.

1) Ethanol

Ethanol or ethyl alcohol is an alcohol produced from starchy and sugary plants. It can be used for a variety of purposes, such as food and alcohol production, as well as fuel. In 2007, Thailand's demand for ethanol was only 0.6 million liters per day, but this gradually increased due to the government's support policy to reduce reliance on imported crude oil from abroad. For example, when the government announced for the first time in 2011 that it would use ethanol as biofuel, it caused demand for ethanol to rise to 1.2 million liters per day. The 2013 ban on gasoline 91 increased the demand for ethanol to 2.6 million liters per day. Also, the push for gasoline E20 was conducted to be the main fuel in gasoline engines. In 2022, the demand for ethanol was about 4.0 million liters per day. Thailand is currently the world's 7th largest user and producer of ethanol, with the US, Brazil, and China the top 3 players.

As for Thailand, ethanol products are mainly produced from molasses and cassavas. Thailand's ethanol production has continued to grow due to government support measures.

The growth of the ethanol industry depends on the demand volume for domestic use only as the government has controlled and suspended ethanol exports since 2013 by the Department of Alternative Energy Development and Efficiency, Ministry of Energy, to control the amount of ethanol sufficient for domestic demand.

The amount of ethanol in 2022 was expected to recover in the short term as the effects of the COVID-19 virus outbreak on the Thai fuel sector began to reduce the level of violence and the tourism sector recovered, affecting the amount of fuel consumption to increase in the transportation and bus sectors. Furthermore, the amount of ethanol in the future is likely to increase due to the Ministry of Energy's fuel structure adjustment plan in Thailand to promote biofuels and generate income for farmers who grow energy crops such as sugarcane and cassava by requiring refineries to cancel production of gasoline 91 and pushing E20 gasoline (gasoline containing 20 percent ethanol) as basic gasoline oil. The Ministry of Energy aims to increase the amount of ethanol to 7.5 million liters per day in 2037, according to the Alternative Energy and Energy Development Plan (AEDP).

Demand Situation of Gasoline and Bioethanol Consumption in Thailand in 2022

According to the ethanol situation report of the Office of the Sugarcane and Sugar Committee, Thailand has continuously increased the amount of ethanol consumption through the use of an average rate of 3.3 million liters of ethanol per day in 2015 and 3.8 million liters per day in the 3rd quarter of 2022. Although it has been affected by the COVID-19 epidemic crisis, the main factor driving growth is the government support for ethanol use.

The factors that affect the demand for ethanol are the amount of gasoline cars and the number of motorcycles that can use ethanol instead of gasoline.

Domestic Ethanol Entrepreneurs

Thailand has 28 ethanol factories in 2022, divided into 27 production factories that are operating and 1 factory under construction, with a total production capacity of 6,905,000 liters per day. Most of the factory locations are in the central and northeastern regions. Ethanol can be divided by types of raw materials into 3 types which are 12 ethanol manufacturers from molasses and sugarcane juice, 11 ethanol manufacturers from cassavas, and 5 ethanol manufacturers from molasses and cassavas, with the following details:

No.	Entrepreneur	Province	Raw Material	Production Capacity Registered ⁽¹⁾ (liters/day)	Actual Installed Capacity (liters/day)
1	KTIS Bioethanol Company Limited	Nakhon Sawan	Molasses	230,000	230,000
2	Thai Sugar Ethanol Company Limited	Kanchanaburi	Molasses	200,000	200,000
3	Mitr Phol Biofuel Company Limited (Chaiyaphum Branch)	Chaiyaphum	Molasses	500,000	500,000
4	Mitr Phol Biofuel Company Limited (Kalasin Branch)	Kalasin	Molasses	230,000	230,000
5	Mitr Phol Biofuel Company Limited (Kuchinarai Branch)	Kalasin	Molasses	320,000	320,000
6	KI Ethanol Company Limited	Nakhon Ratchasima	Molasses	250,000	200,000
7	BBGI Bioethanol Public Company Limited	Khon Kaen	Molasses	150,000	150,000
8	Thai Roong Ruang Energy Company Limited	Saraburi	Molasses	300,000	270,000
9	Mitr Phol Biofuel Company Limited (Dan Chang Branch)	Suphan Buri	Molasses	230,000	200,000
10	BBGI Bioethanol Public Company Limited	Kanchanaburi	Molasses	300,000	300,000
11	GGC KTIS Bio Industrial Company Limited	Nakhon Sawan	Molasses	600,000	600,000
12	Maesot Clean Energy Company Limited	Tak	Sugarcane Juice	230,000	230,000
(1) Total Production Capacity of Ethanol Produced from Molasses and Sugarcane Juice				3,540,000	3,430,000
13	Rajburi Ethanol Company Limited	Ratchaburi	Cassava Chips/ Molasses	150,000	150,000
14	ES Power Company Limited	Sa Kaeo	Cassava Chips/ Molasses	150,000	150,000
15	Thai Alcohol Public Company Limited	Nakhon Pathom	Cassava Chips/ Molasses	200,000	200,000
16	Thai Agro Energy Public Company Limited	Suphan Buri	Cassava Chips/ Molasses	350,000	350,000
17	Impress Technology Company Limited	Chachoengsao	Fresh Cassavas/ Cassava Chips/ Molasses	200,000	200,000
(2) กำลังผลิตรวมของเอทานอลที่ผลิตจากกากน้ำตาลและมันสำปะหลัง				1,050,000	1,050,000
18	Sapthip Company Limited	Lopburi	Cassava Chips	200,000	200,000
19	Thai Ethanol Power Public Company Limited	Khon Kaen	Fresh Cassavas	130,000	80,000
20	Taiping Ethanol Company Limited	Sa Kaeo	Fresh Cassavas	300,000	300,000
21	P.S.C. Starch Products Public Company Limited	Chonburi	Cassava Chips	150,000	150,000
22	E85 Company Limited	Prachinburi	Fresh Cassavas/Starch Water	500,000	385,000
23	Ubon Bio Ethanol Public Company Limited	Ubon Ratchathani	Fresh Cassavas/ Cassava Chips	400,000	400,000
24	BBGI Bioethanol (Chachengsao) Company Limited	Chachoengsao	Fresh Cassavas/ Cassava Chips	150,000	150,000
25	UP Ventures Company Limited	Nakhon Ratchasima	Cassava Chips	340,000	340,000
26	Fakwantip Company Limited	Prachinburi	Fresh Cassavas	120,000	60,000
27	Pornwilai International Group Trading Company Limited	Phra Nakhon Si Ayutthaya	Cassava	25,000	25,000
(3) Total Production Capacity of Ethanol Produced from Cassavas				2,315,000	2,090,000

No.	Entrepreneur	Province	Raw Material	Production Capacity Registered ⁽¹⁾ (liters/day)	Actual Installed Capacity (liters/day)
28	UP Ventures Company Limited Phase 2,3	Nakhon Ratchasima	Cassava Chips	680,000	-
(4) Total Production Capacity Ethanol Under Construction				680,000	-
(5) = (1) + (2) + (3) Total Production Capacity of All Ethanol in Production				6,905,000	6,570,000

Remark : ⁽¹⁾ Production capacity registered with the Excise Department

Source: Department of Alternative Energy Development and Efficiency, Ministry of Energy (Data reviewed in January 2022)

Situation of Raw Materials for Ethanol Production

The main raw materials used in the production of ethanol in the industry are divided into 2 main categories which are molasses and cassava, which are raw materials that can be cultivated in Thailand. Most ethanol manufacturers are sugar manufacturers and use molasses to produce ethanol. Most countries make their ethanol from molasses, with a proportion of approximately 64.2 percent to 72.5 percent of the total amount of ethanol in the country.

In 2022, due to the conflicts between Russia and Ukraine resulting in shortage of raw materials in India and China, both the prices of sugar and cassavas have remained high. Although the amount of molasses in the country has increased to 3.6 million tons from 2.7 million tons, the price of average sugar in Thailand has increased from 3.6 baht per kilogram in 2020 to 4.8 baht per kilogram in 2021 and is 5.0 baht per kilogram in January to September 2022, which is the result of the shortage of raw materials as a whole. As for the price of fresh cassavas, although there are little fluctuations during 2019–2021, with the average fresh cassavas price in 2019 being 2.05–2.55 baht per kilogram and the average fresh cassavas price in 2021 being 2.2–2.6 baht per kilogram, but in the year 2022, the price is higher due to the shortage of raw materials in China, making the average fresh cassavas price up to 3.2 baht per kilogram.

Ethanol Prices

As for the ethanol reference price, it is set by the government according to the resolution of the Energy Policy Committee meeting. The price is announced on the 1st day of the month based on a comparison of the lowest actual trading price between the prices that ethanol producers reported to the Excise Department and the price that oil traders under Section 7 reported to the EPP0. The determination of the selling price of ethanol by producers is determined by the cost plus margin method based on the cost structure (especially raw material prices from molasses and cassavas) plus marketing margin. However, in Q3, 2022, the average Thai ethanol reference price was 28.0 baht per liter, an increase of 5.3 percent compared to the ethanol reference price in Q2, 2022, due to a price increase in line with the cost of raw materials used in production, namely molasses and cassavas, which have continued to rise with domestic ethanol stocks having decreased significantly since the beginning of the year.

Government Policy and Support

The main factor that affects the amount of ethanol consumption in the country is government policy and support. Currently, the government aims to push ethanol as the key alternative energy in the country, with the following main policies:

1) Compensation From the Fuel Fund

The National Energy Policy Council has established the Fuel Oil Fund to mitigate the effects of global fuel price volatility with the Fuel Fund to maintain retail fuel prices at a certain level by using the money of the Oil Fund to pay compensation and, when the price of oil declines, collect the compensation back. This can reduce the impact on the economy and save people from paying exorbitant oil prices.

According to Section 55 of the Oil Fund Act, B.E. 2562, the Office of the Oil Fund (NBA) shall pay compensation to fuel containing biofuels for a period of 3 years from 2019 to 2022, which the period can be extended not more than 2 times, each time for no more than 2 years. In addition, according to the oil crisis support plan and the oil fund strategic plan approved by the cabinet on October 20, 2020, it is found that one of the indicators (KPIs) of the oil fund is no compensation for E20 and E85 oils within 3 years. However, at present, the NIA has determined the direction of the fuel fund management in 2022 based on the situation of the spread of the COVID-19 virus and the opinion of the Office of the National Economic and Social Development Board (NESDB), which takes into account the impact on farmers if compensation reductions occur. Therefore, NIA consulted with the Thai Biodiesel Producers Association and the Thai Ethanol Producers Trade Association, as well as relevant government agencies, to prepare a plan to extend compensation in accordance with various situations. At present, the aforementioned guidelines are still under consideration by the NLA and related agencies.

2) Alternative Energy Development Plan (AEDP) for 2018 – 2037

The Ministry of Energy has a renewable and alternative energy development plan (AEDP) to guide the growth of renewable and alternative energy in the future. The main goal of this policy is to increase domestic ethanol production and consumption. In 2020, Thailand consumes 4.0 million liters of ethanol per day. The Ministry of Energy's goal is to increase ethanol consumption to 7.5 million liters per day by 2037, with the following details:

Year	Gasoline Consumption Volume (Million liters per day)	Ethanol Consumption Volume (Million liters per day)	Base Gasoline Consumption Volume (million liters per day)
2021	33.63	5.44	28.19
2022	33.60	5.38	28.22
2023	33.97	5.85	28.12
2024	34.69	6.25	28.44
2025	35.08	6.45	28.63
2026	35.47	6.59	28.88

Year	Gasoline Consumption Volume (Million liters per day)	Ethanol Consumption Volume (Million liters per day)	Base Gasoline Consumption Volume (million liters per day)
2027	35.85	6.69	29.16
2028	36.24	6.80	29.44
2029	36.63	6.88	29.76
2030	37.03	6.95	30.07
2031	37.42	7.03	30.39
2032	37.82	7.11	30.71
2033	38.21	7.18	31.03
2034	38.61	7.26	31.35
2035	39.01	7.34	31.67
2036	39.42	7.42	32.00
2037	39.83	7.50	32.33

Source: Ministry of Energy

The Ministry of Energy has a guideline for operations with the goal of increasing domestic production of both cassavas and molasses. The current plan is to increase sugarcane production from about 78.7 million tons in the 2020/2021 crop year to 182 million trees by 2026 and cassava production from about 29.9 million tons in the 2020/2021 crop year to 59.5 million tons by 2026. It includes the promotion of gasoline E20 as a replacement for the primary fuel, which will increase the use of ethanol.

2. Biodiesel

The situation of crude palm oil (CPO) world prices that remain high in the first half of 2022 due to the impact of the COVID-19 epidemic, coupled with the conflict between Russia and Ukraine, is being felt by the Malaysian and Thai markets in June 2022, where prices have averaged at 46.24 and 51.58 baht per kilogram, respectively. Although the global crude oil price has increased significantly, with the price of crude palm oil (CPO) still at a high level, the price of biodiesel (B100) is still higher than the price of diesel oil (B0). On January 31, 2022, the Energy Policy Management Committee (CPA) approved guidelines for biodiesel blending ratio (B100) under normal and critical fuel price situations as follows:

- Under normal circumstances, short-term and long-term guidelines have been established. The short-term one (2022 to 2023) requires 2 grades of high-speed diesel fuel, namely B7 high-speed diesel and B20 high-speed diesel. And the long-term one (2024 onwards) requires only a single grade of B7 high-speed diesel.
- Crisis circumstances occur when the retail price of high-speed diesel fuel is higher than 30 baht per liter without compensation from the fuel fund. It is divided into 2 cases. If the price of biodiesel is higher than 1.5 or 2.5 times of the price at the refinery of base diesel (B0), it is proposed that the CPB consider reducing the blending ratio of biodiesel in high-speed diesel to 5 percent or 3 percent, respectively.

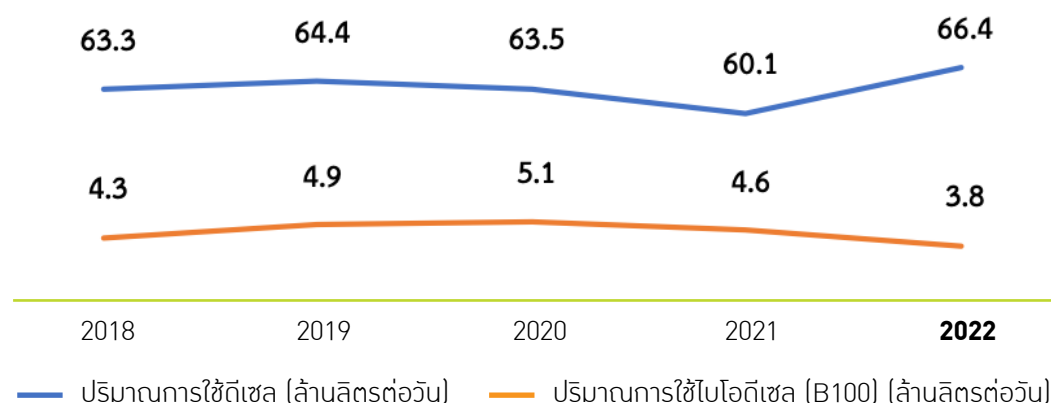
The CPB has announced a reduction in mixture from B7 to B5 starting from February 5, 2022, and has fixed the price of diesel fuel at 30 baht per liter in April 2022 and has moved the price fixation to 32 baht and 35 baht per liter during May 2022 and June 2022, as well as requesting cooperation from oil traders to maintain the diesel fuel marketing margin not exceeding 1.40 baht per liter to help reduce the impact on the public sector and the transportation sector.

At the end of the 3/2022 quarter, the crude palm oil stock situation in Malaysia began to return to normal, resulting in the global crude palm oil price dropping from 50 baht per kilogram to only 30 baht per kilogram. The CAF has, therefore, announced the adjustment of the mixture from B5 to B7 starting from October 10, 2022, onwards.

Demand Situation of Diesel and Biodiesel Consumption in Thailand in 2022

On October 1, 2022, the Ministry of Public Health issued an announcement to reduce the level of COVID-19 from being a dangerous communicable disease to a vigilant communicable disease. As a result of the mitigating COVID-19 epidemic, the demand for diesel in Thailand has increased, with the years 2020, 2021, and 2022 having total diesel consumption of 63.5, 60.1, and 66.5 million liters per day, respectively. This shows the trend of economic recovery in the country, but on the other hand, the amount of biodiesel consumption has declined, with the years 2020, 2021, and 2022 having the total use of 5.1, 4.6, and 3.6 million liters per day, respectively.

Although diesel consumption in 2022 increased by 11 percent from the previous year, due to government measures by the Department of Energy Business (DOEB), the blending ratio was reduced from B7 to only B5 on February 5, 2022. As a result, the amount of biodiesel (B100) consumption in 2022 will decrease by 22 percent from the previous year.



Remark

1. It requires diesel B10 to be diesel fuel instead of diesel B7 from October 1, 2020.
2. Biodiesel mixture is reduced from B7 to B5 from February 5, 2022.
3. Biodiesel mixture is increased from B5 to B7 from October 10, 2022.

Source: Department of Energy Business, Ministry of Energy (Data reviewed on January 31, 2023)

Domestic Biodiesel Entrepreneurs

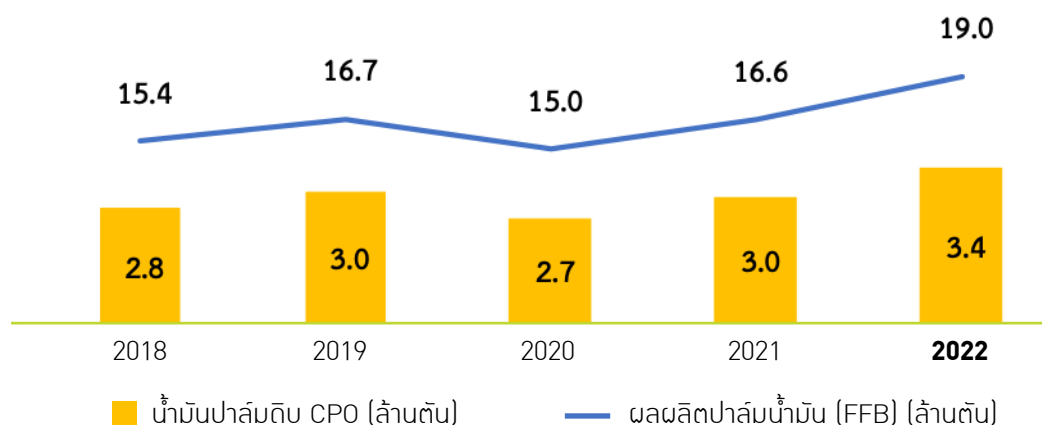
Currently, there are 15 biodiesel producers in Thailand that have been endorsed to sell or to have biodiesel in stock for sale by the Department of Energy Business. They have a total installed capacity of 10.3 million liters per day. BBGI Biodiesel Company Limited is ranked No. 4 with a production capacity of 1.0 million liters per day.

No.	Company	Biodiesel Production Capacity (liters/day)	Factory Location Province
1	Global Green Chemicals Public Company Limited	1,927,962	Rayong
2	Pathum Vegetable Oil Company Limited	1,800,000	Pathum Thani
3	New Biodiesel Company Limited	1,300,000	Surat Thani
4	BBGI Biodiesel Company Limited	1,000,000	Phra Nakhon Si Ayutthaya
5	AI Energy Public Company Limited	722,222	Samut Sakhon
6	Energy Absolute Public Company Limited	650,000	Prachinburi
7	PPP Green Complex Company Limited	630,000	Prachuap Khiri Khan
8	Circula Energy Company Limited	600,000	Pathum Thani
9	Suksomboon Energy Company Limited	450,000	Chonburi
10	Global Bio Power Company Limited	300,000	Rayong
11	Thanachok Oil Light Company Limited	300,000	Samut Sakhon
12	Matter Oil Synergy Company Limited	200,000	Chumphon
13	Weerasuwan Company Limited	200,000	Samut Sakhon
14	Trang Palm Oil Company Limited	150,000	Trang
15	Bio Synergy Company Limited	30,000	Nakhon Ratchasima
Total		10,260,184	

Source: Department of Energy Business, Ministry of Energy (Data reviewed on January 4, 2023)

Raw Materials for Biodiesel Production

The situation of crude palm oil (CPO) in Thailand is based on the rainfall in the south, east coast, and west coast of Thailand in 2022 that increased by 39 and 21 percent, respectively (data from the Meteorological Development Division reported on January 4, 2022: compared to the value average for the past 30 years) resulting in a 14 percent increase in the average monthly output of oil palm. The output in 2022 will be higher than 5 years ago with the situation of high world crude palm oil prices due to problems in harvesting palm oil products and exports from Malaysia and Indonesia resulting in Thailand having competitiveness and able to increase exports. In 2022, crude palm oil was exported at a rate of 0.95 million tons (Jan.–Nov. 22) , compared to 0.62 million tons in the previous year, an increase of 53 percent.



Source: Department of Internal Trade (DIT) (Data reviewed on January 31, 2023)

Raw Material Prices for Biodiesel Production

From the impact of war together with COVID-19, it resulted in the average prices of palm bunch and crude palm oil (CPO) in 2022 increasing from the previous year from 6.23 baht per kilogram to 7.84 baht per kilogram, representing 26 percent, and from 35.40 baht per kilogram to 43.62 baht per kilogram, representing 23 percent, respectively. However, comparing the price of crude palm oil between the beginning of the year and the end of 2022, it reveals that the price has dropped from 49.50 baht per kilogram to only 32.50 baht per kilogram, a 34 percent decrease, resulting in a loss from the product which has a negative impact on the industry.

Detail	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022
Palm bunch (18% oil) (baht/kg)	4.62	3.45	2.95	4.78	6.23	7.84
Crude palm oil grade A (CPO) (baht/kg)	24.88	19.57	17.80	28.10	35.40	43.62
Biodiesel reference price (baht/liters)	28.80	24.05	21.65	31.78	38.96	46.49

Source: Department of Internal Trade, Energy Policy and Planning Office, Ministry of Energy (Data reviewed on January 6, 2023)

Government Policy Affecting Business

On June 15, 2020, the Energy Policy Executive Committee (PAP) approved the Energy Policy and Planning Office (EPP0) to study and evaluate the promotion of biofuel use in the transport sector and review the criteria for calculating fuel prices for biodiesel.

The criteria improvement for calculating the price of biodiesel is divided into 2 phases as follows:

- Phase 1: biodiesel price calculation criteria based on production cost (revised cost plus) is taking into account the main raw materials for the production of biodiesel, which are 2 types: crude palm oil and stearin, different from the previous biodiesel price calculation criteria that is based on 3 types of raw materials: crude palm oil, refined bleached deodorized palm oil, and stearin.

- Phase 2 biodiesel price calculation criteria are based on new production costs (added cost plus). It is the calculation of biodiesel prices using raw material prices in Thailand and raw material prices in Malaysia, which is a major producer and exporter of palm oil so that biodiesel producers are adjusted themselves and able to compete to increase efficiency while lowering costs by proposing to use the fuel fund after the fuel fund's extension period expires in 2026.

On September 7, 2022, the resolution of the Energy Policy Administration Committee Meeting No.13/2022 (the 51st meeting) approved the criteria for calculating the biodiesel reference price in phase 1 using the criteria for calculating biodiesel prices based on production costs (revised cost plus), effective from October 3, 2022, onwards.

On October 20, 2022, the Cabinet approved the renewable and alternative energy development plan for 2018–2037, or the AEDP 2018 plan, to support the growth of renewable energy businesses with a target for the ratio of renewable energy to final energy consumption of at least 30% in 2037.

High-value bio-based products related to health and well-being (“Health-promoting high-value bio-based product business”) are both commercial and industrial products with components derived wholly or in part from plants, renewable agricultural materials, natural organic compounds from water sources, and forestry materials which are alternative to traditional components derived from oil- or fossil. The bio-based products within the business scope of the Company Group are classified into 2 categories:

1. (1) Biofuel or ethanol and biodiesel, which are the original core business of the Company Group
2. (2) Health-promoting high-value bio-based products, which are the future business of the Company Group. They are divided into bio-nutrition ingredients in dietary supplements, bio-cosmetic ingredients, bio-based pharmaceutical ingredients, and biomaterials/ bio-active ingredients.

High-value bio-based products are an extension of conventional biofuels. By applying advanced technology, the value is significantly higher than traditional biofuels. Therefore, the expansion of the Company Group's business into health-promoting high-value bio-based products is expected to increase the revenue and profitability of the Company Group.

In this regard, the advanced technology that the Company Group studies and jointly develops is synthetic biology technology, or an advanced technology that combines science, technology, and engineering knowledge to design, modify, or modify molecules and genetic material in living things such as microorganisms, plants, and animals to have new characteristics and properties as desired.

Technology Level	Basic Technology	Intermediate Technology	Advanced Technology
Technology Name	Mutagenesis	Genetic Engineering	Synthetic Biology
Important Characteristics	Use of chemicals or radiation to cause a mutation in an organism that changes the genetic structure of that organism	Recombining or transposing genes of one organism into genes of another organism	Designing and modifying molecules and genetic materials in living organisms to have new characteristics and properties as desired
Example	<ul style="list-style-type: none"> • Chemical Mutagenesis • Radiation Mutagenesis 	<ul style="list-style-type: none"> • Recombinant DNA • Simple Trans-genesis 	<ul style="list-style-type: none"> • Xeno Nucleic Acids • Genome Replacement

Source: National Human Genome Research Institute and ScienceDirect

The Company Group is committed to the application of synthetic biology technology in 2 types of health-promoting high-value bio-product business (the bio-ingredient business in dietary supplements and the bio-ingredient business in cosmetics). The Company Group believes that synthetic biology technology will help the Company Group grow sustainably and increase competitiveness because it is a technology of the future that will change business operations in various industries significantly.

In addition, at present, the Company Group has plans to grow in the complete business of health-promoting high-value bio-based products, including upstream, midstream, and downstream businesses as follows:

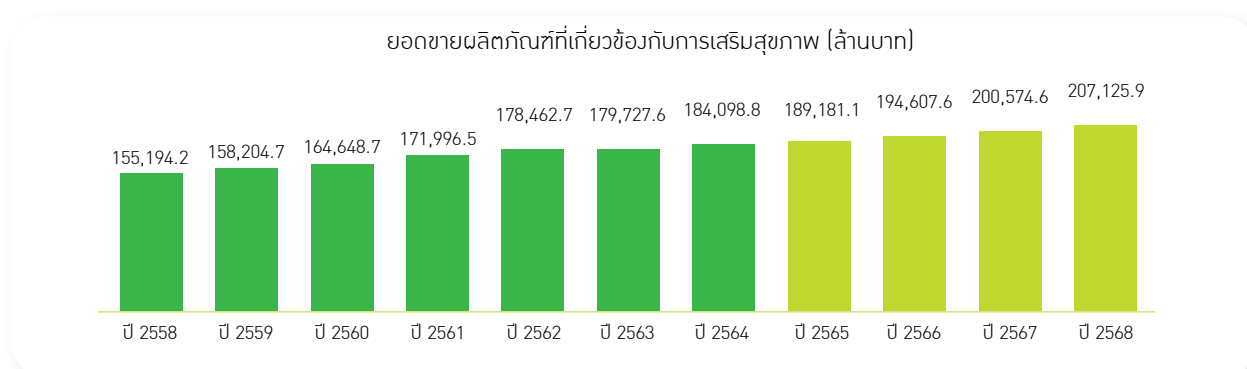


(1) Upstream Business or Research & Development: In the past, the Company Group has invested in startups with knowledge and skills in advanced biotechnology, both in Thailand and abroad, such as Manus and BIOM. “It is worth talking about investing in biomes because it is something we have done this year,” to empower the Company Group’s knowledge and capabilities in new technologies as well as apply the information, knowledge, and experience gained from the joint ventures to health-promoting high-value bio-based products.

- (2) **Midstream Business** or Manufacturing Business is using research and development of the upstream business to develop products. Therefore, in order to be able to operate continuously from upstream to downstream businesses, the Company Group aims to develop a factory to produce and distribute health-promoting high-value bio-products (the contract development and manufacturing organization or CDMO), which can provide various advanced bio-based products by creating a centralized biorefinery complex that is ready to support current and future businesses for further development and shared public utilities.
- (3) **Downstream Business** includes the production and distribution of health-promoting high-value bio-based products and the import and commercialization of such products such as sweetener products, astaxanthin extracts, organic vegetable cleaners, etc. In this regard, the Company Group will continually develop and add products for the downstream business.

Business Overview of Products Related to Health Promotion and Dietary Supplements

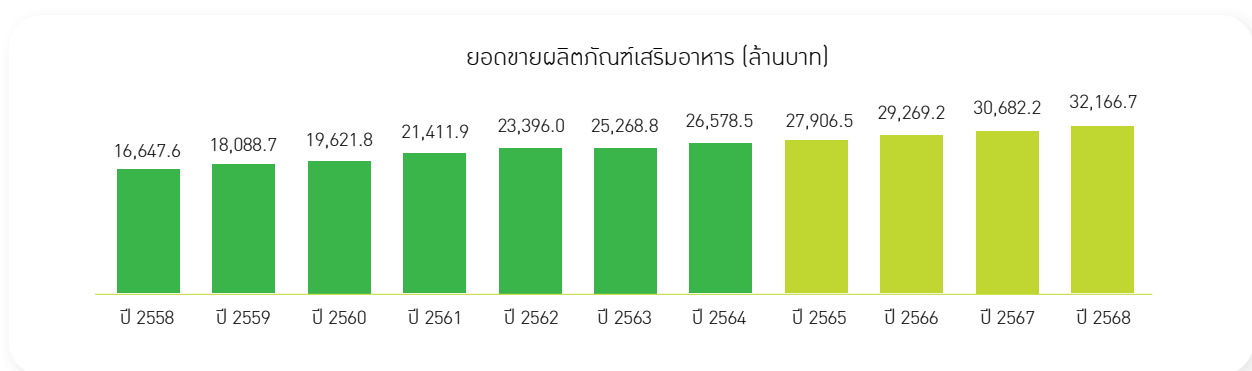
Nowadays, consumers in Thailand are health-conscious and prefer to consume health-related products to strengthen their bodies and increase immunity, especially after the spread of the COVID-19 virus. Therefore, the industry of health-related products has a great opportunity to grow more in the future. According to a study by the Euromonitor International, it was found that from 2015 until 2020, Thailand had sales of health-related products of 155,194.2 million baht and grew to 179,727.6 million baht, respectively. It was an increase of 24,533.4 million baht, representing a compound average growth rate (CAGR) of 3.0 percent per year. In addition, the International Euromonitor also expected that this market would continue to grow in 2022–2025 from health-related product sales of 189,181.1 million baht to 207,125.9 million baht, respectively, representing a CAGR of 2.9 percent per year.



Source: Euromonitor International



As for dietary supplements, Thailand is a market worth watching as it is growing steadily every year. It was found that, in the past from 2015 until 2020, Thailand had dietary supplement sales in the amount of 16,647.6 million baht and grew to 25,268.8 million baht, respectively. It increased by 8,621.2 million baht, representing a compound average growth rate (CAGR) of 8.7 percent per year. This is a remarkable increase that outperforms the overall growth of the health-related product group. In addition, the Euromonitor International also expected that the dietary supplement market in Thailand had the potential to grow continuously in 2022–2025 from the dietary supplement sales in the amounts of 27,906.5 million baht to 32,166.7 million baht, respectively, representing a compound average growth rate (CAGR) of 4.9 percent per year.

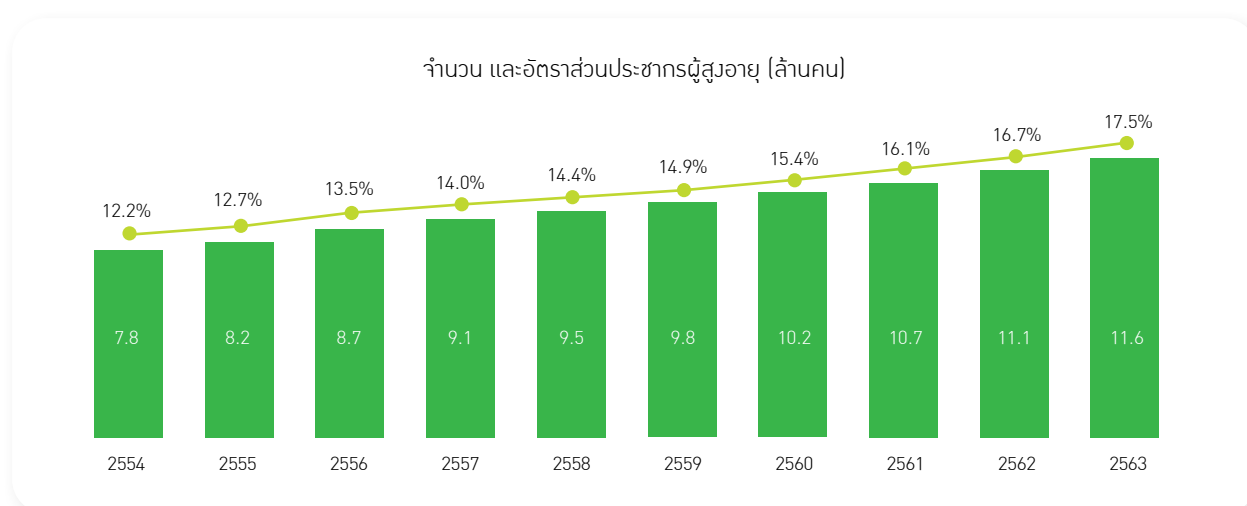


Source: Euromonitor International

The main factors that will increase the demand for dietary supplements in Thailand in the future are as follows:

(1) Stepping Into an Aging Society

According to the National Statistical Office, Thailand has an elderly population (people over the age of 60) that is constantly growing. From the original estimate in 2011, Thailand had an elderly population of 7.8 million people, accounting for 12.2 percent of the total population. The following year, in 2020, the elderly population in Thailand increased to 11.6 million, representing 17.6 percent of the total population in 2016. This steady increase from 2011 to 2020 represents a compounded average growth rate (CAGR) of 4.5 percent per year. The fact that Thailand has an elderly population of more than 10.0 percent of the total population in the country reflects that Thailand is entering an aging society fully and is likely to become a completely aged society soon.



Source: Department of Older Persons

The elderly (older persons) is defined by the United Nations (UN) as follows:

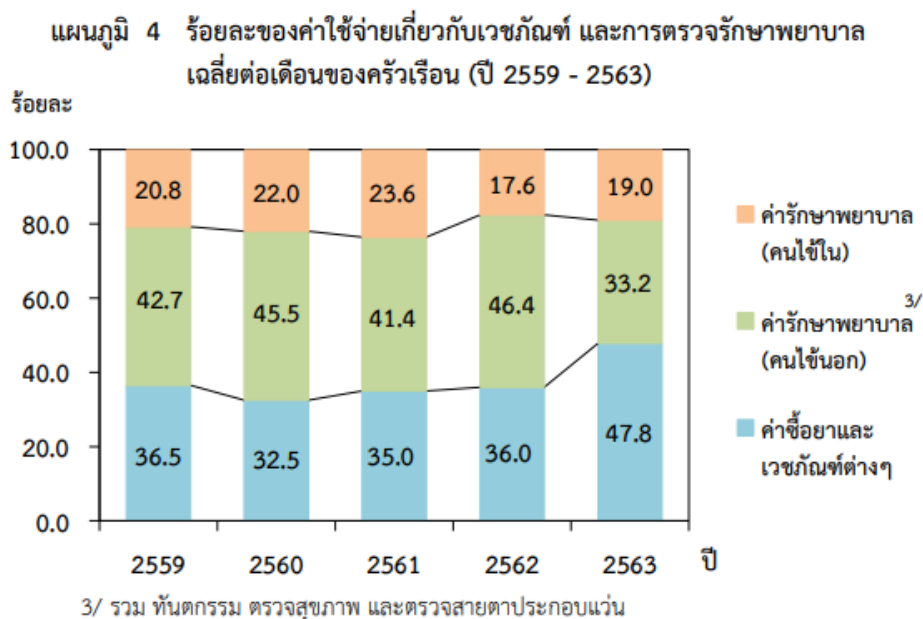
- **The level of stepping into an aging society** refers to a society or a country with a population aged over 60 years more than 10 percent of the total population, or a population aged over 65 years more than 7 percent of the total population.
- **A completely aged society** refers to a society or a country with a population aged over 60 years more than 20 percent of the total population, or a population aged over 65 years more than 14 percent of the total population.
- **A super-aged society** refers to a society or a country with a population aged over 65 years more than 20 percent of the total population.

The rapid increase in the aging population and the rapid transition into an aging society have resulted in a number of the elderly population being unable to access essential health services as they should because the number of places to provide services, such as hospitals or health centers, is insufficient. As a result, the elderly and middle-aged groups become more aware of and interested in health care approaches as well as dietary supplements. This can be seen in the current dietary supplement market, which has begun to sell a variety of products for the elderly to meet their needs.

(2) Growth of Health Consciousness

People's lifestyles in the modern era tend to emphasize and pay more attention to health, owing to both the ever-increasing trend of health consciousness and many countries, including Thailand, having suffered negative consequences from the COVID-19 outbreak. This results in increased awakening, prevention awareness, and health strengthening. The "health conscious" trend is, therefore, considered a trend in body care that is very popular both among consumers around the world and in Thailand. The aforementioned health-loving trend has been known for a long time and has been developed along with a variety of health care products to meet the needs and solve the problems of consumers. Popular health trends take many forms, including the consumption of healthy food, exercises, and the consumption of dietary supplements

The dietary supplement market is considered to be an eye-catching market and is growing steadily every year. According to Euromonitor International 's dietary supplement sales figures, the previous graph showed that Thailand's sales of dietary supplements in 2020 amounted to 25,268.8 million baht, a significant growth from 2015, when sales of dietary supplements were 16,647.6 million baht, representing a compound average growth rate (CAGR) of 8.7 percent per year, or an increase of 1.52 times in just 5 years. In addition, there is a tendency to continue growing in the future, and when studying the proportion of expenses related to medical supplies and medical examinations on average per month in each household from 2016 until 2020, it was found that Thai households had a proportion of expenses related to medicines and medical supplies that would increase from 36.5 percent in 2016 to 47.8 percent in 2020. The products in this category consist of: 1) modern medicines; 2) vitamins, tonics, and supplements; 3) herbal medicines; 4) birth control pills and condoms; and 5) medical supplies and first aid equipment. Therefore, it can be seen that the demand for dietary supplements tends to increase every year, both from the increasing income factor and the increasing demand for consumption. As consumers begin to have a better understanding of dietary supplements, this market tends to continue to grow in the future.



Source: National Statistical Office

With the demand for dietary supplements being driven by an aging society, this is a positive factor that will result in the market for dietary supplements growing significantly in the future.

Business Overview of Synthetic Biology Technology or “SynBio”

The increase in the world’s population tends to increase continuously, as can be seen from the statistics of the world’s population, which in 1987 was 4,456.0 million people and has increased to 7,794.8 million people in 2020, representing a percentage growth rate of 1.4 percent per year. Over the past 40 years, this rapid increase has caused a number of problems. One of the biggest and most notable problems is the shortage of food and the limited resources resulting from the lack of arable land, agricultural land, and livestock. This makes it impossible to produce food to meet the rapidly growing demand of the population.



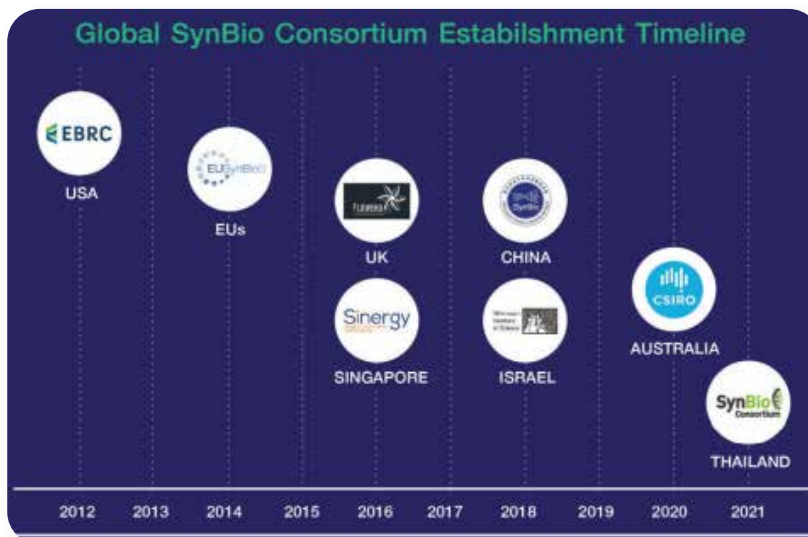
Source: United Nations, Department of Economic and Social Affairs, Population Division

Together with problems in the manufacturing industry, it was found that to produce certain things or products, it requires a large amount of agricultural land for cultivation and industry but produces only a small amount of product and takes a long production time to get the right amount and quality. As a result, the number of raw materials is insufficient to meet the demand at the industrial level. This makes the products expensive and not cost effective to produce even though such products are beneficial to life, causing many negative effects on society in terms of utilities. Therefore, with such problems, research on the Synthetic Biology technology (the “SynBio”) has been initiated to solve problems of resource shortage and problems in the manufacturing sector. I am confident that SynBio will be able to transform industrial processes and drive society towards a more sustainable future.

SynBio is a state-of-the-art technology that uses a methodology to design and build biological systems and biological components from common agricultural raw materials coming through the biological engineering process until it can be developed into various desired biological products. The SynBio innovation is considered a new innovation that will change the world in the future from the production process of food, utensils, and medicines to be able to produce efficiently and sufficiently for the consumption needs of the world’s population. From the research of Markets and Markets (market researcher), it predicts the growth of the global market in the Synthetic Biology industry that it will

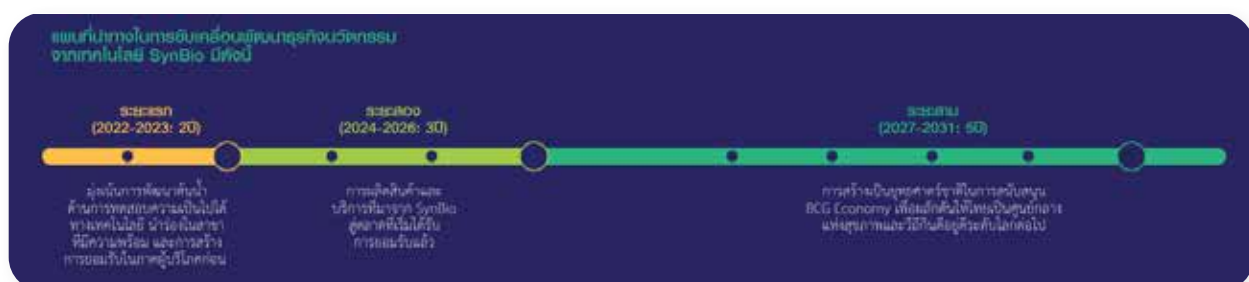
grow significantly in the future from a market value of 9.5 billion USD or about 316.7 billion baht in 2021 increasing to 30.7 billion USD or about 1,023.5 billion baht in 2026, representing a growth rate of 26.4 percent per year.

At present, several companies around the world have developed and distributed consumer goods with the SynBio innovation applied. Many manufacturers in foreign countries want to expand their production capacity and search for manufacturers in other regions to strengthen their potential and to be their additional production bases so they can help design products with the SynBio innovation to be able to release them into more markets. Synthetic Biology technology is starting to be known and the governments including companies around the world become interested in it with extreme support. Network alliances are established to jointly operate between the public and private sectors in each country for further research and development. The order of network alliances establishment in each country can be seen as follows:



Source: National Innovation Agency (Public Organization), Ministry of Higher Education, Science, Research and Innovation

Meanwhile, Thailand's government agencies have recognized the importance of SynBio innovation and seen the potential for growth in the market. Therefore, they establish the "National Innovation Agency (Public Organization), Ministry of Higher Education, Science, Research and Innovation" to help drive the development and the business from SynBio innovation in Thailand by conducting a roadmap to drive and development innovative business from SynBio technology, which can be divided into 3 phases:



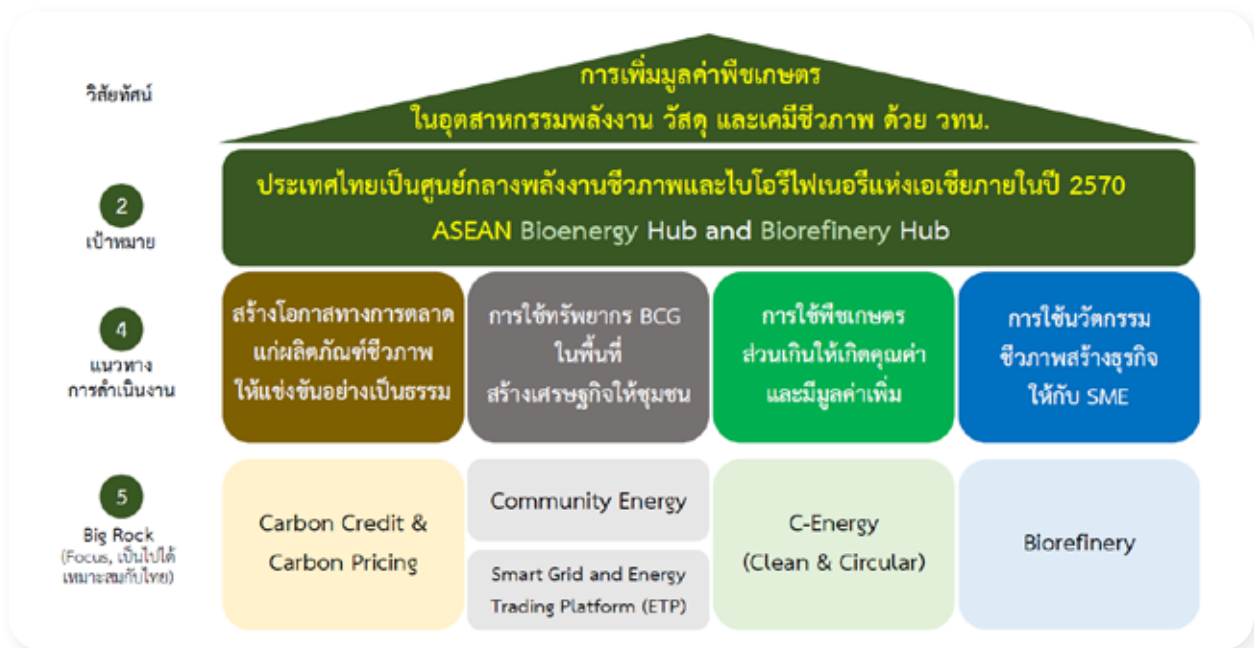
- 1) The first phase: It is implemented during 2022 - 2023 (2 years in total). The objectives of this phase are focusing on the upstream development of pilot technology feasibility testing in areas that are ready and the creation of acceptance in the consumer sector.
- 2) The second phase: It is implemented during 2024 - 2026 (3 years in total). The objective of the second phase is to bring products and services based on SynBio innovation to markets that are beginning to be accepted.
- 3) The third phase: It is implemented during 2027 - 2031 (5 years in total). The objective of the third phase is to create a national strategy to support the BCG Economy in order to continually drive Thailand to be the center of health and well-being lifestyle of the world.

Government Policy and Support

The business expansion of the Company Group in the health-promoting high-value bio-based product business is in line with the government's new economic model or the Bio-Circular-Green Economy ("BCG") which is the concept to apply science, technology, and innovation to uplift the sustainable competitiveness of the industry in Thailand. The BCG model will help to drive the 3 main economic areas of Thailand simultaneously as follows:

- 1) **Bio Economy** is the application of knowledge, technology, and innovation to further develop from the original strength which is biological resources or agricultural products in order to add value to products, such as developing plants to have new characteristics and features as desired, etc.
- 2) **Circular Economy** is the use of resources in the most efficient and cost-effective manner by focusing on Zero Waste or reducing the amount of waste to less or equal to zero through the production process adjustment such as turning waste from production into products, etc.
- 3) **Green Economy** is a focus on sustainably reducing the impact on the planet, especially environmental sustainability, such as using microbial enzymes to increase the efficiency of ethanol fermentation from molasses and using biological products to clean residual chemicals in fruits and vegetables.

The government intends to transform Thailand's comparative advantage with cultural and biological diversity into a competitiveness through innovation so that the economy can grow and compete globally, including distributing opportunities, income, and civilization to the people of the country thoroughly under the condition of conserving the environment and resources seriously. This requires science, technology, and innovation to uplift the productivity of most manufacturers at the base of the pyramid with the application of simple technology and management innovation leading to decreasing cost, increasing productivity, and building diversity of products. Meanwhile, it must support Innovation Driven Enterprises who are ready at the top of the pyramid to produce high-value products using advanced technology. This aims to eventually become a country that creates technology and innovation, reduce dependence on foreign technology, and increase the opportunity to be a technology exporter.



Source: National Science and Technology Development Agency (NSTDA)

The government designs a guideline to drive Thailand's development with the BCG economic model for 2021 - 2027 to create economic added value linked to uplifting the grassroots economy. It also outlines a guideline for key operations under an action plan that covers 4 strategic areas:

- 1) Create marketing opportunities for biological products to compete fairly and build confidence in biological products by pushing for improvements, amendments, and additions to laws, rules, and regulations that are obstacles and/or that should be added to unlock the competition.
- 2) Use the local resources of BCG to build an economy for the community by developing sustainable community-level energy investment models by reducing dependency on government budgets as well as managing the production chain and electricity consumption by facilitating to effectively connect to other systems in order to support the country's bio-based economy.
- 3) Use surplus agricultural crops to create and add values to further develop agricultural products and biofuels into a variety of high-value products. Push and encourage the energy use for replacement and recycling waste or reusing leftover materials, leading to the creation of stability and sustainability of the bio-based industry.
- 4) Use bio-innovation to create business for SMEs. It is an extension of the development of biomaterials and biochemistry, especially from agricultural materials, by leveraging the public sectors' infrastructure to create opportunities in chemistry, biomaterials, creating added value, and building business for SMEs.



Based on the government's new economic development plan through the guideline to drive Thailand's development with the BCG economic model, it is found that the Company Group's health-promoting high-value bio-products business plan is consistent with 4 strategies of the guideline to drive Thailand's development with the BCG economic model which are Bioeconomy, Circular Economy, and Green Economy. It is, also, a part of the energy and biochemical industries that the government wants to support to industrialize and process agricultural crops to be products with high added value such as sweeteners, flavoring agents, bioactive substances, pure alcohol, bioplastic, dietary supplements for health, etc.

Tax Privileges and Benefits

Ethanol and biodiesel production factories of the Company's subsidiaries receive investment promotion from the Board of Investment (BOI). Details of important tax privileges and benefits that each company currently receives are as follows:

Details	BBGI-NP/BP			BBGI-PS
	Nam Phong 1 Factory	Nam Phong 2 Factory		
	2nd Time	1st Time	2nd Time	
Investment Promotion Certificate No.	2364(1)/2554	62-0682-1-00-1-0	62-1295-1-00-1-0	59-1116-0-00-2-2 ⁽¹⁾
Products and Capacity	<ul style="list-style-type: none">• Biogas production• Production capacity of 9.51 million cu.m. per year	<ul style="list-style-type: none">• Ethanol production of 99.5%• Production capacity of 66.0 million liters per year	<ul style="list-style-type: none">• Biogas production• Production capacity of 20.85 million cu.m. per year	<ul style="list-style-type: none">• Ethanol production of 99.5%• Production capacity of 54.75 million liters per year
1. Exemption of corporate income tax for the net profit received from business operations for a period of 8 years from the date starting earnings (end period)	✓ (Expired)	✓ ⁽²⁾	✓ ⁽²⁾	✓ (Dec. 25, 2022)
2. Deduction of corporate income tax by 50 percent of the normal rate for a period of 5 years after the maturity of 8 years exempted (end period)	✓ (Feb. 27, 2026)	x	x	x
3. Exemption of bringing dividends from promoted business with exempted corporate income tax under Section 31 to include in the calculation for income tax payment throughout the period of promotion	✓	✓ ⁽²⁾	✓ ⁽²⁾	x
4. Exemption of import duty on machines	✓	✓	✓	✓

Details	BBGI-NP/BP			BBGI-PS	
	Nam Phong 1 Factory	Nam Phong 2 Factory			
	2nd Time	1st Time	2nd Time		
5. Permission to deduct double of transportation, electricity, and plumbing costs for a period of 10 years from the date starting earnings (end period)	✓ (Feb. 27, 2023)	x	x	x	
6. Permission to deduct 25 percent of utility construction or installation investments from net profit, other than regular recapture of depreciation	✓	x	x	x	
7. Exemption of import duty on raw materials and materials that need to be imported from abroad to use in export production for a period of 1 year from the date of first import	x	x	x	x	
8. Exemption of import duty on items that are imported for re-export for a period of 1 year from the date of first import	x	x	x	x	
รายละเอียด	BBGI-BI			BUP	
	BBGI-BI 1	BBGI-BI 2	Factory of Pure Glycerine	Biogas Factory	Manufacturing Plant of Electricity and Steam
Investment Promotion Certificate No.	1485(9)/2551	1150(1)/2558	62-0306-1-00-1-0	63-0507-1-00-1-0	64-0387-1-00-1-0
Products and Production Capacity	<ul style="list-style-type: none">• Biodiesel production• Production capacity of 145.0 million liters per year	<ul style="list-style-type: none">• Biodiesel production• Production capacity of 172.0 million liters per year• Production of refined, bleached, and deodorized palm oil• Production capacity of 62.1 million liters per year	<ul style="list-style-type: none">• Production of purified glycerine (not less than 99.5%)• Production capacity of 28,050 tons per year	<ul style="list-style-type: none">• Biogas production• Production capacity of 27.72 million cu.m. per year	<ul style="list-style-type: none">• Electricity generation from biogas• Electricity generation capacity of 3 megawatt• Steam generation from biogas• Steam generation capacity of 20 tons/hour



รายละเอียด	BBGI-BI			BUP	
	BBGI-BI 1	BBGI-BI 2	Factory of Pure Glycerine	Biogas Factory	Manufacturing Plant of Electricity and Steam
1. Exemption of corporate income tax for the net profit received from business operations for a period of 8 years from the date starting earnings (end period)	✓ (Expired)	✓ ⁽³⁾ (Jul. 19, 2024)	✓ (Dec. 4, 2028)	✓ ⁽²⁾	✓ ⁽²⁾
2. Deduction of corporate income tax by 50 percent of the normal rate for a period of 5 years after the maturity of 8 years exempted (end period)	x	✓ (Jul. 19, 2029)	x	x	x
3. Exemption of bringing dividends from promoted business with exempted corporate income tax under Section 31 to include in the calculation for income tax payment throughout the period of promotion	✓ (Expired)	✓	✓	✓ ⁽²⁾	x ⁽²⁾
4. Exemption of import duty on machines	✓	✓	✓	✓	✓
5. Permission to deduct double of transportation, electricity, and plumbing costs for a period of 10 years from the date starting earnings (end period)	x	✓	x	x	x
6. Permission to deduct 25 percent of utility construction or installation investments from net profit, other than regular recapture of depreciation	x	✓	x	x	x
7. Exemption of import duty on raw materials and materials that need to be imported from abroad to use in export production for a period of 1 year from the date of first import	✓	x	x	x	x
8. Exemption of import duty on items that are imported for re-export for a period of 1 year from the date of first import	✓	x	x	x	x

Remark:

⁽¹⁾ BBGI-PS has been transferred the remaining rights and benefits according to the investment promotion certificate no. 1373(9)/2550 dated on April 11, 2007, from Sima on August 30, 2016

⁽²⁾ Not yet operated.

⁽³⁾ For operating the biodiesel and refined, bleached, and deodorized palm oil production to get exempted on corporate income tax with a value not exceeding 171.4 million baht, this will be adjusted according to the amount of investments, excluding the cost of land and actual working capital on the opening date.

Social and Environmental Disputes

- None -

Research and Development

The Company Group sees an opportunity to expand its business and forecasts the future growth trend of the bio-based product business. The Company Group, therefore, places importance on research, study, and development of technology related to the bio-based products business. It, also, searches for cooperation from leading research institutes and technology developers in Thailand and abroad with potential and goals that are in line with the business guidelines of the Company Group. The Company Group has a policy to jointly research and develop innovations that can be further commercialized efficiently.

1) Research and Development on Oleochemical Products

Oleochemical products are processed products that involve changing the basic chemical composition of oils and fats, such as soaps, detergents, toothpaste, pharmaceuticals, lubricants, biodiesel, etc. BBGI-BI has continually researched and developed oleochemical products according to the Company Group's strategy in line with the government's guideline to increase the value and capacity of the palm oil industry. The goal is to raise the income of farmers and entrepreneurs in the palm oil industry sustainably.

On May 10, 2022, BBGI-BI signed a Memorandum of Understanding (MoU) on bio-transformer oil development and production project (the "Project") with SCG Chemicals Public Company Limited and QTC Energy Public Company Limited. The goal of the collaboration is to study the feasibility of bio-transformer oil production from prototype production to commercial production by using palm oil and by-products as raw materials.

2) Ethanol Production Research and Development Project

In order to increase efficiency and reduce production costs in the ethanol production process, BBGI-PS and BBGI-NP/BP have experimental projects in collaboration with third-party agencies or companies, such as an enzyme trial project to increase fermentation efficiency, ethanol from cassava, enzyme trial project to increase efficiency of ethanol fermentation from molasses, and industrial dry yeast trial project to increase production efficiency, together with adding value to ethanol such as a feasibility study on a project to produce aviation biofuel from ethanol.

Assets Used in Business Operations

1. Fixed Assets

On December 31, 2021, and 2022, fixed assets used in business operations of the Company and its subsidiaries have net book value after deducting accumulated depreciation and other impairment reserves as shown in the Company's consolidated financial statements equal to 5,871.41 million baht and 6,187.39, respectively, with the following details:



No.	Transactions	Net Book Value On Dec. 31, 2021, (million baht)	Net Book Value On Dec. 31, 2022 (million baht)	Proprietary Type	Obligation
1.	Land	272.36	437.66	Owned by the Company	Mortgaged partially
2.	Building, Factory, and Office	1,414.72	1,570.40	Owned by the Company	Mortgaged partially
3.	Factory's Machinery and Equipment	2,998.73	3,141.69	Owned by the Company	Mortgaged partially
4.	Office Equipment	34.03	29.25	Owned by the Company	No obligation
5.	Vehicles	11.59	10.60	Owned	No obligation
6.	Work Under Construction	1,139.98	997.79	Owned by the Company	No obligation
Total			6,187.39		

Remark

- Accrual liabilities of long-term and short-term loans from financial institutions with fixed assets mortgaged as collateral on December 31, 2021, equal to 1,496.48 million baht. (BBGI-PS equals to 279.78 million baht and BBGI-BI equals to 1,216.70 million baht)
- Accrual liabilities of long-term and short-term loans from financial institutions with fixed assets mortgaged as collateral on December 31, 2022, equal to 1,238.03 million baht. (BBGI-PS equals to 212.13 million baht and BBGI-BI equals to 1,025.90 million baht)

In this regard, the list of fixed assets of the Company and its subsidiaries as shown above can be classified details by asset types and companies as follows:

1.1 Land

On December 31, 2021, and 2022, the net book value of land according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Location	Area Size	Value by Net Book Value On Dec. 31, 2021 (Million baht)	Value by Net Book Value On Dec. 31, 2022 (Million baht)	Objective of Holding	Proprietary Type	Obligation
BBGI-NP/BP	Nam Phong District, Khon Kaen	418-0-31	83.84	249.14	To be a location of Nam Phong Factory	Owned by the Company	No obligation
	Nam Phong District, Khon Kaen	9-2-95			To have BUP rent as a factory location		
	Bo Phloi District, Kanchanaburi	379-2-7			To be a location of Bo Phloi Factory		
	Bo Phloi District, Kanchanaburi	95-3-65			To have BUP rent as a factory location		

Name of Titleholder	Location	Area Size	Value by Net Book Value On Dec. 31, 2021 (Million baht)	Value by Net Book Value On Dec. 31, 2022 (Million baht)	Objective of Holding	Proprietary Type	Obligation
BBGI-PS	Phanom Sarakham District, Chachoengsao Province	128-3-31	140.12	140.12	To be a location of ethanol production factory and biogas factory	Owned by the Company	Mortgage as collateral with financial institutions
	Phanom Sarakham District, Chachoengsao Province	77-1-92			Green areas		
	Phanom Sarakham District, Chachoengsao Province	151-3-48			To be a location of raw water reservoir		
	Sanam Chai Khet District, Chachoengsao Province						
	Phanom Sarakham District, Chachoengsao Province	149-3-40			To be a location of cesspit		
BBGI-BI	Bang Pa-In District, Phra Nakhon Si Ayutthaya	50-0-0	48.40	48.40	To be a location of biodiesel production factory	Owned by the Company	Mortgage as collateral with financial institutions
Total			272.36	437.66			

1.2 Building, Factory, and Office

On December 31, 2021, and 2022, the net book value of building, factory, and office according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Location	Value by Net Book Value On Dec. 31, 2021 (Million baht)	Value by Net Book Value On Dec. 31, 2022 (Million baht)	Objective of Holding	Proprietary Type	Obligation
BBGI-NP/BP	Nam Phong District, Khon Kaen	627.87	822.02	To be a location of Nam Phong Factory and Bo Phloi Factory	Owned by the Company	No obligation
	Bo Phloi District, Kanchanaburi					
BBGI-PS	Phanom Sarakham District, Chachoengsao Province	290.55	285.46	To be a location of BBGI-PS office and a location of ethanol production factory	Owned by the Company	Mortgage as collateral with financial institutions
	Sanam Chai Khet District, Chachoengsao Province					

Name of Titleholder	Location	Value by Net Book Value On Dec. 31, 2021 (Million baht)	Value by Net Book Value On Dec. 31, 2022 (Million baht)	Objective of Holding	Proprietary Type	Obligation
BBGI-BI	Bang Pa-In District, Phra Nakhon Si Ayutthaya	496.30	461.19	To be a location of BBGI-BI office and a location of biodiesel production factory	Owned by the Company	Mortgage as collateral with financial institutions
BUP	Bo Phloi District, Kanchanaburi	-	1.73	To be a location of biogas production factory	Owned by the Company	No obligation
Total		1,414.72	1,570.40			

1.3 Factory's Machinery and Equipment

On December 31, 2021, and 2022, the net book value of factory's machinery and equipment according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Location	Net Book Value On Dec. 31, 2021 (Million baht)	Net Book Value On Dec. 31, 2022 (Million baht)	Proprietary Type	Obligation
BBGI-NP/BP	Nam Phong District, Khon Kaen Bo Phloi District, Kanchanaburi	1,115.01	1,255.80	Owned by the Company	No obligation
BBGI-PS	Phanom Sarakham District, Chachoengsao Province Sanam Chai Khet District, Chachoengsao Province	418.68	394.62	Owned by the Company	Mortgage as collateral with financial institutions
BBGI-BI	Bang Pa-In District, Phra Nakhon Si Ayutthaya	1,465.04	1,384.23	Owned by the Company	Mortgage as collateral with financial institutions
BUP	Bo Phloi District, Kanchanaburi	-	107.04	Owned by the Company	No obligation
Total		2,998.73	3,141.69		

1.4 Office Equipment

On December 31, 2021, and 2022, the net book value of office equipment according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Location	Net Book Value On Dec. 31, 2021 (Million baht)	Net Book Value On Dec. 31, 2022 (Million baht)	Proprietary Type	Obligation
The Company	Phra Khanong District, Bangkok	21.59	17.37	Owned by the Company	No obligation
BBGI-NP/BP	Phra Khanong District, Bangkok	4.81	6.11	Owned by the Company	No obligation
	Nam Phong District, Khon Kaen				
	Bo Phloi District, Kanchanaburi				
BBGI-PS	Phanom Sarakham District, Chachoengsao	1.56	1.01	Owned by the Company	No obligation
	Sanam Chai Khet District, Chachoengsao Province				
BBGI-BI	Bang Pa-In District, Phra Nakhon Si Ayutthaya	6.07	4.76	Owned by the Company	No obligation
SOU		34.03	29.25		

1.5 Vehicle

On December 31, 2021, and 2022, the net book value of vehicle according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Net Book Value On Dec. 31, 2021 (Million baht)	Net Book Value On Dec. 31, 2022 (Million baht)	Proprietary Type	Obligation
BBGI-NP/BP	11.58	10.29	Owned by the Company	No obligation
BBGI-PS	0.01	0.01	Owned by the Company	No obligation
BBGI-BI	-	0.29	Owned by the Company	No obligation
Total	11.59	10.60		




1.6 Work Under Construction

On December 31, 2021, and 2022, the net book value of work under construction according to the Company's consolidated financial statements has details as follows:

Name of Titleholder	Location	Value by Net Book Value On Dec. 31, 2021 (Million baht)	Value by Net Book Value On Dec. 31, 2022 (Million baht)	Objective of Holding	Proprietary Type	Obligation
BBGI-NP/BP	Nam Phong District, Khon Kaen Bo Phloi District, Kanchanaburi	937.70	809.47	To expand the production capacity of Nam Phong Factory	Owned by the Company	No obligation
BBGI-PS	Phanom Sarakham District, Chachoengsao Province	7.33	3.47	To improve the Screw press and Molecular Sieve systems	Owned by the Company	No obligation
BBGI-BI	Bang Pa-In District, Phra Nakhon Si Ayutthaya	4.26	2.59	To improve the system of reboiler and to improve the oil piping system of the UCOME BBBI-BI Plant 1 project.	Owned by the Company	No obligation
BUP	Nam Phong District, Khon Kaen Bo Phloi District, Kanchanaburi	116.41 74.28	180.92 1.34	To design and construct factory To design and construct biogas production factory	Owned by the Company	No obligation
Total		1,139.98	997.79			

2.2 Trademark/Service Mark

On December 31, 2022, the Company owns 1 trademark/service mark and has 2 trademark pending application for registration as follows:

Trademark / Service Mark	Country	Registration No.	For Product / Service	Protection Duration
	Thailand	201109847	<ul style="list-style-type: none"> • Facial cleansing foam, skin care, facial cleanser • Fuel • Algae dietary supplements 	Sep. 7, 2018 - Sep. 6, 2028 It is renewable every 10 years.
	Thailand	In the process of consideration by the registrar	<ul style="list-style-type: none"> • Body massage cream, skin care, relaxing massage oil • Non-medical nutritional drink, dietary supplements from plant extract • Dietary supplements from fruit extract, dietary supplements from algae extract, dietary supplements from herb extract • Energy drink, beverage concentrate 	The application was submitted on July 13, 2021. It is under consideration of the registrar.
	Thailand	In the process of consideration by the registrar	<ul style="list-style-type: none"> • Sugar substitute • Syrup used as a food ingredient • Syrup for cooking • Grain-based drink, not milk substitute • Soy-based drink, not milk substitute 	The application was submitted on June 1, 2022. It is under consideration of the registrar.

2.3 Intellectual Property

At present, the Company Group does not have any significant intellectual property.

1.3 THE COMPANY GROUP'S SHAREHOLDING STRUCTURE

A diagram shows the Company Group's shareholding structure and shareholding proportion of December 31, 2022.



Information About Subsidiaries, Associated Companies, and Joint Ventures of the Company

On December 31, 2022, the Company has invested in subsidiaries, associated companies, and joint ventures with details as followed:

1) Main Business Companies

Company Name	Nature of Business Operations	Location Headquarter	Year Registered	Proportion of Shareholding (Percentage)	Registered Paid-up Capital (Million Baht)
1.1 Subsidiaries					
BBGI Bioethanol Public Company Limited (BBGI-NP/BP)	Production and Distribution of Ethanol	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai Sub-District, Phra Khanong District, Bangkok	2004	100	610
BBGI Bioethanol (Chachoengsao) Company Limited (BBGI-PS)	Production and Distribution of Ethanol	96/10-11, Moo 7, Ko Khanun Sub-District, Phanom Sarakham District, Chachoengsao 24120	2016	85	500
BBGI Biodiesel Company Limited (BBGI-BI)	Production and Distribution of Biodiesel	28, Moo 9, Bang Krasan Sub-District, Bang Pa-In District, Phra Nakhon Si Ayutthaya 13160	2008	70	281.5
BBGI Utility and Power Company Limited (BUP)	Utilities and energy services	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai Sub-District, Phra Khanong District, Bangkok	2020	100	100
1.2 Associated Companies					
Win Ingredients Company Limited (WIN)	Production and Distribution of High Value Bio-Based Products	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai Sub-District, Phra Khanong District, Bangkok	2020	51	80
Biom Company Limited (BIOM)	Biotechnology Research and Development	45/5, Moo 6, Ban Mai Sub-District, Pak Kret District, Nonthaburi 11120	2020	20	69.38
BSGF Company Limited (BSGF)	Procurement of Raw Materials, Production and Distribution of Sustainable Aviation Fuel (SAF) From Used Oil	1056, Soi Sukhumvit 66/1, Phra Khanong Tai Sub-District, Phra Khanong District, Bangkok	2022	20	1

Company Size Consideration on the Registration Permission in Case the Company Operates as a Holding Company

As the Company operates as a holding company, it is to have qualifications specified in the notification of the Capital Market Supervisory Board, T.J. 39/2016, Application for Approval and Granting of Approval for Offering of Newly Issued Shares, dated September 30, 2016, (including amendments), and the notification of the Office of the SEC, S.J. 50/2018, Company Size Consideration Regarding Granting Approval to a Company Operating as Holding Company for Offering of Newly Issued Shares, dated September 28, 2018. After the consideration, the Company is fully qualified according to the specified criteria with these following details:

Criteria to Compare Company Size	Requirements According to the Notifications of Holding Company	Qualification of the Company ⁽¹⁾
1. Size of the main business subsidiary compared to size of the Company. The Company's total assets deducting investments in associates and other companies (2) The Company's total assets	> 25.0 percent	85.1 percent
2. Size of the core business company compared to size of the Company. The Company's total assets deducting investments in other companies (2) The Company's total assets	> 75.0 percent	85.1 percent
3. Size of the other company compared to size of the Company. Investments in other companies (2) The Company's total assets	≤ 25.0 percent	14.9 percent

หมายเหตุ:

⁽¹⁾ Calculated from the consolidated financial statements for the nine-month period ended on December 31, 2022.

⁽²⁾ They are investments in subsidiaries, associated companies, and other investments in those not operating the core business.

Policy of Investments in Subsidiaries, Associated Companies, and Joint Ventures, Including Other Companies

The Company has a policy to invest in subsidiaries and associated companies which conduct business in line with the Company's vision and growth plan, making the Company have an increase in turnover or profit, or invest in synergy that benefits the Company to increase the competitiveness of the Company. However, such investments must be consistent with the business situation, strategic plans of the Company as well as rules, regulations, and requirements of regulatory agencies.

The Company, subsidiaries, and/or associated companies may consider investing in other business, if it is a business that has growth potential to expand the business or benefit the business of the Company, which can generate a good return on investment. As for considering the investments of the Company, its subsidiaries, and/or associated companies, the Company will consider the investment and proceed with caution and prudence by providing a feasibility analysis of the investment plan and considering potential and risk factors from investment, return, financial liquidity of the Company, and economic conditions at that time (Feasibility Study). The said investments must be agreed and/or approved by the board of directors' meeting or the Company's shareholders' meeting (depending on the case).

Supervision of Subsidiaries and Associated Companies

The Company has established a policy on corporate governance and management of its subsidiaries and associated companies operating core businesses. The objective is to determine direct and indirect measures and mechanisms for the Company to be able to follow up, supervise, and manage the business of subsidiaries and associated companies to lead to a good, transparent, and verifiable management system, including monitoring the subsidiaries and associated companies to comply with various specified measures and mechanisms as if they are departments of the Company and be in accordance with the Company's policy, the Public Limited Companies Act, the Civil and Commercial Code, the Securities Act, and relevant laws as well as relevant notifications, regulations, and criteria of the Capital Market Supervisory Board, the Office of the Securities and Exchange Commission, and the Stock Exchange of Thailand, including the corporate governance code, as guidelines. To maintain the benefits of the Company's investments, the Company has set a policy to supervise the operations of subsidiaries and associated companies with the established guidelines as follows:

- 1) The Company shall assign a representative to become a director in each subsidiary and associated company according to the proportion of shareholding in each company (the "Representative Director of the Company") to determine management direction and supervise the subsidiaries and the associated companies to operate in accordance with the laws, corporate governance policy as well as other policies of the Company. Moreover, the board of directors shall consider and approve the representative directors for the subsidiaries and the associated companies.

The Company has established guidelines by specifying that the operations of subsidiaries or associated companies by the Representative Director of the Company must be approved by the board of directors' meeting prior to voting in the board of directors' meeting of such subsidiaries or such associated companies in the following matters:

- (1) Establishing a juristic person, entering joint venture, or entering into partnership with an individual; or
- (2) Buying or selling shares, business, or significant property
- (3) Creating an obligation in any manner that will bind or affect subsidiaries or associated companies or the Company long-term or significantly
- (4) Amalgamation
- (5) Determining a dividend policy of subsidiaries or associated companies that is different from the dividend policy of the Company

In this regard, the “subsidiaries” and the “associated companies” mean subsidiaries or associated companies that conduct main business as specified in Clause 24, whose combined size meets the requirements of Clause 23 (2) of the notification of the Capital Market Supervisory Board, TJ. 39/2016, Application for Approval and Granting of Approval for Offering of Newly Issued Shares (including amendments) as well as the notification of the Securities and Exchange Commission, KJ. 17/2008, Determination of Definitions in the Notifications Regarding Securities Issuing and Offering (including amendments).

- 2) In the event that this policy requires that any significant transaction or action, having an effect on the financial position and operating results of subsidiaries and associated companies, requires approval from the board of directors’ meeting and/or the shareholders of the Company’s meeting (depending on the case). The board of directors shall arrange the board of directors’ meeting and/or the shareholders’ meeting (depending on the case) to consider and approve such matter before subsidiaries or associated companies hold their own board of directors’ meeting and/or shareholders’ meeting (depending on the case) for approval before making a transaction or taking action on that matter. In this regard, the Company shall disclose information and comply with regulations, conditions, procedures, and methods related to such approved matter as stipulated in the Public Limited Companies Act, the Civil and Commercial Code, the Securities and Exchange Act, and related laws together with notifications, rules, and regulations related to the Capital Market Supervisory Board, the Office of the Securities and Exchange Commission, and the Stock Exchange of Thailand, mutatis mutandis (as long as it is not contradictory), completely and accurately. The Company has set guidelines for supervising the investments of the Company in the form of subsidiaries and associated companies in the additional section of the articles of association as following details:

- (1) As for the following cases, subsidiaries or associated companies (depending on the case) must be approved by the board of directors of the Company.

- (1.1)Appointing or nominating a person to be a director and an executive in subsidiaries or associated companies at least in proportion of the Company’s shareholding in such subsidiaries or associated companies. If this policy or the Company’s board of directors specifies otherwise, the Representative Director of the Company shall have the discretion to consider and vote in the board of directors’ meeting of subsidiaries or associated companies on matters relating to general management and ordinary business operations of subsidiaries or associated companies as the Representative Director of the Company deems appropriate for the best interest of the Company and subsidiaries or associated companies (depending on the case).

In addition, a director and an executive of the above subsidiaries who has been appointed or nominated must be a person listed in the White List and possessing qualifications, roles, duties, and responsibilities as specified in the relevant laws as well as having no untrustworthy characteristics according to the notification of the Office of the SEC regarding Determination of Untrustworthy Characteristics of Directors and Executives of the Company.

- (1.2) Capital increase by issuing shares of subsidiaries and allocating shares, including reducing registered capital and/or paid-up capital of subsidiaries which is not in accordance with the original shareholding proportion of the shareholders or any other action which will result in the proportion of voting rights both directly and indirectly exercised by the Company at the shareholders' meeting of subsidiaries in any level decreased by more than 10 percent of the total number of votes of such subsidiaries
- (1.3) Consideration and approval of annual dividend payment and interim dividend (if any) of subsidiaries
- (1.4) Amendment to regulations and the memorandum of association of subsidiaries, except it is an amendment to regulations in a significant matter according to Clause (2) (2.5) which must be approved by the shareholders' meeting of the Company.
- (1.5) Consideration and approval of the total annual budget of the Company and all of its subsidiaries, except in the case specified in the Line of Authority of subsidiaries.
- (1.6) Appointment of an auditor of subsidiaries, only in the case that such auditor is not affiliated with an audit firm that is a full member in the same network as the Company's auditor, which is not in accordance with the Company's auditor appointment policy that the auditor of subsidiaries must belong to the audit firm in the same network as the Company's auditor.

Transactions from Clause (1.7) to Clause (1.10) are considered significant items. Entering into such transactions will have a significant impact on the financial position and operating results of subsidiaries. Therefore, prior to the meeting of the Board of directors of the subsidiary, the Representative Director of the Company must be approved by the board of directors' meeting regarding such matters prior to voting in the board of directors' meeting of subsidiaries. In this regard, it must be the case that, when calculating size of transactions that the subsidiaries will enter into by comparing with nature and/or size of the Company (by applying the criteria for calculating the transaction size as specified in the notification of the Capital Market Supervisory Board, TJ. 21/2008, Regulations for Making Related Party Transactions, and the notification of the SET Board of Governors, Disclosure of Information and Actions of Listed Companies in Related Party Transactions B.E. 2546 (including amendments) (the "notification of related party transactions") or the notification of the Capital Market Supervisory Board, TJ. 20/2008, Regulations for Making Significant Transactions Falling Within the Scope of Acquisition or Disposition of Assets, and the notification of the SET Board of Governors, Disclosure of Information and Actions of Listed Companies in Acquisition or Disposition of Assets B.E. 2547 (including amendments) (the "notification of asset acquisition or disposition", (depending on the case) applying, mutatis mutandis), it is in the criteria that must be approved by the Company's board of directors upon the following items:

- (1.7) In case that subsidiaries agree to make transactions with related individuals of the Company or subsidiaries, or transactions related to the acquisition and disposition of subsidiaries' assets which include but not limited to the following cases:
- (A) Transfer or waiver of any rights as well as waiver of entitled encumbrance against any person who causes damage to subsidiaries
 - (B) Selling or transferring all or a portion of the business of subsidiaries to another individual
 - (C) Purchase or acceptance of business transfer of other companies to be in the possession of subsidiaries
 - (D) Entering into, amending, or terminating the contracts related to the lease of all or a significant part of the subsidiaries' business, assigning another individual to manage the business of subsidiaries, or merging another individual's business for the purpose of profit-and-loss-sharing
 - (E) Lease or hire-purchase of the whole or a significant part of subsidiaries' business or assets
- (1.8) Borrowing money, lending money, granting credits, guarantees, doing legal acts that bind subsidiaries to bear more financial burdens, or providing financial assistance in any other manner to another individual in significant amounts and not an ordinary business of subsidiaries
- (1.9) Dissolution of the subsidiaries.
- (1.10) Any other transaction which is not an ordinary business transaction of subsidiaries and will significantly affect subsidiaries.
- (2) Before making the following transactions, subsidiaries must be approved by the shareholder's meeting of the Company with a vote of no less than 3/4 of the total votes of the shareholders attending and eligible to vote.
- (2.1) In the event that subsidiaries agree to enter into transactions with related transactions of the Company or subsidiaries, or transactions related to the acquisition or disposition of assets of subsidiaries, in this regard, it must be the case that, when calculating size of transactions that subsidiaries enter into by comparing with nature and/or size of the Company (by applying the criteria for calculating the transaction size as specified in the notification of related party transactions or the notification of the asset acquisition or disposition (depending on the case), mutatis mutandis), it is in the criteria that must be approved by the shareholders' meeting of the Company.

- (2.2) Capital increase by issuing shares of subsidiaries and allocating shares, including reducing registered capital and/or paid-up capital of subsidiaries which is not in accordance with the original shareholding proportion of the shareholders or any other action which will result in the proportion of voting rights both directly and indirectly exercised by the Company at the shareholders' meeting of subsidiaries in any level decreased by less than the proportion specified by laws applicable to subsidiaries, as a result, the Company has no control over such subsidiaries. In this regard, it must be the case that, when calculating size of transactions by comparing with size of the Company (by applying the criteria for calculating the transaction size as specified in the notification of the asset acquisition or disposition, *mutatis mutandis*), it is in the criteria that must be approved by the shareholders' meeting of the Company.
- (2.3) As for dissolution of subsidiaries, it must be the case that, when calculating business size of the to-be-dissolved subsidiaries by comparing with size of the Company (by applying the criteria for calculating the transaction size as specified in the notification of the asset acquisition or disposition), it is in the criteria that must be approved by the shareholders' meeting of the Company.
- (2.4) As for any other transactions that are not ordinary business transactions of subsidiaries and will have a significant impact on subsidiaries, it must be the case that, when calculating size of transactions that the subsidiaries will enter into by comparing with size of the Company (by applying the criteria for calculating the transaction size as specified in the notification of the asset acquisition or disposition, *mutatis mutandis*), it is in the criteria that must be approved by the shareholders' meeting of the Company.
- (2.5) Amendment to the articles of association of subsidiaries in matters that may have a significant impact on financial position and operating results of subsidiaries, which includes but not limited to amendment of the subsidiaries' articles of association that affect the rights of the Company in nominating or appointing a person as a Representative Director of the Company or an executive in subsidiaries in proportion of the Company's shareholding in subsidiaries, in voting of the Representative Director of the Company at the board of directors' meeting of subsidiaries and/or the shareholders' meeting of subsidiaries, or the dividend payment of subsidiaries, etc.

- (3) The board of directors will monitor directors and executives appointed by the Company to serve as directors and executives of subsidiaries and associated companies (*mutatis mutandis*), perform duties and responsibilities according to laws, regulations, and policies of the Company.
- (4) The board of directors must ensure that its subsidiaries have internal control systems, risk management system, anti-corruption system, and other necessary work systems, as well as setting appropriate, effective, and concise measures for monitoring the performance of subsidiaries and associated companies to ensure that the various operations of subsidiaries and associated companies will be in accordance with plans, budgets, and policies of the Company, including laws and notifications of corporate governance of listed companies as well as other notifications, rules, and regulations related to the Capital Market Supervisory Board, the Office of the Securities and Exchange Commission, and the Stock Exchange of Thailand truly and continuously. It also includes following up subsidiaries and associated companies to disclose information, financial position and operating results, related party transactions and transactions with possible conflicts of interest, significant asset acquisition or disposition, and any other transactions significant to the Company together with various actions to be in accordance with the regulations on supervision and management of subsidiaries and associated companies completely and accurately according to the relevant notifications of the Capital Market Supervisory Board and the notification of the SET Board of Governors (as amended) (depending on the case).
- (5) The Company must proceed to have a Representative Director of the Company attend the meeting and vote, as specified by Company, in the board of directors' meeting of subsidiaries to consider agenda that is significant to the subsidiaries' business operations every time.

Relationship with the Business Group of the Major Shareholders



The Company Group has hired BCP and KSL to provide services in human resources management and information technology. Additionally, the Company Group and its major shareholders (BCP and KSL) have allocated the clear scope of business operations. In this regard, BCP and KSL has entered in to an amendment agreement of the shareholder agreement (Rev. 3) dated on January 24, 2022, to agree that it is prohibited to operate a competing business against one of the Company as long as BCP and KSL is the major shareholders of the Company. The above prohibition on conducting competitive business prohibits BCP and KSL from engaging in competitive business or investing in competitive business either directly or indirectly. In addition, they must not have direct and indirect control over companies operating competitive business in Thailand, Myanmar, Cambodia, Laos, Vietnam, Indonesia, Malaysia, Singapore, the Philippines, and Brunei (countries that are agreed upon); except, it is an investment by means mutually agreed upon by the parties only. Additionally, BCP and KSL agree to proceed to ensure that their subsidiaries do not operate competitive business or invest in any competitive business in the agreed countries.

In this regard, competitive business or competitive companies means companies that operate any business which is competitive with (1) Ethanol production and distribution business, (2) Biodiesel production and distribution business (B 100) and/or glycerin, (3) Manufacturing of high-value bio-product based on technology or innovation that Manus is the sole owner of the patent for; and (4) Manufacturing of high-value bio-based products related to high-tech Health & Well-Being products, but excluding:

- 1) Contract manufacturing business and biodiesel production and distribution business by BCP that is already operating on the date of this contract (Currently, BCP still purchases used vegetable oil from communities around the refinery and partners, universities, hotels, and convention centers in Bangkok for the production of biodiesel to distribute to the community. This is one of BCP's CSR activities with the objective of preserving the environment and creating awareness of the efficient use of resources. It is not a commercial sale and not a business that competes with the business of the Company Group.)
- 2) KSL's shareholding in Thai Sugar Terminal Public Company Limited and its subsidiaries (Currently, KSL still holds 23.82 percent of shares in TSTE (information of November 12, 2021). TSTE and its subsidiaries operate logistics services, cargo handling and warehouse rental, production of palm oil and wheat flour, including renting, buying, and selling real estate. TSTE holds a 97.5 percent of shares in TS Oil Industry Company Limited ("TSO"), which operates the business of palm oil production for sale as vegetable oil and is not a business that competes with the Company Group's business.)
- 3) Some directors or executives of KSL are shareholders or hold positions as directors and executives of Thai Sugar Terminal Public Company Limited ("TSTE") and its subsidiaries on the date of the agreement (Currently, some directors of KSL hold shares and/or hold positions as directors or executives of TSTE and its subsidiaries. However, the business of TSTE and its subsidiaries is not a business that competes with the business of the Company Group.); and
- 4) Any other business that BCP and KSL have already undertaken on the date of entering into this contract (Currently, BCP and KSL do not operate any business that is considered a business that competes with the business of the Company Group.)

Since BCP has established the Bangchak Initiative and Innovation Center or BiiC since 2017 which aims to drive innovation by focusing on green energy and bio-based to become Asia's leading green innovation group, the companies in BCP group may invest in start-up business to research, develop, and study the feasibility of start-up business related to bio-based which may involve high-value bio-based that promotes health. Therefore, to prevent issues of conflicts of interest with the Company, BCP has a policy to limit the investment proportion by investing in the proportion of not more than 20 percent of the total issued and paid-up share value of the business, including not participating in the management and/or not assigning a Representative Director to start-up business related to high-value bio-based that promotes health. If BiiC will invest in start-up business more than 20 percent of the issued and paid-up share value of the business and/or participate in management and/or obtain the right to use the products or technology of the aforementioned start-up business for commercial production and distribution, it must present such business opportunities to the Company according to the refusal agreement of the shareholder agreement between BCP and KSL to consider step by step. At present, KSL does not operate and has no plans to invest in businesses related to high-value bio-based that promote health which may cause a conflict of interest with the Company.

To mitigate any conflicts of interest, the shareholder agreement between BCP and KSL contains an agreement on the Company's right of refusal. If BCP or KSL (depending on the case) wishes to invest or receive an investment offer in a competing business in the agreed countries at any time while the shareholder agreement between BCP and KSL is still in effect, BCP or KSL (depending on the case) agrees to propose such investment to the Company or take reasonable action to proceed for the Company receive such investment offer within the specified period. However, in the event that (a) the Company rejects such offer within the specified period, or (b) the Company and BCP or KSL (depending on the case) are unable to fulfill the agreement on the implementation of such proposals together within the specified period, it does not disqualify BCP or KSL (depending on the case) from engaging in competitive business or investing in competitive business in countries as agreed upon by the parties.

In this regard, the Company has set up a mechanism to supervise practices of the right to refuse as guidelines for work for transparency in the implementation of the right to refuse. The details are as follows:

Mechanism to Oversee Practices of the Right to Refuse

The board of directors' meeting no. 1/2022 held on January 31, 2022, acknowledged the right of refusal and its measure according to the amendment to the shareholder agreement (Rev. 3) dated January 24, 2022. For transparency, the exercise of rights and the non-exercise of rights of the Company according to the right of refusal each time will be disclosed through the SetLink system of the SET. Also, it is agreed to disclose information to shareholders in the Form 56-1 One Report.

In addition, to comply with corporate governance code and to avoid conflicts of interest or stake, the above board of directors' meeting has approved the Company's operational measures in case of receiving an investment proposal in a competitive business from major shareholders according to the right of refusal of the shareholder agreement between BCP and KSL as follows:

- 1) Upon being notified of an investment proposal from BCP or KSL according to the shareholder agreement, management division of the Company shall enter into a contract or confidentiality agreement or perform any other relevant and necessary actions in order to access such investment information as appropriate as notified by the proposer.
- 2) Upon receiving a proposal from BCP or KSL, management division shall present it to the investment committee and the audit committee meeting within 30 days from the date of receiving the proposal in order to consider and give opinions according to the framework as follows:
 - 2.1) The investment committee considers the possibilities and benefits that will be received from the investment. (Feasibility)
 - 2.2) The audit committee considers conflicts of interest and execution of regulations and criteria related to investment approval. (Conflict & Regulatory Compliance)
- 3) After obtaining relevant opinions from the investment committee and the audit committee, the management division shall present them to the board of directors for further consideration.
- 4) If the board of directors resolves not to accept the proposal, the Company shall immediately notify BCP or KSL of rejecting the proposal, but no later than 90 days from the date of receipt of the proposal.
- 5) If the board of directors resolves to accept the proposal, the Company shall immediately notify BCP or KSL of acceptance of the proposal, but no later than 90 days from the date of receipt of the proposal. And the management division or a person authorized by the board of directors shall negotiate the terms and conditions of the acceptance of such proposal.
- 6) Stakeholders in the consideration, such as directors, representatives of the proposers, or directors involved in the proposals must refrain from attending the meetings and voting in the meetings of the investment committee, the audit committee as well as the board of directors, depending on the case.

In addition, in accepting the above right of refusal proposal, if the Company acquires or disposes of the assets of the business or enters into related transactions, the Company will comply with the relevant notification of the asset acquisition or disposition, the notification of related party transactions, including other regulations and laws effective at that time correctly and completely. The board of directors' meeting no. 1/2022 held on January 31, 2022, acknowledged the right of refusal and its measure according to the amendment to the shareholder agreement Rev. 3, including the submission of a letter acknowledging the right to propose investment according to the shareholder agreement since the shareholder agreement is an obligation between BCP and KSL only. Therefore, to have the Company obtain the benefit from being given the right to consider whether it will invest or not, the Company sends a letter accepting the right to propose investment under the shareholder agreement. After sending the said letter, the Company can claim from BCP and KSL according to Section 374 under the Civil and Commercial Code. (Section 374 under the Civil and Commercial Code states that, if one party enters an agreement to pay debts to third parties, the third parties have the right to call for the payment directly from the debtor.)

The Company's Shareholders and Securities Information

The list of the first 10 shareholders of the Company on December 31, 2022, is as follows:

No.	List of Shareholders	Number of Shares (Shares)	Shareholding Proportion (Percentage)
1.	Bangchak Corporation Public Company Limited ("BCP")	650,632,088	45.00
2.	Khon Kaen Sugar Industry Public Company Limited ("KSL")	432,119,988	29.88
3.	Sansiri Public Company Limited by XSpring Asset Management Company Limited	17,620,000	1.22
4.	Open-Ended Fund, Bualuang Long - Term Equity Fund	16,139,145	1.12
5.	Viriyah Insurance Public Company Limited	9,318,980	0.64
6.	Ms. Aobwarun Yamerbsin	8,525,000	0.59
7.	Mutual Fund, Vayupak Fund 1 by MFC Asset Management Public Company Limited	6,615,213	0.46
8.	Mutual Fund, Vayupak Fund 1 by Krungthai Asset Management Public Company Limited	6,615,213	0.46
9.	Gunkul Group Company Limited	5,000,000	0.35
10.	Thai NVDR Company Limited	4,597,606	0.32
11.	Other Shareholders	288,816,767	19.96
Total		1,446,000,000	100.00

Remark: The latest closing date of the Company's shareholder registration book

Foreigners' Shareholding Restrictions

Foreign shareholders can hold shares of the Company in aggregate not exceeding 49 percent of the Company's issued and paid-up shares.

Amount of Registered and Paid-up Capital

The Company has a registered capital of 3,615,000,000 baht, which is the paid-up capital of 3,615,000,000 baht, divided into 1,446,000,000 ordinary shares at a par value of 2.50 baht per share. The Company was listed on the Stock Exchange of Thailand (SET) on March 17, 2022.

Others Securities Issuance

On October 11, 2022, the Company received a rating of corporate credit at BBB+ with a stable credit rating trend. And, on October 27, 2023, the Company's credit rating was raised to A- with a stable credit rating trend by TRIS Rating Company Limited. On December 31, 2022, the Company had debentures of 800 million baht as the following details:

Debenture	Value (million baht)	Interest Rate (percentage per year)	Term of Debentures (years)	Maturity Date of Debenture Redemption
BBG1245A	800	3.30	3	May 11, 2024

Dividend Payment Policy

The Company has a policy to pay dividends to shareholders of not less than 40.0 percent of the net profit according to the separate financial statements after deduction of all types of reserve funds according to the articles of association and laws. The board of directors may determine the dividend payment and the rate of dividend payment different from the rate specified herein or consider to not pay dividends taking into account the performance, financial position, cash flow, working capital, liabilities, conditions and restrictions as specified in the loan agreement, terms of rights and obligations of the Company as a debenture issuer, plans of investment and business expansion of the Company Group as well as economic conditions, market conditions, including necessity, factors, and other relevant considerations which the board of directors deems appropriate. Once the board of directors resolves to approve the annual dividend payment of the Company, it must be proposed to the shareholders' meeting for approval; except, it is an interim dividend payment that is within the authority of the board of directors which must be reported to the next shareholders' meeting.

Information of Dividend Payment of the Company

Details of Paid Dividends	Year 2020	Year 2021	Year 2022
Earnings per Share (baht/share)	0.834	0.948	0.015 ⁽²⁾
Annual Dividends (baht/share)	0.100	0.395	0.250 ⁽³⁾
Dividend Payment Ratio (percent)	12	42	1,771

Remark

⁽¹⁾ The Company registered a change in the par value from 5.00 baht per share to 2.50 baht per share on January 6, 2022, resulting in an increase in the number of shares from the original 506.40 million shares to 1,012.80 million shares.

⁽²⁾ On March 15, 2022, the Company received payment for 433.20 million shares, resulting in the total number of shares to 1,446.00 million shares earnings per share for 2022 is calculated from the averagely weighted ordinary shares of 1,359.36 million shares.

⁽³⁾ The interim dividend for 2022 is 0.20 baht per share and the operating dividend for the second half of 2022 that will be proposed to the 2023 annual general meeting of shareholders for approval is 0.05 baht per share.



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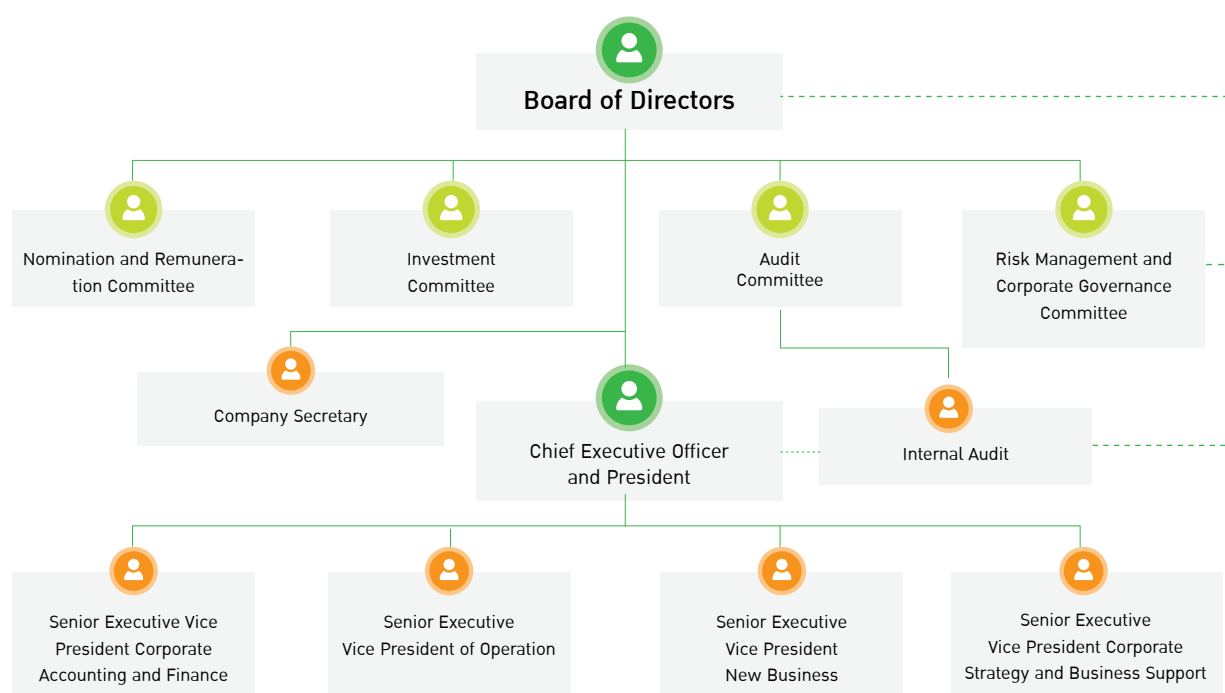
RISK MANAGEMENT

2.1 RISK MANAGEMENT POLICY AND PLAN

To manage the business operations of the Company and its subsidiaries with systematic risk management, the Company has, therefore, sets a risk management policy throughout the organization. This is the direct responsibility of all directors, executives, and employees of the Company and its subsidiaries together with other individuals working on behalf of the Company that they must comply with the following policies:

1. The Company requires executives and employees in various departments to be risk overseers by playing a role, participating in the enterprise risk management development, and understanding the responsibilities related to risk management.
2. It provides effective risk management processes in all stages of operations according to the good corporate governance code, and integrates risk management with information technology management for good management to help reduce the likelihood of the risk occurrence and the risk effects, reduce the uncertainty in the overall operating results, and increase opportunities of success.
3. It implements and supports successful risk management across the organization by making effective use of limited resources to identify, assess, and manage risks appropriately.
4. It promotes and encourages risk management as an enterprise culture by making everyone aware of the importance of risk management.
5. Executives and employees at all levels participate in supporting and pushing subsidiaries and associated companies to realize and place importance on risk management operations.
6. The risk management and corporate governance committee and executives monitor, follow up, and measure the performance of the enterprise risk management appropriately.

The Company has the enterprise risk management structure as in the image.



2.2 RISK FACTORS FOR THE COMPANY'S BUSINESS OPERATIONS

Enterprise Risk Management

The Company has assessed the main risks of the organization from both internal and external factors, including future trends that may affect the organization's goals in the short, medium, and long term, covering the risks of Strategy, Operation, Finance, and Reputation by following up and monitoring the likelihood of such risks through key risk indicators, including creating additional risk management plans. The Company has assessed key risks in accordance with the organization's direction and strategic plan as follows:

Strategic Risk

(1) Risk From Changes in Policies of Public Sectors and Other Related Government Agencies

The Company Group operates a biofuel business. Changes in policies of public sectors and other related government agencies can affect the business performance of the Company Group. Ethanol demand is supported by government promotion through increasing/decreasing the rate of contributions to the Oil Fund to maintain the price difference between gasoline and gasohol to incentivize the more use of ethanol by considering factors such as the situation of oil prices in the world market and cost of ethanol production, etc.

For biodiesel business, the demand for biodiesel varies with the rate of blending biodiesel in high speed diesel fuel as specified under the notification of the Department of Energy Business. The enforced adjustment of the minimum and maximum blending rates of biodiesel in high speed diesel will take into account factors, such as price and yield of crude palm oil which is a raw material used in the biodiesel production, and characteristics of diesel engines whether it can use high-speed diesel fuel containing such mixtures or not, etc.

In 2022, the impact of the war between Ukraine and Russia has dramatically increased energy prices and agricultural productivity, resulting in a public sector which is the Department of Energy Business reducing the blending ratio of biodiesel to B5 since February 2022. However, due to the situation of the COVID-19 outbreak that has been downgraded from being a dangerous communicable disease to only an endemic disease, including prices of energy and crude palm oil of Thailand that has been adjusted according to the global crude palm oil price down to the normal level, these has caused the public sector issued a policy to increase the blending ratio back to B7 in October 2022. According to the Department of Energy Business, in 2021 and 2022, the demand for biodiesel was 4.6 and 3.8 million liters per day, respectively, decreasing by 17 percent (YoY); but on the other hand, demand for diesel was 60.1 and 66.4, respectively, increasing by 10 percent (YoY), in line with the improving situation of the COVID-19 outbreak.

However, the Company Group has adjusted by looking for business development opportunities and extending products such as:

1. Increase the value of crude glycerin products, which are by-products of biodiesel production, by distilling them into pure glycerin for use in the food and pharmaceutical industries in order to increase returns for the Company Group in the future.
2. Produce and distribute ethanol for the production of disinfectant and cleaning products continuously by adjusting the production and distribution plans to be in line with the domestic demand, selling price, and raw material price.
3. Increase the efficiency of raw material procurement and raw material inventory management to an appropriate level.
4. Adjust the long-term business strategy of the Company Group by studying investments that diversify risks to new businesses in order to diversify the risk from the volatility of the biofuel business, which is the original core business, and to support new business opportunities, which create growth in the future, with a focus on advanced biotechnology industries. This is in line with the public sector's strategy to drive Thailand with the BCG (Bio - Circular - Green Economy) economic model.

(2) Risk From Alternative Energy Sources for Cars

The growth of the ethanol and biodiesel industry is supported by the expansion of the use of gasohol and biodiesel as fuel for cars. Cars are continually developed to Electric Vehicle or “EV” under the support of the public sector. On February 15, 2022, the Cabinet Meeting (Cabinet) approved the measures supporting the use of EV vehicles such as cars, motorcycles, and pickup trucks in accordance with the resolution of the National Electric Vehicle Policy Committee such as granting subsidies, reducing vehicle excise tax, reducing import duties on both foreign-produced and imported cars, and exempting import duties on cars produced in the country. The government has set a goal to produce electric vehicles for 30 percent of car production in Thailand by the year 2030. The transition of such automotive innovations may affect the performance of the biofuel business of the Company Group in the long term.

However, such transition requires preparation time in many areas which are readiness of electric vehicle technology such as distance limitations, electric charging points, charging time and price, etc. It also includes readiness of important public utilities such as the country’s electricity consumption, which still currently depends on the purchase of electricity from abroad, including having to import fuel to generate electricity. In addition, the support for electric vehicle use will directly affect farmers in Thailand which are producers and distributors of energy crops in Thailand. Therefore, the public sector must carefully consider the stability and security of the country’s energy, including the overall impact throughout the supply chain of the biofuel business.

The Company Group has prepared to accommodate such changes by adjusting business strategies to be consistent and up-to-date with changing situations. Currently, the Company Group has implemented a plan to expand its business into high-value bio-based products, collaborating with business partners according to the strategic plans and investment projects approved by the board of directors. It also has a plan to review strategies regularly.

(3) Risks of Delays in Business Investment in the Advanced Biotechnology Industry and/or the Return on Investment Not as Expected

The risks are that the return on investment may not be as expected and/or the Company Group may lose investment opportunities because it takes time to research products and marketing and uses a large amount of money to invest in additional projects.

Although the advanced biotechnology industry is regarded as a high-growth industry and the direction for the world’s future, the share value of this industry fell in 2022 compared to the beginning of 2021. This kind of volatility has occurred numerous times in the history of share value in biotechnology group in the United States because of many factors affecting the investment projects either from COVID-19 situation, war, or trade war which significantly affects the foreign countries’ economy and projects. The Company Group, therefore, takes actions to reduce the impacts as follows:

1. Emphasize investment by considering collaboration with a network of business alliances with experience and expertise in the business of high-value biological products – HVP, taking advantage of efficiency and advancement in production technology over competitors, and aiming to continuously grow in the bio-based product business. It is determined to seek new business expansion opportunities by investing in the health-promoting high-value bio-based product business.
2. Set goals and strategies for entering the HVP business by considering the selection of product groups and technologies that are ready for commercial production (commercial phase) within 5 years and are in line with the business direction of the Company Group, which is technology related to dietary supplements, health and beauty industry, etc.

(4) Risk of Generating Revenue from New Products According to the Target

As the Company's products have just entered the market at the end of 2021, they are not yet widely known. In addition, many products that are planned to enter the market in 2022 require time to get food serial numbers approved by the Food and Drug Administration, causing delays in the launch of new products according to the target. Therefore, the Company has done as follows:

1. Build brand awareness through integrated marketing communication both online and offline channels to be more extensive.
2. Increase distribution channels both online and offline, including TV home shopping, to reach consumers better.
3. Push products to be able to be on markets in a brief time from the exploration process to the product launch to markets.
4. Conduct market research to study the feasibility of launching new products and reaching out to the target customer groups most efficiently.
5. Launch new products in line with consumer feedback and diversify risk of products.
6. Collaborate with distributors in presenting products to create awareness about the strengths of products that are different from competitors and build a customer base by doing various roadshow activities.

Operational Risk

(1) Risk From Raw Material Price Volatility and the Inability to Consistently and Sufficiently Procure Quality Raw Materials at Reasonable Prices

For important raw materials that are used in the production of the Company Group, they are for the production of ethanol which are molasses, raw sugar, and cassava both fresh and dried; and for the production of biodiesel which are crude palm oil (CPO), palm fatty acid distilled (PFAD), and refined palm stearin (RPS). The cost of biofuel production is the largest proportion of the total raw material costs. Therefore, the Company Group places importance on procuring raw materials with quality or sufficient quantity and continuity and providing prices and commercial terms that are appropriate to the market situation by taking the following actions:

1. Establish a department to closely monitor the situation of raw materials in terms of demand-supply and prices for each type of raw materials in order to estimate production costs in advance, adjust plans of production, distribution, and manage raw materials and inventory in accordance with the market situation and needs appropriately.
2. Strengthen good relations with many raw material producers and traders by signing some long-term raw material purchase agreements and considering more new potential sources of raw materials together with inventory management and seasonal raw material procurement, which will reduce the impact of price volatility.
3. Reserve cassava chips during the harvest season, which the produces are low-priced, sufficient for off-season production by acquiring new sources of raw materials and renting external warehouses to reserve additional raw materials, and operating ethanol production by acquiring fresh cassava in the area as much as possible.
4. Reduce costs and expenses in biodiesel production through the process with biotechnology innovation.
5. Study the project to increase stability and reduce the cost of the factory's electrical energy consumption.
6. Emphasize production using a variety of raw materials to reduce dependence on one of the main raw materials. This will effectively reduce costs and increase production capacity.
7. Improve production processes and manage inventory by building a tank for storing crude glycerin in order to increase production capacity

(2) Risk from the Company Group's Product Price Volatility

Ethanol and biodiesel selling prices vary according to market mechanism in each period. The Company Group has a policy to determine the selling prices of ethanol and biodiesel by taking into account important variables which are prices of each type of raw materials that are main cost, production cost, product price that can be substituted, the amount of inventory in the market, as well as the demand for biofuels, with details as follows:

For determining the selling price of ethanol, the Company Group will consider the ethanol price trend based on the average price of denatured ethanol produced from molasses or cassava. Most of the ethanol purchase prices that the Company agrees with its business partners are fixed on a quarterly basis, while raw material prices are subject to change. Therefore, the Company Group is at risk if its raw material cost management efficiency is lower than that of other ethanol producers in the market, which may affect the Company Group's performance.

For determining the selling price of biodiesel, the Company Group will consider the reference biodiesel price trend announced by the Energy Policy and Planning Office on a weekly basis. The reference price is the price set by the Energy Policy and Planning Office by considering the price of the main raw materials for biodiesel production, which are crude palm oil (CPO) and refined palm stearin (RPS),

based on prices from the Department of Internal Trade, Ministry of Commerce. However, the price of biodiesel that the Company agrees with its business partners will use the calculation method of cost-plus marginal profit (revised cost plus). Therefore, the Company Group will have less risk from the volatility of the selling price of biodiesel.

However, the Company Group is aware of such risk and has tried to take the following actions to reduce the risk, which are:

1. Evaluate ethanol and biodiesel prices from domestic stocks, manage costs according to selling prices based on market mechanism, adjust plans of production, annual maintenance, and ethanol distribution in line with product and raw material price differences in each period in order to maximize profits.
2. Plan to purchase raw materials and continually improve the production plan (fully integration) to be in line with market conditions and current situations by reserving raw materials and applying insurance for the risk price of raw sugar purchased in advance.
3. Enter into long-term contracts with crude palm oil traders to reduce price volatility and find market opportunities for pharmaceutical-grade ethanol (Extra Neutral Alcohol, ENA). In 2022, product distribution was conducted both through contract manufacturing (B2B) and sales directly to customers (B2C).
4. Create markets of customer base to promote the sale of refined glycerin by increasing the proportion of customers in the food and pharmaceutical industries, including high-technology industry groups.
5. The Company Group has chosen to use efficient and accepted production technology, including continuous improvement of production efficiency, to reduce production costs.
6. The Company Group has advantages from the flexibility in selecting raw materials for the production of ethanol from cassava, molasses, and raw sugar, as well as the selection of crude palm oil, refined palm oil, refined palm stearin, and palm fatty acid distillate for biodiesel production according to the market price situations.

The Company Group believes that the efficient production cost management, as mentioned above, will enable the Company Group to appropriately mitigate the impact of product price volatility.

(3) Risk From Ethanol and Biodiesel Transportation

The Company Group sells ethanol and biodiesel in 2 forms: (1) The customer is responsible for the transportation by sending vehicles to pick up products at the Company Group's factories, and (2) The Company is responsible for delivering products to the point specified by the customer which, for this case, the Company Group will hire transport companies, including drivers from other companies (outsourcing), to transport ethanol and biodiesel from the Company Group's factories to the customer's specified location.

However, the Company Group is aware of the transportation risk of hiring third-party transportation service providers. Such transportation service providers must be entrepreneurs who have obtained a fuel transportation license under Section 12 of the Fuel Trade Act. Also, the vehicles providing services must have equipment and components according to the standards for oil trucks, including a global positioning system (GPS) to track the current location of the transport vehicle. In addition, the Company Group can claim fines and/or compensation for damages from the transportation service providers according to the conditions specified in the contracts.

Additionally, according to the operating procedures of the Company Group, the vehicle condition of the transportation service providers must be inspected prior to the delivery of goods. In this regard, the Company Group has conducted a registration of the Company Group's transportation service providers (approved vendor list) by strictly considering the qualifications of the transportation service providers in terms of delivery time, scope of service, and transportation costs. Such registration is regularly reviewed. Moreover, the Company Group requires the third-party transportation service providers to have insurance covering damage that may occur from delivering products.

(4) Risk of the Company Group's Operations Being Interrupted

At present, the Company Group operates the business of ethanol and biodiesel production and distribution. In case of natural disasters or unforeseen events such as system failure, flood disasters, natural disasters, accidents, or sabotage in the area where the Company Group's factory is located, it may result in interruption of operations or damage to the Company Group's assets. This may have an impact on business operations, financial status, and performance. Therefore, the Company Group has prepared and conducted emergency plans, including having prepared insurance according to industry standards and the conditions specified in the loan agreement of the Company Group. All insurance policies have coverage for damage to the insured property, business interruption insurance, and liability insurance to the third party. However, before choosing a factory location, the Company Group will study the risk of natural disasters to make a decision on a factory location and find measures to prevent or mitigate the risk.

(5) Risk From the COVID-19 Outbreak Situation

The situation of the COVID-19 outbreak during the past 3 years, which the government has issued various measures to control and stop the outbreak, has caused the demand for ethanol in the country to decrease and may have an impact on the production process of the Company. However, the Company is able to manage and prevent the spread within the factory very well, enabling continuous production together with the government's announcement for relaxing policies and measures to control and stop the spread of the COVID-19 on June 23, 2022, and the downgrading of the situation from a dangerous communicable disease to a communicable disease under surveillance on October 1, 2022. Therefore, the Company considers reducing this risk level.

(6) Risk of Relying on Major Customers

The Company Group trades ethanol and biodiesel with customers who are oil traders under Section 7. The Company Group cannot guarantee that its customers will buy products from the Company Group continuously and/or at the same level as the current orders. Therefore, if any or all the customers reduce the quantity or cancel orders of the Company Group's products, it may affect the performance of the Company Group.

However, the Company Group is aware of such a risk. Therefore, it strives to create satisfaction and maintain good relationships with such customers by continually developing quality of products and services to build confidence and satisfaction with customers. In addition, the Company Group has a strategy to expand its customer base to other oil traders under Section 7, with advantages in the stability of production volume and product quality.

For the sale of ethanol and biodiesel, the Company Group has entered into a business alliance purchase agreement with BCP, which is the Company's major shareholder, for the mutual benefit of both parties. In other words, the Company Group has revenues from sales of goods and BCP has a stable amount of ethanol and biodiesel used in blending automotive fuel. The Company has a long-term ethanol and biodiesel purchase agreement with BCP. Having BCP as a major buyer, the Company can produce biodiesel and ethanol at reasonable level and mitigate the risk of demand.

(7) Risk of Dependence on Major Shareholders in Procuring Molasses for Ethanol Production

The Company Group procures molasses, which is the main raw material in the ethanol production process of BBGI-BP and BBGI-NP, from sugar factories in the KSL group. In the future, if the KSL group is unable to procure molasses at all or is unable to deliver molasses in the quantity and/or quality specified in the contract, the Company Group may not be able to procure molasses for substitution in a sufficient quantity and/or price or under appropriate trade conditions, which may affect the performance of the Company Group.

In this regard, the Company Group has entered into a long-term molasses purchase agreement with the KSL group. BBGI-BP and BBGI-NP have the right to purchase molasses from sugar factories of the KSL group as specified in the production contract in each season before other buyers. And, during the seasons, if the sugar factories of the KSL group as specified in the contract intend to sell molasses to third parties, the consent of BBGI-BP and BBGI-NP must be obtained first. This long-term purchase agreement is an efficient and effective supply chain management that benefits both parties. In other words, the Company Group can be confident that it will be able to obtain the necessary quantity of raw materials on a consistent and reasonable basis, while the KSL group will be able to drain the molasses during the production season.

(8) Risk of Procuring Utilities for Use in Production Process

The production process of the Company Group requires important utilities such as electricity, natural gas, water, and steam. If there is a shortage of utilities or an event that prevents the Company Group from procuring utilities to be used in the production process, such as drought, shortage of groundwater, failure of the electricity system, and/or failure of the natural gas transportation system, failure of the wastewater treatment system of the Company Group, this may cause the Company Group to reduce production rates, or halt operations, or to increase costs of utility procurement which could have a material adverse effect on the Company Group's performance. In this regard, the Company Group procures such utilities from a variety of sources, including (1) purchasing from utility suppliers, (2) producing utilities for its own use such as biogas production and processing wastewater reuse, (3) digging wells to store surface water for use, and (4) procuring utilities from public sources such as using groundwater or water from the Royal Irrigation Department's water sources in the production process. However, in the past, the Company Group has never faced such a severe problem to the point that it had to stop production in some way.

(9) Risk From the Company Group's Insurance Policies Probably Not Having Enough Coverage

The business operations of the Company Group may have risks arising from production and operation processes. This includes risks arising from explosions, fires, natural disasters, machine, or equipment malfunctions, improper installation, and accidents. These risks may result in personal injury or death or damage to the Company Group's property or the property of others which may result in the suspension or interruption of the business operations of the Company Group. And, the Company Group may be subject to civil penalties and/or criminal sanctions from the occurred incident. The Company Group cannot guarantee that the coverage under the insurance policy will be sufficient for such damage if there is a significant loss incurred by the Company Group. In the event of a significant amount of loss that exceeds the insurance coverage provided by the Company Group, or in the event that the Company Group is unable to claim compensation from the insurance coverage provided, it may have a significant negative impact on the performance of the Company Group. However, the Company Group has taken steps to mitigate the impact of the aforementioned risks as follows:

1. Take out insurance relating to the Company Group's business operations in order to mitigate the risks arising from losses and/or damage to the core assets of the Company Group with the sum insured not less than the net book value of the core assets at a level comparable to general entrepreneurs in the industry. And, provide the highest coverage insurance under appropriate insurance premiums.
2. Completely comply with the loan agreement's conditions. Some loan agreements require the Company Group to take out insurance covering various perils, including non-life property insurance and all types of risks insurance.

(10) Risk of the Company Having Major Shareholders Influencing the Determination of Policy

On August 23, 2022, BCP and KSL are the major shareholders of the Company, representing 45.00 percent and 29.88 percent of the paid-up capital after the offering of the Company's newly issued ordinary shares. As a result, there may be a risk that a group of major shareholders will have an influence on management policy in any direction and can control the policy and management of the Company, including the approval of shareholders' meeting resolutions that require a majority vote, except for ones that laws or articles of association require 3/4 of the votes of the shareholders' meeting. Therefore, other shareholders may not be able to gather enough votes to check and balance the matters proposed by the major shareholders.

However, the Company Group has established a corporate governance code that directors and executives of the Company Group have to follow for transparency in management and checks and balances among executives and the board of directors. Therefore, the Company Group has established departments as follows:

1. Internal Audit Unit under the Audit Committee, with External Audit Unit, shall inspect, balance decision-making, and approve various items before presenting them to the shareholders' meeting in order to prevent any transactions that cause conflicts and to create transparency in the operations of the Company.
2. The Risk Management Unit under the Risk Management and Corporate Governance Committee shall oversee the enterprise risk management of the entire Company Group to an acceptable level (Risk Appetite).
3. The Nomination and Compensation Committee (NCC) shall ensure transparency, clarity, and maintain the best interests of all stakeholders.

(11) Risk of Relying on Key Executives and Knowledgeable Employees

The success of the Company Group depends on the continued performance of duties by the knowledgeable and skilled management of the Company, which is experienced in the industry in which the Company Group operates. At present, the Company has entered into a short-term secondment contract with BCP and KSL in key positions. BCP and KSL will send executives and personnel in key positions to work at the Company Group according to the scope of work specified by the Company. If BCP and KSL are no longer the largest shareholders in the Company, directly or indirectly, for whatever reason, the Company may not be able to employ or retain key personnel from BCP and KSL, including the case that BCP and KSL may not send key personnel to work at the Company. And, if the Company loses talented personnel and cannot find another person to replace them, this may have a material negative impact on its business and operations.

However, the Company Group has continually focused on developing the potential of personnel so that employees can operate in accordance with the goals, policies, and directions of the organization as well as making the Company able to compete internationally. The Company Group focuses on setting

human resource management policies, covering both recruitment and personnel development, skill and competency development, and the responsibilities and career paths of personnel at each level, including appropriate rewards to the individual's knowledge and ability to retain quality personnel, as well as creating awareness that personnel are aware of being part of the Company so that the Company Group has sufficient personnel in accordance with its business plan and reduce reliance on personnel from BCP and KSL.

Financial Risk

(1) Risk From Debt Burden from Financial Institutions and Issuance of Debentures

Due to the situation of global and Thailand's economic fluctuations caused by important factors which are the spread of the COVID-19, the conflict situation between Russia and Ukraine, and inflation from high oil prices and agricultural crop prices, including the increase in the policy interest rate, it has impacts on the Company Group's performance which has some of its finance costs at floating rates. In the past, the Company has managed its finance by taking the following actions:

1. The Company has entered into both short-term and long-term loan agreements. This includes the issuance of fixed-interest-rate debentures to be used as working capital in business operations and/or to invest. In the past, the Company has been able to comply with the financial covenants and/or be granted a waiver of compliance with such covenants in the relevant loan agreements and comply with such covenants in the relevant loan agreements. In addition, the Company issued and offered securities to the general public for the first time (Initial Public Offering: or IPO) on March 17, 2022. So, the Company Group has sufficient working capital, including being ready to expand business investments to increase competitiveness and create growth in the future. And, on November 11, 2022, the Company repaid debentures No. 1/2021 Series 1 in the amount of 500 million baht, exactly as scheduled.
2. Last year, TRIS Rating Company Limited upgraded the Company's credit rating from the level "BBB+" to "A-", reflecting its leading position in the biofuel industry in Thailand, which has a competitive advantage and the Company's strong capital structure, including being a strategically important subsidiary of Bangchak Corporation Public Company Limited.

The Company Group has a financial plan and continuously monitors its performance to ensure that it will have sufficient cash flow to pay interest and repay the loan and will be able to comply with the financial conditions specified in the loan agreement and/or request a waiver of such terms in order to prevent a breach of the relevant loan agreement terms, including being able to expand investment effectively according to the set goals. The Company Group has a Risk Management and Corporate Governance Committee to review policies and guidelines for risk management in various areas, including the risk of interest rate volatility, in order to prevent various risks from rising above an acceptable level.

(2) Risk From Foreign Exchange Rate Volatility

The main currency that the Company Group uses in business is baht, but USD is used to set the selling price of refined glycerin. However, the Company Group may sell products, order raw materials or machinery from abroad, and/or enter into sugar futures contracts from time to time, and may consider investing in foreign affairs by conducting transactions in foreign currency. In addition, during certain periods, the price of palm oil and its derivatives, which is the main raw material for the production of biodiesel, will be linked to the Malaysian Ringgit currency. As it is based on prices published by the Malaysian Palm Oil Board, the Company Group may, therefore, be exposed to risk if there is significant exchange rate fluctuation.

However, the Company Group has set up a Risk Management and Corporate Governance Committee to review policies and guidelines for risk management in various areas, including the risk from fluctuations in foreign exchange rates. In addition, the Company Group has a policy to use financial instruments such as foreign exchange forward contracts (currency forward) to manage the risk from such exchange rate volatility as appropriate.

In addition, the effects of this foreign exchange hedging may be beneficial or harmful to the Company Group's annual performance. This is because the Company Group must record gains and losses on exchange rates that are the difference between receipts and payments from selling and buying foreign currency forward contracts and compare them with the exchange rates on the delivery date used in accounting. The Company Group has taken precautions to hedge against foreign exchange risk by not acting in a speculative manner.

(3) Risk of Investment Funding for Business of Bio-Based Products

The Company Group has an investment plan to expand the business of production and distribution of ethanol and biodiesel and invest in high-value bio-products that promote health, according to the Company Group's strategy. Investments consist of loans and capital increases from shareholders. If the Company Group fails to obtain funds for both the loan and equity needed for such business expansion, the future investments, therefore, do not go as planned.

However, the Company has issued and offered securities to the general public for the first time (Initial Public Offering: IPO) on March 17, 2022, causing the Company Group to have sufficient capital for expanding business investments to enhance competitiveness and create future growth. In addition, the Company Group has good relationships with many financial institutions. In this regard, the Company Group will use Bidding as an alternative to obtain loans with the best conditions. And, the Company has received a credit rating from TRIS Rating Company Limited at the level of "A-," reflecting the leadership position in biofuels in Thailand, which has a competitive advantage and a strong capital structure. This gives the Company another option to raise funds through the issuance and offering of debt securities.

(4) Risk of the Company's Cash Flows Coming From Dividends Mainly Received From Subsidiaries and Associated Companies

The Company operates its business by holding shares in other companies (the holding company), with the main cash flow coming from dividends from subsidiaries and associated companies. And it does not operate a business that generates a significant amount of income of its own. Therefore, the Company's cash flow depends on the operating results, cash flow, and dividend payout capability of its subsidiaries and associated companies. If a subsidiary or associated company encounters obstacles in its operations, this inevitably affects the performance, financial status, and ability to pay dividends of the Company.

Reputation Risk

(1) Environmental and Safety Risk

The business operations of the Company Group are subject to both federal and local environmental laws and regulations. These laws and regulations cover pollution control, garbage and waste disposal and management, occupational health and safety standards, and the handling of hazardous materials, etc. In the past, the Company has done as follows:

1. Organize a team to monitor and inspect the environmental impact and compliance with applicable laws and regulations to ensure that the Company's business operations are strictly in accordance with the rules, regulations, and applicable laws. The Company will consider hiring an outside consultant if it finds that there are complex issues involved.
2. In the past year, the Company has been in the process of constructing a biogas production system from distillery slop from an ethanol factory at Bo Phloi District, Kanchanaburi, (BBGI-BP), which will increase productivity in utilities and power. It also reduces the emission of carbon dioxide into the atmosphere.
3. As for safety, it organizes a rehearsal and review of the annual emergency plan, including preparation in case of fire, an action plan for flood resolution, preparedness plans for an epidemic, and business continuity.

(2) Risk From the Use of the Personal Data Protection Act B.E. 2562

According to the Personal Data Protection Act B.E. 2562 announced in the Royal Gazette, it will come into effect on June 1, 2022, to be consistent with and compliance with the "Personal Data Protection Act B.E. 2562" as mentioned above, the Company has considered measures to prevent risks in relation to personal data protection as follows:

1. Set regulations, including for those responsible for managing and supervising personal information, preventing the leakage of personal information, misusing personal information, or causing damage to the Company.

2. Improve contract conditions with business partners and employees to be in line with legal requirements.
3. Communicate and publicize rules, regulations, and guidelines via websites and the Company's announcements so that employees in the Company Group acknowledge and put them into practice.

(3) Risk of Operations That May Affect Communities and the Environment

In the production process of ethanol and biodiesel for the Company Group, there will be waste such as wastewater and sludge. The Company Group ensures that such waste is managed in accordance with the guidelines "Reducing waste to zero: Zero Waste" without releasing waste to the community or the environment by the actions as follows:

1. Take waste from the ethanol and biodiesel production processes as raw materials for the production of biogas. And, wastewater that has passed the treatment system is reused in the production process.
2. Take action to prevent impacts in various aspects such as surveying the site to find leakage points that may affect wastewater flowing into the rain gutter, checking the durability of the embankment to prevent the leakage of the wastewater pipe into public rail, etc.

(4) Risk of Noncompliance with the Conditions of Licenses, Including Full Compliance with Relevant Laws and Regulations

Business operations of the Company Group is under the supervision of government agencies that are responsible for regulating various operating licenses, such as the Department of Factory, the Ministry of Industry, the Energy Regulatory Commission, the Excise Department, etc., that the Company Group must comply with the conditions of the license and applicable laws and regulations. If the Company Group's inability to fully comply with all conditions, whether due to force majeure or other factors, the government agencies involved in the supervision may consider suspending or canceling the license, not renewing the license, and/or causing liability under civil law, criminal law, or administrative law against the Company Group.

Or, if there are any changes to laws and regulations that require the Company Group to obtain additional business licenses, the Company Group may not be authorized. In any case, these may have a material effect on the Company Group's operating results.

In addition, the business of ethanol and biodiesel production and distribution is regulated in accordance with the legal criteria and regulations of many relevant agencies, such as the Fuel Trade Act, the Sugar Cane Act and Sugar, B.E. 2527 (including amendments), the Export and Import of Goods Act, B.E. 2522 (including amendments), the Town Planning Act, B.E. 2518 (including amendments), the Building Control Act, B.E. 2522 (including amendments), the Factory Act, B.E. 2535 (including amendments), etc. The Company Group, therefore, has the risk of always fully complying with relevant laws and regulations. And, the Company Group may be affected by the enforcement of new laws or interpretations of laws that differ from the current ones.

However, the Company Group has established a team to monitor and supervise to ensure that the Company Group's business operations are legal and that the Company Group is capable of complying with the terms of the license or the requirements or orders of relevant government agencies. There is also a risk management system and an internal control system that are responsible for inspecting the operations of all departments to ensure compliance with applicable regulations, rules, and laws. In addition, the Company Group may consider hiring an outside legal advisor if complex legal issues are involved.

2. RISK MANAGEMENT IN INVESTMENT PROJECTS

The Company has set guidelines for considering new business investment projects both domestically and internationally in line with the Company's investment criteria, business direction, and short-term and long-term strategic plans for the organization, including project returns. In addition, the risk management aspect of investment projects has also been considered, which is very important and necessary for business operations. It requires that every investment project must have a clear, systematic project risk analysis, plan preparation, and follow up on the operations performance of the risk reduction to be in accordance with the specified period by the actions as follows:

1. Investment projects that require endorsement and investment approval from the board of directors must obtain approval of the project risk management plan from the Risk Management and Corporate Governance Committee (RMC) before being presented to the Investment Committee (IC) and the board of directors for consideration and approval, respectively.
2. Any investment project that does not meet the criteria that must be approved and approved by the board of directors may be proposed by the person with investment approval authority to the Risk Management and Corporate Governance Committee for acknowledgment and additional opinions for investment consideration.

In 2022, the board of directors approved the investment project in Biom Company Limited (BIOM) and Sustainable Aviation Fuel (SAF) project in BSGF Company Limited.

3. ANNUAL EMERGENCY DRILLS

To build confidence that the Company will be able to operate in the event of an emergency, it has organized a review and rehearsal of the 2022 annual plan to reduce operational risks of the Company Group as follows:

1. Set measures to deal with the epidemic situation of the Covid-19.
2. Arrange drills for emergency plans in case of fire incidents in the Company Group's factories, including the head office.
3. Prepare action plans and remedies in case of flooding in the factory area located in Phra Nakhon Si Ayutthaya.
4. Plan for wastewater management to hedge wastewater leakage that will harm the communities' environment.

3 DRIVING BUSINESS FOR SUSTAINABILITY

3.1 SUSTAINABILITY MANAGEMENT POLICY AND GOAL

The Company has established a sustainability management policy by adopting the sustainability economy philosophy, the UN Global Compact guidelines, the Global Sustainable Development Goals (UNSDGs), and various international standards, including guidelines for corporate sustainability reporting according to the criteria of the SEC and the principles of sustainable stock assessment of the Stock Exchange of Thailand. These guidelines have been incorporated into our Environmental, Social, and Governance (ESG) policies and integrated into the Company's vision, direction, and strategy to form the foundation of our bio-innovative business and focus on sustainable growth on a global scale along the value chain with the following basic guidelines:

- 1) Environment: The Company is committed to preserving the environment and conserving natural resources to create a sustainable balance in the ecosystem.
- 2) Society: The Company is committed to taking care of and developing well-being, benefiting the community and society by bringing knowledge and business experience to create tangible benefits, including giving importance on safety management systems, occupational health, the environment, and energy, which are parts of the business.
- 2) Corporate Governance: The Company will conduct business and manage the organization according to the principles of good corporate governance and sustainable development.

In the policies, the Company has set different practices covering sustainability issues in corporate governance, society, and the environment. Details can be found in our Environmental, Social, and Governance (ESG) Policy or in our Corporate Governance Reports and downloaded document at <https://www.bbgi.com/th/corporate-governance/cg-report-and-download>.



3.2 MANAGEMENT OF IMPACT ON STAKEHOLDER IN BUSINESS VALUE CHAIN

Business Value Chain

The Company Group operates in the business of producing biofuels and extending them to high-value bio-based products. The upstream process begins with the purchase of raw materials from farmers, agricultural cooperatives, and producers of raw materials, energy, or other products that are upstream businesses; then, they are transported into the production process or stored until reaching the downstream process, such as selling products to oil traders to use as fuel mixtures and selling to the next customer, including delivery of goods from warehouses to retail customers, after-sales service, and various support processes such as human resource management, finance, accounting, and so on.

Primary activities include the upstream process, starting with the purchase of raw materials from farmers, agricultural cooperatives, and producers of raw materials, energy, or other products that are upstream businesses, transporting them into production processes or storing them until downstream processes, such as selling products to oil traders to use as fuel mixtures and then selling them to the next customer, including delivery of goods from the warehouse to retail customers' hands and after-sales service.

Supporting activities include procurement, innovation and technology, human resource management, and infrastructure.

Analysis of Stakeholder in Business Value Chain

The Company is committed to caring for these stakeholders in accordance with their legal rights, respecting human rights principles, treating labor fairly, and encouraging cooperation with the Company to meet stakeholder expectations. And, this is to ensure that their rights are protected and well treated, and to ensure that the Company has assessed stakeholder expectations at least once a year through various communication channels such as listening to opinion, satisfaction surveys, meetings, communicating through the coordinator, and other engagement channels in order to understand the impact and opportunities related between the Company and the stakeholders.

In 2022, the Company adopted the guidelines for stakeholder analysis based on the Sustainability Reporting Principles of the Stock Exchange of Thailand. From the analysis according to the aforementioned approach, it was found that the Company's stakeholders in the value chain can be divided into 8 groups: customers, shareholders, employees, business partners, local and government regulators, community groups, society, creditors, and competitors who have expectations. The Company has measures or projects to meet their needs, which can be summarized as follows:

Analysis Table of Stakeholder on Business Value Chain

Stakeholder Groups	Communication Channels	Stakeholder Expectations	Meeting Expectations of Stakeholders
 Customers	<ul style="list-style-type: none"> Customer satisfaction survey Meeting 	<ul style="list-style-type: none"> Enough products with reasonable prices On time delivery Standardized quality 	<ul style="list-style-type: none"> Improve production system to reduce costs. Provide adequate reserve storage. Control quality by international standards
 Shareholders	<ul style="list-style-type: none"> Annual general meeting Respond to inquiries via telephone and email. Propose information to investors and shareholders. 	<ul style="list-style-type: none"> Consistently satisfactory performance and satisfied dividend payment Innovation management for continuous business growth 	<ul style="list-style-type: none"> Pay appropriate dividends to shareholders in accordance with their performance. Consider investing in green innovation according to the ongoing plan.
 Employees	<ul style="list-style-type: none"> Engagement survey Meeting executives at town hall 	<ul style="list-style-type: none"> Appreciation (Recognition & Communication) from executives Performance Evaluation 	<ul style="list-style-type: none"> Arrange activities for executives to meet employees on a regular basis. Implement a personnel management system for administration and evaluation
 Business Partners	<ul style="list-style-type: none"> Telephone, email, and line Business partner visit 	<ul style="list-style-type: none"> Fast and on-time payout Ordering and delivery of chemicals at break even volume to save transportation cost. 	<ul style="list-style-type: none"> Use the Cash Card system to transfer money to the farmer's Cash Card. Provide contracted purchases, spot purchases, and regular purchases with regular price announcements.
 Community-Society	<ul style="list-style-type: none"> Talk through community leaders, village volunteers, sub-district health-promoting hospitals, monks, village headmen, teachers, etc. Community relations employees talk through activities. 	<ul style="list-style-type: none"> Support health checkups / promote health for people, elderly, and bedridden patients. Solve drought/flood problems. Reduce production costs. 	<ul style="list-style-type: none"> Collaborate with hospitals to organize community health checkups and health promotion for people, elderly, and bedridden patients. Donate drinking water / water for agriculture. Coordinate with communities regarding the appropriate amount of treated water discharge during the flood. Distribute document of soil improvement.
 Creditors	<ul style="list-style-type: none"> Meeting between the Company's executives and creditors Dissemination of information through annual reports and company websites 	<ul style="list-style-type: none"> Progress of various projects following the plan laid out. Innovation management 	<ul style="list-style-type: none"> Comply with the agreement terms of loans and debentures. Consider investing in green innovation according to the ongoing plan.
 Business Competitors	<ul style="list-style-type: none"> Follow up performance and market conditions. Study information from financial reports that are publicly available. 	<ul style="list-style-type: none"> Conduct business with transparency. under fair trade and competition. Cooperate and coordinate with competitors on issues which the public sectors ask for cooperation. 	<ul style="list-style-type: none"> Operate with transparency. under fair trade and competition.
 Internal Regulators In Local and Government	<ul style="list-style-type: none"> Mail and phone Meeting, clarifying, discussing, and participating in projects of government agencies 	<ul style="list-style-type: none"> Conduct business correctly and comply with laws. Cooperate in providing accurate and timely information. 	<ul style="list-style-type: none"> Conduct business correctly and comply with laws and international standards. Submit accurate information to government agencies within the specified timeframe. Cooperate with local government agencies in activities such as co-sponsoring community health checkups.

3.3 SUSTAINABILITY MANAGEMENT IN THE ENVIRONMENTAL ASPECT

Environmental Policy and Practice

The Company has an Environmental, Social, and Governance (ESG) policy, which shows its commitment to preserving the environment and conserving natural resources to create a sustainable ecological balance by striving to operate existing businesses and invest in new ones with environmental responsibility by analyzing and managing risks throughout the business value chain and supporting research and development of clean and high-efficiency energy technologies to reduce environmental impacts such as efficient consumption management of water, energy, waste, greenhouse gas emissions, and resources, including arranging regulatory agencies to oversee on reducing the organization's greenhouse gas emissions, as well as encouraging employees at all levels to be aware of the risks posed by the environmental impact of business operations. In addition, the Company also has guidelines to support government policies by conducting business in accordance with the guidelines of the bioeconomy, circular economy, and green economy (BCG Model), which can be found in more details <https://www.bbgigroup.com/th/sustainable-development/environment-dimension>

1) Energy Management

The Company has continually improved energy consumption efficiency, which is a key factor in business operations. In addition, energy management data helps the Company efficiently develop, improve energy consumption, and reduce energy loss which is a cost in the business process. Since 2015, BBGI Bioethanol (Chachoengsao) Company Limited, one of the Company Group, has used biomass fuel. Later in 2018, the Company Group started using energy from renewable energy sources, such as purchasing solar energy from BCPG Public Company Limited. Also, BBGI Biodiesel Company Limited and BBGI Bioethanol Public Company Limited have used distillery slop obtained from the alcohol distillation process to produce biogas to be an internal renewable energy source in the production and distribution processes. It started to use biogas as fuel for boilers in 2019. Then, it expanded the consumption rate of biogas instead of fuel oil in 2020 until 2022. In addition, the Company Group also uses electricity and biomass steam from the plants of KSL group located in Kanchanaburi and Khon Kaen. This energy management not only reduces dependence on fossil energy sources but also greenhouse gas emission.

In the short, medium, and long term, the Company intends to improve energy efficiency. The short-term plan is to set energy consumption goals and develop systems to improve energy efficiency in various systems. In the medium and long term, the Company plans to reduce the proportion of non-renewable energy consumption by 5% within 2030 compared to the base year 2020, which is the year in which the Company switched from using non-renewable energy to renewable energy. The ratio of non-renewable energy consumption to total energy in 2022 decreases by 3 % compared to the base year of 2020.

Consumption of Oil, Fuel, and Electricity From 2019 - 2022

Fuel Consumption Rate	2019	2020	2021	2022
Diesel Fuel (liters)	131,728.39	191,852.98	211,295.82	187,060.41
Gasoline (liters)	1,954.47	4,237.27	1,079.35	3,173.90
Fuel Oil (liters)	1,038,398.00	1,522,919.00	203,063.00	0
Natural Gas (cubic feet)	375,083,119.20	372,131,487.42	414,111,514.00	392,751,053.55
Cooking Gas (Kilograms)	570.00	540.00	660.00	555.00
Steam (tons)	258,332.70	159,175.19	168,425.60	194,830.74
Biogas (cubic meters)	14,517,836.99	18,967,297.70	22,521,946.34	15,553,952.49
Total electrical energy (kWh)	72,651,905.36	65,908,688.78	68,823,612.16	62,188,383.83
- Biomass electrical energy (kWh)	34,307,918.00	25,093,292.00	30,464,635.00	22,790,726.00
- Electrical energy from sunlight (kWh)	388,029.00	2,655,743.00	2,370,494.12	2,505,230.00
- Electrical energy from the Electricity Authority (kWh)	37,955,958.36	38,159,653.78	35,988,483.04	36,892,427.83
Expenses of oil and fuel consumption (baht)	259,827,021.48	211,102,542.52	232,466,657.46	249,196,739.20
Expenses of electricity consumption (baht)	363,259,526.80	329,543,443.88	344,118,060.81	329,598,434.28
Proportion of non-renewable energy consumption/ total energy (%)	26%	28%	25%	25%
Proportion of renewable energy consumption/total energy (%)	74%	72%	75%	75%

* The Company Group of BBGI Public Company Limited has disclosed reports on energy consumption according to the GRI Universal Standards, which can be found in more details from environmental statistics. <https://www.bbzigroup.com/storage/download/environment-dimension/table-stats-environment.pdf>

Energy Projects of 2022

On energy management, in addition to using energy from renewable energy sources, improving machine performance and investing in technological innovation are equally important since, not only helping in reducing costs, but they also result in reducing greenhouse gas emissions. The Company, therefore, promotes the use of technology and innovation to develop efficient environmental, energy, water, and waste management systems for sustainable business operations, considering environmental risks that may cause an impact on the environment. The Company has management approaches and projects to assess the efficiency of energy consumption to find ways to reduce energy consumption. The practice guidelines are improving machine efficiency, implementing modern technologies to reduce energy consumption, and increasing the consumption proportion of renewable energy (biogas). Examples of energy projects that are conducted in 2022 are:

- A project to install biogas ponds of BBGI Utility and Power Company Limited (BUP) in Kanchanaburi is to produce and deliver biogas to BBGI Bioethanol Public Company Limited, Bo Phloi Branch (BBGI-BP), by using the obtained biogas as fuel to generate electricity used in the factory. Biogas pond project of BBGI Utility and Power Company Limited (BUP) started operation in the 2nd quarter of 2022 with biogas production capacity of 84,000 standard cubic meters per day.
- A project to install oxygen analyzers at boiler stacks of BBGI Biodiesel Company Limited is to reduce natural gas (NG) consumption by installing equipment to reduce heat loss from boiler stacks. (Economizers are installed to reduce heat loss at boiler stacks and distillation columns.)

- A project to increase the amount of electricity consumption from solar energy (solar panels) of BBGI Biodiesel Company to increase the consumption proportion of renewable energy.
- The flash steam drum project is a project that brings steam energy at low pressure of BBGI Biodiesel Company to be reused without wasting the energy.
- A project to install automatic on-off lighting systems at fermentation columns of BBGI Bioethanol Public Company Limited, Bo Phloi Branch.
- A project to improve machinery efficiency is to change the fan propellers of cooling towers of BBGI Bioethanol (Chachoengsao) Company Limited.

Due to the implementation of the energy management projects in 2022 of the Company Group, the Company has been able to save up to 33,306,265.59 megajoules (MJ) of energy, or 2.0 percent of the total energy consumption from the Company Group. The result is saving per year in the amount of 16,067,631.26 baht per year.

2) Water Management

Water consumption data reports reflect the efficiency of water resource management, which is a key factor in production, especially in the ethanol production industry. Additionally, the data helped the Company to be able to develop and improve water resource management efficiently to reduce the business operating cost and reduce the risk of quality water resource shortage. The Company has short-term, medium-term, and long-term plans to increase the efficiency of water consumption according to the principle of 3Rs: Reduce, Reuse, Recycle, and study ways to reduce water consumption significantly. The Company has set a long-term goal to reduce accumulated water consumption by 10 percent within 2030, compared to the base year 2020, and a medium-term goal to reduce accumulated water consumption by 5 percent within 2025, compared to the base year 2022. For 2022, the performance of accumulated water consumption reduction of the Company Group refers to the following projects.

The projects conducted by the Company in 2022 are:

- Studying to increase the intensity of the alcohol fermentation process without affecting the distillation columns.
- Taking vacuum and spent lees water, which is condensed water from the alcohol distillation process at the distillation columns (or rectification columns), to be reused in the cleaning in place process (CIP)
- Taking water that has passed through the treatment process to be used in the process of washing fresh cassava.
- Taking the remaining water from the filtration process (Reject RO) to be reused in the cleaning process.
- Using soft seal water in the fermentation process

These water management projects have resulted in the Company being able to save up to 159,361.90 cubic meters of water, or 6.22 percent of total water consumption of the Company Group in 2022. The result is saving per year in the amount of 625,264.50 baht per year.

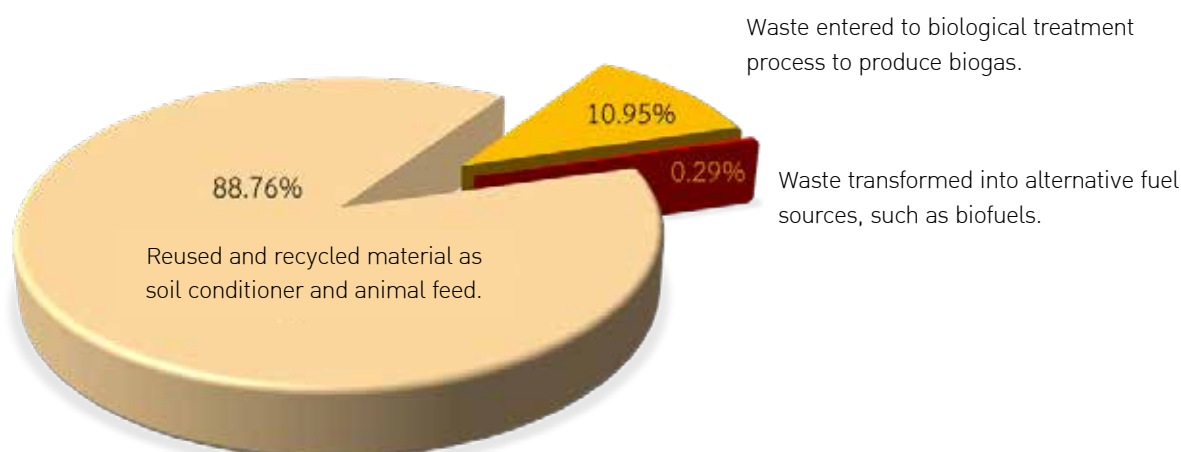
Volume of Water Consumption From 2019-2022

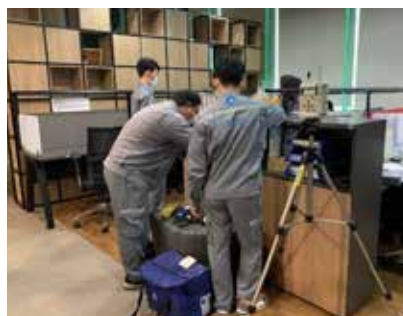
Volume of Water Consumption	2019	2020	2021	2022
Total water consumption (cubic meters)	3,169,754.10	3,034,806.10	3,129,600.20	2,562,727.00
- Surface water	2,705,921.40	2,564,002.70	2,562,901.80	1,994,432.20
- Ground water	463,717.00	470,691.00	566,621.00	568,174.00
- Municipal water supply	115.70	112.4	77.40	120.80
Water Consumption Ratio Per Product Unit (per million liters of product)				
Biodiesel	1.23	1.04	1.08	1.14
Glycerine	-	-	0.246	0.263
Ethanol	15.35	14.91	15.59	15.71

* The Company Group of BBGI Public Company Limited has disclosed reports on water consumption according to the GRI Universal Standards, which can be found in more details from environmental statistics. <https://www.bbzigroup.com/storage/download/environment-dimension/table-stats-environment.pdf>

3) Garbage, Waste, and Pollution Management

Garbage, waste, and pollution management data reports reflect efficient resource usage and the ability to manage the disposal cost of garbage or waste from business processes. They also help build confidence that the business can control and reduce negative impacts from business processes that may cause trouble to communities and society. The Company has set short-term, medium-term, and long-term plans for waste management from the production process following laws strictly according to the 3Rs principle: Reduce, Reuse, Recycle, in waste management from the production process to reduce the amount of waste to the minimum, including studying the expansion to the Circular Economy. In 2021, the Company Group has participated in the project to develop a low-carbon industry according to the concept of the Circular Economy, which is a collaboration among the Thailand Greenhouse Gas Management Organization (public organization), King Mongkut's University of Technology Thonburi, and every company in the BBGI Group. BBGI Bioethanol Public Company Limited, Bo Phloi Branch, received the 3Rs Award for waste management according to the 3Rs principle and the Zero Waste to Landfill award for waste management without going to landfills. In addition, the Company is in the process of studying to reuse waste in accordance with the principle of the Circular Economy.





The Company sets a goal of zero waste to landfill or zero landfill. According to the performance of garbage and waste management from the production process in 2022, the proportion of waste that was brought into the 3Rs process and turned into compost and animal feed was 88.76 percent. Waste that was biologically treated to produce biogas was 10.95 percent. And waste that was converted back into fuel energy was 0.29 percent. In 2022, waste that was disposed of by landfilling accounted for 0 percent.

In addition, the Company has an environmental quality measurement in the office and around the establishment at least 1 time in a year. In 2022, it was found that the standard values of air, smell, noise, and lighting quality were within the normal range as required by laws. No cases of hazardous chemical leakage were found especially hydrocarbon leaks from business operations.

Volume of Hydrocarbon Leaks from 2019-2022

Volume of Hydrocarbon Leaks	Unit	2019	2020	2021	2022
Hydrocarbon leaks > 100 barrels/time					
- Number of significant hydrocarbon leaks (>100 barrels/time)	(cases/time)	0	0	0	0
- Volume of significant hydrocarbon leaks (>100 barrels/time)	barrels	0.00	0.00	0.00	0.00
	liters	0.00	0.00	0.00	0.00
Hydrocarbon leaks > 1 barrel/time					
- Number of significant hydrocarbon leaks (>1 barrel/time)	(cases/time)	0	0	0	0
- Volume of significant hydrocarbon leaks (>1 barrel/time)	barrels	0.00	0.00	0.00	0.00
	liters	0.00	0.00	0.00	0.00
- Volume of hydrocarbon leaks > 1 barrel that has leaked into the outside environment	barrels	0.00	0.00	0.00	0.00
	liters	0.00	0.00	0.00	0.00
Compliance with Environmental Laws					
Numbers/Values of Significant Fines for Violating Environmental Laws	(cases/time)	0	0	0	0

* The group BBGI Public Company Limited has disclosed reports on the volume of hydrocarbon leaks according to the GRI Universal Standards, which can be found in more details from environmental statistics. <https://www.bbgroup.com/storage/download/environment-dimension/table-stats-environment.pdf>

* "Significant" fines or penalties refer to fines/penalties of each item worth over 300,000 baht in value, including fines paid as a part of environment and ecosystem related agreements.

Volume of Garbage and Waste from Business Operations From 2019-2022

	2019	2020	2021	2022
Total Volume of Garbage and Waste (kilograms)	1,267,219,568.00	2,282,477,899.00	2,309,425,950.00	1,804,543,139.40
- Total volume of non-hazardous waste (kilograms)	1,267,132,308.00	2,282,272,090.00	2,309,087,760.00	1,803,948,681.40
- Total volume of hazardous waste (kilograms)	87,260.00	205,809.00	338,190.00	594,458.00
- Volume of garbage and non-hazardous waste that can be reused / recycled (kilograms)	46,208.00	6,820.00	41,950.00	65,843.08
- Volume of garbage and hazardous waste that can be reused / recycled (kilograms)	20,130.00	13,839.00	1,120.00	102,611.00
Proportion of total waste recycled (%)	86.64%	91.07%	91.19%	88.76%
Proportion of total waste disposed by different method * (%)	13.02%	8.74%	8.52%	10.95%
Waste is disposed of by converting it back into fuel energy. (Alternative fuel / Mixed fuel) (%)	0.34%	0.19%	0.29%	0.29%
Proportion of total waste landfilled (%)	0.00%	0.00%	0.00%	0.00%

* Waste and garbage that is managed by different method which is biological treatment to enter the biogas production process

* The Company Group has disclosed reports on garbage and waste management according to the GRI Universal Standards: GRI-306-5/ GRI306-4/GRI306-5. More details can be found in environmental statistics <https://www.bbgigroup.com/storage/download/environment-dimension/table-stats-environment.pdf>

4) Guidelines and Measures Related to Greenhouse Gas Management

Since climate change from greenhouse gas emissions is an environmental issue that the Company emphasizes and strives to prevent and reduce greenhouse gas emissions. In response to climate change, the Company has set measures for managing greenhouse gas at the corporate level as follows:

- The Company aims to reduce the proportion of greenhouse gas emissions from bio-innovation business to lessen the impact of climate change.
- The Company aims to improve the strategy in the production process of the Company and uses clean and efficient technology to reduce greenhouse gas emissions.
- The Company will arrange a section responsible for controlling greenhouse gas management, such as calculating the amount of greenhouse gas emissions to be in line with international standards, coordinating with external agencies to monitor the amount of greenhouse gas emissions, and the Company will encourage internal agencies to implement measures on greenhouse gas management.
- The Company will promote technology and innovation development research for sustainable greenhouse gas reduction to be consistent with climate change adaptation.

In the policy, the Company has set various guidelines covering environmental, social and corporate governance, sustainability issues as well as corporate-level greenhouse gas management measures. Details can be found at <https://www.bbgigroup.com/storage/cg/cg-report-download/20230202-bbgi-environmental-social-and-governance-policy-th.pdf>

In 2022, the Company prepared greenhouse gas emission account data covering all factories in the Company Group as follows:

1. BBGI Public Company Limited, Headquarter (BBGI-HQ)
2. BBGI Bioethanol Public Company Limited (BBGI-BP , BBGI-NP)
3. BBGI Bioethanol (Chachoengsao) Company Limited (BBGI-PS)
4. BBGI Biodiesel Company Limited (BBGI-BI)
5. BBGI Utility and Power Company Limited (BUP)

The BBGI Group has set a goal of zero greenhouse gas emissions (net zero) by 2050 with a long-term goal to reduce total greenhouse gas emissions Scope 1 and Scope 2 within 2030 by 30 percent from the base year 2022. And it has a medium-term goal to reduce total greenhouse gas emissions Scope 1 and Scope 2 within 2026 by 15 percent from the base year of 2022. Now various business management has continued to move toward that goal. This is divided into 2 primary areas. One is to improve various efficiency in the production process and use of products that will reduce greenhouse gas emissions by 15 percent in 2026 and by 30 percent in 2030, while the other 70 percent must have other mechanisms to help support such as investing in green energy businesses and trading carbon credits. Currently, the amount of greenhouse gas emissions Scope 1 and Scope 2 in 2022 of the BBGI Group is 80,845 tons of carbon dioxide equivalent. The Company set a goal to reduce greenhouse gas emissions Scope 1 and Scope 2 in 2023 at 3.6 percent compared to the base year 2022. Details can be found at <https://www.bbgigroup.com/storage/cg/cg-report-download/20230202-bbgi-environmental-social-and-governance-policy-th.pdf>

Data on the Amount of Greenhouse Gas Emissions of BBGI Public Company Limited from 2019-2022

Greenhouse Gas Emissions	2019	2020	2021	2022
Greenhouse Gas Emissions Amount Goals	-	-	-	Base Year
Scope 1 (tons of carbon dioxide equivalent)	51,138	42,962	46,329	60,777
Scope 2 (tons of carbon dioxide equivalent)	20,373	20,079	18,446	20,068
Scope 3 (tons of carbon dioxide equivalent)	-	-	-	263,433
Total of Scope 1 + 2 (tons of carbon dioxide equivalent)	71,511	63,041	64,775	80,845

* The Company Group has disclosed reports on greenhouse gas emissions according to the GRI Universal Standards: GRI-305-1/ GRI305-2/GRI305-3. More details can be found in environmental statistics. <https://www.bbgigroup.com/storage/download/environment-dimension/greenhouse-gasemissions-accounting-report.pdf>

** Third-party verification: <https://www.bbgigroup.com/storage/download/environment-dimension/GHG-Statement-of-Assurance-2565.pdf>

*** In 2022, the Company Group had higher greenhouse gas emissions due to construction and biogas system testing of BBGI Bioethanol Public Company Limited, Nam Phong Branch, and BBGI Utility and Power Company Limited, Bo Phloi Branch.

In addition to preparing and reporting the organization's greenhouse gas emissions account in 2022, the Company also attaches importance to the greenhouse gas emissions of products, especially in the production and use of fuel sustainably. In 2022, BBGI Public Company Limited and Bangchak Corporation Public Company Limited, together with Thanachok Oil Light Company, established BSGF Company Limited (BSGF) and signed a cooperation agreement in the project for the production and distribution of sustainable aviation fuel or SAF from used cooking oil as the first and only company in Thailand. It is expected to set up an SAF production unit with an initial production capacity of 1 million liters per day. It is expected to be ready to serve the domestic and international aviation industry in the 4th quarter of 2024, reducing greenhouse gas emissions from air travel and transport by approximately 80,000 tons of carbon dioxide equivalent per year. In 2022, BBGI Biodiesel Company Limited, a manufacturer of biodiesel fuel, was certified for the global standard in sustainability and carbon reduction "ISCC EU Certificate" by the International Sustainability & Carbon Certification (ISCC) organization in accordance with the EU Renewable Energy Directive in the production of sustainable biodiesel biofuel which complies with EU regulations in exporting used vegetable oil type methyl ester (used cooking oil methyl ester or UCOME) to sell in Europe. Biodiesel plant of BBGI Biodiesel is a FAME (fatty acid methyl ester) production plant in Thailand that has received the ISCC EU Certificate, a biofuel standard that is the European Union's key international standard for safety and sustainability of biomass fuel.

The BBGI Group will strive and attach importance to the implementation of the greenhouse gas management policy as mentioned above to prevent and reduce environmental impacts leading to sustainable development.

3.4 SUSTAINABILITY MANAGEMENT IN SOCIAL DIMENSION

Social Policy and Practice

The Company has a sustainable social management policy as a part of its environmental, social, and governance (ESG) policy. The Company is committed to play a part in caring for and improving well-being and benefits to stakeholders with respect to human rights starting from taking care of employees, promoting income generation for the community by purchasing raw materials from farmers, local employment, and disability employment, as well as giving importance to and complying with laws related to safety, occupational health, environment, and energy management. Moreover, the Company also extends the care and assistance to those who have suffered from various disasters at the appropriate level. Details can be found at <https://www.bbgroup.com/th/sustainable-development/social-dimension>

In 2022, the Company has set a goal to take care of society by adding sustainability indicators that are consistent with the resource industry group of the Stock Exchange of Thailand as follows:

Topic	Target	Performance
Organizational commitment	Not less than 75%	77%
Average number of training hours of employees (hours/person/year)	8 hrs.	20.9 hrs.
Number of injury incidents from employees leading to lost time (times) (Lost Time Injury Frequency Rate: LTIFR)	0 time	0 time
Number of injury incidents from contractors leading to lost time (times) (Lost Time Injury Frequency Rate: LTIFR)	0 time	0 time
Percentage of employees from local communities	50%	80.68%
Number of raw materials purchased from farmers (including cooperatives)	Not less than 5%	9.87%
Employment of persons with disabilities under Sections 33 and 35	5 persons	5 persons
Labor dispute	0 time	0 time
Community complaints	0 time	1 time

3.4.2 Social Performance

Human Rights

With the acknowledgement that BBGI's operations play a role in society in terms of creating jobs, generating income, developing technology, and investing in new innovations that benefit people. Therefore, to have executives and employees of the Company be aware of and applying human rights principles in business operations, the Company Group of BBGI Public Company Limited has established a "Business Responsibility Policy for Respecting Human Rights" by applying the principles of human rights and the business of the Stock Exchange of Thailand and implementing a human rights framework based on the guiding principles of the UN Guiding Principles on Business and Human Rights (UNGPs) in 3 aspects, namely Protect, Respect, and Remedy as a guideline.

In addition, in 2022, the Company initiated a surveillance and audit of human rights due diligence that may arise from the production of goods and services, labor practices, treatment of partners and communities and vulnerable groups comprising children, disabled people, women, minorities, immigrants, workers employed through third parties, indigenous people, local communities, people of diverse gender identities (LGBTQ), elderly, and pregnant women. The Company determined the scope of the audit, including identification of relevant human rights issues and risk analysis of potential impacts and opportunities. As a result of the audit, it was found that health and safety issues for employees and communities was at a substantial risk, The Company, therefore, reviewed the process to create plans to prevent and reduce chances and risks with remedial mechanisms to appropriately mitigate the effects with participation.

Fair Labor Treatment According to Human Rights Principles

Regarding employment, the Company gives priority to recruiting employees with transparency and operating with equality and fairness by specifying qualifications, education, experience, expertise, and requirements based on positions to get employees qualified for the defined positions. The Company also gives opportunities to the communities surrounding the factory and people with disabilities, considered as a vulnerable group, who want to work with the Company as the Company complies with the “Empowerment of Persons with Disabilities Act”. In 2022, the Company hired 1 person with disabilities under Section 33 as an employee of BBGI-NP and subcontracted or contracted service of the disabled in the community under Section 35 instead of sending money to the fund for 2 people to work at Nam Phong Hospital and KSL River Kwai Natural Agriculture Center.

Number of Employees in 2022

	BBGI-Group	BBGI-HQ	BBGI-BI	BBGI-BP	BBGI-NP	BBGI-PS
Total Employees	578	45	121	122	165	125
Male (persons)	384	17	86	82	131	68
Female (persons)	194	28	35	40	34	57
Gender unidentified (persons)	0	-	-	-	-	-
Buddhist	573	44	118	122	165	124
Christian	0	-	-	-	-	-
Muslim	5	1	3	0	0	1
Other religions	0	-	-	-	-	-

Compensation Ratio Per Employee (Female to Male)

Manager Level 0.87 / 1	Senior Executive Employees 1 / 0.94	Executives Employees 1 / 0.83	Operative Employees 1 / 0.88
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See more details from social statistics at the link <https://www.bbgigroup.com/storage/download/socialdimension/table-stats-social-dimension.pdf>

On negotiation, the Company has set up a welfare committee in the workplace of each factory. There are representatives of employees as members of the committee to discuss, monitor, and give advice or suggestions together with executives about the welfare that is beneficial to employees.

In 2022, from regular exchange meetings between executives and the welfare committee in the workplace, there was no significant labor dispute, no employment complaints, including no significant issues of violating laws or social regulations.

Employee Development and Supervision

The Company places significant importance on its employees. The Company has a personnel management and development committee (MDC) that oversees the policy from employee recruitment, development, evaluation, and appropriate remuneration allocation to taking care of employees to create a sense of family bonding with the organization. The Company has assessed the organizational commitment to use the assessment results and opinions of employees to improve and develop projects/activities that will strengthen bonds, along with opinions and recommendations of the welfare committee in the workplace which consists of representatives of employees to jointly consult and consider ways to look after employees together with executives.

Performance in 2022

For employee recruitment, the Company has analyzed the employee rate according to the organization's strategic plan and give each factory the opportunity to consider and select personnel in the area to set up the factory as appropriate for each factory to generate income which will bring strength to the community economy and helps to live with the family warmly.

Recruitment Goals

The Company has given importance since the beginning of the recruitment process based on the principle that the recruitment and selection process of employees must be transparent and operate with equality and fairness. The characteristics of the employees will be determined by job characteristics along with specifying educational qualifications, experience, expertise, and other requirements of each position clearly. The qualified candidates will be selected according to the specified method to obtain qualified employees suitable for their duties.

Performance

1. The employment rate of people with disabilities of 1 percent of the number of employees who can operate is 3 people.
2. Percentage of Employees from the Community in the Factory Location In 2022, the Company had a total workforce of 578 people.

Number of Employees Classified by Establishments in 2022

Company	Number of EmployeesTotal (persons)
BBGI-Group	578
BBGI-HQ	45
BBGI-BI	121
BBGI-BP	122
BBGI-NP	165
BBGI-PS	125

Employee Potential Development

The Company places importance on personnel development on a regular basis. The objective is to increase knowledge, skills, and expertise as well as efficiency in work performance of employees at all levels. The Company will support its personnel to develop knowledge and expertise from actual operations (On the Job Training), including holding training within the Company to pass on experiences and provide additional knowledge to employees on a regular basis. The Company will consider sending employees and executives in various work lines to participate in training and seminars on matters related to the operations of each department to apply the knowledge that has been trained to improve the operations of the Company to the better.

The Company pays attention to building high performance culture and determining the characteristics of each position in the operation (competencies) in order to develop professionalism for employees suitable for their duties and positions through a training process that has been properly prepared to create a career path and a learning development program to create work motivation and open up opportunities for employee growth in both the management line and specialist line. Employees can choose individual career paths that will grow in the organization over time and form a personal development plan for success.

The Company has developed employees with outstanding performance and potential (talent development) in order to plan the development and analyze the manpower structure in the next 3-5 years and prepare for the career advancement of employees in line with the business strategy of the organization in the future to attract, retain, and develop high potential employees in the organization to be able to develop in accordance with the knowledge, ability, level of position, and responsibility of the job to be better. There is also a succession development and planning of employees to plan and analyze the manpower structure in key positions and to plan succession of position proactively. This is one of the sustainability development guidelines for human resource development in the organization and helps reduce the risk of replacement problems in key positions. It is to prepare employees for their career advancement in line with the organization's future business strategy and to attract, maintain, and develop a group of employees with high potential (talents) in the organization to be able to develop in accordance with their knowledge, competency, position level, and job responsibilities.

Employee Potential Development Goals

1. Employee potential development is conducted according to competency by position, divided into Functional competency: knowledge, ability, skill, specific character or behavior to each profession or line of work; Leadership competency or Managerial competency: knowledge, ability, skill, character or behavior to manage work from supervisor level to the highest level like CEO, Core competency, to promote the culture and core values of the organization.
2. Number of Average Training Hours of Employees (hours/person/year)

Training Hours of Employees in 2022

Company	Total Number of Employees (Persons)	Number of Training Hours of Employees (hours/year)	Percentage of Average Training Hours of Employees (hours/person/year)
BBGI-Group	578	12,096	20.9
BBGI-HQ	45	1,406	31.2
BBGI-BI	121	4,480	37.0
BBGI-BP	122	2,350	19.3
BBGI-NP	165	1,548	9.4
BBGI-PS	125	2,312	18.5

Key Performance

Since 2022, the Company has conducted competency assessment of various job positions, divided into:

1. Functional Competency is knowledge, ability, skills, character, or behavior specific to each profession or line of work. To close the gap, the line/section will supervise and consult with employees, including encouraging employees to exchange knowledge and learn through webinar or various online courses both domestically and internationally which can be studied more conveniently after the COVID-19 situation.

The Company also signed a memorandum of cooperation on the exchange of knowledge and technology for personnel and organization development both theoretically and with Rajamangala University of Technology Thanyaburi. The network will promote and support academic cooperation, research, academic service, including cooperation in conducting activities and increase the capabilities of manpower, tools, technology, and develop the potential of personnel of both organizations together.

2. Leadership Competency or Managerial Competency is knowledge, competency, skills, character, or behavior that will manage from Supervisor level to the highest level like CEO. Leadership skills are an important part of this type of competency. In 2022, human resource management and organization development department departments organized training during how to be a great manager for 2 classes for executives at the manager level and above as well as the course of supervisory skill for supervisors at the supervisor level.
3. Core Competency is to promote the culture and core values of the organization "AM BBGI"; Agility & Mobility (changing together), Beyond Expectation (seeking excellence), Be Empathy (being considerate of people), Group Synergy (integrating power to create success), Innovation (Growing with innovation). It is to create the core values of the organization together, learn, adapt, change together, and operate sustainable business. The Company organizes seminars and trainings to create knowledge exchange within the organization on diverse topics as follows:

“The Growth Mindset: How to transform yourself to bring yourself and the organization towards future goals” In this training, in addition to providing knowledge on self-transformation, cultivating the concept of growth, setting goals, and taking action for employees, it also emphasizes collaboration techniques, building positive relationships, and working as a team (If the team does not work, work as a team.)

“Sustainability Reporting by Industry Group Workshop” With a commitment to operate in accordance with sustainable development guidelines, the Company, therefore, places importance on instilling sustainable development concepts among executives and employees. In 2022, the Company was selected by the Stock Exchange of Thailand to participate in the workshop on “Sustainability Reporting by Industry Group” allowing executives and employees involved both from the office and subsidiaries to learn the importance of applying sustainable development guidelines to set goals, indicators, action plans, and the reporting process to effectively disclose corporate sustainability information to stakeholders in accordance with international standards. In addition, the Company has a BBGI Happy Mental Health project for employees. This project aims to foster attitudes and cultivate wisdom and kindness in the hearts of BBGI employees to become people who love themselves, love people, and love the world by receiving good ideas from speakers about how thoughts work and simple techniques that can be applied in everyday life to manage stress and help build good relationships with those around them.

Performance

Examples of benefits that employees and the Company receive from employee potential development are as follows:

Training Course	Benefits to Employees and Organization
Supervisory Skill “Supervisor Skill Development”	Employees are aware of the necessity for change and adaptation in the current era. Adjust for the growth mindset for self-management and teamwork, develop and uplift management skills to be more efficient by deploying management tools and team development to be efficient and consistent with the times. Develop good leadership abilities and manage tasks and people effectively. Foster the understanding of principles, roles, responsibilities of supervisors, basic properties of role model, techniques for creating motivation to work for people in the team, and effective supervisor competencies to create success and deliver satisfactory performance according to the expectations of the organization.
The Growth Mindset “How to transform yourself to bring yourself and the organization towards future goals”	How to develop mindset for self-transformation to lead the organization to its goals. Emphasis on cultivating the concept of self-growth and then deliver competence to the organization. Develop key concepts of goal setting and acting. Be open to failure. Build positive relationships across teams and organizations so there are collaborations between employees and departments within the organization.
How to Be a Great Manager “The New Generation of Managers: Change Mindsets, Create Passion, Form Performance”	Develop the role of managers in the VUCA World era and develop the Great Leader qualities and Leadership Competency of modern managers. Build the ability to Up Skill & Re Skill in dimensions of managers and create guidelines for passing on talent development. Give the opportunities to develop employees in the team through work development tools and team development in several ways.

Employee Motivation and Retention

In addition to developing the potential of employees, the Company also focuses on motivating and retaining employees to achieve efficient work and work together to build competitiveness and increase chances of success in accordance with corporate goals and strategies. To achieve this goal, the Company has established clear and fair guidelines for employee performance assessment, including requiring continuous monitoring the employee's commitment to the organization, to be used as information for reviewing and considering the remuneration and welfare of personnel in accordance with the performance throughout the organization.

Employee Motivation and Retention Goals

1. Performance evaluation is based on KPIs and competency.
2. Commitment score is not less than 75%.

Key Performance

1. Performance management system is considered an indicator of work success which affects the positioning, salary increase, bonus consideration, or even termination of employment. The Company uses a performance assessment system that uses KPIs and competency as a guideline to help ensure that all employees will participate in driving the organization to operate in a direction that is in line with the vision and goals of the organization that require both short-term and long-term success. At the same time, it stimulates the development of work and the potential of employees at the same time. The Company also determines to assess and monitor the performance of personnel two times a year in order to jointly find ways to develop and improve performance and to consider the remuneration and plan for employee development in the next year.

Performance management



Communicate the goals and details of the indicators according to the company's strategy and goals, from top management to department heads.



Review the performance with employees on a quarterly basis and report the results to senior management to propose performance improvement strategies to the HR department.



Supervisors evaluate job performance at the end of the year to consider compensation and development plans.



The HR department compares results to targets, allocates annual rewards, and salary adjustments together with supervisors.

Performance Management System are as follows:

Performance assessment (100 percent) consists of 2 parts: the achievement of the work according to the KPIs that have been jointly set and the assessment of competency or behavior in performance by having employees assess themselves (self-assessment) and then assessed by a team leader or supervisor or co-workers and subordinates (90° and 360° assessment, as appropriate for each position level). There also will be discussions to communicate achievements and issues that need to be developed together including a plan to develop necessary knowledge, skills, or behaviors.

2. As for organizational commitment, the Company places importance on taking care of employees and personnel for employees at all levels to have the feeling of belonging to the organization as a family. In 2021, it was the first year that the Company started to survey employee commitment to the organization using the results to continuously improve and develop the care of employees and personnel.

Project Model to Create Organizational Commitment

- Conduct Internal communication, CEO meeting with employees, CEO talk, and town hall.
- Conduct competency development, talent development, succession planning, leadership development, and career development to develop employees' career advancement to be ready for further growth positions.
- Manage wages and compensations based on the principles of pay for performance.
- Develop and create the Culture – Core Value of the organization “AM BBGI” to develop the corporate core values, including the development of corporate culture in line with business operations and employee development in the organization to grow together.
- Conduct an organizational commitment survey 1 time in a year by taking survey results and recommendations both quantitative (engagement survey) and qualitative (focus group interview) to analyze and plan development, improvement, and communication with employees across the organization.
- Take care of employees during the COVID-19 outbreak by delivering medicines and essential items to employees who are sick and recovering at home.

From such operations, it is found that the corporate commitment score in 2022 increases from 2021 by 77 percent, with 100 percent of employees participating in the commitment survey.

Safety, Occupational Health, and Work Environment

The Company has established a policy on safety, occupational health, environment, and energy and has established a department for safety, occupational health, and environment. The central team will join the SHE committee of the Bangchak Group. In each area of the subsidiary's factory, there will be a team to take care of it, using the guidelines of the occupational health and safety management system according to the announcement of the Ministry of Industry No. 5144 (2018) issued under the Industrial Product Standards Act B.E. 2511 as amended by the Industrial Product Standards Act (7th Edition)

B.E. 2558. The Minister of Industry issued an announcement setting up industrial product standards, occupational health, and safety management system - requirements and recommendations for use in Standard No. TIS. 45001 - 2018 and the Process Safety Management (PSM). This is to effectively cover the management according to the defined target and operation plan of each company.

Safety, Occupational Health, and Working Environment Goals

1. Lost time injury rate (LTIFR) of employees and contractors is zero.
2. The leakage rate of hazardous and non-hazardous substances is zero.

Key Performance

Participation, Consultation, and Communication with Workers on Occupational Health and Safety Issues

The Company has appointed a committee on safety, occupational health, and work environment in accordance with laws to be the collaboration between management representatives and employee representatives. In 2022, both the central team and the team in each plant had a meeting reviewing work procedure, setting goals, planning, and communicating to the management division to operate 2 times in a year.

The Company promotes safety knowledge both internally and externally, for example, employees at the head office and subsidiaries participated in the learning exchange activities of the Bangchak Group at the event of SHEE Operation Excellence Day 2022. At the same time, the safety teams of each subsidiary have organized additional training in relation to the safety of employees and contractors according to the safety policy, such as a knowledge course on hazardous chemicals for quality control employees, transportation of alcohol and spent wash water, etc., including continually conducting annual emergency drills.

For the central team at the head office, which is located at M Tower, attended a meeting with Bangchak Group's SHE committee and receives an award for participating in the zero-accident project of the Safety Promotion Institute of Thailand (SPA). Also, BBGI-BI Company has been certified Occupational Health and Safety Management System Standard ISO 45001: 2018 continuously, starting to apply for OHSAS 18001 certification since 2012, which was later developed to be ISO 45001. It also received the zero-accident award in 2022 continuously.

Work-related threat identification, risk assessment, and investigation of risky events were conducted to determine measures to prevent and reduce risks continually. The results of the risk assessment found that risky activities (work-related hazards) could lead to the risk of high consequence injury. For example, BBGI-NP added additional measures and improved equipment to prevent accidents in biogas production operations.

**Work-Related Health Services**

Employee health surveillance which includes employee health check-ups from the start of work, during work, and annual health check-ups, organizing training to educate themselves on taking care of their health to be a guideline for self-behavior and to encourage employees to have good health.

In 2022, the situation of the spread of the COVID-19 virus is likely to improve and the government has relaxed measures to operate or do more activities. There is still ongoing care from the Company by encouraging employees to take care of and protect their own health by extending the working hours in the hybrid workplace format. Employees can work in a hybrid between working from home and entering the office as necessary and appropriate. The number of employees coming to work in each area does not exceed 50 percent and there is a temperature check before entering the work area. For employees who have underlying diseases and employees who are pregnant are allowed to work from home. Employees are not encouraged to travel to work by public transport but to travel by private cars instead. It is required for the employees to strictly follow measures to prevent the spread of the COVID-19 virus, especially wearing a mask, social distancing, washing your hands regularly, and not eating together. Additionally, the Company also provides COVID-19 Antigen Test Kits (ATKs) for employees to be able to evaluate at the time and place specified by the Company, including preparing hand sanitizers at important points for employees and contractors to use them conveniently. Online meetings are conducted, and employees are encouraged to refrain from or avoid going to crowded areas or places at risk of being exposed to the disease. In case employees or family members are at risk of infection, the Company approves employees to take off work to monitor symptoms at home by the discretion of the supervisor.

Regarding the supervision of contractors who come to work in the factory, the Company has established guidelines for supervising safety in the contract. The guidelines require companies that come to provide services to take care of providing equipment and train employees in safety along with advices on compliance with regulations for contractors and suppliers, such as requiring to wear basic personal protective equipment, helmets, safety shoes or brogue shoes, and safety glasses; or, vehicles for use within the Company must use a speed of not more than 20 kilometers per hour. In the event of an accident or unusual event, they must notify the supervisor of the Company immediately.

Performance

1. Lost time injury rate (LTIFR) of employees and contractors is zero.
2. The leakage rate of hazardous and non-hazardous substances is zero.

Customer Responsibility

Customer groups consist of oil traders under Section 7 of the Fuel Oil Trade Act and retail customers in the retail product group of the Company. The Company has taken care of 2 groups of customers responsibly with respect for human rights, keeping customer information and confidentiality in accordance with Personal Data Protection Act, maintaining product quality under fair trade conditions, and providing accurate information about products and services. The Company measures customer complaints and the results have been used to improve and develop to respond to customer expectations better.

Performance in 2022

Customer Care Goals

In order to maintain the confidence and trust of long-standing customers, the Company Group has implemented the ISO 9001 system: 2015 which is an international quality management system (QMS) standard that has been accepted around the world to enhance work efficiency to continuously meet the expectations of customers.



Key Performance

The Company is committed to improving the quality of products and services to ensure customer confidence and maximum satisfaction by having a meeting, coordinating, communicating, and planning together continuously. The Company also brings the needs and suggestions from the customers and the satisfaction assessment to continuously develop products and services. In this regard, the Company Group has established strategies for the operation to take care of customers along with the development of products and services in 4 areas:

1. Maintain quality and continuously develop products to be consistent with international standards and customer needs.

The International Standard that the Company Group Receives

Ethanol Business	Biodiesel Business
ISO 9001:2015	ISO 9001:2015
TIS 640	KOSHER CERTIFICATE
GMP	HALAL CERTIFICATE
HACCP	ISO/IEC 17025:2005) RSPO (Mass balance)
	HACCP, GHPs to produce refined glycerin
	International Sustainability and Carbon Certification (ISSC)

2. Maintain the ability to supply quality raw materials throughout the year, especially ordering raw materials in the right quantity and timing, including effective inventory management.
3. Increase the efficiency of the production process to control production costs to be competitive in the industry. The Company Group has expanded the production capacity along with the development and improvement of the production process to increase flexibility in raw material use.
4. Supervise the delivery of products in terms of quality, quantity, and the specified period on a regular basis. Maintain the efficiency of transportation cost management. The Company Group has advantages in efficient transportation management due to the factories locating in many regions, resulting in high flexibility in the delivery of products and ability to plan the shipment efficiently.

The development and improvement of products/services/business processes of the Company based on the customer satisfaction assessment in 2022 has the important operations as follows:

The Company Group has also partnered with a client, Bangchak Public Company Limited, and an alliance, Thanachok Oil Light Company Limited, to establish BSGF Company Limited (BSGF) to produce and distribute a new product which is Sustainable Aviation Fuel (SAF). It is another alternative energy for a sustainable world that will reduce the amount of carbon dioxide emissions in the aviation industry, especially as the aviation industry plans to move towards Net Zero goal in 2050.

For the aviation industry, Sustainable Aviation Fuel, or SAF, is made from used cooking oil. This will reduce carbon dioxide emissions by more than 80%, comparable to flying with aviation fuel today. The SAF production unit that the BSGF is about to set up is expected to be available to the domestic and international aviation industry in the fourth quarter of 2024. It is expected to have an initial production capacity of 1 million liters per day which will help reduce greenhouse gas emissions from air travel and transport by approximately 80,000 tons of carbon dioxide equivalent per year. In the production process, BBGI-BI has prepared to support the production of biodiesel using used cooking oil as raw material (Used Cooking Oil Methyl Ester: UCOME) by applying for International Sustainability and Carbon Certification (ISSC), which cover the production of methyl ester (biodiesel), crude glycerine and refined glycerine.

Participation in Communities and Society Development

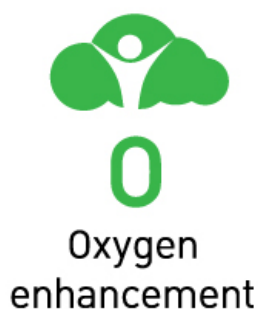
Since the main business of the Company at present is the production of renewable energy using agricultural crops as raw materials and the main operating areas are located in 4 provinces, namely BBGI-PS's factory area in Chachoengsao, BBGI-NP's Nam Phong plant in Khon Kaen, BBGI-BP's Bo Phloi plant in Kanchanaburi, and BBGI-BI's Phra Nakhon Si Ayutthaya plant, the Company emphasizes the importance of communities surrounding factory areas.

Performance in 2022

Community and Social Care Goals

1. Support the purchase of raw materials from farmers in communities surrounding the factory not less than 5% of all raw material purchases.
2. Community satisfaction with social activity support is 85%.
3. Employees coming from the local community are more than 50%.
4. There are no complaints from communities.

The process of taking care of communities around the establishment is as follows: The 4 affiliated companies determine the boundary of the care area within a distance of 3-5 kilometers and survey the needs of the community from community leaders, schools, temples, Tambon(sub-district) health promotion hospitals (THPHs), including farmers who come to sell agricultural products that the Company use as raw material. Then the data will be processed together with the data of the organization and developed into activities or projects in various fields under the "WOW" model, covering the 3 aspects and 2 characters projects or activities: 1) Volunteer project for community development which is a volunteer project or activity or donations of necessary items that are important to the community, and 2) sustainable community support projects through business processes. The examples of community development activities in 2022 are as follows:



Key Performance

• Community Development Volunteer Projects

Well-being Improvement



1. Community health promotion project around the factory, in cooperation with the Tambon Health Service Hospital, organizing the preliminary health check, providing health education on the correct use of drugs for people in the community, a project to visit and encourage bedridden patients and the elderly, a volunteer project to sew elephant doll hand grips, a project of giving herbal drinking water and healthy neck pillows to paralysis patients
2. Project to help those affected by COVID, donating survival bags and medical supplies, handing out alcohol gel / essential food and Pan Kan Im Project food support for those affected by COVID-19, various hospitals, field hospitals, government agency, volunteers (Zendai), schools, universities, along with the Bangchak Group giving fuel oil cards to volunteers
3. Projects to alleviate the suffering of victims such as BBGI against the cold, giving winter blankets to the elderly and the underprivileged and donating survival bags to flood victims in Ayutthaya
4. Project for schools, giving scholarships to students who are poor and have good grades at the Children's Day event, giving computers , sponsoring volleyball, and volunteer staff helping clean up old, unused items inside the school to be clean and hygienic, disposing of the old items to protect the wooden meetinghouse from termites damaging the building, and painting the school, the activity of pouring water out of unused containers to reduce mosquito larvae
5. The project of accepting student interns to join in learning and annual internships for students to have work experience and enhance skills and knowledge about bio-innovation business
6. Vegetable Garden within factory fence project is to promote the cultivation of vegetables and organic vegetables inside the factory fence. Employees can take the produce back for consumption. This is to reduce the expenses of the employees' families. There is also rice planting project using soil amendments.
7. There are the Fish Species Donation Project and the projects of releasing fish in nearby communities together for public benefit, restoring of natural canals, creating a food source for the community.



Mobile Health Unit and Community Outreach Program for Health Check-ups around the Factory Project



Renovation Project for Repairing Damaged Old School Buildings



"Kitchen Garden Corner along the Factory Fence" Project to Promote Non-Toxic Vegetable Gardening among Employees



Visiting and Providing Support for Bedridden Patients and Elderly People



Oxygen
enhancement

Oxygen enhancement

In addition to overseeing the production process, the Company has started planting community forests in the amount of 5 rai in 2020, replanting in 2022, and plans to work with Bangchak and the Royal Forest Department to expand reforestation in the conservation forest area with the target area at Phanom Sarakham District, Chachoengsao Province, and Kabin Buri District, Prachinburi Province, including planting more trees in nearby communities and within the factory area, provision of soil improvement materials to various agencies for use in agricultural plot to increase green areas and use carbon credits to reduce the amount of greenhouse gas emissions of the organization according to the climate change goals that set the goal of net zero emissions (Net Zero) by 2050.



Water management

The impact of climate change problems and the topography caused the people and farmers in the factory area to face both drought and floods. Therefore, there is a project of water assistance for consumption for the community, such as promoting clean water in the community by maintaining/changing water filters and water filtering machines/helping technicians related to water filter system. There is also a project of the BBGI helping victims of drought by buying and delivering water supply to the village water supply around the factory during the dry season to the community and farmers every year, as well as helping to alleviate the suffering of flood victims.

Important Sustainable Community Support Projects through Business Processes (CSR-In-Process) Are

CSR-in-process Project	Benefits to the Communities	Benefits to the Company
Project to promote revenue through employment and procurement of raw materials (Community Green Economic) <ul style="list-style-type: none"> Project to buy raw materials directly from farmers as an alternative of selling agricultural crops to farmers, BBGI-SP has bought cassava directly from farmers and BBGI-BI is open to buy crude palm oil (CPO) from agricultural cooperatives Used Vegetable Oil Bank Employment of people in the community as employees 	<ul style="list-style-type: none"> Increase income for farmers and communities directly. In 2022, 198 community farmers have income from selling raw materials to the Company for the total value of approximately 940 Million baht, representing 9.87% of the value of the purchase of all raw materials. There are certain main markets for selling products. In 2022, there were total 403 employees who are the children or cousins of people in the factory areas, representing 69.7 percent of all employees. 	<ul style="list-style-type: none"> Having stability in the arrangement of raw materials because of the ability to supply raw materials from many sources and expand network, not rely on only one supplier. Getting the raw materials as needed Saving the shipping cost for cassava Getting a fresh and better quality of cassava
Waste to Wealth Project <ul style="list-style-type: none"> Distribution of soil improvement substances to replace the use of chemical fertilizer for farmers. It is well known that the distillery water that has been treated to reduce the number of organic substances to dilute according to the standards of the Department of Industrial Works will have good soil improvement properties. That is to say. <ul style="list-style-type: none"> It can help reduce soil density, help the soil to carry water to make fertilizer /fermented water adding organic ingredients in the soil, and contains N, P, K substances and helps the plants to suck higher potassium. It's suitable for plants that are heads and pods such as pumpkin, wax gourd, jackfruit, corn and sugar cane etc. 	<ul style="list-style-type: none"> There are 742 farmers who receive soil improvement substances via requesting permission from the Department of Industrial Works for 827,715.72 tons to be used in agricultural areas of 48,012 rai. Help save farmers' chemical fertilizer cost for 2,560 baht / rai / year (compared from the price of fertilizer 46-0-0, the price may be adjusted according to the price of fertilizer) In the dry season, the distribution of soil improvement substances will provide both water and soil improvement substances, so there is no lack of water and nutrients, being able to maintain the amount of productivity well. Farmers save production costs because there is no cost of water and fertilizer for agriculture. 	<ul style="list-style-type: none"> In addition to obtaining biological energy from the Biogas production process, there are also soil improvement substances for farmers. Increase the amount of water ponds from the water treatment to sufficient production. Reduce the cost of getting rid of distillery water from the elimination company by about 105,000 baht per rai (use 30 cubic meters of distillery water / rai / month approximately). Prevent pollution.

CSR-in-process Project	Benefits to the Communities	Benefits to the Company
<ul style="list-style-type: none"> Supports the bricks from minced ashes and sand which is by-product from production. 	<ul style="list-style-type: none"> to Don Thana Village, Khu Yai Mhee Subdistrict, Sanam Chai District, Chachoengsao Province for 4,791 blocks to use in community health garden flooring. It is beneficial to 100 households and saving about 50,000 baht on community health garden flooring. 	<ul style="list-style-type: none"> Bring the ashes from chopped wood and floor-adjusting sand from the production to be recycled to help to save the removal cost. Promote creativity, work improvement process, and volunteering to 113 employees. Prevent pollution.



Vegetable Cultivation Project in a soil conditioner Trial Plot



Making Worm Bricks from Wood Biomass Ash and Sand By-Products for Use in Community Health Garden Flooring

Performance

1. Support the purchase of raw materials from farmers in communities surrounding the factory 940 million baht or 9.87 percent of raw material supplies.
2. Community satisfaction with social activity support is 85%.
3. Employees coming from the local community are more than 69.7%.
4. There is 1 complaint from the community regarding the smell from the storage pond for raw materials used in the production of biogas due to the plastic sheets covering the pond being torn. The Company has accelerated and processed the control measures of the odor that may spread to disturb residents near the factory.



4 MANAGEMENT DISCUSSION AND ANALYSIS

EXECUTIVE CONCLUSION

Sales Volume	2022	2021	YoY
Sales volume of ethanol products (million liters)	141.17	179.93	-22%
Sales volume of biodiesel products (B100) (million liters)	208.49	239.14	-13%
Million Baht	2022	2021	YoY
Sales Revenue	13,374	14,095	-5%
Gross profit	464	1,030	-55%
Profit (Loss) of Owners of the Parent	20	960	-98%

As for the performance of 2022, although the situation of the COVID-19 virus began to resolve in the second half of the year, travel activities gradually return to normal and more tourists began coming to travel in the country, but the Ukrainian-Russian crisis that started from February and inflation is at a high level resulting in BBGI Public Company Limited ("Company") and subsidiaries affected by the increase in the cost of raw materials used in the production of ethanol and biodiesel, including increased production costs, causing the Company and subsidiaries to have a total revenue of 13,374 million baht, an decrease from the previous year by 5%, YoY. There is EBITDA of 613 million baht, reduced by 67% YoY and there is a profit of owners of the parent for 20 million baht. The performance in each business group is as follows.

▲ YoY

- (-) The performance of the ethanol business decreased the main cause was due to the decreased volume of sales. In addition, the cost of energy and chemicals increased.
- (-) The performance of the biodiesel (B100) production and distribution business decreased, the main cause was due to the decreased volume of sales and the cost of energy and chemicals increased.
- (+) The performance of the high value biological product business increased from the release of new products and the increase of distribution channels, both online and offline.

PERFORMANCE OF THE BUSINESS GROUP

Million Baht	2022	2021	YoY
Sales Revenue	13,374	14,095	-5%
Cost of Goods Sold	(12,910)	(13,065)	-1%
Gross Profit	464	1,030	-55%
Other Income	45	37	22%
Selling and Administrative Expenses	(310)	(276)	12%
Profit (loss) from fair revaluation of investments	-	612	-100%
Share of profit (loss) of associated companies Joint venture with equity method	(8)	43	-119%
Joint venture with equity method	192	1,446	-87%
Profit before Financial Costs and Income Tax	(95)	(107)	-12%
Financial Cost	(0.3)	(150)	-100%
Income tax expenses	97	1,188	-92%
Profit (Loss) for the year	20	960	-98%
Profit (Loss) of Owners of the Parent	0.015	0.948	

Remark: Basic earnings per share for the year 2022 ending December 31, 2022, calculated from profit for the period that is the stockholder's equity of the main company. There has been the improvement of the number of ordinary shares that have changed from the reduction of ordinary share value on January 6, 2022, and the addition of paid-up capitals on March 15, 2022, using the weighted average method according to the number of ordinary shares released.

Overall performance in 2022, the Company and subsidiaries have a total sales revenue of 13,374 million baht, reduced by 721 million baht or 5% YoY, with EBITDA at 613 million baht, reduced by 67% Yoy, and has a profit of owners of the parent for 20 million baht, accounting for 0.015 baht per share with the performance of each business as follows

▲ YoY

- (-) Ethanol production and distribution business has an income of 3, 965 million baht, reduced by 645 million baht or 14% YoY. The performance has decreased. The main cause is due to the cost of the main raw materials in the production of ethanol which are cassava and molasses increased resulting in the amount of ethanol product distribution decreased according to the amount of raw materials supplied by 22% YoY.
- (-) The business of production and distribution of biodiesel (B100) has a revenue of 9,404 million baht, decreased by 78 million baht or 1 % YoY. The performance has decreased due to the Energy Policy Executive Committee (EPEC) has announced the reduction of the proportion of biodiesel in the Automotive Diesel Oil group from B7 to B5 from February to September 2022 and adjust the proportion to in October 2022, while in the 2021, the proportion of biodiesel in Automotive Diesel Oil group, B10 is a basic grade for almost throughout the year, resulting in the amount of biodiesel sales decreased by 13% YoY, and the effects of energy and chemical costs increase.
- (+) High value biological product business has the income of 4 million baht, an increase of 2 million baht or 86% YOY due to the release of new products related to health care and promotion under the brand B Nature+ added to the previous year which are "Calcium-LT Plus UC-II "and 4 formulas of probiotics and has expanded distribution channels on online platforms, television, and pharmacies in Bangkok.

• Gross Profit

For 2022, the Company Group's gross profit after deducting cost of sales was 464 million baht, a decrease of 565 million baht or 55% YoY.

• Selling and Administrative Expenses

For 2022, the Company Group had selling and administrative expenses of 309 million baht, an increase of 34 million baht or 12% YoY due to the Company's increased expenses related to the initial public issuance and offering of securities (IPO), listing on the Stock Exchange of Thailand, and the cost of promoting high-value biological products sales and developing new products.

• Net Profit

For the year 2022, the Company Group had a profit of owners of the parent in the amount of 20 million baht, a decrease of 940 million baht from the previous year. In 2021, the Company Group had profits from the disposal of investments, including adjusting the fair value of investments and changing the status of investments. As a result, the Company Group had a net profit from such transactions totaling 500 million baht. Excluding the impact that occurred in 2021, the Company's owners of the parent profit decreased by 440 million baht.

FINANCIAL POSITION

Statement of financial position (million baht)	December 31, 2022	December 31, 2021
Total Assets	14,106	12,907
Total Liabilities	3,825	6,003
Total Shareholders' Equity	10,281	6,904

• Assets

As of 31 December 2022, the Company Group had total assets of 14,106 million baht, an increase of 1,199 million baht or 9% compared to 31 December 2021, divided into current assets of 5,138 million baht or 36% of total assets and non-current assets of 8,969 million baht or 64% of total assets. Major changes in assets during the period were cash, cash equivalents and temporary investments, increasing by 2,251 million baht from the IPO.

• Liabilities

As of 31 December 2022, the Company Group had total liabilities of 3,825 million baht, a decrease of 2,178 million baht or 36% compared to 31 December 2021, divided into current liabilities of 1,467 million baht or 38% of total liabilities and non-current liabilities of 2,358 million baht or 62% of total liabilities. Liabilities with significant changes during the period were short-term and long-term loans from financial institutions decreased by 1,007 million baht, debentures were repaid in the amount of 500 million baht, and liability under finance lease agreement decreased by 376 million baht from acquisition of wastewater treatment pond assets and all related assets from KSL Material Supplies Company Limited.

• Shareholder's Equity

As of 31 December 2022, the Company Group had shareholders' equity of 10,281 million baht, an increase of 3,377 million baht or 49% compared to 31 December 2021 because of the IPO resulting in registered paid-up capital and share premium respectively.

CASH FLOW

As of December 31, 2022, the Company and its subsidiaries have cash and cash equivalents in the amount of 1,414 million baht consisting of

Cash Flow Statement (Million baht)	2022	2021
Net cash from (used in) operating activities	463	1,742
Net cash from (used in) investing activities	(1,615)	(167)
Net cash from (used in) financing activities	2,183	(1,349)
Net increase (decrease) in cash and cash equivalents	1,031	226
Cash and Cash Equivalents on 1 January	384	157
Cash and Cash Equivalents as of 30 September	1,414	384

Net cash received from operating activities in the amount of 463 million baht, from net profit, depreciation, amortization, and financial cost of 613 million baht.

Net cash used in investing activities in the amount of 1,655 million baht, from cash paid for the construction of the capacity expansion of the ethanol plant of BBGI Bioethanol Public Company Limited at Khon Kaen and construction work of BBGI Utility and Power Company Limited. in the amount of 297-million-baht, cash payment for the value of newly issued shares of Biom Company Limited. and BSGF Company Limited. in the amount of 30 million baht, and taking the cash from the IPO to manage returns from bank deposits in the amount of 1,220 million baht.

Net cash received from financing activities amounted to 2,183 million baht, mainly from net cash received from IPO in the net amount of 4,464 million baht, cash payments for repayment of short-term loans of subsidiaries in the amount of 729 million baht, and cash payments for repayment of the long-term loans of subsidiaries in the amount of 577 million baht, cash payments for the purchase of wastewater treatment pond and all related assets from KSL Material Supplies Company Limited in the amount of 387 million baht, cash payments for repayment of debentures in the amount of 500 million baht, and dividend payment in the amount of 289 million baht

Important Financial Ratio

	2022	2021
Gross profit ratio (%)	3.47%	7.30%
Net profit ratio (%)	0.72%	8.43%
Return on equity ratio (ROE) (%)	0.21%	15.21%
Return on assets ratio (ROA) (%)	1.26%	10.85%
Liquidity ratio (Current Ratio) (times)	3.50	1.03
Interest-bearing debt to equity ratio (IBD/E) (times)	0.27	0.63

Remark:

Gross profit ratio (%) = Gross profit / total revenue

Net Profit ratio = Net Profit (Loss) / Total Revenue

Return on equity ratio (ROE) (%) = Profit (loss) stockholder's equity of the parent company / Total shareholders' equity of the parent company (average)

Return on assets ratio (ROA) (%) = Profit (loss) before finance costs and income tax / Total Assets (Average)

Liquidity ratio (Current Ratio) (times) = Current assets / Current liabilities

Interest-bearing debt to equity ratio (IBD/E) (times) = Total Interest-Bearing Debt / total shareholder's equity



5 GENERAL INFORMATION AND OTHER IMPORTANT INFORMATION

5.1 GENERAL INFORMATION

The Company Information

Company name (Thai)	BBGI Public Company Limited
Company Name (English)	BBGI Public Company Limited
Company Registration Number	0107561000129
Securities Initial	BBGI
stock market	SET
Industrial Group	Resource
Business Category	Energy and Public Utilities
Business Type	Operates business by holding shares in other companies (Holding Company) that operate the following businesses: 1) The primary business is the production and distribution of biofuel products such as ethanol, biodiesel, and 2) High-value bio-based products related to advanced technology health care and promotion products.
Registered Capital	3,615,000,000 baht (three billion six hundred and fifteen million baht only)
Paid-up Capital	3,615,000,000 baht (three billion six hundred and fifteen million baht only)
consisting of ordinary shares	1,446,000,000 shares
The par value is	2.50 baht per share.
Head Office Location	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai Subdistrict Phrakanong District, Bangkok 10260
Website	www.bbgigroup.com
Telephone	0 2335 8899
โทรสาร	0 2335 8800
Email	bbgi-secretary@bbgigroup.com

Information of Subsidiaries and Associated Companies

BBGI Bioethanol Public Company Limited (Formerly known as KSL Green Innovation Public Company Limited Company)

Company Registration Number	0107559000486
Business of	Production and distribution of ethanol from molasses Ethanol production capacity: 450,000 liters per day
Office Location	2098 M Tower Building, 5th Floor, Sukhumvit Road, Phra Khanong Tai Subdistrict Phra Khanong District, Bangkok 10260
Telephone	0 2335 8899
Registered Capital	610,000,000 baht
Paid-up Capital	610,000,000 baht
Shareholding Proportion of the Company	100 percent (with shared directors)

BBGI Bioethanol (Chachoengsao) Company Limited. (Formerly known as Bangchak Bioethanol (Chachoengsao) Company Limited)

Company Registration Number	0245559001170
Business of	Production and distribution of ethanol from cassava Ethanol production capacity 150,000 liters per day
Office Location	96/10-11 Moo 7, Koh Khanun Subdistrict, Phanom Sarakham District Chachoengsao Province 24120
Telephone	038 090670
Registered Capital	500,000,000 baht
Paid-up Capital	500,000,000 baht
Shareholding Proportion of the Company	85 percent (with shared directors)

BBGI Biodiesel Company Limited (Formerly known as Bangchak Biofuel Company Limited)

Company Registration Number	0105551029246
Business of	Production and distribution of biodiesel with a capacity of 1,000, 000 liters per day
Office Location	28 Moo 9 Bang Krason Subdistrict Bang Pa-in District Phra Nakhon Si Ayutthaya 13160
Telephone	035 276500
Registered Capital	281,500,000 baht
Paid-up Capital	281,500,000 baht
Shareholding Proportion of the Company	70 percent (with shared directors)

BBI Utility and Power Company Limited.

Company Registration Number	0105563048488
Business of	Production and distribution of biogas, steam, and electricity
Office Location	2098 M Tower Building, 5th Floor, Sukhumvit Road, South Prakanong Phrakanong District, Bangkok 10260
Telephone	0 2335 8899
Registered Capital	100,000,000 baht
Paid-up Capital	100,000,000 baht
Shareholding Proportion of the Company	100 percent (with shared directors)

Win Ingredients Company Limited.

Company Registration Number	0105563114871
Business of	Production, distribution, import and export of biological products and all types of chemicals, ingredients used in the manufacture of cosmetics, drugs, pharmaceuticals, dietary supplements, and extracts.
Office Location	2098 M Tower Building, 5th Floor, Sukhumvit Road, South Prakanong Phrakanong District, Bangkok 10260
Telephone	0 2335 8899
Registered Capital	320,000,000 baht
Paid-up Capital	80,000,000 baht
Shareholding Proportion of the Company	51 % (with shared directors)

6. BSGF Company Limited

Company Registration Number	0105565154447
Business of	Procurement of raw materials, production, and distribution of Sustainable Aviation Fuel (SAF) from used oil.
Office Location	1056 Soi Sukhumvit 66/1, Phrakanong Tai Subdistrict, Phrakanong District, Bangkok 10260
Telephone	02 335 4066
Registered Capital	1,000,000 baht
Paid-up Capital	1,000,000 baht
Shareholding Proportion of the Company	20 percent

Biom Company Limited

Company Registration Number	0125563009041
Business of	Experimental research and development in biotechnology
Office Location	45/5 Moo 6, Ban Mai Subdistrict, Pak Kret District, Nonthaburi Province
Telephone	02 000 8887
Registered Capital	69,375,000 baht
Paid-up Capital	69,375,000 baht
Shareholding Proportion of the Company	20 percent

References Information

Securities Registrar	Thailand Securities Depository Company Limited
Office Location	the Stock Exchange of Thailand Building 93 Ratchadapisek Road, Din Daeng District, Bangkok 10400
Telephone	0 2009 9000
Fax	0 2009 9991
Registrar and Paying Agent	Bank of Ayudhya Public Company Limited
Office Location	1222 Rama 3, Bang Phong Phang Subdistrict, Yan Nawa District, Bangkok 10120
Telephone	0 2296 5557
Fax	0 2683 1298
Certified Public Accountant	KPMG Phoomchai Audit Company Limited
Office Location	50th Floor, Empire Tower 1, South Sathorn Road, Yannawa Subdistrict Sathorn District, Bangkok 10120
Telephone	0 2677 2000
Fax	0 2677 2222
Legal Advisor	Weerawong, Chinnavat & Partners Company Limited
Office Location	Mercury Tower, 22nd Floor, 540 Ploenchit Road Lumpini Subdistrict, Pathumwan District, Bangkok 10330
Telephone	0 2264 8000
Fax	0 2657 2222

Legal Advisor	DLA Piper (Thailand) Company Limited
Office Location	1 Empire Tower Building, 47th Floor, Room 4707, South Sathorn Road, Yannawa Subdistrict, Sathorn District, Bangkok 10120
Telephone	0 2686 8500
Fax	0 2670 0131
Legal Advisor	Norton Rose (Thailand) Company Limited
Office Location	127 Ratchadamri Road, Lumpini Subdistrict, Pathum Wan District Bangkok 1030
Telephone	0 2205 8500

5.2 LEGAL DISPUTES

As of December 31, 2022, the Company Group is not a litigant or a party to the lawsuit of arbitration or disputes that are material to the assets of the Company with an amount higher than 5.0% of the Company's shareholders' equity according to the financial statements for the fiscal year ended December 31, 2022 or materially and adversely affecting the business profits or financial status of the Company. However, from time to time, the Company may be a party to disputes arising from normal business operations. Debt





Part 2

Corporate Governance

6 CORPORATE GOVERNANCE POLICY

6.1 OVERVIEW OF POLICIES AND GUIDELINES FOR GOOD CORPORATE GOVERNANCE FOR LISTED COMPANIES

The Board of Directors of the Company and the Group intend to conduct business in accordance with the Corporate Governance Code (CG Code) as specified by the SEC office and the Stock Exchange of Thailand with the realization that having a good, transparent, and verifiable management system, as well as having a Board of Directors with visions and responsibility and is a good role model which will cause efficiency in management and the operation to be accepted and made the business operations of the Company successful. Also, we intends to be an ethical organization that will help create sustainable business value and build confidence among shareholders, investors, and all stakeholders, and to be an organization with efficient operating a well-developed business and good management focusing on maximizing the benefits of shareholders, stakeholders, society, and reducing environmental impacts, including adhering to morality and ethics in conducting business with information disclosure that is accurate, complete, transparent, and verifiable along with making “Good Corporate Governance Policy” for directors, executives, and all employees to strictly adhere to as a guideline for performing their duties according to various regulations of the SEC office, the Company’s regulations, the Stock Exchange of Thailand, Public Companies Act, including the other law related. To manage the business in accordance with the corporate governance code mentioned above, the Board of Directors will jointly supervise and develop the Company and aim to generate good operating results, enabling the Company to adapt to changing business conditions and jointly build the Company to be an organization that benefits society and the environment and without corruption.

The Company’s good corporate governance policy is prepared with reference to the corporate governance code for the company listed on the SEC office with 8 principles as follows

- Principle 1** Realize the roles and responsibilities of the Board of Directors as an organizational leader that creates value for the business sustainably.
- Principle 2** Determine the business’s main objectives and goals to ensure its sustainability.
- Principle 3** Build an effective Board of Directors.
- Principle 4** Nominate and develop top executives and personnel administration.
- Principle 5** Promote innovation and business operations with responsibilities.
- Principle 6** Ensure appropriate risk management and internal control system.
- Principle 7** Maintain creditworthiness and information disclosure.
- Principle 8** Support engagement and communication with shareholders.

Learn more information about “Good Corporate Governance Policy” of the Company as details appear in Attachment 5 and the Company’s website.



6.1.1 Policy and Guideline Related to the Board of Directors

The Board of Directors, as the leader with highest responsibility of the organization, plays a significant role in overseeing the business to have a good long-term business profit, to be dependable for shareholders and all stakeholders, to have utmost benefit of the Company, and to create sustainable value for the business. The Board of Directors is independent from the management division and performs duties responsibly, cautiously, honestly in strict accordance with the law, objectives, regulations, and resolutions of the shareholders' meeting.

Composition of the Board of Directors

The Board of Directors consists of 11 directors, of which 4 are independent directors, accounting for one-third of the total number of directors, which has qualifications in accordance with the Securities and Exchange Act. The directors have a term of office for 3 years each. The independent directors have a maximum term of office of not more than 9 years from the date of first appointment as an independent director unless approved by the Board of Directors taking into account the reasonableness and necessity of such.

The Board of Directors has at least 1 non-executive director, who is knowledgeable, proficient, and experienced in the main business or industry which the Company operates, and at least 1 director of the Company who has knowledge and expertise in accounting and finance. The proportion between executive directors and non-executive directors reflects the appropriate balance of power.

In addition, the Chairman of the Board, the Chief Executive Officer, and the President are not the same person.

Qualifications of Directors

The Company's directors must have complete qualifications and must not have any prohibited characteristics as required by law and the Company's regulations, as well as not have any characteristics that indicate a lack of suitability to be entrusted with the management of a business which public shareholders as specified by the Securities and Exchange Commission, as well as being a leader with wide vision, having independence in decision-making, have knowledge, ability and experience that will be beneficial to the business operations for the utmost benefit of the Company and shareholders as a whole, including having to have morals, ethics under the framework of the law, as well as guidelines for good corporate governance and business ethics with good work records.

Nomination of Directors and Top Executives

For the nomination of directors, the Company places importance on people with knowledge, ability, experience, good work history, leadership, and wide vision as well as having morality, ethics, a good attitude toward the organization, and being able to devote sufficient time which are beneficial to the Company pursuit. In addition, the Company emphasizes diversity in the structure of the Board of Directors (Board Diversity) and provides a table of knowledge and expertise (Board Skills Matrix) in order to determine

the qualifications for director nomination by considering the necessary skills that are still lacking as well as the qualifications that are suitable and consistent with the composition and structure of the directors according to the Company's business strategies. The Director Pool database of the Thai Institute of Directors (IOD), also, may be used for nominating new directors with a transparent process to build confidence for shareholders.

The diversity of the Board of Directors in various areas will include educational background, professional experience, skills, and knowledge without limiting gender, age, race, nationality, religion or any other distinction.

Authorities, Duties, and Responsibilities

The Board of Directors has duties and responsibilities as specified in the laws, objectives, regulations, and resolutions of the Board of Directors' meeting as well as resolutions of the shareholders' meeting to manage and run the business of the Company and supervise its subsidiary operations to comply with the laws related to business operations including anti-corruption laws, objectives, articles of association of the Company, resolutions of the shareholders' meeting with honesty. The Board shall also carefully protect the interests of the Company and its shareholders and has fair accountability to shareholders.

In addition, it is responsible for setting policies, main goals, and directions of the Company's operations for the management division to take action according to the policy and regulations of the Company efficiently and effectively under good corporate governance to add economic value to the business and appropriately maximizing benefits to stakeholders in a sustainable manner, including bringing innovation and technology to allocate important resources to add value to the business sustainably.

In addition, the Board of Directors has roles and responsibilities as specified in the Board of Directors Charter.

Roles and Duties of the Chairman of the Board

The Chairman of the Board is responsible for supervising, monitoring, and ensuring that the performance of the Board of Directors' duties is efficient and achieve the objectives and main goals of the organization. It shall strengthen good relations between the Board of Directors and the management division, including supporting various operations of the management without participating in the normal day-to-day management.

The Chairman of the Board is responsible for setting the board meeting agenda in consultation with the Chief Executive Officer and the President. There are also measures to ensure that important matters are included in the meeting agenda. However, if the Chairman of the Board is not an independent director, one independent director must participate in determining the meeting agenda. The Chairman of the Board of Directors must allocate sufficient time for the management division to propose matters and for the committee members to carefully discuss important issues with each other.



Board of Directors' Meeting

The Board of Directors requires that there be at least 6 meetings per year and as necessary. The management division will prepare a performance report for the Board of Directors in the month that the meeting is not held and present the report at the next Board of Directors' meeting. To call for a meeting of the Board of Directors, the meeting invitation notice must be sent to the directors no less than 7 days before the meeting. In case of necessity with urgency to protect the rights or benefits of the Company, it may notify the meeting invitation by other means and set the meeting date earlier. The management division is responsible for providing appropriate and timely information to the Board of Directors which shall receive relevant information at least 5 days in advance in order to have enough time to study, consider, and make a proper decision. It shall also prepare the minutes of the meeting to be completed within 14 days after the meeting for the Board of Directors to review the accuracy before certifying the minutes of the meeting in the next meeting.

In addition, before considering the meeting agenda, directors must report their interests and record them in the minutes of the meeting. Directors who have interests in the matters under consideration shall not have the right to vote and must not be present at the meeting for such agenda.

Term of Office

At every annual ordinary meeting, one-third of the directors shall retire. If the number of directors cannot be divided into three parts, the directors shall retire by the number closest to one-third. The directors who retired by rotation may be re-elected. If the director resigns, the director must submit a resignation letter together with reasons for resignation to the Chairman of the Board at least 30 days in advance, unless necessary and appropriate. In the event that a director position becomes vacant for reasons other than the expiration of the term, the Board of Directors may select a person who is fully qualified and does not have any prohibited characteristics under related law to become the director replacement at the next Board of Directors' meeting unless the remaining term of the director is less than 2 months. The person who becomes the Company director replacement will hold office only for the remaining term of the director whom he/she replaces.

In addition, the Board of Directors has considered and set the policy to hold a director position in other listed companies for directors and the chief executive officers and the presidents of the Company not more than 5 companies. It also has also determined the term of office of independent directors of the Company, not exceeding 9 years.

Company Secretary

The Board of Directors appoints the Company Secretary with necessary knowledge and experience to support the operations of the Board of Directors, as well as overseeing the Board of Directors' meetings and shareholders' meetings to be smooth and transparent in accordance with relevant regulations and laws.

Operational Supervision of Subsidiary and Associated Companies

The Company has established a policy on supervision and business management of subsidiaries and associated companies operating core businesses. The objective is to determine direct and indirect measures and protocols for the Company to be able to follow up, supervise, and manage the business of subsidiaries and associated companies, leading to a good, transparent, auditable management system including monitoring the subsidiaries and associated companies to comply with the specified measures and protocols as if they were the Company's departments and in accordance with the Company's policies, relevant laws, and corporate governance code in order to maintain the investment benefits of subsidiaries or associated companies that the Company invests in.

The Company shall assign a representative to become a director in each subsidiary and associated companies according to the proportion of shareholding in each Company. The representatives shall determine management direction and supervise the subsidiary and the associated companies to operate in accordance with the law, good corporate governance policy as well as other policies of the Company. Moreover, the Board of Directors is the person to approve the representative directors in subsidiaries and associated companies.

Learn more information about "Operational Supervision Policy of Subsidiary and Associated Companies" of the Company on the Company's website : www.bbgigroup.com.

6.1.2 Policies and Guidelines Relating to Shareholders and Stakeholders, Insider Trading Prevention, Prevention of Conflicts of Interest, and Anti-Corruption Guidelines Regarding Shareholders and Stakeholders

1) Rights of Shareholders and Equitable Treatment of Shareholders

The Company places importance on the protection of the rights of all shareholders without taking any action that will violate or deprive shareholders' rights. It also strives to conduct business to create added value for shareholders eventually, including treating all shareholders fairly and equally. Therefore, it has been established as a policy and disclosed to the public through various media of the Company to promote, support, and facilitate shareholders to exercise their rights in various matters. This includes the fundamental legal rights, the right to receive essential information, the right to propose an agenda for the shareholders' meeting, and the nomination of suitable persons to be elected as directors of the Company as well as the right to attend and vote at shareholders' meetings. The guidelines for exercising such rights are regularly improved and developed for the utmost interests of the shareholders on a regular basis.

The Company has a policy that all directors are required to attend every shareholder's meeting, except in case of necessity as appropriate. It assigns the Company Secretary to be responsible for conducting the work on the day of the meeting in order to ensure orderliness, transparency, efficiency, and facilitate the shareholders in every meeting allowing shareholders to exercise their rights.



2) Roles to Stakeholders

The Company is committed to the treatment of all related parties and stakeholders, not only shareholders but also the government sector, customers, trade partners, competitors, creditors, debtors, employees, and society fairly and equally and treat all shareholders, whether they are major shareholders or minors equally.

- **Treatment of Government**

The Company will operate its business by giving importance to the government sector by adhering to compliance with related laws and regulations, including responding to government policies as necessary and appropriate in accordance with the guidelines of business operations.

- **Treatment of Customers**

The Company will strive to improve the quality of products and services to ensure customer confidence and maximum satisfaction. It takes quality and safety into account as well as providing enough accurate product and service information without exaggeration which may cause misunderstandings. In addition, the Company will maintain customer information in accordance with relevant laws and not use it for wrongful benefits.

- **Treatment of Business Partners and Competitors**

The Company has a code of conduct in procurement and fair contract conditions. It provides knowledge, develops production potential, provides standardized services, supervises, and monitors business partners to respect human rights principles, treats labor of business partners fairly, is responsible for society and the environment, encourages business partners to join the anti-corruption network, and develops innovation that creates mutual benefits.

In addition, the Company operates its business with ethics and transparency, competes fairly, does not take advantage of its competitors, and not seek confidential information by unlawful means, including not damaging the reputation of its competitors by accusing them in a bad way.

- **Treatment of Creditors**

The Company will treat creditors fairly, responsibly, and transparently as well as strict complying with the terms and conditions of the contract and financial obligations, especially, the guaranteed conditions, capital management, and debt settlement, including not using dishonest methods to conceal information or facts which will cause damage to creditors. If the Company is unable to comply with any condition, the Company will notify creditors in advance as soon as possible to jointly consider solutions.

- **Treatment of employees that directors and executives should do is as follows:**

- 1) Treat employees fairly without sexism.
- 2) Provide fair compensation to employees in accordance with the Company's performance both in the short term such as bonus, which is linked to the Company's performance, and the long-term such as provident fund, which is welfare and financial collateral for employees.

- 3) Maintain a work environment to be safe for the lives and properties of employees.
- 4) Appoint, transfer, reward, and punish employees in good faith and based on the knowledge, ability, and suitability of employees.
- 5) Place importance on the employees' knowledge, abilities, and skills development by regularly and thoroughly providing opportunities.
- 6) Strictly comply with laws and regulations related to employees.

- **Treatment of Society and the Environment**

The Company operates its business regarding duties and responsibilities in line with society, the environment, and the common interest. The Company will promote, take care, and develop the well-being of the community and society and the quality of life by bringing knowledge and business experience of the Company to create tangible benefits, including giving importance to the management system of safety, occupational hygiene, environment, and energy which are a part of the business.

It also places importance on risk analysis and environmental and safety impacts in all processes of the Company's business operations, including using resources efficiently and saving energy according to international principles.

Disclosure and Use of Inside Information

The Company has determined and supervised that its directors, executives, including managers or higher positions in accounting and finance, and related employees must not use inside information of the Company, which has not yet been disclosed to the public, to seek benefits for oneself or others whether directly or indirectly and whether will receive a return or not. This includes the use of such information to trade the Company's securities.

In addition, the Company also pays attention to the confidentiality of the Company, customers, and business partners which may affect business operations both commercially and legally. Therefore, it is a policy to maintain confidentiality of the Company, customers, and business partners. Personnel at all levels of the Company have a duty to maintain the confidentiality and safety of confidential information of the Company, customers, and partners strictly and prevent confidential information from being accidentally disclosed.

Learn more information about "Insider Trading Prevention Policy" on the Company's website.



Prevention of Conflicts of Interest

The Board of Directors has established a policy to prevent conflicts of interest based on the principle that any decision in entering any transaction or item of the Company must be in the best interest of the Company and shareholders of the Company. It should avoid actions that may cause conflicts of interest. Those who are involved or have interests in the considered items must notify the Company to acknowledge their relationship or interest in such transaction and must not participate in the consideration, including having no authority to approve such transactions or items. Any action that may cause conflicts of interest shall include competing with the Company or its subsidiaries, seeking benefits from private affairs with the Company or its subsidiaries, using the Company's information to seek benefits, and having interests in various contracts related to the Company's operations.

Learn more information about "Prevention of Conflicts of Interest" on the Company's website of the Company

ANTI-CORRUPTION

The Company is committed to conducting business with integrity, honesty, transparency, and fairness in accordance with the law and corporate governance code as well as being aware of the importance of anti-corruption in all forms. The Company has therefore established an anti-corruption policy to be a guideline for the prevention and anti-corruption of the Company that directors, executives, and employees of the Company shall not commit or accept corruption directly and indirectly, shall not support fraud or corruption in any case, and shall comply with the Company's anti-corruption measures strictly. Also, the Company shall establish the structure of responsible persons and risk management system, internal control, and internal audit to strictly prevent and suppress fraud and corruption within the organization.

Learn more information about "Anti-corruption" on the Company's website.

6.2 BUSINESS ETHICS

The Board of Directors has set guidelines for business ethics according to the Company's vision of becoming an international bio-based group of companies with green innovations and conducting business with sustainable approach to grow in a good society so that directors, executives, employees, and related agencies take it as a guideline for performing duties according to the mission and business operations of the Company with honesty and fairness, including guidelines for the Company, all groups of stakeholders as well as the public and society. A system is also established to monitor the implementation of such guidelines on a regular basis.

Learn more information about "Business Ethics" of the Company, as detailed in Attachment 5 and the Company's website.

6.3 SIGNIFICANT CHANGES AND DEVELOPMENTS IN POLICIES, PRACTICES, AND CORPORATE GOVERNANCE SYSTEMS IN THE PAST YEAR

The Company has complied with the Corporate Governance Code for Listed Companies 2017 of the SEC Office, including the Board of Directors has a review process of the Company's good corporate governance policy to be consistent with the Corporate Governance Code for Listed Companies 2017 by adjusting to suit the business context of the Company at least once a year in order to cover and keep up with important developments in the changing corporate governance code. The charters of the Board of Directors and sub-committees are also regularly reviewed to ensure that they are consistent with the actual roles, authorities, and duties of the Board of Directors and sub-committees.

Compliance with the Corporate Governance Code in Other Matters

The Company directors, executives, and all employees have complied with the good corporate governance policy and followed up performance results according to the plan. Relevant policies and guidelines have been established in the Company's corporate governance policy and business ethics. It also promotes real practice to build confidence among all groups of stakeholders. In the past year, the Company has followed up to ensure compliance with good corporate governance covering the matters of 1) Employee care and non-discrimination, 2) Fair competition, 3) Environmental care, sanitation, and safety in the organization. The follow-up results show that the Company has fully implemented the guidelines of each issue.

7

CORPORATE GOVERNANCE STRUCTURE AND IMPORTANT INFORMATION ABOUT THE BOARD OF DIRECTORS, SUB-COMMITTEES, EXECUTIVES, EMPLOYEES, ETC.

7.1 CORPORATE GOVERNANCE STRUCTURE ON DECEMBER 31, 2022



7.2 INFORMATION ABOUT BOARD OF DIRECTORS

7.2.1 Composition of the Board of Directors

Selection of persons to be appointed as directors of the Company shall be in accordance with the guidelines for appointing a director according to the Company's Articles of Association. Such person must be fully qualified under Section 68 of the Public Limited Company Act B.E. 2535 and in accordance with relevant announcements of the SEC Office. The composition of the Board of Directors of the Company consists of:

1. 11 directors, of whom the Board of Directors has elected 1 director to be the Chairman of the Board and 1 to be the Vice Chairman of the Board,
2. 4 independent directors, representing 36.36% of the total number of directors
3. 1 executive director, representing 9.09% of the total number of directors, and 10 non-executive directors, representing 90.91 percent of the total number of directors.
4. 3 female directors, representing 27.27% of the total number of directors
5. The Audit Committee consists of 3 independent directors, of which at least 1 independent director with sufficient knowledge and experience in accounting or finance for reviewing the reliability of the Company financial statements as well as performing other duties as a director of the Audit Committee.

7.2.2 Information of the Board of Directors and the Person Authorized to Control the Company

On December 31, 2022, the Company has a total of 11 directors as follows:

Name	Position
1. Mr. Pichai Chunhavajira	Chairman of the Board
2. Mr. Chamroon Chinthammit	Vice Chairman of the Board
3. Mr. Surin Chiravisit	Director, Chairman of the Risk Management and Corporate Governance Committee, Chairman of the Nomination and Remuneration Committee
4. Mr. Chaiwat Kovavisarach	Director, Chairman of the Investment Committee
5. Mr. Kittiphong Limsuwannarot	Director, Director of the Risk Management and Corporate Governance Committee, Director of the Investment Committee
6. Mr. Chalush Chinthammit	Director, Director of the Investment Committee
7. Mr. Chanachai Chutimavoraphand	Director, Director of the Risk Management and Corporate Governance Committee
8. Assoc. Prof. Jaruporn Viyanant	Independent Director, Chairman of the Audit Committee
9. Dr. Thitapha Smitinont	Independent Director, Director of the Audit Committee, Director of the Nomination and Remuneration Committee
10. Mr. Matthew Kichodhan	Independent Director, Director of the Investment Committee, Director of the Nomination and Remuneration Committee
11. Mrs. Patricia Mongkhonvanit	Independent Director, Director of the Audit Committee

Mr. Somchai Sathiramongkolkul is a Company Secretary.

Directors Authorized to Sign on Behalf of the Company

The directors authorized to sign on behalf of the Company are Mr. Pichai Chunhavajira or Mr. Surin Chiravisit or Mr. Chaiwat Kovavisarach or Mr. Kittiphong Limsuwannarot to sign together with Mr. Chamroon Chinthammit or Mr. Chalath Chinthammit or Mr. Chanachai Chutimaworaphan, total of 2 persons with the Company seal affixed.

7.2.3 Roles and Duties of the Board of Directors

Roles, Duties, and Responsibilities of the Board of Directors

The Board of Directors has duties and responsibilities as specified in the laws, objectives, regulations, and resolutions of the Board of Directors' meeting, as well as the resolutions of the shareholders' meeting, including in the following matters:

1. Manage and run the business of the Company and oversight of operations of its subsidiaries to comply with the laws related to business operations, including anti-corruption laws, objectives, and regulations of the Company as well as the resolutions of the shareholders' meeting with honesty and care to protect the interests of the Company and its shareholders and fair responsibility to shareholders.
2. Determine the success of business operations based on ethics, social, and environmental impacts. Make business strategy plans and annual plans in accordance with the main objectives and goals considering various risk factors that may affect stakeholders.
3. Formulate and supervise the communication of strategic business plans, annual work plans, objectives, and main goals for employees to acknowledge and understand thoroughly.
4. Lead the organization in managing the business by setting and reviewing the vision, objectives, main goals, and operational strategy, including bringing innovation and technology to allocate important resources to add value to the business sustainably and to achieve objectives, seek useful information, and participate fully in expressing their opinions.
5. Determine policies, main goals, and directions of the Company's operations, and supervise which corresponds to economic and social conditions along with conducting business with fairness and transparency for the management to proceed in accordance with the Company's policies and regulations efficiently and effectively under good corporate governance to add value economically for the business and in the utmost benefit of stakeholders in a sustainable manner. It includes bringing innovation and technology to allocate important resources to add value to the business sustainably.
6. Oversight the Company to have long-term business continuity, including a plan for employee development and continuity of the executives.
7. Follow up the pursuit of the Company at all times and be aware of compliance with laws and regulations in the relevant contracts of the Company by requiring the management division to report the performance as well as other important matters of the Company to the Board of Directors for acknowledgment in every Board of Directors' meeting for the operation of the Company to be effective.
8. Follow up and supervise the management division to convey the strategic plan into action plans, including evaluating performance and supervising companies in the group by requiring the management division to report the performance as well as other important matters to the Board of Directors in the Board of Directors' meeting every month.



9. Manage the business to create sustainable business value that covers good turnover. Create long-term value. Conduct business with ethics and responsibility for stakeholders and benefit, or reduce the impact on society and the environment, including being able to adapt under various changes.
10. Supervise all directors and employees to perform their duties with care, caution, and honesty to the organization, including making decisions and making transactions without conflicts of interest.
11. Independent directors and non-executive directors are ready to use their discretion independently in determining strategies, management, resource utilization, the appointment of directors, and determination of standards for business operations and the objection to the actions of other directors or the management in case of the differences of opinions that affect the equality of all shareholders.
12. Formulate various policies of the Company, including policies on good corporate governance and business ethics as guidelines for directors and employees, including reviewing and evaluating annually.
13. Ensure that an enterprise culture that adheres to ethics is created, including behaving as a role model in compliance with the good corporate governance policy and business ethics as well as a policy of good practices for directors of the listed company as required by the Stock Exchange of Thailand.
14. Ensure the Company will have an effective and reliable accounting system, financial report, and internal control.
15. Have a significant role in risk management operations by providing guidelines and measures for risk management system that are appropriate and adequate as well as with regular monitoring.
16. Arrange for appropriate, transparent, and fair nomination, development, remuneration, and performance appraisal of the chief executive officer and the president, as well as the development of top executives and approving criteria for assessment and remuneration structure for top executives.
17. Provide the remuneration for appropriate personnel for work motivation, which is higher than or equivalent to industry practices and linked to performance in the form of performance indicators, with the short-term remuneration which is monthly remuneration and bonus and the long-term remuneration. This shall be approved from time to time, such as Employee Stock Option Program (ESOP), Employee Joint Investment Program (EJIP), etc.
18. Appoint a Company Secretary in accordance with the Securities and Exchange Act to provide advice on laws and regulations that the Board of Directors shall be acknowledged, as well as the management of meeting documents of the Board of Directors, important documents, and activities of the Board of Directors, including coordinating on the implementation of the Board of Directors' resolutions. In addition, the qualifications and experiences of the Company Secretary shall be disclosed in the annual report and on the website.
19. Regularly and fully report to shareholders on the status of the organization according to the truth, including future trends of the organization both positive and negative with adequate support.
20. Evaluate and review the annual performance of the Board of Directors, sub-committees, and individual directors for further development of duty.
21. Report the Company's holdings of oneself, spouse, and minor children at the Board of Directors' meeting monthly throughout the period that the Company having status as a listed company on the Stock Exchange of Thailand. It shall notify the Company without any delay in the following cases:



- Oneself or related person has interests related to the management of the Company or its subsidiaries.
 - Oneself or related person holds shares of the Company or its subsidiaries.
22. Keep inside information of the Company known from the performance of duties and not use it for the benefit of oneself or others, including refraining from trading the Company's securities before and after announcing financial statements according to the Company's policy.
 23. Each director should hold a directorship in other listed companies on the Stock Exchange of Thailand. For no more than 5 companies, considering the performance of directors holding positions in many companies and to ensure that directors can dedicate their time to performing duties in the Company efficiently. This is because the efficiency of performing duties as a director of the Company may decrease if the number of companies in which the director holds positions is too high.
 24. Supervise the management division to treat all stakeholders with ethics and equality.
 25. If necessary, the Board of Directors can seek professional opinions from third-party consultants regarding business operations at the expense of the Company.
 26. It should let non-executive directors have an opportunity to set the meeting among themselves as necessary to discuss various problems about concerned management without the management division involved. It should notify the results to the Chief Executive Officer and the President of the meeting.
 27. Consider and approve the appointment and determination of the roles and responsibilities of various sub-committees as appropriate and necessary to support the management of the Board of Directors.
 28. Have a protocol to supervise subsidiaries in order to maintain the benefits of the Company's investment. The Board of Directors is responsible for considering the suitability of the person to be sent as a director in the subsidiary to control the management to comply with the Company's policy and make various transactions to comply with relevant laws and rules of the Securities and Exchange Act and announcements of the Stock Exchange of Thailand.
 29. Review and approve the acquisition or disposition of assets, investment in new business, any action, loan or credit application from financial institutions, lending, as well as being a guarantor, and any action to comply with relevant laws, announcements, requirements, and relevant regulations of the Securities and Exchange Act.
 30. Consider and approve and/or give opinions on related transactions and/or entering into any transactions of the Company and its subsidiaries in accordance with relevant laws, notifications, requirements, and regulations.
 31. Make an annual report and be responsible for the preparation and disclosure of financial statements to reflect the financial position and performance of the Company in the past year to propose to the shareholders' meeting and report on the responsibilities of the Board of Directors in preparing financial reports. It shall be shown together with the auditors' report in the annual report and covers important matters according to the policy of good practices for directors of listed companies of the Stock Exchange of Thailand.
 32. Consider approving the interim dividend payment to shareholders (if any) and report such dividend payment to the next shareholders' meeting for acknowledgment.

33. Consider and approve the appointment of persons who are not forbidden as stipulated in the Public Limited Company Act B.E. 2535 (including any amendments), the Securities and Exchange Act B.E. 2535 (including any amendments), and any applicable laws as well as announcements, rules, and/or other related regulations to take a position of director in case the position is vacant for reasons other than retirement by rotation, in the case of an appointment of a director to replace the director who retires by rotation, and in the case of the appointment of new directors, including determination of remuneration for directors to propose to the shareholders' meeting for approval.
34. Authorize one or more directors or any other person to perform any act on behalf of the Board of Directors. Such authorization must not be an authorization or sub-authorization that allows the director or the authorized person of the director to approve any transaction that he/she may have conflict of interest with, an interest, or conflicts of interest in any other way with the Company or subsidiaries of the Company unless it is an approval of a transaction that is in accordance with the policy and criteria approved by the shareholders' meeting or the Board of Directors only.
35. Determine and amend the change of authorized directors who can sign to bind the Company.

Authority Scope of Approval and Operation with the Cases That Should Not Be Taken by the Board of Directors

The Board of Directors has the power to approve various matters as defined in the Board of Directors Charter, including setting a vision, organizational strategic plans, both short-term and long-term, and annual budget, investment in various projects of the Company and companies in the group, management restructuring, performance assessment, and remuneration of the Chief Executive Officer and the President, appointment of employees at the level of Vice President and above, and appointment of representative directors of a company in the Company Group, including setting guidelines for supervising such companies.

The Board of Directors works with the management division in setting and reviewing strategies, goals, and annual plans, overseeing the adequacy of risk management and internal control systems, determining of authority to suit the responsibilities of the management, setting a framework for resource allocation, developing and budgeting for policies and plans for personnel management and information technology policies, monitoring and evaluation performance, and ensuring that the disclosure of financial and non-financial information is reliable.

The Board of Directors should not take action in matters where the Board of Directors has approved the assignment of management to be the main responsible for the implementation of the specified policy framework without interfering with decision-making or work of the management except there are necessities and matters that are prohibited by regulations such as approval of transactions in which directors have interests, etc.

Learn more information about "Board of Directors Charter" of the Company as details appear in Attachment 2 and the Company's website.

7.3 INFORMATION ABOUT THE SUB-COMMITTEES

Audit Committee

The Company's Audit Committee consists of independent directors who must have qualifications in accordance with Section 68 of the Public Limited Companies Act B.E. 2535, announcement of the Capital Market Supervisory Board, including the regulations of the SEC office and the Stock Exchange of Thailand. There must be at least 3 directors with at least 1 director of the Audit Committee with accounting or finance knowledge, skills, and sufficient experience to review the credibility of the Company's financial statements. The Audit Committee must be appointed by the Board of Directors or at the shareholders' meeting of the Company with a term of office of 3 years each time.

On December 31, 2022, the Audit Committee consists of 3 independent directors as follows:

Name	Position
1. Assoc. Prof. Jaruporn Viyanant	Chairman of the Audit Committee
2. Dr. Thitapa Smitinont	Director of the Audit Committee
3. Mrs. Patricia Mongkhonvanit	Director of the Audit Committee

Mr. Wongwaris Ussaraniroj is the secretary of the Audit Committee.

Remark * Assoc. Prof. Jaruporn Viyanant is a director of the Audit Committee with knowledge and experience in accounting and finance who is responsible for reviewing the credibility of the Company's financial statements.

Roles, Duties, and Responsibilities of the Audit Committee

1. Consider financial statements, relevant financial reports, accounting principles, and execution of accounting standards, the existence of the business (Going Concern), significant changes in accounting policies, including the management's reasons for the accounting policy before proposing to the Board of Directors for approval and to disseminate to shareholders and general investors. It also should consider together with the auditors about problems or limitations arising from auditing financial statements to consider further improvements.
2. Review for the Company to have an internal control system and an internal audit system that is suitable and effective. The internal audit department is responsible for developing and reviewing the efficiency of the internal control system, as well as reporting to the Audit Committee for acknowledgment.
3. Review for the Company to comply with Securities and Exchange laws, regulations of the Stock Exchange of Thailand, and laws related to the Company's business operations.
4. Consider related transactions or transactions that may have conflicts of interest, including the acquisition and disposition of assets, to be in accordance with the law and the regulations of the Stock Exchange of Thailand to ensure that such transactions are reasonable and for the utmost benefit of the Company.
5. Have the power to review related persons under the scope of power of the Audit Committee. Have the power to hire or bring in specialist professional to help audit by following the regulations of the Company.



6. Prepare the Audit Committee's reports which are disclosed in the Company's annual report. Such reports must be signed by the Chairman of the Audit Committee and must contain at least the following information:
 - a. Opinions on the accuracy, completeness, and reliability of the Company's financial reports
 - b. Opinions on the adequacy of the Company's internal control system
 - c. Opinions on execution with the Securities and Exchange Act, regulations of the Stock Exchange of Thailand, or laws related to the business of the Company
 - d. Opinions on the suitability of the auditors
 - e. Opinions on the transactions that may have conflicts of interest
 - f. Number of the Audit Committee Meetings and the attendance of each director of the Audit Committee
 - g. Overall opinions or comments that the Audit Committee receives in performing duties as prescribed in the Charter
 - k. Other transaction that shareholders and general investors should be aware of under the scope of duties and responsibilities assigned by the Board of Directors.
7. Consider, select, and nominate an independent individual to be the Company's auditors. Propose remuneration and consider the removal of such an individual to propose to the Board of Directors for consideration and a further proposal to the shareholders for appointment, including attending a meeting with the auditors without the participation of the management division at least once a year.
8. Consider the audit scope and audit plan of auditors and internal audit department for relations and support, including reducing duplication related to financial audits.
9. Consider proposing an amendment to the Audit Committee Charter for the Board of Directors' approval.
10. Approve audit plans, budgets, training plans, and manpower of the internal audit department.
11. Consider and approve the appointment, transfer, dismissal, and annual performance evaluation of the head of the internal audit department or a unit responsible for internal auditing, including considering independence of the internal audit department.
12. Review the efficiency and effectiveness of the information technology system related to internal control.
13. In performing the duties of the Audit Committee, if any transactions or actions are found or suspected to have a significant impact on the financial position and operating results of the Company as follows:
 - Transactions with conflicts of interest
 - Corruption, abnormality, or any major defect in the internal control system
 - Violation of the Securities and Exchange Act, requirements of the Stock Exchange of Thailand, or laws related to the business of the Company

The Audit Committee shall report to the Board of Directors for amendments within the period that the Audit Committee deems appropriate. If the Board of Directors or executives fail to make an amendment within a reasonable time, any director of the Audit Committee may report such a transaction or action to the Securities and Exchange Commission or the Stock Exchange of Thailand.

14. Review the accuracy of reference documents and self-assessment forms pertaining to the Thai Private Sector Collective Action Coalition against Corruption’s anti-corruption measures.
15. Have the authority to call for information or request information from various departments within the Company that is necessary to perform assigned duties, such as facilitating the Audit Committee’s ability to summon relevant persons to provide information, discussing accounting with the auditor, or seeking independent opinions from any other professional advisors to support the Audit Committee’s consideration.
16. Chief executive officer and president, as well as executives, should be able to attend the meeting with the Audit Committee as needed to discuss the concerned management-related issues.
17. Perform any other acts as assigned by the Board of Directors with the approval of the Audit Committee.

Learn more information about the “Charter of the Audit Committee” of the Company as detailed in Attachment 2 and the Company’s website.

Risk Management and Corporate Governance Committee

The Board of Directors has approved the appointment of the Risk Management and Corporate Governance Committee to be responsible for the appropriate and efficient risk management and corporate governance of the Company.

On December 31, 2022, the Risk Management and Corporate Governance Committee consists of 3 directors as follows:

Name	Position
1. Mr. Surin Chiravisit	Chairman of the Risk Management and Corporate Governance Committee
2. Mr. Chanachai Chutimavoraphand	Director of the Risk Management and Corporate Governance Committee
3. Mr. Kittiphong Limsuwannarot	Director of the Risk Management and Corporate Governance Committee

With Mr. Kittiphong Limsuwannarot as the secretary of the Risk Management and Corporate Governance Committee

Roles and Responsibilities of the Risk Management and Corporate Governance Committee

1. Define policies, strategies, and targets for enterprise-wide risk management.
2. Develop an organization-wide risk management system for continuous efficiency.
3. Promote cooperation in risk management at all levels of the organization.
4. Ensure that the Company has appropriate and efficient risk management.
5. Propose guidelines on good corporate governance, anti-corruption, and social and environmental stewardship to the Board of Directors.
6. Provide policies on good corporate governance, anti-corruption, and social and environmental stewardship to the working group to support corporate governance as appropriate.

7. Support the operations of the Board of Directors and the management division to comply with the corporate governance code and anti-corruption.
8. Review the practices of good corporate governance, anti-corruption, and social and environmental stewardship in comparison with international standards and propose them to the Board of Directors for continual improvement.
9. Perform duties assigned by the Board of Directors.

Learn more about the “Charter of the Risk Management and Corporate Governance Committee” of the Company as detailed in Attachment 2 and the Company’s website.

Nomination and Remuneration Committee

The Board of Directors has approved the appointment of the Nomination and Remuneration Committee in accordance with the principles of good corporate governance and good practices for directors of the SET listed companies.

On December 31, 2022, the Nomination and Remuneration Committee consists of 3 directors as follows:

Name	Position
1. Mr. Surin Chiravisit	Chairman of the Nomination and Remuneration Committee
2. Dr. Thitapha Smitinont	Director of the Nomination and Remuneration Committee
3. Mr. Matthew Kichodhan	Director of the Nomination and Remuneration Committee

With Dr. Thitapha Smitinont as the secretary of the Nomination and Remuneration Committee

Roles and Responsibilities of the Nomination and Remuneration Committee

1. Consider the structure and composition of the Board of Directors to be suitable for the business and environment, including determining the recruitment methods and qualifications of persons to be appointed as the Company’s directors, sub-committees, chief executive officer, and president, or equivalent positions.
2. Proceed to recruit and nominate qualified persons for the positions of directors, sub-committees, chief executive officer, and president or equivalent positions to the Board of Directors.
3. Recommend remuneration structures for directors, subcommittees, the chief executive officer, and president, or equivalent positions as an incentive to work in accordance with the objectives and main goals of the organization and in line with the long-term benefits of the business. This includes (1) determining the appropriateness of the salary compensation ratio, short-term performance such as bonuses, and long-term performance such as the employee stock ownership plan; (2) When determining remuneration policy, factors such as a remuneration level greater than or equal to the estimated industry level and the business’s performance should be considered; (3) Policy determination based on evaluation criteria and communication to be acknowledged.
4. Consider proposing the remuneration of directors to the Board of Directors for approval and to the shareholders for approval.

5. Consider proposing remuneration for sub-committee members at the Board of Directors' meeting for approval and present to the shareholders for approval.
6. Annually evaluate the performance of chief executive officer and president or equivalent positions in order to make recommendations on appropriate remuneration to the Board of Directors for approval, and communicate the consideration results, including issues for development, to chief executive officer and president.
7. Review the personnel recruitment and development policy and the succession plan of chief executive officer and president or equivalent positions annually. Have chief executive officer and president report to the Board of Directors for acknowledgment.
8. Consider determining knowledge, competence, and experience at the level desired for chief executive officer and president or equivalent positions.
9. Consider determining the qualifications of those who are suitable for the succession of chief executive officer and president.
10. Evaluate the performance of the Nomination and Remuneration Committee and arrange to report results to the Board of Directors for acknowledgment and disclose in the Form 56-1 One Report.
11. Perform duties assigned by the Board of Directors.

Learn more information about the "Charter of the Nomination and Remuneration Committee" of the Company as detailed in Attachment 2 and on the Company's website.

Investment Committee

On December 31, 2022, the Company's Investment Committee consists of 4 members as follows:

Name	Position
1. Mr. Chaiwat Kovavisarach	Chairman of the Investment Committee
2. Mr. Chalush Chinthammit	Director of the Investment Committee
3. Mr. Matthew Kichodhan	Director of the Investment Committee
4. Mr. Kittiphong Limsuwannarot	Director of the Investment Committee

With Ms. Jetnapa Techawipharat as the secretary of the Investment Committee

Roles and Responsibilities of the Investment Committee

1. Carefully and prudently consider the screening criteria for various projects and investment opportunities by conducting a feasibility analysis of investment plans including potential and risk factors from investment, return, the Company's financial liquidity, and economic conditions at that time in accordance with the strategies and policies of the Company before proposing it to the Board of Directors for approval.
2. Follow up and evaluate the project results according to the strategy and the ability to expand the business both domestically and internationally in accordance with the directions, goals, and policies of the Company.

3. Consider approving procurement, purchase, employment, and hiring consultant for new business projects that its plan and budget have not been approved by the Board of Directors, in an amount not exceeding 35 million baht.
4. Consider new business projects that its plan and budget have not been approved by the Board of Directors, in an amount not exceeding 100 million baht.
5. Review the investment policy for subsidiaries and associated companies to propose to the Board of Directors for approval.
6. Consider appointing and determining the remuneration for the Investment Committee advisors.
7. Consider ordering and requesting information from management division as appropriate.
8. Perform duties assigned by the Board of Directors.

Learn more about the “Investment Committee Charter” of the Company as detailed in Attachment 2 and the Company’s website.

Board of Directors and Management

The Board of Directors and Management consists of 6 top executives of the Company as follows:

Name	Position
1. Mr. Kittiphong Limsuwanarot	Chairman of the Management and Executive Committee
2. Mrs. Suttida Sukhanindr	Director of the Management and Executive Committee
3. Ms. Kittima Wongsan	Director of the Management and Executive Committee
4. Mr. Skulrath Siriphannon	Director of the Management and Executive Committee
5. Mr. Supong Pongparit	Director of the Management and Executive Committee
6. Mr. Soopachoke Pattanapisalsak	Director of the Management and Executive Committee

With Mr. Supong Pongparit as the secretary of the Board of Directors and Management

Remark: The Board of Directors’ Meeting No. 9/2022 held on November 9 , 2022 resolved to approve the appointment of Mr. Soopachoke Pattanapisalsak as a replacement for Mr. Skulrath Siriphannon.

Roles and Responsibilities of the Management and Executive Committee

1. Process and manage operations of the Company and its subsidiaries according to the objectives, regulations, policies, rules, requirements, commands, and resolutions of the Board of Directors’ meeting.
2. Set policies, directions, business strategies, business plans, annual budget plans, and various administrative powers for the Company and its subsidiaries by considering business factors appropriately by consider the Company’s business plan and the annual budget to propose to the Board of Directors, as well as controlling the budget disbursement as approved by the Board of Directors.
3. Supervise, control, and monitor the business operations and management of the Company and its subsidiaries in accordance with the policies, visions, missions, goals, business strategies, business plans, and annual budgets of the Company and its subsidiaries as approved by the Board of Directors to be efficient and conducive to business conditions. Be ready to give advice and management advice to top executives, including reporting results to the Board of Directors.

4. Consider approving the operating expenses or investment expenditures that are not in the budget or plans approved by the Board of Directors only in cases of emergency or urgent need to be taken first within the emergency budget allocated in the annual budget approved by the Board of Directors.
5. Perform any other duties as assigned by the Board of Directors.

Learn more information about the “Charter of the Board of Directors and Management” of the Company as detailed in Attachment 2 and on the Company’s website.

7.4 INFORMATION ABOUT EXECUTIVES

On December 31, 2022, the executive team of the Company consists of:

Name	Position
1. Mr. Kittiphong Limsuwanarot	Chief Executive Officer and President
2. Mrs. Suttida Sukhanindr	Senior Executive Vice President, Corporate Finance and Accounting Division
3. Mr. Skulrath Siriphannon	Senior Executive Vice President, Operations Division
4. Ms. Kittima Wongsan	Senior Executive Vice President, Business Development and Commerce Division
5. Mr. Supong Pongparit	Executive Vice President, Corporate Strategy and Business Support Division
6. Mr. Soopachoke Pattanapisalsak	Executive Vice President, Operations Division

Remark: The Board of Directors’ Meeting No. 9/2022 held on November 9 , 2022 resolved to approve the appointment of Mr. Soopachoke Pattanapisalsak as a replacement for Mr. Skulrath Siriphannon.

Roles and Responsibilities of the Chief Executive Officer and the President

Chief executive officer and president have the main roles and responsibilities relating to the business operations and day-to-day management of the Company as assigned by the Board of Directors. They must manage the Company in accordance with the policies, plans, and budget approved by the Board of Directors with honesty, honesty, and carefulness to protect the interests of the Company and all stakeholders appropriately, including the following:

1. Set policies, vision, objectives, strategies, business plans, and budgets with the Board of Directors.
2. Supervise, manage, and perform routine business operations for the benefit of the Company in accordance with the policies, vision, objectives, strategies, business plans, and budgets as approved by the Board of Directors and/or the shareholders’ meeting.
3. Manage the Company’s business according to the vision and mission set by the Board of Directors and in accordance with the business plan, budget, and business strategy approved by the Board of Directors and/or the shareholders’ meeting.
4. Should have a meeting with the Audit Committee at least once a year to discuss various concerned management issues to ensure that the Company’s business operations are in accordance with the Company’s objectives and regulations as agreed and approved by the Board of Directors and/or the shareholders’ meeting.

5. Oversee the management of finance, marketing, human resources, and other overall operations to ensure compliance with the Company's policies and business plans as approved by the Board of Directors and/or the shareholders' meeting.
6. Negotiate and enter contracts and/or any transactions that are the ordinary business of the Company within the transaction limit according to the Company's regulations that was approved by the Board of Directors' meeting and/or the shareholders' meeting.
7. Order and issue regulations, criteria, announcements, and internal memos for the Company's operations to comply with the Company's policies and for the benefit of the Company, including maintaining good order within the organization.
8. Follow up, inspect, and control the results of the Company, its subsidiaries, and associated companies to have superior performance according to the goals. Report to the Board of Directors quarterly, including finding opportunities to improve and develop for better performance.
9. Improve the organization consistently for excellent performance, good turnover, and sustainable growth.
10. Proceed to learn investment opportunities in good new projects by conducting appropriate and complete technical and financial studies for decision-making.
11. Recruit, appoint, remove, assign, postpone, reduce, cut salary or wages, transfer, terminate, and perform other operations regarding employees.
12. The transfer of employees at the level of executive vice president and above, except for recruitment, appointment, removal, assignment, promotion, reduction, salary or wage cut, termination, and other actions, must be approved by the Board of Directors.
13. Consider determining the qualifications of those who are suitable for succession to positions of employees at the level of vice president and above.
14. Consider and approve operations that are ordinary transactions of the Company as well as the operations that support the Company's ordinary business on general trade terms within the budget approved by the Board of Directors.
15. Consider appointing a working group or internal control department to oversee the internal control system for efficiency, effectiveness, adequacy of operations, dependability of financial and accounting reports, compliance with relevant laws and regulations. And the internal control working group's performance shall be reported to the Audit Committee.
16. Operate in accordance with the rules of the SEC Office and the Stock Exchange of Thailand regarding the related transactions and the transactions of asset acquisitions and disposals, as well as the Company's regulations approved by the Board of Directors' meeting.
17. Consider and approve the appointment of advisors in various fields necessary for the Company's operations in accordance with the operational authority approved by the Board of Directors.



18. Sub-authorize and/or assign any person or group of persons to perform designated tasks on behalf of chief executive officer and president within the scope of authority specified in the Company's power of attorney and/or regulations, rules, or resolutions of the Board of Directors and/or the shareholders' meeting, and does not cause conflicts of interest with the Company or its subsidiaries. In case of conflict, such transactions must be presented to the Board of Directors of the Company and/or the shareholders' meeting (depending on the case) to be approved unless such transactions are in accordance with Clause 13.
19. Be a representative of the Company in publicizing the organization, especially in terms of building a network of relationships and a good image of the organization nationally and internationally.
20. Perform duties assigned by the Board of Directors.

Succession Plan

The Board of Directors has realized the importance of managing the Company with efficiency, effectiveness, and business continuity, which will lead to sustainable growth and progress for the organization. Therefore, the Board of Directors has prepared a succession plan for the Chairman of the Executive Committee, the Chief Executive Officer, the President, and other high-potential executives in order to determine the procedures and processes for the Company's succession and ensure that there are executives with the knowledge and ability to succeed in important positions within the organization in the future. Each year, promotions are determined according to the criteria set by key performance indicators. The Company has a succession and training plan to enhance operational efficiency, provide replacements for top management positions as planned, and transfer knowledge and skills to relevant personnel to support driving human resources to perform duties as assigned in accordance with the vision and mission of the organization in the period of 3-5 years, including supporting top executives in other activities related to organizational development in the area of personnel development.

Remuneration Payment Policy for Executive Directors and Executives

The Company has paid remuneration to executive directors and executives of the Company in the form of salary, bonus, and provident fund, which corresponds to the duties and responsibilities as well as the performance of each executive. However, the Company has no policy of paying remuneration as a director to directors who hold executive positions or work for the Company in addition to the remuneration executives receive.

Remuneration for Executive Directors and Executives

Monetary Remuneration

The Company spent 36.47 million baht on remuneration for 8 of executive directors, chief executive officers, president, and executives of the Company in 2022.

(Unit: Baht)

Remuneration	Amount
Salary	27,559,331.00
Provident Funds and Social Security Contributions	1,940,448.75
Bonus	6,974,441.00
Total	36,474,220.75

7.5 INFORMATION ABOUT EMPLOYEES

The Company considers its employees to be extremely valuable resources and thus places importance on personnel development and management in order to maintain personnel with knowledge, ability, and experience. This will be the foundation for the competitiveness of the Company.

Personnel of the Company and the Company Group

Number of Employees

The number of employees of the Company and the company group in 2020, 2021, and 2022 was a total of 559, 560, and 578, respectively, divided by main lines of work as follows:

(Unit: Person)

Field / Department	2020	2021	2022
Administration, Secretariat, and Legal Division	10	8	10
Finance and Accounting Division	48	45	51
Human Resources Division	12	14	15
Factory Division	455	456	458
Business Development Division	4	6	2
Internal Control Division	2	2	3
Corporate Road Map and Risk Management Division	4	5	4
Community Environment Division	14	14	23
Sales and Marketing Division	10	10	12
Total	559	560	578

Significant Change in the Number of Employees in the Past 3 Years

- None -

Employee Remuneration

The Company and its subsidiaries have a policy for paying remuneration to employees that takes into account the suitability and fairness according to the knowledge, ability, and performance of each employee, as well as the average remuneration in the same industry and according to labor law. It must also be suitable for the expansion of the business and the growth of the Company. However, when it comes to employee remuneration, it is linked to employee performance measurement at all levels in the form of a performance indicators (KPI) , which each employee must evaluate for the supervisor. The annual salary increase and annual bonus payment are based on performance based on KPI valuations each year. The Company has a policy of providing employees with both short-term and long-term remuneration.

For 2022, the Company and its subsidiaries paid compensation to employees in the amount of 242.56 million baht in the form of salary, bonus, and other remuneration such as overtime pay, shift work pay, and provident fund contributions, social security payments, vehicle expenses, telephone charges, labor wages, employee welfare, etc.

(Unit: Baht)

Remuneration	Amount
Salary and Wages	189,236,567.00
Contributions of Provident Fund and Social Security	6,773,396.00
Bonus	32,353,962.69
Others	14,196,162.31
Total	242,560,088.00

Remark * On December 31, 2022, the Company and its subsidiaries had a total of 465 employees participating in the provident fund, representing 80.45 percent of the total number of employees.

7.6 OTHER IMPORTANT INFORMATION

Company Secretary

The Board of Directors has approved the appointment of Mr. Somchai Sathiramongkolkul, Director of the Legal Office and Company Secretary, to be the company secretary since November 9, 2022, to perform the duties of company secretary as stipulated in the Securities and Exchange Act (Rev. 4) B.E. 2551. The Board of Directors has promoted and supported the company secretary to receive training and continuous knowledge development in terms of law, accounting, or company secretary duties. (Qualifications and profile of the company secretary appear in Attachment 1.)

Scope of Duties and Responsibilities of the Company Secretary

The company secretary shall perform the duties as prescribed in Sections 89/15 and 89/16 of the Securities and Exchange Act B.E. 2535 (and its amendments) with responsibility, care, and integrity, as well as complying with the law and achieving the objectives set forth in the Company's Articles of Association, resolutions of the Board of Directors' meeting, and resolutions of the shareholders' meeting. The duties and responsibilities of the company secretary, according to law, are as follows:

1. Provide basic advice on requirements and rules that the Board of Directors, the Sub-Committees, and executives should be aware of.
2. Organize training and orientation as well as provide information necessary for the performance of duties to the current directors and newly appointed directors.
3. Supervise, support, and monitor the Company to comply with laws, regulations, requirements, and resolutions of the Board of Directors' meeting and the shareholders' meeting, as well as the good corporate governance policy, in a complete, accurate, and coordinated manner with related parties, including reporting significant changes in legal requirements to the Board of Directors and executives.
4. Supervise information disclosure and report in the responsible part in accordance with regulations, notifications, and requirements of the Stock Exchange of Thailand, the SEC Office, the Capital Market Supervisory Board, and/or the Securities and Exchange Act B.E. 2535 (and its amendments).
5. Submit a copy of the report of interest under the Securities and Exchange Act B.E. 2535 (and its amendments), Section 89/14, prepared by directors and executives of the Company to the Chairman of the Board of Directors and the Chairman of the Audit Committee within 7 working days from the date the Company receives that report. It must maintain reports on its interests prepared by such directors and executives.
6. Prepare and archive the following documents:
 - Director registration
 - The Board of Directors' meeting notice and minutes, including the preparation of information and supporting documents for the meeting
 - The shareholders' meeting notice and minutes, including the preparation of information and supporting documents for the meeting
 - Annual report and/or Form 56-1 One Report
7. Organize the Board of Directors' meetings and shareholders' meetings in accordance with the laws and regulations of the Company.
8. Perform other tasks as assigned by the Board of Directors and/or sub-committees that are subject to the Company's rules and regulations, Securities Act, as well as relevant notifications, regulations, and rules of the Capital Market Supervisory Board, the SEC Office, and the Stock Exchange of Thailand, and other relevant laws.

The company secretary must perform the above duties with responsibility, caution, and honesty.

Persons Assigned to Be Directly Responsible for Accounting Supervision

The Company assigned Ms. Amporn Tongdonpum, corporate accounting manager, to be directly responsible for supervising the accounting from May 16 , 2022.

Head of the Internal Audit Department

The Company's Audit Committee Meeting No. 3/2020 held on July 1, 2020, resolved to appoint Mr. Wongwaris Ussaraniroj to be the head of the internal audit department and secretary to the Audit Committee because he is experienced in internal auditing and knowledgeable in corporate governance code, risk assessment, and internal control. He also has a good understanding of the business and operating activities of the Company, so he is suitable to perform the duties appropriately and adequately. In this regard, the consideration and approval of the appointment, transfer, removal, and annual performance evaluation of the person in charge of the Company's internal audit department must be approved by the Audit Committee. (For the qualifications and background of the head of the internal audit department, see Attachment 3.)

Person Assigned to Be Responsible for the Company's Compliance

The Company has assigned a department responsible for compliance with the rules and regulations of the organization, consisting of:

Office of Law and Company Secretary

- Responsible for monitoring the Board of Directors, executives, and other departments to ensure compliance with the rules and regulations of the Company, as well as being a center for gathering and following up relevant external regulations.
- Responsible for supervising legal matters related to business operations, including corporate law. Register environmental and safety laws in the industry to ensure that the Company's business operations comply with laws and other regulations. Advise other departments on legal issues to operate in accordance with the law, particularly for various transactions of the Company and its subsidiaries both domestically and internationally in order to facilitate business operations.

Internal Audit Department

- Responsible for evaluating the efficiency and adequacy of the internal control system and inspecting the operations of the Company and its subsidiaries.

Internal Control Department

- Responsible for setting up procedures for risk assessment and internal control at the operational level, as well as preparing and reviewing the assessment of the adequacy of the internal control system according to the form of the Securities and Exchange Commission with a total of 1 internal control employee.

Head of the Investor Relations Department

The person assigned to take the position of the head of the investor relations department is Mr. Ekarat Sumaytirakul, Investor Relations and Finance Director. In this regard, shareholders, investors, or the general public can contact the Company's Investor Relations Department by telephone at 0 2335 8812, email to ir@bbgigroup.com, or through the Company's website: <https://www.bbgigroup.com/th/investor-relations/information-inquiry/ir-contact>.

Auditors

List of Auditors

The 2022 annual general meeting of shareholders held on March 1, 2022, resolved to appoint auditors from the KPMG Phoomchai Audit Co., Ltd. as the Company's auditors for the fiscal year of 2022 as follows:

- | | | | | |
|----------------------------------|--|-----|-------|----|
| 1. Miss Dussanee Yimsuwan | Certified Public Accountant Registration | No. | 10235 | or |
| 2. Mr. Waiyawat Kosamarnchaiyaki | Certified Public Accountant Registration | No. | 6333 | or |
| 3. Mr. Sakda Kaothanthong | Certified Public Accountant Registration | No. | 4628 | or |
| 4. Mr. Charoen Phosamritlert | Certified Public Accountant Registration | No. | 4068 | |

In this regard, the auditors of the KPMG Phoomchai Audit Co., Ltd. have no relationship and/or interest with the Company, its subsidiaries, associated companies, directors, executives, major shareholders, or related persons of such persons.

Audit Fee

The Company and its subsidiaries paid audit fees to the KPMG Phoomchai Audit Co., Ltd. in the fiscal year 2022, divided into the Company's audit fee of 876,237 baht and the subsidiaries' audit fee of 1,417,063 baht.

Other Service Fees in the Fiscal Year 2022

The Company paid the SEC support fee to the KPMG Phoomchai Audit Co., Ltd. in the amount of 400,000 baht.

(Unit: Baht)

Audit Fee	Year 2022
1. Corporate Audit Fee (Audit Fee)	876,237
2. Audit Fee for Subsidiaries*	1,417,063
3. Other Service Fee (Non-Audit Fee)	-None-
4. Types and Scope of Services Other Than Audit (Non-Audit Service)	400,000
Total	2,693,300

Remark: * Subsidiaries are

BBGI Bioethanol Public Company Limited ("BBGI-NP/BP")

BBGI Bioethanol (Chachoengsao) Company Limited ("BBGI-PS")

BBGI Biodiesel Company Limited ("BBGI-BI")

BBGI Utility and Power Company Limited ("BUP")

8

HIGHLIGHT OF CORPORATE GOVERNANCE**8.1 SUMMARY OF THE BOARD OF DIRECTORS' PERFORMANCE IN THE PREVIOUS YEAR****8.1.1 Recruiting, Developing, and Evaluating the Performance of the Board of Directors****1) Nomination of Directors**

The Company places importance on people with knowledge, ability, experience, and an excellent work history; who have leadership skills, wide vision; morality, ethics, positive attitude toward the organization, and are able to devote sufficient time to their work which are beneficial to the Company's business operations. In addition, the Company emphasizes diversity in the structure of the Board of Directors and prepares a table of knowledge and expertise (Board Skills Matrix) in order to determine the qualifications of the directors to be recruited by considering the necessary skills that are still lacking, including the suitable qualifications that are consistent with the composition and structure of the directors according to the Company's business strategy, and may use the Director Pool database of the Thai Institute of Directors (IOD) as a component in recruiting new directors with a transparent process to build confidence among shareholders.

Nomination of Independent Directors

The Board of Directors will select a person to hold the position as an independent director based on qualifications pursuant to the Public Limited Companies Act B.E. 2535, the Securities and Exchange Act, the SEC Office announcement, and the Capital Markets Commission announcement, including relevant announcements, regulations, and/or rules. The number of independent directors must be at least 3 or at least 1/3, whichever is higher. Currently, the Board of Directors consists of 4 independent directors. The independent directors do not function as executives. They are independent from the management division and the controlling shareholders. They are persons who has no business relationship with the Company and its subsidiaries in such a way as to limit the expression of independent opinions.

Qualifications of Independent Directors

The Company has a policy to recruit independent directors in line with the Capital Market Supervisory Board announcement TJ. 39/2016 Re: Application for and Approval of Offer for Sale of Newly Issued Shares dated September 30, 2016 (including any amendments) as follows:

1. Each independent director must hold no more than 1.0 percent of the total number of shares with voting rights of the Company, its parent company, subsidiaries, associated companies, major shareholders, or controlling persons of the Company. This includes the shares held by that independent director's relatives.

2. Each independent director must not be or have been an executive director, employee, staff, or advisor who receives a regular salary, or controlling person of the Company, its parent company, or its subsidiaries in the same order, major shareholder, or those who have control over the Company unless he/she has retired from such a position for not less than 2 years prior to the date of filing an application with the SEC Office. However, such prohibited characteristics do not include the case where independent directors used to be government officials or consultants to government agencies who are major shareholders or controlling persons of the Company.
3. Each independent director must not be a person related by blood or by legal registration as the Company's or its subsidiaries' father, mother, spouse, sibling, and child, including the spouse and child of other directors, executives, major shareholders, controlling persons, or persons to be nominated as directors, executives, or controlling persons.
4. Each independent director must not have or have had a business relationship with the Company, its parent company, subsidiaries, associated companies, major shareholders, or controlling persons in a manner that may obstruct independent judgment. He/She must not be or have been a significant shareholder or controlling person of a person with a business relationship with the Company, its parent company, its subsidiaries, its associated companies, the Company's major shareholders or controlling persons unless he/she has retired from such a position for not less than 2 years prior to the date of filing an application with the Office of the Securities and Exchange Commission.
Such business relationships include commercial transactions in the ordinary course of business, the renting or leasing of real property, transactions involving assets or services, or providing or receiving financial assistance by accepting or lending, guaranteeing, or providing collateral for liabilities as well as other similar actions that result in the Company or the counterparty having an obligation to pay to the other party from 3 percent of the net tangible assets of the Company or from 20 million baht and above, whichever is lower. The calculation of such indebtedness shall be in accordance with the method for calculating the value of related transactions pursuant to the notification of the Capital Market Supervisory Board on the rules of related transactions which mutatis mutandis is said to include indebtedness incurred during the year prior to the date of the business relationship with the same person.
5. Each independent director must not be or have been an auditor of the Company, its parent company, subsidiaries, associated companies, major shareholders, or controlling persons of the Company, or a significant shareholder, controlling person, or partner of an audit firm that has auditors of the Company, its parent company, subsidiaries, associated companies, major shareholders, or controlling persons of the Company unless he/she retired from such a position for not less than 2 years prior to the date of filing an application with the SEC Office.
6. Each independent director must not be or have been a professional service provider. This includes providing legal or financial advisory services that receive service fees of more than 2 million baht per year from the Company, parent company, subsidiaries, associated companies, major shareholder, or controlling person of the Company and not being a significant shareholder, controller, or partner of that professional service provider, unless he/she retired from such a position for not less than 2 years prior to the date of filing an application with the SEC Office.



7. Each independent director must not be a director appointed to represent the Company's directors, major shareholders, or shareholders who are related to major shareholders.
8. Each independent director must not operate a business that has the same nature and is in significant competition with the business of the Company or its subsidiaries, or be a significant partner in a partnership, or be a director who takes part in the management, be an employee, be an advisor who receives a regular salary, or hold more than 1% of the total number of voting shares of any other Company that operates a business of the same nature and is in significant competition with the business of the Company or its subsidiaries.
9. Each independent director must not have any other characteristics that make him/her unable to express independent opinions on the Company's operations.

Position Segregation of the Chairman of the Board, the Chief Executive Officer, and the President

In order to segregate the duties of setting the Company's policy and managing the Company separately and for the directors to perform their duties efficiently, the Company therefore requires that chairman of the board, chief executive officer, directors, and general manager are always different people. There is also a clear segregation of duties so that the Board of Directors can independently check and balance the work of the management in expressing opinions on the operations of the Company with integrity and maintaining the results and interests of the Company without being overwhelmed. As well as being responsible for performing duties according to the law, the Company's regulations, and the resolutions of the Board of Directors' meeting and the resolutions of the shareholders' meeting.

Nomination of Directors

The selection of persons to be appointed as directors of the Company is in accordance with the guidelines for appointing directors according to the Company's articles of association, provided that such persons must be fully qualified in accordance with Section 68 of the Public Limited Companies Act B.E. 2535 and related announcements of the Office of the Securities and Exchange Commission under the Company's articles of association. However, if a director resigns, the Company will recruit suitable individuals to replace the resigned director through nomination as follows:

1. The Company provides an opportunity for minor shareholders/major shareholders/directors to nominate a person to be a director of the Company.
2. Nomination and Remuneration Committee considers reviewing the structure of the Board of Directors to make it more suitable for the strategic needs of the Company.
3. Determine the knowledge, ability, and experience of the directors to be recruited in line with the strategic goals of the Company.
4. The Nomination and Remuneration Committee is in charge of nominating and recommending qualified candidates for election as directors to replace those who have retired due to rotation or new directors who have been appointed, including using the IOD 's director database as a component for the recruitment of new directors and for the Nomination and Remuneration Committee to propose to the Board of Directors for further approval.

5. The Board of Directors has approved the list of directors to be proposed to the annual general meeting of shareholders for approval.

However, in the event that a director retires by rotation, the Nomination and Remuneration Committee will screen the qualifications of the directors to be re-elected for another term, presenting them to the Board of Directors for approval and the annual general meeting of shareholders for consideration and approval in order to appoint a director. Shareholders have the right to vote with a majority of not less than 3/4 of the number of shareholders attending the meeting and having the right to vote.

Appointment and Termination of Directors

1. In the shareholders' meeting, directors are elected by majority vote, where one shareholder has one vote per share and can elect directors individually. The persons receiving the highest number of votes in descending order will be elected as directors in an amount equal to the number of directors to be elected at that time. In the event that the number of votes cast for candidates in descending order exceeds the number of directors required to be elected at that time, the person presiding over the meeting shall have a casting vote.
2. At every annual general meeting, 1/3 of the directors shall retire. If the number of directors cannot be divided into three parts, then the person nearest to 1/3 shall retire. However, the directors who will retire in the first and second years after the registration of the Company, if the directors do not agree by other means, shall use a lottery to determine who will retire. In subsequent years, the directors who have been in office the longest are the ones who retire; those who retired by rotation may be re-elected.
3. In addition to retiring by rotation, the director vacates the office when.
 - 3.1 Deceased
 - 3.2 Resignation
 - 3.3 Lack of qualities or have the prohibited characteristics as indicated in the Public Limited Companies Act and the Securities and Exchange Act
 - 3.4 The shareholders' meeting resolution to resign according to the Public Limited Companies Act
 - 3.5 Retirement by the court order
4. If the position of directors is vacant for reasons other than the expiration of the term, the Board of Directors shall elect a person who is qualified and possess no prohibited characteristics as a replacement at the next board meeting unless the remaining term of the director is less than 2 months. The resolution of the directors must consist of votes of not less than 3/4 of the number of remaining directors. The person elected to replace the director will hold the office only for the remaining term of the former director whom he/she replaces.

Nomination of Chief Executive Officers and Presidents (Highest Executives of the Company)

It is reported under Section 2 Corporate Governance, "Clause 6.1.1 Policies and Practices Relating to the Board of Directors," Re: Nomination of Directors and Top Executives



Succession Plan

The Board of Directors has supervised a succession plan to prepare for the succession of chief executive officers, presidents, and top executives. Moreover, the chief executive officers, presidents, and top executives are required to report the results of the plan at least once a year, including the policy to recruit the chief executive officers and presidents that if qualified. Outsiders or employees at the level of senior directors or higher can be recruited for the position of chief executive officers and presidents for the utmost benefit. And it also assigns the Nomination and Remuneration Committee to consider criteria and methods for recruiting, developing, and evaluating chief executive officers and presidents, remuneration regulations and structure for chief executive officers and presidents.

2) Development of Directors and Executives

The Board of Directors has a policy to encourage directors and executives to participate in seminars and training to develop knowledge in all aspects to continuously improve the performance and increase the potential in corporate governance.

Training, Seminar, and Participation in the Company Activities

The Board of Directors supports and encourages directors and executives to attend seminars and training courses to continuously develop knowledge that is beneficial to their duties, including meeting and exchanging opinions with the Board of Directors by assigning the company secretary to coordinate with directors and executives to attend director training courses and other courses of the Thai Institute of Directors, etc.

In 2022, the Company sent directors and executives to attend training and/or seminars as follows:

Name	Position	Course / Institution	Period
1. Mr. Kittiphong Limsuwannarot	Director	Capital Market Academy Chief Executive Course, Capital Market Academy, Class of 32 [CMA 32]	6 months



Name	Position	Course / Institution	Period
2. Mrs. Jaruporn Viyanant	Independent Director / Chairman of the Audit Committee	Thai Institute of Directors (IOD) - Subsidiary Governance Program Class of 1/2022 - Corporate Governance Report of Thai Listed Company Seminar: CGR 2023 - Transform Technology Seminar - Leadership Shape Future Seminar The Office of the Securities and Exchange Commission (SEC) - Digital Currency Seminar: Crypto Currency - Easy Listening Seminar: Accounting Tips that AC Shouldn't Miss KPMG Phoomchai Audit Company Limited - Transfer Pricing Update Seminar Ocean Life Insurance Public Company Limited - Seminar on Financial Statement Drafts for Standards, IFRS 17 EY Office Company Limited - Seminar "In the midst of the global economic crisis caused by epidemics, war, energy, and inflation, how should the business sector adjust strategies to catch up with the world, survive the crisis, and grow sustainably?" Islamic Bank of Thailand - BOT Digital Finance Conference 2022 Collaborate.Innovate.Inspire Seminar	May 27, 2022
3. Mrs. Patricia Mongkhonvanit	Independent Director	Ministry of Digital Economy and Society in collaboration with the Digital Economy Promotion Agency (DEPA) and the Thailand Management Association (TMA) - The Cullinan: The Making of Digital Board, Class of 1/2022 TMBThanachart Bank Public Company Limited⁴ - Security Awareness Training: Cybersecurity and Cyber Resilience - Decentralized Finance (DeFi) - Digital Marketing Strategy - Open Banking and Virtual Banking - ESG - Environmental, Social, Governance	May to July 2022 December 23, 2022 January 25, 2022 March 29, 2022 May 25, 2022 September 28, 2022



Name	Position	Course / Institution	Period
4. Mrs. Suttida Sukhanindr	Vice President	Thai Institute of Directors (IOD) <ul style="list-style-type: none"> - Advance Audit Committee Program (AACP), Class of 44/2022 - Subsidiary Governance Program (SGP), Class of 3/2022 NYC Management Institute <ul style="list-style-type: none"> - Accounting Knowledge Training, TFRS Course, 2023 KPMG Phoomchai Tax & Legal Company Limited <ul style="list-style-type: none"> - Important Accounting Issue Update, 2023 	May 23, 2022, to June 13, 2022 October 12, 2022 August 22, 2022 December 19, 2022
5. Ms. Kittima Wongsan	Vice President	Advanced Security Management Course (SML), Class of 4	October 29, 2022, to May 27, 2022 (every Saturday)
6. Mr. Supong Pongparit	Assistant President	Thai Institute of Directors (IOD) <ul style="list-style-type: none"> - Director Certification Program (DCP) Class of 329/2022 	October 11, 2022, to December 2, 2022

Orientation for New Directors

The Company provides an orientation for all new directors. It consists of lectures and company visits to build understanding of the business and operations of the Company to prepare the directors for their duties. Meanwhile, it has a policy to foster knowledge and new perspectives for all directors in terms of corporate governance, industry conditions, technology business, and innovation to help support the performance of duties efficiently by having the company secretary as a coordinator. The Company arranges an orientation for new directors every time by having the company secretary present documents and information that are beneficial to the performance of duties of new directors, such as a director's handbook for listed companies, handbook of good corporate governance, and business ethics, articles of association, business structure, and structure of the Board of Directors, including the scope of duties and laws that should be known in order to enhance knowledge and understanding of the Company's business and operations.

However, in 2022, the Company did not nominate or appoint new directors.

3) Performance Assessment of the Board of Directors

The Board of Directors requires that performance assessment must be conducted at least once a year both in the form of individual self-evaluation and cross evaluation, including group self-evaluation, for the Board of Directors to consider the performance and problems for the further development of the performance of duties.

8.1.2 Meeting Attendance and Remuneration of Individual Committee Members

1) Board of Directors and Sub-Committees' Meeting Attendance

The Board of Directors has formally scheduled the meeting of the Board of Directors in advance throughout the year. Each meeting will have a clear agenda, both for acknowledgment and for consideration, with sufficient supporting documents for the meeting which the company secretary will deliver to the Board of Directors at least 7 days in advance so that the Board of Directors has sufficient time to study the information before attending the meeting. In each meeting, the Chairman of the Board or the chairman of the meeting has allocated sufficient time so that all directors can openly discuss and express their opinions together. The Chairman of the Board or the chairman of the meeting will process the comments and conclusions from the meeting, the meeting minutes by having the company secretary prepare in writing. After being certified by the meeting, the documents will be stored for those involved to inspect. Details of the meeting attendance of each director for 2022 can be summarized as follows:

Name	Position	Meeting (Amount of Attendances / Number of Meetings Throughout the Year)						
		Ordinary / Extraordinary Shareholders	Board of Directors	Audit Committee	Risk Management and Corporate Governance Committee	Nomination and Remuneration Committee	Investment Screening Committee	Meeting without Management Division (NED)
1. Mr. Pichai Chunhavajira	Chairman of the Board	1/1	12/12	-	-	-	-	-
2. Mr. Chamroon Chinthammit	Vice Chairman of the Board	1/1	10/12	-	-	-	-	-
3. Mr. Surin Chiravisit	Director/Chairman of the Risk Management and Corporate Governance Committee/ Chairman of the Nomination and Remuneration Committee	1/1	12/12	-	6/6	2/2	-	-
4. Mr. Chaiwat Kovavisarach	Director/Chairman of the Investment Committee	1/1	12/12	-	-	-	7/7	-
5. Mr. Kittiphong Limsuwannarot	Director/Director of the Risk Management and Corporate Governance Committee/ Director of the Investment Committee	1/1	12/12	-	6/6	-	7/7	-
6. Mr. Chalush Chinthammit	Director/Director of the Investment Committee	1/1	12/12	-	-	-	7/7	-



Name	Position	Meeting (Amount of Attendances / Number of Meetings Throughout the Year)						
		Ordinary / Extraordinary Shareholders	Board of Directors	Audit Committee	Risk Management and Corporate Governance Committee	Nomination and Remuneration Committee	Investment Screening Committee	Meeting without Management Division (NED)
7. Mr. Chanachai Chutimavoraphand	Director/Director of the Risk Management and Corporate Governance Committee	1/1	12/12	-	6/6	-	-	-
8. Assoc. Prof. Jaruporn Viyanant	Independent Director / Chairman of the Audit Committee	1/1	12/12	6/6	-	-	-	-
9. Dr. Thitapha Smitinont	Independent Director/ Director of the Audit Committee/ Director of the Nomination and Remuneration Committee	1/1	12/12	6/6	-	2/2	-	-
10. Mr. Matthew Kichodhan	Independent Director/Director of the Investment Committee/ Director of the Nomination and Remuneration Committee	-	11/12	-	-	2/2	6/7	-
11. Mrs. Patricia Mongkhonvanit	Independent Director/Director of the Audit Committee	1/1	10/12	6/6	-	-	-	-

2) Remuneration of Directors

The Board of Directors determines the remuneration according to the opinions of the Nomination and Remuneration Committee, then proposes to the shareholders' meeting for consideration and approval of the directors' remuneration. It consists of monthly remuneration, meeting allowances, and bonuses to be consistent with the Company's strategies and long-term goals considering the accountability and responsibility and, in a manner, comparable to companies listed on the Stock Exchange of Thailand in comparable size of industries and businesses. The directors' remuneration is sufficient to motivate qualified directors to be able to perform their duties in order to achieve the goals and business directions set by the Company through a transparent process to build confidence for shareholders.



2.1) Directors' Remuneration Payment Policy

The 2022 annual general meeting of shareholders resolved to determine the remuneration of each committee for 2022 as the following details:

Position	Monthly Remuneration (Baht per month)	Meeting Allowance (Baht per time) ¹⁾	Bonus of Directors (Baht)
Bonus of Directors (Baht) ²⁾	30,000	20,000	The rate is 1% of net profit but not more than 3 million baht per 1 director, the payment will be calculated according to the length of office of each director.
Sub-Committees			
- Audit Committee	10,000	10,000	
- Nomination and Remuneration Committee	-	10,000	
- Investment Committee	-	10,000	
- Risk Management and Corporate Governance Committee	-	10,000	

Remark

¹⁾ Only the directors who attended the meeting.

²⁾ The Chairman and Vice Chairman of the Board shall receive monthly remuneration, meeting allowance, and bonus remuneration higher than that of directors by 25% and 12.5%, respectively.

2.2) Directors' Remuneration Payment Details

In 2022, the Company paid remuneration to directors in the form of monthly remuneration, meeting allowance, and directors' bonus as the following details:

Monetary Remuneration

Name	Remuneration of Directors (baht)						
	Board of Directors	Audit Committee	Investment Screening Committee	Risk Management and Corporate Governance Committee	คณะกรรมการบริหารความเสียหายและบรรษัทภิบาล	Bonus	Total
1. Mr. Pichai Chunhavajira	750,000.00					1,054,945.00	1,804,945.00
2. Mr. Chamroon Chinthammit	630,000.00					949,451.00	1,579,451.00
3. Mr. Surin Chirawisit	600,000.00			25,000.00	75,000.00	843,956.00	1,543,956.00
4. Mr. Chaiwat Kovavisarach	600,000.00		87,500.00			843,956.00	1,531,456.00
5. Mr. Kittiphong Limsuwanarot	600,000.00		70,000.00		60,000.00	843,956.00	1,573,956.00
6. Mr. Chalush Chinthammit	600,000.00		70,000.00			843,956.00	1,513,956.00
7. Mr. Chanachai Chutimaworaphan	600,000.00				60,000.00	843,956.00	1,503,956.00



Name	Remuneration of Directors (baht)						
	Board of Directors	Audit Committee	Investment Screening Committee	Risk Management and Corporate Governance Committee	คณะกรรมการบริหาร ความเสี่ยงและบรรษัทภิบาล	Bonus	Total
8. Assoc. Prof. Jaruporn Waiyanun	600,000.00	225,000.00				843,956.00	1,668,956.00
9. Dr. Thitapa Samitinon	600,000.00	180,000.00		20,000.00		843,956.00	1,643,956.00
10 Mr. Matthew Kichodhan	580,000.00		60,000.00	20,000.00		843,956.00	1,503,956.00
11. Mrs. Patricia Mongkhonvanit	560,000.00	180,000.00				843,956.00	1,583,956.00

Non-Monetary Remuneration

- None -

Accrued Remuneration or Benefits

- None -

8.1.3 Supervision of Subsidiaries and Associated Companies

The Company has established a policy on business supervision and management of its subsidiaries and associated companies operating core businesses. The objective is to determine direct and indirect measures and mechanisms for the Company to be able to follow up, supervise, and manage the business of subsidiaries and associated companies to lead to a good, transparent, and verifiable management system, including monitoring the subsidiaries and associated companies to comply with various measures and mechanisms defined as if they were the Company's own departments in accordance with the Company's policy as well as the Public Limited Companies Act, the Civil and Commercial Code, the Securities Act, and relevant laws together with announcements, regulations, and related criteria of the Capital Market Supervisory Board, the Office of the SEC, and the Stock Exchange of Thailand, including the principles of corporate governance code as guidelines. To maintain the benefits of investments invested by the Company, the Company has established a policy to supervise the operations of its subsidiaries and associated companies. The practice guidelines are set as follows:

1. Send representatives of the Company to serve as directors and executives by the shareholding proportion, whereby the Board of Directors shall consider and appoint persons to be representative directors.
2. Establish guidelines for supervision of joint venture companies for representative directors to follow so that the business operations of subsidiaries, associated companies, and joint venture companies are in the same direction and consistent with the Company's policy and related laws. Voting or acting on important matters must be approved by chief executive officers, presidents, and the Board of Directors or shareholders.
3. Provide a good corporate governance policy and an internal control system that are comprehensive, appropriate, and adequate for the Company's subsidiaries, supervision of information disclosure of financial position and operating results, including making important transactions correctly in accordance with the Company's criteria, an audit system by the internal audit department according to the annual internal audit plan. Report performance directly to the Audit Committee.

8.1.4 Monitoring of Corporate Governance Policy Execution and Practice

(1) Prevention of Conflicts of Interest

The Board of Directors has established a policy to prevent conflicts of interest based on the principle that any decision in any transaction or records of the Company must be for the utmost benefits of the Company and its shareholders. It should also avoid actions that may cause conflicts of interest. Guidelines have been established so that those who are involved or have interests in the considered transactions must notify the Company of their relationship or interest in such transactions and must not participate in the consideration, including having no authority to approve such transactions or records.

(2) Supervision of Inside Information Usage

The Company has established the best practices for directors, executives, and employees in the good corporate governance policy. It is prohibited to use of inside information, which is important to the Company and has not yet been disclosed to the public, for the benefit of oneself or others, including the Company's securities trading as follows:

1. Directors, executives, spouses or cohabiting persons as husband and wife, minor children as well as juristic persons in which the above persons hold shares more than 30 percent of the total voting rights of the juristic person are responsible for reporting changes in securities holdings to the Office of the Securities and Exchange Commission (SEC) within 3 days under Section 59 and the penalty under Section 275 of the Securities and Exchange Act B.E. 2535. In addition, the holding and change of securities is reported in the Board of Directors' meeting every quarter.

2. Directors and executives are responsible for keeping the Company's inside information known from the duties and not use it for the benefit of oneself or others, including refraining from trading securities at least 1 month before the financial statement announcement and at least 3 days after the financial statements' announcement.

The Company has also set penalties in the Company's regulations for violations of the use of inside information used for personal benefit with penalties ranging from warning to the point of dismissal.

Preparation of Reports on the Interests of Directors, Executives, and Related Persons

The Company requires directors and executives, including those holding executive positions in accounting or finance at the level of department manager or equivalent, to prepare and disclose reports on the interests of directors, executives, and related persons, including reporting the holdings or holdings changes as well as the Company's securities underwrite or acquisition to the Board of Directors on a quarterly basis. Report on securities holding changes of directors and executives of the Company is as the following details:

No.	Name	Information of BBGI Securities Holdings on Mar 15, 2022, (The first day that shares are allocated to shareholders)	Information of BBGI Securities Holdings On Dec. 31, 2022	Change Proportion of BBGI Securities Holdings During the Year
Director				
1.	Mr. Pichai Chunhavajira	-	-	-
2.	Mr. Chamroon Chinthammit	1,110,890	1,110,890	-
3.	Mr. Surin Chiravisit	-	-	-
4.	Mr. Chaiwat Kovavisarach	80,000	80,000	-
5.	Mr. Kittiphong Limsuwannarot	4	4	-
6.	Mr. Chalush Chinthammit	425,199	425,199	-
7.	Mr. Chanachai Chutimavoraphand	1,133,294	1,133,294	-
8.	Mrs. Jaruporn Viyanant	-	-	-
9.	Mrs. Patricia Mongkhonvanit	-	-	-
10.	Mr. Matthew Kichodhan	-	-	-
11.	Mrs. Thitapha Smitinont	-	-	-
Executives				
1.	Mrs. Suttida Sukhanindr	-	-	-
2.	Ms. Kittima Wongsæn	-	-	-
3.	Mr. Skulrath Siriphannon	-	-	-
4.	Mr. Supong Pongparit	-	-	-

No.	Name	Information of BBGI Securities Holdings on Mar 15, 2022, (The first day that shares are allocated to shareholders)	Information of BBGI Securities Holdings On Dec. 31, 2022	Change Proportion of BBGI Securities Holdings During the Year
5.	Ms. Wannasiri Trongtrakulwong (2021)	4	4	-
6.	Mr. Soopachoke Patthanapisalsak	-	-	-
Information of August 23, 2022				

(3) Internal Control and Risk Management

To supervise the good corporate governance policy execution, the Company has established an internal control system and risk management, along with regularly monitoring the progress of the risk management plan. There is an independent internal audit covering important work systems by the internal audit department according to the annual internal audit plan, such as procurement, accounting entry, inventory counting, etc., by reporting directly to the Audit Committee.

(4) Anti-Corruption

The Company is committed to conducting business with honesty, transparency, fairness in accordance with the law and corporate governance code, and aware of the anti-corruption importance in all forms. Therefore, the Company has established an anti-corruption policy to be a guideline for the prevention and anti-corruption of the Company which covers the following matters:

1) Business Risk Assessment

The Risk Management Working Group is responsible for assessing business risks that may lead to corruption and presenting them to the Risk Management and Corporate Governance Committee to analyze and manage such risks to eliminate them or to an acceptable level.

2) Determination of Guidelines to Control, Prevent, and Monitor Corruption Risks

The Company has established risk management to control, prevent, and suppress fraud and misconduct by analyzing the risks of business operations, determining the level of risk importance, and appropriate measures for assessable risks, along with monitoring the progress of the risk management plan regularly.

3) Communication Regarding Anti-Corruption Policy and Practice

The Company communicates the good corporate governance policy and the anti-corruption measures, including providing channels for reporting clues or complaints within the Company through various channels such as orientation courses for directors and employees, annual internal control and corporate governance promotion seminar, ongoing training of the Company, intranet system, CG Day activities

where chief executive officers and presidents meet with employees, etc., The reason is to seriously implement the measures and to ensure that the support and operational departments have sufficient resources and skilled personnel to implement the measures.

The Company communicates good corporate governance policy and anti-corruption measures, including channels for notifying clues or complaints to the public, subsidiaries, associated companies, other companies that the Company have control over business representatives, relevant business partners, and stakeholders through various channels such as e-mail, website, annual report, good corporate governance policy of subsidiaries, the Company's representative directors, letters to entrepreneurs, guidelines of business dealing with the Company, business partner code of conduct, etc., so that the aforementioned persons are informed and seriously implement the measures.

4) Guidelines to Monitor and Evaluate the Anti-Corruption Policy Execution

The Company has set up a process to audit important business processes as well as procurement work and making contracts about the risk of corruption regularly to comply with the disbursement regulations and procurement regulations. The internal audit department will provide opinions and suggestions for appropriate improvements in the audited issues, including tracking the corrective action and reporting directly to the Audit Committee.

The Company also has internal control covering finance, accounting, record keeping, including other processes within the Company related to anti-corruption measures. There is also a control self-assessment to discuss the results of the internal control that personnel operate.

5) Approval of the Audit Committee or Auditors at the Office

The Audit Committee is responsible for reviewing the accuracy of reference documents and self-assessment forms regarding the Company's anti-corruption measures according to the project of Thai Private Sector Collective Action Coalition Against Corruption. However, the Company is in the process of preparing reference documents and self-assessment forms regarding the Company's anti-corruption measures. The Company has participated in the declaration of intent to join the Thai Private Sector Collective Action Coalition Against Corruption according to the resolution of the Board of Directors' meeting held on September 21, 2022.

The Audit Committee will report transactions or actions that may have a significant impact on the Company's financial position and performance, including corruption, to the Board of Directors for improvement within the period deemed appropriate by the Audit Committee. In addition, KPMG Phoomchai Audit Co., Ltd., which is the Company's auditor for the fiscal year ended December 31, 2022, has no observation and suggestion regarding the internal control system that may cause the Company's risk of fraud and corruption.

Whistleblowing and Complaints

All stakeholders can report complaints or clues about the Company by clearly stating that it is confidential through any of the following channels as appropriate for the situation as follows:

1) Postal Mail

Contact : Internal Audit Department

Address : 2098 M Tower Building, 5th Floor, Sukhumvit Road,
Phra Khanong Tai Sub-District, Phra Khanong District, Bangkok 10260

2) E-Mail : ia@bbgigroup.com

3) Telephone: (+66) 2335 8673

Protection of Complainants, Whistleblowers, Witnesses, and Related Persons

The Company will appropriately and fairly protect complainant, whistleblower, and witnesses. The Company will keep information about complaints, the person making the complaint, and the witness confidential and may not disclose to anyone irrelevant unless it is a disclosure required by law.

Relevant persons who are informed of the matter or information related to the complaint must keep such information confidential and not disclosed to anyone else unless it is required to be disclosed in accordance with legal requirements. If there is intentional violation of the disclosure of information, the Company will punish according to the regulations of the Company and/or take legal action.

(5) Investor Relations

The Company realizes that the Company's information, both financial and non-financial, affects the decision-making process of investors and stakeholders of the Company. The management division has given importance to the disclosure of information that is complete, truthful, dependable, consistent, timely in accordance with the criteria set by the SEC Office and the SET. Therefore, investor relations department is established as a center for communicating important information to investors whether it is a financial report, information about the Company's operating results, and future trends, including information that affects the stock price of the Company. It also supervises the quality of information disclosed to investors and stakeholders equally. The Company has presented the results of operations and informed its information both directly and indirectly by arranging for executives to meet with shareholders through securities analysts, investors and employees through activities to present results through analyst meeting, roadshow, conference call together with participating in activities to meet small investors in the Opportunity Day event or organizing a shareholder visit program to provide opportunities for shareholders to understand the Company's business operations more. It is also open for institutional investors from both domestic and international levels as well as securities analysts to make appointments to meet with executives to inquire about the Company's information through the company visit activities.



Activity Type	Number (Times)
One on One Analyst Meeting	9
Performance Update on Website	16
Corporate Presentation	4

In addition, the Company information, operating results, financial statements, information reports that the Company notified to the SET are provided, including the dissemination of information presented both documents and video audio used in meetings as well as executive interviews and Factsheet via the Company's website: www.bbgigroup.com in investor relations page which contains information in both Thai and English that has always been updated.

8.2 PERFORMANCE REPORT OF THE AUDIT COMMITTEE IN THE PAST YEAR

The Board of Directors of BBGI Public Company Limited (the "Company") has appointed an Audit Committee. It consists of 3 qualified independent directors with knowledge, expertise, and experiences, namely: Associate Professor Jaruporn Waiyanun as the Chairman of the Audit Committee, Mrs. Patricia Mongkhonvanit and Dr. Thitapa Samitinon as directors of the Audit Committee with Mr. Wongwarit Asraniroj, Internal Audit Manager, as a secretary of the Audit Committee. Each member of the Audit Committee has complete qualifications as specified in the Audit Committee Charter. This is in line with the requirements and best practices for the Audit Committee of the Office of the Securities and Exchange Commission (SEC Office), the Stock Exchange of Thailand and related laws. The Audit Committee held meetings throughout the year 2022 as follows:

Name	Position	Number of Attendance/ Number of Meetings
1. Associate Professor Jaruporn Viyanant	Chairman of the Audit Committee	6/6
2. Mrs. Patricia Mongkhonvanit	Director of the Audit Committee	6/6
3. Dr. Thitapa Smitinont	Director of the Audit Committee	6/6

In 2022, the Audit Committee performed their duties independently within the scope of authority specified in the charter of the Audit Committee. In some meetings, the Audit Committee discussed with chief executive officers, management division, auditors, and internal auditors on an appropriate agenda which the Audit Committee has independently reported and provided opinions and recommendations every meeting. In addition, a summary of opinions that are questions and objections, as well as recommendations and material advice, are reported to the Board of Directors' meeting at least twice a year. The performance essence of duties is as follows:

Review the Accuracy, Completeness, and Credibility of Financial Reports

The Audit Committee has reviewed both quarterly and annual financial reports that have been reviewed and audited by the auditors by meeting with the management division, internal audit department, related departments, and auditors by inquiring from the auditors about the correctness and completeness of the financial reports, important accounting entry adjustments, and the disclosure of accurate and complete information sufficiently to ensure that the preparation of the Company's financial reports is in accordance with accounting standards under the generally accepted accounting principles and for the benefit of financial reporting users. In addition, the Audit Committee held one meeting with the auditors without the presence of the management division to acknowledge issues that were found from the audit and to consider the annual audit plan of the auditor and the independence of the auditor. The Audit Committee is of the opinion that the Company's financial reports have been prepared in accordance with the accounting standard that is accurate, complete as it should be, and dependable, including sufficient disclosure of essential information.

Review the Effectiveness of the Internal Control and Internal Audit Systems.

The Audit Committee has reviewed the effectiveness of the internal control system with the internal audit department every quarter by considering operational aspects, use of resources, custody of assets, compliance with regulations, including the prevention or reduction of damage that may occur. The Audit Committee has regularly consulted with the auditors to acknowledge issues related to the internal control system, reviewed the performance of the internal audit department, annual internal audit plan as well as the manpower and personnel development plan of the internal audit department so that the operation of the internal audit department shall be independent and have sufficient resources to perform the internal audit work. The Audit Committee is of the opinion that the Company's internal control system is sufficient and appropriate without material flaws and that the internal audit of the Company has independence in their work.

Review the Relevant Requirements and Laws Compliance.

The Audit Committee has reviewed with the Company's management division regarding the Company's compliance with the Securities and Exchange Act, requirements of the Stock Exchange, or laws related to the business of the Company by meeting with related executives. From the review, the Audit Committee found that the Company does not comply with the Securities and Exchange Act, requirements of the Stock Exchange, or laws related to the business of the Company.

Review Inter-company Transactions or Transactions with Possible Conflicts of Interest.

The Audit Committee has reviewed the inter-company transactions or transactions that may cause conflicts of interest to ensure that the Company and its subsidiaries has operated in accordance with the criteria and requirements of the regulatory agencies rationally and take into account the best interests of the Company, and that the management division's actions are in accordance with the policy on inter-

company transactions approved by the Board of Directors. The Audit Committee is of the opinion that the inter-company transactions considered are ordinary business transactions with general trade conditions as if transactions were made with third parties (arm's length basis) transparently, and fairly without causing a conflict of interest and in the utmost benefit for the Company.

Consideration and Proposal to the Board of Directors to Appoint Auditors for 2022

The Audit Committee has considered the performance, scope, work experience, knowledge, credibility, work quality, and qualifications of auditors, as well as the sufficiency of resources and the appropriateness of the audit fee, including reviewing the qualifications and independence of the auditors. Therefore, it proposes to appoint Ms. Dusanee Yimsuwan CPA No. 10235 and / or Mr. Waiyawat Kosamarnchaiyakij CPA No. 6333 and / or Mr. Sakda Kaothanthong CPA No. 4628 and / or Mr. Charoen Phosamritlert CPA No. 4068 from KPMG Phoomchai Audit Company Limited as the Company's auditors for 2022. It also proposes to the Board of Directors to consider and propose to the shareholders' meeting to appoint the auditors and approve the audit fee for 2022.

Overall Opinions of the Audit Committee

In summary, the Audit Committee performed its roles, duties, and responsibilities specified in the charter of the Audit Committee adequately except for reviewing the accuracy of reference documents and self-assessment forms regarding the Company's anti-corruption measures according to the Thai Private Sector Coalition Against Corruption because the Company is in the process of preparing reference documents and a self-assessment form regarding the Company's anti-corruption measures. The Company has already participated in the declaration of intent to join the Thai Private Sector Coalition Against Corruption according to the resolution of the Board of Directors' meeting on September 21, 2022.

The Audit Committee performed its duties by using their knowledge, cautiousness, prudence, and independence. For the utmost benefit to the stakeholders, the Audit Committee is of the opinion that the Company's financial statements for 2022 are accurate and dependable in accordance with generally accepted accounting standard. The Company has disclosed information sufficiently. The overall internal control system is efficient with no material flaws with relevant laws and regulations compliance. The management division is committed to continuous development to support the Company. There is an internal control system that is sufficient and appropriate, along with follow-up and correction according to the suggestions regularly.

8.3 PERFORMANCE SUMMARY OF OTHER SUB-COMMITTEES

8.3.1 Risk Management and Corporate Governance Committee

Board of Directors has appointed the Risk Management and Corporate Governance Committee consisting of 3 qualified members to set policies and supervise risk management that complies with standards (COSO) as well as promoting and supporting risk management throughout the organization in order to move towards achieving the organization's objectives and goals with efficiency and effectiveness and to promote good corporate governance for the business operation of the Company with transparency, fairness,

and building confidence and credibility among stakeholders. In 2022, the Risk Management and Corporate Governance Committee held a total of 6 meetings in which each member of the Risk Management and Corporate Governance Committee attended the meetings as follows:

Name	Position	Number of Attendance/ Number of Meetings in 2022
1. Mr. Surin Chiravisit	Chairman of the Risk Management and Corporate Governance Committee	6/6
2. Mr. Chanachai Chutimavoraphand	Director of the Risk Management and Corporate Governance Committee	6/6
3. Mr. Kittiphong Limsuwannarot	Director of the Risk Management and Corporate Governance Committee	6/6

In 2022, the Risk Management and Corporate Governance Committee performed the important duties as follows:

- 1) Define policies, strategies, and targets for risk management throughout the organization. Develop an organization-wide risk management system for continuous efficiency, including supporting and pushing for cooperation in risk management at all levels of the organization.
- 2) Consider the risk factors that affect the achievement of the organization's strategic goals with efficiency and effectiveness by carefully considering both external and internal risks to cover all dimensions throughout the organization, including providing useful suggestions as a protection or opportunity for the organization, along with defining and reviewing the risk management framework throughout the organization to be appropriate and consistent with the strategic plan and operations of the Company according to the situation.
- 3) Follow up, evaluate, and provide feedback on the Company's operations on a quarterly basis to ensure that the management manages operations under the acceptable risk level, along with guidelines for setting measures to control or mitigate risks that may occur in a timely manner.
- 4) Provide good corporate governance and anti-corruption policy to a working group to support corporate governance work as appropriate, including supporting the performance of the Board of Directors and the management division in order to comply with corporate governance code, along with reviewing corporate governance code for sustainable business operations to cover economic, social, environmental, and good governance (Economic Social and Governance) by comparing with international standards and presenting to the Board of Directors for continuous improvement consideration.

8.3.2 Nomination and Remuneration Committee

The Board of Directors has appointed the Nomination and Remuneration Committee consisting of 3 qualified directors. In 2022, the Nomination and Remuneration Committee held a total of 2 meetings. Each member of the Nomination and Remuneration Committee attended the meetings as follows:

Name	Position	Number of Attendance/ Number of Meetings in 2022
1. Mr. Surin Chiravisit	Chairman of the Nomination and Remuneration Committee	2/2
2. Dr. Thitapa Smitinont	Director of the Nomination and Remuneration Committee	2/2
3. Mr. Matthew Kichodhan	Director of the Nomination and Remuneration Committee	2/2

In 2022, the Nomination and Remuneration Committee performed the important duties as follows:

The Nomination and Remuneration Committee has performed its duties as assigned by the Board of Directors as specified in the Nomination and Remuneration Committee Charter. It is responsible for recruiting qualified persons to serve as directors of the Company and members of various sub-committees, chief executive officers and presidents, including taking into account the Board Diversity and knowledge and expertise (Board Skills Matrix) as well as determining the remuneration of the Company's directors, chief executive officers, and presidents to propose to the Board of Directors for consideration. In 2022, the Nomination and Remuneration Committee held a meeting to perform the assigned duties, follow up, and consider important matters assigned by the Board of Directors which are defined in the Charter of the Nomination and Remuneration Committee as summarized as follows:

- 1) consider qualifications, knowledge, abilities, skills, experiences, diverse expertise, and leadership as well as vision and positive attitude towards the organization which is beneficial to the business of the Company without being limited to matter of sex of the persons only. It must also consider the appropriate size, structure, and composition of the Board of Directors according to the corporate governance code for efficient and effective management, as well as complying with relevant requirements, laws, regulations, and situations.
- 2) Recommend remuneration structure for directors, directors of sub-committees, chief executive officers, and presidents or equivalent positions which is an incentive to work in accordance with the objectives and main goals of the organization and in line with the long-term benefits of the business, including:
 - (1) Consider the appropriateness of the salary remuneration proportion, short-term operational performance (e.g., bonus), and long-term operational performance (e.g., Employee Stock Ownership Plan).
 - (2) For the determination of remuneration policy, it should consider factors such as remuneration level higher or equal to the industry level and business performance.
 - (3) Determine the policies on assessment criteria and communication for acknowledgment based on performance, achievements compared to key performance indicators and goals, including obligations, assigned responsibilities as well as operating results, business environment, factors that may affect the business of the Company, and overall economic conditions appropriately and present to the Board of Directors for consideration and approval at every annual general meeting of shareholders.

- 3) Assess the performance of the Nomination and Remuneration Committee, chief executive officers and presidents or equivalent positions annually to provide suggestions on appropriate remuneration to the Board of Directors for approval and communicate the consideration results, including providing issues for development to chief executive officers and presidents for acknowledgment.
- 4) Review the personnel development and nomination policy and the succession plan of chief executive officers and presidents or equivalent positions annually and have chief executive officers and presidents report to the Board of Directors for acknowledgment.

8.3.3 Investment Committee

Board of Directors has appointed an Investment Committee. It consists of all qualified members of 4 people to consider investment proportions, profits and/or expected returns, risks, and financial status of the Company before making investment decisions in various projects to benefit and support, including strengthening the stability of the Company's business operations. The approval of such investment may need to be considered by the Board of Directors' meeting and/or the shareholders' meeting within the scope of approval authority set (depending on the case). In 2022, the Investment Committee held a total of 7 meetings, whereby each member of the Investment Committee attended as follows:

Name	Position	Number of Attendance/ Number of Meetings in 2022
1. Mr. Chaiwat Kovavisarach	Chairman of the Investment Committee	7/7
2. Mr. Chalush Chinthammit	Director of the Investment Committee	7/7
3. Mr. Matthew Kichodhan	Director of the Investment Committee	6/7
4. Mr. Kittiphong Limsuwannarot	Director of the Investment Committee	7/7

In 2022, the Investment Committee performed the important duties as follows:

- 1) Carefully and prudently considered screening criteria for investment projects and opportunities. It may arrange a feasibility study of the investment plan, including potential and risk factors from investment, return, financial liquidity of the Company, and economic conditions to be in line with the Company's strategies and policies before proposing to the Board of Directors for approval.
- 2) Followed up and assessed the project results according to the strategy and the ability to expand the business both domestically and internationally under the directions, goals, and policies of the Company.
- 3) Considered approving procurement, purchase, employment, including hiring of consultants for new business projects, plans, and budgets to present to the Board of Directors for approval.
- 4) Reviewed the investment policy for subsidiaries and associated companies to propose to the Board of Directors for approval.



9

INTERNAL CONTROL AND INTER-COMPANY TRANSACTIONS**9.1 INTERNAL CONTROL****9.1.1 Board of Directors' Opinions on the Internal Control System**

The Board of Directors realizes the importance of having a good internal control system and the duty that must be taken to ensure that the Company has an appropriate and sufficient internal control system to oversee its operations to meet the goals, objectives, laws, and relevant regulations effectively. This can help prevent and manage risks or damage that may occur to the Company and stakeholders and can protect assets from fraud and damage, including the preparation of accounting and financial reports that are accurate and dependable with complete, adequate, and timely disclosure of information.

In the Board of Directors' meeting No. 1/2023 on February 16, 2023, with the audit committee, the Board of Directors has considered and assessed the sufficiency of the current internal control system of the Company according to the assessment of the adequacy of the internal control system from the SEC Office based on the review results of the assessment of the adequacy of the internal control system for the year 2022 prepared by the Company's internal control working group. The results of the assessment of the Company's internal control system and its subsidiaries in various fields according to the Committee of Sponsoring Organizations of the Treadway Commission (COSO) guidelines are summarized in 5 parts as follows:

- 1) Internal Environment Control
- 2) Risk Assessment
- 3) Activities Control
- 4) Information and Communication
- 5) Activities Monitoring

The Board of Directors is of the opinion that the internal control system of the Company and its subsidiaries is adequate and appropriate. The Company has provided personnel to effectively implement the internal control system, including having an internal control system related to monitoring, controlling, and supervising the operations of subsidiaries. This covers the protection of the Company assets from loss, misuse, or use without power, including transactions with persons with conflicts and related persons. For internal control in other topics, the Board of Directors views that the Company and its subsidiaries also have sufficient internal control. The assessment of the internal control system adequacy is concluded in the assessment of the adequacy of the internal control system as follows:

1) Internal Environment Control

The Company has established a good corporate governance structure consisting of the Board of Directors and various sub-committees where each committee is responsible to the shareholders regarding the Company's business operations, supervise the management to achieve the goals, and maximize the benefits for the shareholders, as well as having a good organizational structure and environment. As a result, the internal control system has an appropriate level of efficiency. The Company has set up an organizational structure, defining duties and responsibilities by divisions in line with business strategies and good corporate governance. The internal audit department is an independent department reporting directly to the Audit Committee. The Company has set clear and measurable business goals by making plans, annual budget, and appropriate indicators to be a guideline for the work of employees. There is a compensation system based on the achievement of the goals of the personal index. There is a plan to recruit and develop key successors. The ethical control system is set up as a policy and has a clear action plan for the management and employees to follow to prevent conflicts of interest with the Company. There is also a corporate governance policy that is consistent with the practice of the Stock Exchange of Thailand and appropriate international standards for operations which has been disclosed in the Company's information form. Moreover, the Company stipulated regulations in general operating procedures, quality manuals, authorization manuals for each level of approval that are systematic and concise, including the treatment of customers and competitors with fairness.

2) Risk Assessment

The Board of Directors attaches importance to risk management. The risk assessment process is established in accordance with the objectives and goals of business operations by identifying and analyzing all types of risks, including providing risk management throughout the organization. The Risk Management and Corporate Governance Committee has been assigned to be responsible for formulating a policy framework and supervising the establishment of an efficient risk management system and process covering the entire organization and communicating it to the Board of Directors, all executives, and employees through the risk management working group and the internal control working group comprising representatives from various departments advising and coordinating risk assessments within their own departments. All departments are assigned to assess various key risk factors, considering the likelihood and impact that may occur both from internal and external factors, including risks that may arise from corruption in each agency, both related to the public and private sectors, along with defining measures to prevent such risks. Overall, it is part of risk management and there is an internal audit department responsible for reviewing the suitability of preventive measures. In addition, the Company also places importance on preparing for rapidly changing situations by establishing a business continuity policy to ensure that the business operations of the Company will be continuous. The Board of Directors has arranged a meeting of the Risk Management and Corporate Governance Committee for analyzing and determining various measures to avoid or reduce risks that may cause damage or damage the Company's reputation and report to the Board of Directors and has assigned all relevant directors, executives and employees to implement the principles and arranged for a quarterly follow-up and assessment of risk management results.



3) Activities Control

The Board of Directors has defined the scope of duties, procedures, and authority to take any action of the management division and authority in each hierarchy clearly by preparing the regulations of the Company notified to executives and relevant employees. There is a monitoring and review of every step of the process to comply with the rules and regulations of the law by the internal audit department. The Audit Committee has reviewed and approved the annual audit plan to cover all operational processes that may have high risks. It is ensured that various agencies have an adequate control system in operation, responding to operational risks in terms of finance, and compliance with laws, regulations, rules, and regulations. In addition, the Company places importance on the continuous development of human resources by providing development training for knowledge, skills, and abilities suitable for assigned tasks, including a plan to recruit important successors, and has considered the key issues detected by the internal audit department that has strictly monitored and audited and report to the Board of Directors, the Audit Committee, the management division, and related persons to improve the problem and take measures to prevent problems from occurring. So far, the internal audit department has not found any acts that violate the law for transactions with related businesses or persons. The Board of Directors has determined that the rules and regulations of the SEC Office and the Stock Exchange of Thailand must be followed. The transaction will be considered as if it is a third party with the utmost interest of the Company as the main priority. Such transactions will be conducted in accordance with the principles approved by the Board of Directors.

The internal audit department is responsible for monitoring, reviewing, and inspecting the operations, including reporting the occurred transactions to the Audit Committee for acknowledgment and consideration on a quarterly basis.

4) Information and Communication

The Company has provided effective communication both inside and outside the organization. There is complete collection of documents for accounting entry. There is also use of accounting policies in accordance with accepted accounting principles and the use of the program to enhance the efficiency of resource planning and management of accounting, finance, purchases, sales, inventory management, and production planning information in order to obtain accurate, fast, and accurate information. This will make the management division aware of information and able to make decisions quickly. There are also measures for the safety of information systems. It has put measures to prevent risks that may arise from information technology systems. At the general meeting of shareholders, the Company has sent an invitation letter of the shareholders' meeting together with relevant documents enough for decision making and published on the Company's website at least 14 days prior to the meeting date and set up a company secretary to

advise on laws and regulations that the Board of Directors must know, supervise the activities of the Board of Directors, coordinate to ensure compliance with the resolutions of the Board of Directors, is a center for preparing and storing important documents such as committee registration, meeting notices and minutes of various committees, and meeting notices and minutes of the shareholders' meeting.

The Audit Committee has considered with auditors, internal audit department, and related parties about the preparation of the Company's quarterly financial statements to ensure that the Company accounting policies are in accordance with generally accepted accounting principles and suitable for the nature of the Company's business, including appropriate disclosure of information. The Company provides communication channels with stakeholders such as channels for complaints and whistleblowing through the internal audit department in order to know the flaws and problems that occur and to allow external agencies to receive the required information or be able to notify the Company, which details are shown in the topic "Anti-corruption".

5) Monitoring Activities

In 2022, there were 12 meetings of the Board of Directors in order to formulate policies, business plan, and monitor the operations of the Company's Management and Executive Committee. The Management and Executive Committee has followed up on business results compared with goals and plans or budget in various fields on a monthly basis. There are corrections and improvements to suit the situation at that time all the time and arrange for the middle management to present their results on a monthly basis. As for the Audit Committee, there were a total of 6 meetings, with 1 meeting with auditors without the presence of the management division which is materially found directly to the Audit Committee to consider ordering corrections within a reasonable time. The internal audit department has established a framework of duties and responsibilities according to the Charter of the Internal Audit Committee which has been approved by the Audit Committee to carry out regular operational audits, prepare an annual audit plan, report the audit results to the Audit Committee for acknowledgment, and must immediately report to the Board of Directors of events that may have a serious impact on the business operations and reputation of the Company such as production, business operations, corruption, including the violation of the law by directors, executives, or employees related to the Company, etc.

In this regard, from the Company's internal control system assessment in the 5 parts mentioned above, the Board of Directors views that the Company has an internal control system that is appropriate and sufficient for business operations and all departments are in compliance with the established rules and regulations.



9.1.2 The Auditors' Opinions on the Internal Control System of the Company and Its Subsidiaries

KPMG Phoomchai Audit Company Limited, the Company's auditor for the fiscal year ended on December 31, 2022, has no report of observations and recommendations regarding the Company's internal control system for such fiscal year.

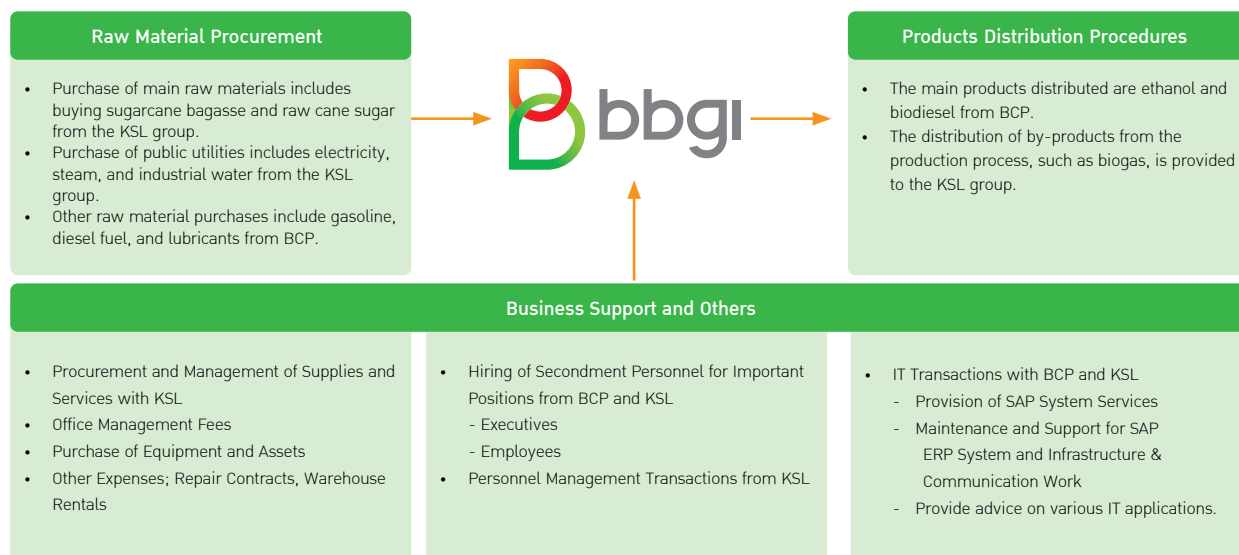
9.1.3 Appointment of Head of Internal Audit

The Audit Committee has duties to consider and approve the appointment, transfer, dismissal, and assess the annual performance of the head of the internal audit department. The Company's Audit Committee Meeting No. 3/2020 held on July 1, 2020, resolved to appoint Mr. Wongwarit Asraniroj as the head of the internal audit department and secretary of the Audit Committee as he is a person with experience in internal audit, knowledge of corporate governance code, risk assessment, and internal control. He also has a good understanding of the business and operating activities of the Company, so he is suitable to perform the duties appropriately and adequately.

9.2 INTER-COMPANY TRANSACTIONS

9.2.1 Inter-Company Transaction Overview of the Company and Its Subsidiaries

The Company and its subsidiaries have entered various transactions with individuals or juristic persons with possible conflicts for the year ended on December 31, 2022, for the purpose of ordinary business operations of the Company and its subsidiaries. It is a recurring transaction and is likely to occur continuously in the future. The transactions can be divided into 5 main categories as follows:



1) Ordinary Business Transactions

1.1) The main product distribution is ethanol and biodiesel. a

The subsidiary companies which are denatured ethanol manufacturer are BBGI-NP/BP and BBGI-PS, distributing fuel-grade denatured ethanol to BCP, which is an ongoing transaction. The Company has entered into a long-term purchase agreement for denatured ethanol with BCP (ending on October 31, 2027). The Company has also entered into an ethanol sales right transfer agreement with BBGI-NP/BP and BBGI-PS with volume and purchase price agreements on a quarterly basis and with normal trading conditions.

The subsidiary company BBGI-BI, which is biodiesel manufacturer, distributes biodiesel to BCP. This transaction is an ongoing transaction with price and normal trading conditions. BBGI-BI entered into a long-term biodiesel fuel purchase agreement with BCP (ending on October 31, 2027) with quarterly volume and purchase price agreements and normal trading conditions.

1.2) Distribution of by-product from the production process is biogas.

The subsidiary company BBGI-NP/BP, which is the denatured ethanol manufacturer, distributes biogas, a by-product from management process of spent wash from ethanol production, to the KSL group which are (1) KKP to be used to produce steam and (2) KMS to be used as fuel in the fertilizer production process. This transaction is an ongoing transaction with the entering into a long-term biogas purchase agreement between BBGI-NP/BP and KKP and KMS (ending on October 31, 2027) with agreed price and normal trading conditions.

1.3) The purchase of main raw materials is the purchase of molasses and raw cane sugar.

Subsidiary BBGI-NP/BP, producing denatured ethanol, will purchase the main raw materials used in ethanol production, which are molasses and raw cane sugar from the KSL group, namely KSL, NKT, TMK, which is an ongoing transaction. BBGI-NP/BP has entered into a long-term molasses purchase agreement with KSL (ending on October 31, 2027) with an agreement on the volume and purchase price at every beginning of the production season (November 1) and with normal trading conditions.

For the purchase of raw cane sugar, it is a spot trade from KSL group, namely NKS, during the period when the price of molasses is quite high, as an additional ingredient and to manage production costs with agreed price and normal trading conditions.

1.4) Purchase of utilities which are industrial electricity, steam, and water

1.5) Subsidiary BBGI-NP/BP, producing denatured ethanol,

will purchase utilities from the KSL Group, namely KKP, whose power plants are located close to the Nam Phong and Bo Ploy ethanol plants for use in the ethanol production process. This transaction is an ongoing transaction. BBGI-NP/BP has entered into a long-term utility purchase agreement with KKP (ending on October 31, 2027) with an agreed price and normal trading conditions.

1.6) Purchase of other materials which are gasoline, diesel, and lubricant.

Subsidiaries BBGI-NP/BP and BBGI-PS, producing denatured ethanol, will buy gasoline from BCP to blend in ethanol before selling it as denatured ethanol to customers. Such transaction is a transaction that occurs continually which is a spot purchase, referring to the market price with normal trading conditions. In addition, the subsidiaries which are BBGI-NP/BP, BBGI-BI, BBGI-PS will purchase fuel oil, diesel, and/or lubricant from BCP for use in the production process machinery. This transaction is an ongoing transaction. It is a spot purchase, referring to the market price with normal trading conditions.

2) Ordinary Business Support Transactions

2.1) Purchasing and Warehouse Management, Human Resources, Office Management Fee, Purchasing Property, Equipment, and Other Items

A subsidiary which produces denatured ethanol, namely BBGI-NP/BP, has transactions related to supporting important ordinary business such as the use of human resources services, office management at Nam Phong and Bo Ploy ethanol plants from the KSL group to support BBGI-NP/BP's ordinary business with an agreement on price and normal trading conditions.

2.2) Management service of the Company and BCP with KSL

The Company has hired personnel from BCP and KSL who have experience in the business to work (Secondment) in important positions of the Company and its subsidiaries as agreed. This transaction is an ongoing transaction. The employment contract is made annually and is renewed annually. The employment rate is based on salary estimates, bonuses, provident funds, and other welfare that BCP and KSL expect to pay to personnel sent to work.

2.3) Information technology service

The Company and its subsidiaries, namely BBGI-BI, BBGI-PS and BUP, have entered into information technology-related transactions with BCP, who manages and invests in information technology for companies in the BCP group. BBGI-NP/BP has entered into information technology-related transactions with KSL, whose main scope of services are system services, supervising and supporting the use of ERP systems, supervising basic information systems, and providing advice on the use of information technology. Such transactions are transactions that occur continuously. The contract is made annually and is renewed every year with the agreed price and the service charge at cost and normal trading conditions.

9.2.1 Persons With Possible Conflicts With the Company

Individuals or juristic persons with possible conflicts with the Company, who make transactions with the Company and its subsidiaries for the year ended on December 31, 2022, are as follows:

Persons with Possible Conflicts	Nature of Business Operations	Nature of Relationships
1. Bangchak Corporation Public Company Limited ("BCP")	<ul style="list-style-type: none"> Business of oil refinery and finished oil sale both retail and wholesale 	<ul style="list-style-type: none"> Major shareholders of the Company holding 45.0% of the Company's shares after the offering of the Company's ordinary shares to the general public for the first time (IPO)
2. Khon Kaen Sugar Industry Public Company Limited ("KKP")	<ul style="list-style-type: none"> Cane sugar and other by-products production and distribution business 	<ul style="list-style-type: none"> Major shareholders of the Company holding 29.88% of the Company's shares after the offering of the Company's ordinary shares to the general public for the first time (IPO)
3. BCPG Public Company Limited ("BCPG")	<ul style="list-style-type: none"> Energy and public utilities business 	<ul style="list-style-type: none"> There is one joint major shareholder which is BCP holding 57.42% of BCPG shares. There are joint directors Mr. Pichai Chunchavajira and Mr. Chaiwat Kovavisarach.
4. Bangchak Retail Company Limited ("BCR")	<ul style="list-style-type: none"> Food and beverage business 	<ul style="list-style-type: none"> There is one joint major shareholder which is BCP holding 100.00% of BCR shares. There is a joint director Mr. Chaiwat Kovavisarach.
5. Tamaka Sugar Industry Company Limited ("TMK")	<ul style="list-style-type: none"> Cane sugar and other by-products production and distribution business 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 90.2% of TMK shares. There are joint directors Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.

Persons with Possible Conflicts	Nature of Business Operations	Nature of Relationships
6. New Krung Thai Sugar Factory Company Limited ("NKT")	<ul style="list-style-type: none"> Cane sugar and other by-products production and distribution business 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 95.8% of NKT shares. There are joint directors Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.
7. New Kwang Soon Lee Sugar Company Limited ("NKS")	<ul style="list-style-type: none"> Cane sugar and other by-products production and distribution business 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 98.6% of NKS shares. There are joint directors Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.
8. Khon Kaen Sugar Power Plant Company Limited ("KKP")	<ul style="list-style-type: none"> Electricity production and distribution business 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 100.0% of KKP shares. There are joint Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.
9. KSL Material Supplies Company Limited ("KMS")	<ul style="list-style-type: none"> Agricultural material sourcing and distributing business 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 100.0% of KMS shares.
10. KSL Real Estate Company Limited ("KRE")	<ul style="list-style-type: none"> Business of development and investment in real estate for rent and training center of the KSL group 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 91.0% of KRE shares. There are joint directors Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.
11. KSL. AGKO & Trading Company Limited ("KAG")	<ul style="list-style-type: none"> Business of buying and selling sugar in the country and conducting agricultural operations 	<ul style="list-style-type: none"> There is one joint major shareholder which is KSL holding 100.0% of KAG shares. There are joint directors Mr. Chamroon Chinthammit, Mr. Chalush Chinthammit, and Mr. Chanachai Chutimavoraphand.
12. Thai Fermentation Industry Company Limited ("TFI")	<ul style="list-style-type: none"> Monosodium glutamate distribution business 	<ul style="list-style-type: none"> There is a joint director Mr. Chamroon Chinthammit.
13. Champion Fermentation Company Limited ("CHAMP")	<ul style="list-style-type: none"> Glutamic acid and monosodium glutamate production 	<ul style="list-style-type: none"> There is a joint director Mr. Chamroon Chinthammit.
14. T S Oil Industry Company Limited ("TSO")	<ul style="list-style-type: none"> Production and distribution of palm oil for consumption 	<ul style="list-style-type: none"> There is a joint director Mr. Chanachai Chutimavoraphand.
15. Thai Sugar Terminal Public Company Limited ("TSTE")	<ul style="list-style-type: none"> Business of ocean liner loading and unloading service, warehouse rental, and wharf service 	<ul style="list-style-type: none"> There are joint directors Mr. Chalush Chinthammit and Mr. Chanachai Chutimavoraphand.



Persons with Possible Conflicts	Nature of Business Operations	Nature of Relationships
16. T S Transport and Logistics Company Limited ("TST")	<ul style="list-style-type: none"> Transportation service business 	<ul style="list-style-type: none"> There are joint directors Mr. Chalush Chinthammit and Mr. Chanachai Chutimavoraphand
17. Colossal International Company Limited ("CLS")	<ul style="list-style-type: none"> Industrial chemicals wholesale business 	<ul style="list-style-type: none"> There is a joint director is Mr. Chalush Chinthammit.
18. Sub Sri Thai Public Company Limited ("SST")	<ul style="list-style-type: none"> Document/property storage service 	<ul style="list-style-type: none"> There are shareholders who are executives (including their spouses and underage children) of the Company holding more than 10% of shares
19. Mr. Piripon Chinthammit	-	<ul style="list-style-type: none"> Child of Mr. Chamroon Chinthammit, a director of the Company

Inter-Company Transactions Made by the Company, Its Subsidiaries, and Persons With Possible Conflicts

Inter-company transactions of the Company, its subsidiaries, and persons with possible conflicts for the year ended on December 31, 2021 and 2022 can be concluded as follows:

Revenue Records

Type Transactions	Persons with Possible Conflicts	Business Partners of the Company Group	Transaction Characteristics	Transaction Value (Million Baht)		The Necessity and Reasonableness of the Transactions	Opinions of the Audit Committee
				For the Year Ended on Dec. 31, 2021	For the Year Ended on Dec. 31, 2022		
1. Ethanol Vendition	BCP	BBGI-NP/BP	- Sales revenues from ethanol - Trade accounts receivable	2,453.68 209.58	2,179.02 253.33	<ul style="list-style-type: none"> BBGI-NP/BP produces and sells ethanol from molasses to BCP. BBGI enters into a denatured ethanol purchase agreement with BCP and transfers the vendition rights to BBGI-NP/BP. BBGI-PS produces and sells ethanol from cassava to BCP. BBGI enters into a denatured ethanol purchase agreement with BCP and transfers the vendition rights to BBGI-PS. 	The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.
2. Vendition of Biodiesel	BCP	BBGI-BI	- Sales revenues from biodiesel - Trade accounts receivable	8,284.62 539.25	8,063.97 383.05	<ul style="list-style-type: none"> BBGI-BI produces and sells biodiesel to BCP. BBGI-BI enters into a biodiesel purchase agreement with BCP. 	
3. Biogas Vendition	KKP	BBGI-NP/BP	- Sales revenues from biogas - Trade accounts receivable	18.05 2.14	29.36 2.25	<ul style="list-style-type: none"> NP/BP sells biogas, a product derived from wastewater treatment from the Nam Phong factory's ethanol production process, to KKP to be used as fuel to generate electricity according to the agreement.BBGI- 	
4. Vendition of Pure Glycerin	CLS	BBGI-BI	- Sales revenues from pure glycerin - Trade accounts receivable	1.35 -	1.96 0.17	<ul style="list-style-type: none"> BBGI-BI sold pure glycerin to CLS 	
5. Vendition of Semi-Refined Palm Oil	TSO	BBGI-BI	- Sales revenues from semi-refined palm oil - Trade accounts receivable	- -	10.00 -	<ul style="list-style-type: none"> BBGI-BI มีการขายน้ำมันปาล์มกับบริษัท TSO 	



Group of Cost And Expense Transactions

Type Transactions	Persons with Possible Conflicts	Business Partners of the Company Group	Transaction Characteristics	Transaction Value (Million Baht)		The Necessity and Reasonableness of the Transactions	Opinions of the Audit Committee
				For the Year Ended on Dec. 31, 2021	For the Year Ended on Dec. 31, 2022		
1. Purchase of Molasses	KSL	BBGI-NP/BP	- Molasses purchase	484.06	697.21	<ul style="list-style-type: none"> BBGI-NP/BP purchased molasses from the KSL group to be used as raw materials for ethanol production by entering into a molasses purchase agreement with KSL, TMK, and NKT. 	<p>The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.</p>
			- Trade payable	14.82	-		
			- Advance payment for molasses	98.09	141.19		
	TMK	BBGI-NP/BP	- Molasses purchase	214.08	266.99		
			- Trade payable	-	-		
			- Advance payment for molasses	41.58	53.18		
	NKT	BBGI-NP/BP	- Molasses purchase	249.64	312.26		
			- Trade payable	-	-		
			- Advance payment for molasses	58.79	51.55		
2. Purchase of Gasoline, Diesel, and Lubricant	BCP	BBGI-PS	- Gasoline, diesel, and lubricant charge	2.31	6.01	<ul style="list-style-type: none"> BBGI-PS and BBGI-NP/BP purchased gasoline from BCP to blend with ethanol before distributing it to costumers as denatured ethanol. 	
			- Trade payable	-	0.41		
			- Other payable	-	0.01		
	BCP	BBGI-NP/BP	- Gasoline and diesel charge	0.79	3.57		
			- Other payable	-	-		



Type Transactions	Persons with Possible Conflicts	Business Partners of the Company Group	Transaction Characteristics	Transaction Value (Million Baht)		The Necessity and Reasonableness of the Transactions	Opinions of the Audit Committee
				For the Year Ended on Dec. 31, 2021	For the Year Ended on Dec. 31, 2022		
3. Purchase of Utilities	KKP	BBGI-NP/BP	- Utility charge (industrial electricity, steam, and industrial water)	169.05	142.86	<ul style="list-style-type: none"> BBGI-NP/BP purchased electricity, steam, and industrial water by entering into a utility purchase agreement with KKP for use in the ethanol production process according to the agreement. BBGI-BI made a purchase agreement of electric energy with BCPG. BBGI-BI agreed to purchase electricity from BCPG according to the amount and rate specified in the agreement. BBGI-BI bought used cooking oil (UCO) by entering into a trade agreement with BCP. 	The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.
			- Other payable	14.52	3.07		
			- Accrued expense for electricity bill	-	0.07		
			- Utility charge (electricity)	6.81	8.29		
4. Purchase of Used Vegetable Oil	BCP	BBGI-BI	- Other payable	0.69	1.01	<ul style="list-style-type: none"> BBGI-BI made a purchase agreement of electric energy with BCPG. BBGI-BI agreed to purchase electricity from BCPG according to the amount and rate specified in the agreement. BBGI-BI bought used cooking oil (UCO) by entering into a trade agreement with BCP. 	The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.
			- Used cooking vegetable oil charge	-	31.18		
			- Trade payable	-	-		
			-	-	-		



Type Transactions	Persons with Possible Conflicts	Business Partners of the Company Group	Transaction Characteristics	Transaction Value (Million Baht)		The Necessity and Reasonableness of the Transactions	Opinions of the Audit Committee
				For the Year Ended on Dec. 31, 2021	For the Year Ended on Dec. 31, 2022		
5. Hiring Management Service for Waste From Production Processes	KMS	BBGI-NP/BP	- Production processes waste management charge	-	-	<ul style="list-style-type: none"> In November 2019, BBGI-NP/BP made an agreement to purchase the property of KMS for use in the business of BBGI-NP/BP. Therefore, an agreement to hire the ethanol production processes waste management service with KMS was terminated. Hiring waste management service with KMS, then, will not happen. Subsequently, on November 1, 2022, BBGI-NP/BP has already purchased assets from KMS under the agreement. 	<p>The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.</p>
			- Interest payable (rent)	19.33	16.11		
			- Property purchase	-	386.69		
6. Hiring Outsourcing Service	BCP	BBGI	- Management charge	39.09	28.34	<ul style="list-style-type: none"> BBGI has a management contract with BCP to perform at the management level at BBGI and its subsidiaries. BBGI has a management contract with KSL to perform at the management level at BBGI. 	
			- Other payable	10.26	2.53		
	KSL	BBGI	- Management charge	5.36	7.20		
			- Other payable	0.48	0.46		



Type Transactions	Persons with Possible Conflicts	Business Partners of the Company Group	Transaction Characteristics	Transaction Value (Million Baht)		The Necessity and Reasonableness of the Transactions	Opinions of the Audit Committee
				For the Year Ended on Dec. 31, 2021	For the Year Ended on Dec. 31, 2022		
7. Expenses of Ordinary Business Support							
7.1 Other Expense	KSL	BBGI-NP/BP	- Expenses	0.82	0.89	<ul style="list-style-type: none">BBGI-NP/BP made other transactions with the KSL group such as security charges, office management charges, car service charges, training charges, drinking water expenses, etc., which were the supportive transactions of the ordinary business of BBGI-NP/BP and beneficial to BBGI-NP/BP.For the oil purchase transactions, NKT charges the oil to BBGI-NP/BP. The charged prices are the same as the ones NKT charges to shippers.	The sale prices are the prices and conditions as if making transactions with third parties (arm's length basis) with reasonableness, transparency, fairness, and no conflict of interest. They are the utmost benefits for the Company and all shareholders which are approved according to the table of authority specified.
			- Other payable	0.09	0.10		
	NKT	BBGI-NP/BP	- Expenses	2.19	1.77		
			- Oil charge	18.27	10.01		
			- Other payable	2.73	0.18		
	KMS	BBGI-NP/BP	- Expenses	0.83	0.04		
			- Other payable	0.11	0.01		
	KKP KRE KAG TFI and CLS	BBGI-NP/BP	- Expenses	0.26	0.50		
			- Other payable	-	0.01		
			- Accrued expenses	-	0.19		
	BCP	BBGI	- Other expense	-	1.04	<ul style="list-style-type: none">BBGI has entered into a sublease agreement with BCP by agreeing to sublease some areas of the 5th floor.	
			- Other payable	-	1.04		
			- Accrued expenses	-	0.01		

9.2.2 Necessity and Reasonableness of Inter-company Transactions

The Audit Committee's meeting No. 4/2023 on February 14, 2023, considers the inter-company transactions of the Company and its subsidiary for the fiscal year ended on December 31, 2022, along with inquiries from the Company's management division as well as reviewing documents and information specified in the remarks on financial statements which are audited by the Company's auditors. It shows that the inter-company transactions of the Company and its subsidiary of the fiscal year ended on December 31, 2022, are the transactions for ordinary business operations or ordinary business support of the Company and its subsidiary which such transactions are in accordance with the general trade conditions in the same manner that the responsible man would act with a general counterparty in the same situation with trade negotiation power free from the influence that the other party has a status of a person with possible conflicts.

9.2.3 Measures or Procedures Regarding the Approval of Inter-Company Transactions

The Company has determined the measures of inter-company transactions or related transactions of the Company and/or its subsidiary according to the Securities and Exchange Act B.E. 2535 (including any amendments) and related regulations of the Capital Market Supervisory Board and/or the Securities and Exchange Commission and The Stock Exchange of Thailand. The Audit Committee shall provide comments regarding reasonableness of the transactions and price appropriateness of the transactions by considering various conditions to be in accordance with ordinary business operation practices in the industry and/or comparing with the market price and/or having same prices or conditions of the transactions with third parties and/or being able to show that the transaction prices or conditions are reasonable or fair.

In this regard, it shall take the interest of the Company and its shareholders as main consideration. If the Audit Committee is inexperienced in considering the inter-company transactions or related transactions which may occur, the Company shall have independent experts to provide comments regarding such inter-company transactions and related transactions for consideration of the Audit Committee, the Board of Directors, and/or shareholders of the Company (depending on the case) in order to ensure that such transactions are not a transfer or passing on the benefits of the Company but they are the transactions which the Company has considered for the utmost benefits of the Company and all shareholders. The persons with possible conflict of interest or have an interest of the transactions shall not be eligible to vote for the approval of inter-company transactions or related transactions. Additionally, the Company shall disclose the inter-company transactions or related transactions in the remarks on financial statements audited by the Company's auditors and in the Company's annual registration statement specified by the SEC.

For the transactions that are trade agreements with general trade conditions and/or ordinary business conditions and those that are trade agreements without general trading conditions and/or ordinary business conditions, it shall follow these principles:

- 1) Inter-company Transactions or Related Transactions With General Trade Conditions and/or Ordinary Business Conditions

In case of ordinary business transactions or ordinary business supportive transactions of the Company and its subsidiary and transactions that may continuously happen in the future, the Company has a policy on framing of such transactions which must have a trade agreement in the same manner that the responsible man would act with a general counterparty in the same situation with trade negotiation power free from the influence on your status of director, executive, or related person and not cause a benefit transfer and/or be able to show that the transaction prices or conditions are reasonable or fair. If the Audit Committee approves the above transaction framework to be general principles, the Company's management division can proceed with the transactions according to the specified framework immediately without proposing such transactions to the Board of Directors for approval again.

2) Transactions Which Are a Trade Agreement Without General Trade Conditions and/or Ordinary Business Conditions

For related transactions that are other transactions which are trade agreements without general trade conditions and/or ordinary business conditions, the Company shall propose them to the Audit Committee who will comment on the transaction necessity and the price appropriateness as well as the transaction reasonableness by considering various conditions to be in accordance with the ordinary business operations in industry and/or being able to show that the transaction prices and conditions are reasonable or fair. It, then, propose them to the Board of Directors for consideration and approval. If the transactions are big according to requirements of the Stock Exchange of Thailand, the Capital Market Supervisory Board, and the SEC they shall be proposed to the Company shareholders' meeting for consideration after being approved by the Board of Directors.

9.2.4 Policy and Trend of Future Inter-Company Transactions

In the future, if having inter-company transactions or related transactions, the Company shall comply with the Securities and Exchange Act, regulations, notices, orders, or requirements of the Capital Market Supervisory Board, the SEC, and the Stock Exchange of Thailand. The transactions shall not be a transfer or passing on the benefits between companies or the Company's shareholders, but they shall be the transactions that the Company has taken into account the utmost benefits of the Company and all shareholders.

For the transactions which generally happen and are expected to continuously happen in the future, the Company shall proceed with the regulations and guidelines of general trade by referring to the appropriate, fair, and auditable prices and conditions. The transactions shall comply with the principles regarding the agreement with general trade conditions as approved by the Board of Directors' meeting. In this regard, the management division shall prepare a summary records of the transactions to report in the Audit Committee's meeting for comments and to the Board of Directors' meeting for acknowledgement quarterly, and in order to prepare the annual registration statement 56-1 One Report every year.

Disclosure of inter-company transactions or related transactions of the Company shall be in accordance with the laws and regulations specified by the Office of the Securities and Exchange Commission as well as the Stock Exchange of Thailand, including the accounting standard related to the Company or relevant individuals of the Federation of Accounting Profession



ส่วนที่ 3

จบการเงิน

บริษัท บีบีจีไอ จำกัด (มหาชน) และบริษัทย่อย
จบการเงินสำหรับปีสิ้นสุดวันที่ 31 ธันวาคม 2565 และ
รายงานของผู้สอบบัญชีรับอนุญาต

10 INDEPENDENT AUDITOR'S REPORT

To the Shareholders of BBGI Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of BBGI Public Company Limited and its subsidiaries (the “Group”) and of BBGI Public Company Limited (the “Company”), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2022, the consolidated and separate statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2022 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements* section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.



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Impairment testing for cash-generating units containing goodwill	
Refer to Notes 3(i) and 15 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The Group had goodwill that arose from business combination in significant amount in the consolidated statement of financial position. The net book value of goodwill was Baht 1,602.32 million, or approximately 11% of total assets. There is a risk that the carrying values of the goodwill might exceed its recoverable amount.</p> <p>Due to the materiality of the transactions and the significant management's judgement involved in estimating a recoverable amount of goodwill from discounted cash flow method, I considered this as the key audit matter.</p>	<p>My audit procedures included the following:</p> <ul style="list-style-type: none"> - Understanding the management's impairment testing process including estimation of future cash flow and key assumptions applied underpinning estimation. - Testing the key assumptions that underpin management's discounted cash flows with reference to market situations and its operating environment, my knowledge of the industry, and other obtained information. - Consideration of the forecasting of financial performances by comparison historical estimation to the actual operating results. - Consideration of the disclosures in accordance with Thai Financial Reporting Standards.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.



In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.



I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, action taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

D. 42

(Dussanee Yimsuwan)
Certified Public Accountant
Registration No. 10235

KPMG Phoomchai Audit Ltd.
Bangkok
16 February 2023



BBGI Public Company Limited

STATEMENT OF FINANCIAL POSITION

		Consolidated financial statements		Separate financial statements	
		31 December		31 December	
Assets	Note	2022	2021	2022	2021
(in Baht)					
Current assets					
Cash and cash equivalents	5	1,414,222,635	383,608,461	839,945,231	259,139,261
Current investment	5	1,220,000,000	-	1,220,000,000	-
Trade accounts receivable	4, 6	910,667,665	1,122,251,498	790,977	137,816
Other current receivables	4, 7	688,133,730	494,770,837	32,497,853	27,615,385
Short-term loan to related parties	4	-	-	2,424,000,000	744,000,000
Inventories	8	891,962,327	1,024,780,800	3,777,669	419,221
Current tax assets	22	12,560,966	11,297,128	12,560,966	10,757,035
Other current assets		64,496	198,175	-	-
Total current assets		5,137,611,819	3,036,906,899	4,533,572,696	1,042,068,718
Non-current assets					
Restricted deposits at financial institutions	16	46,962,016.00	57,588,658	-	-
Investment in subsidiaries	10	-	-	4,899,101,976	4,754,778,283
Investment in associate and joint venture	9	114,316,203	39,056,729	114,316,203	39,056,729
Other non-current financial assets	12, 26	916,635,312	1,883,235,178	916,635,312	1,883,235,178
Property, plant and equipment	13, 16	6,187,385,340	5,871,413,789	17,373,274	21,589,520
Right-of-use assets	14	23,702,584	376,373,285	11,902,615	13,998,592
Goodwill	15	1,602,324,546	1,602,324,546	-	-
Intangible assets other than goodwill		28,519,517	25,363,662	463,726	435,123
Deferred tax assets	22	7,767,062	6,578,928	-	-
Other non-current assets	9	40,897,676	8,261,990	40,817,381	8,181,695
Total non-current assets		8,968,510,256	9,870,196,765	6,000,610,487	6,721,275,120
Total assets		14,106,122,075	12,907,103,664	10,534,183,183	7,763,343,838

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF FINANCIAL POSITION

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2022	2021	2022	2021
(in Baht)					
<i>Current liabilities</i>					
Short-term loans from financial institutions	16, 26	26,613,468	755,310,208	-	-
Trade accounts payable	4, 26	516,814,105	716,347,807	305,041	188,748
Other current payables	4, 17	253,008,824	303,062,253	23,270,489	32,038,609
Current portion of lease liabilities	16, 26	6,193,884	7,247,316	1,939,289	1,833,145
Current portion of debenture	16, 26	-	499,408,033	-	499,408,033
Current portion of long-term loans					
from financial institutions	16, 26	627,100,000	591,880,000	-	-
Income tax payable		1,376,840	24,802,307	-	-
Other current liabilities		35,939,512	42,190,200	79,826	121,438
Total current liabilities		1,467,046,633	2,940,248,124	25,594,645	533,589,973
<i>Non-current liabilities</i>					
Long-term loans from financial institutions	16, 26	1,372,067,749	1,685,529,104	-	-
Lease liabilities	16, 26	19,520,245	394,166,047	11,648,999	13,588,288
Debentures	16, 26	799,317,095	798,814,554	799,317,095	798,814,554
Deferred tax liabilities	22	59,372,217	140,307,744	13,666,477	90,319,072
Non-current provisions for employee benefits		35,515,652	24,702,650	7,917,724	4,679,756
Other non-current financial liability	9, 26	53,000,000	-	53,000,000	-
Other non-current liabilities		19,074,520	19,239,437	-	-
Total non-current liabilities		2,357,867,478	3,062,759,536	885,550,295	907,401,670
Total liabilities		3,824,914,111	6,003,007,660	911,144,940	1,440,991,643

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF FINANCIAL POSITION

		Consolidated financial statements 31 December		Separate financial statements 31 December	
Liabilities and equity	Note	2022	2021	2022	2021
(in Baht)					
Equity					
Share capital	18				
Authorised share capital		3,615,000,000	3,615,000,000	3,615,000,000	3,615,000,000
Issued and paid-up share capital		3,615,000,000	2,532,000,000	3,615,000,000	2,532,000,000
Share premium on ordinary shares	19	3,381,235,480	-	3,381,235,480	-
Surplus from business combination	19	1,950,684,634	1,950,684,634	1,950,684,634	1,950,684,634
Differences from business restructuring under common control	19	(229,047,190)	(229,047,190)	-	-
Retained earnings					
Appropriated					
Legal reserve	19	97,018,574	95,997,574	97,018,574	95,997,574
Unappropriated		1,852,822,177	2,127,445,337	1,531,145,131	1,805,768,291
Other component of equity		(952,045,576)	(62,098,304)	(952,045,576)	(62,098,304)
Equity attributable to owners of the parent		9,715,668,099	6,414,982,051	9,623,038,243	6,322,352,195
Non-controlling interests	11	565,539,865	489,113,953	-	-
Total equity		10,281,207,964	6,904,096,004	9,623,038,243	6,322,352,195
Total liabilities and equity		14,106,122,075	12,907,103,664	10,534,183,183	7,763,343,838

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF INCOME

		Consolidated financial statements		Separate financial statements	
		Year ended 31 December		Year ended 31 December	
	Note	2022	2021	2022	2021
		(in Baht)			
Revenue from sale of goods	4, 20, 23	13,373,777,325	14,094,940,404	4,515,003	2,426,060
Cost of sales of goods	4, 8	(12,909,534,817)	(13,065,414,558)	(2,882,526)	(1,791,096)
Gross Profit		464,242,508	1,029,525,846	1,632,477	634,964
Other income		45,067,037	37,230,302	90,991,021	65,771,754
Distribution costs		(42,735,344)	(32,402,154)	(19,225,867)	(334,845)
Administrative expenses	4	(266,819,442)	(243,256,651)	(153,648,403)	(140,615,164)
Gain on fair value adjustment on investment		-	611,793,050	-	670,835,578
Profit (loss) from operating activities		199,754,759	1,402,890,393	(80,250,772)	596,292,287
Finance costs		(94,667,302)	(107,210,704)	(38,942,293)	(28,911,252)
Share of profit of subsidiaries accounted for using equity method	10	-	-	147,551,185	514,983,396
Share of profit (loss) of associate and joint venture accounted for using equity method	9	(7,940,526)	42,698,556	(7,940,526)	42,698,556
Profit before income tax expense		97,146,931	1,338,378,245	20,417,594	1,125,062,987
Income tax expense	22	(303,425)	(150,194,349)	-	(105,843,648)
Profit for the year		96,843,506	1,188,183,896	20,417,594	1,019,219,339
Profit attributable to:					
Owners of the Parent		20,417,594	960,176,811	20,417,594	1,019,219,339
Non-controlling interests	11	76,425,912	228,007,085	-	-
Profit for the year		96,843,506	1,188,183,896	20,417,594	1,019,219,339
Basic earnings per share	24	0.02	0.95	0.02	1.01

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF COMPREHENSIVE INCOME

		Consolidated financial statements		Separate financial statements	
		Year ended 31 December		Year ended 31 December	
	Note	2022	2021	2022	2021
		(in Baht)			
Profit for the year		96,843,506	1,188,183,896	20,417,594	1,019,219,339
Other comprehensive income					
Items that will not be reclassified subsequently to profit or loss					
Loss on investments in equity instruments designated at FVOCI	12	(889,947,272)	(62,098,304)	(889,947,272)	(62,098,304)
Gain (loss) on remeasurements of defined benefit plans		(4,837,404)	465,833	(4,837,404)	461,893
Total items that will not be reclassified subsequently to profit or loss		(894,784,676)	(61,632,471)	(894,784,676)	(61,636,411)
Other comprehensive income (loss) for the year, net of income tax		(894,784,676)	(61,632,471)	(894,784,676)	(61,636,411)
Total comprehensive income (loss) for the year		(797,941,170)	1,126,551,425	(874,367,082)	957,582,928
Comprehensive income (loss) attributable to:					
Owners of the Parent		(874,367,082)	898,540,400	(874,367,082)	957,582,928
Non-controlling interests	11	76,425,912	228,011,025	-	-
Total comprehensive income (loss) for the year		(797,941,170)	1,126,551,425	(874,367,082)	957,582,928

The accompanying notes are an integral part of these financial statements.



BBGi Public Company Limited

STATEMENT OF CHANGES IN EQUITY

	Note	Consolidated financial statements							Total equity	
		Issued and paid-up share capital	Surplus from business combination	Differences from business restructuring under common control	Retained earnings			Equity attributable to owners of the parent		
					Legal reserve	Unappropriated	Fair value reserve			Non-controlling interests
<i>For the year ended 31 December 2021</i>										
Balance at 1 January 2021		2,532,000,000	1,950,684,634	(229,047,190)	45,032,574	1,719,107,633	-	6,017,777,651	486,656,428	6,504,434,079
Transactions with owners, recorded directly in equity										
Dividends paid to owners of the parent	23	-	-	-	-	(501,336,000)	-	(501,336,000)	-	(501,336,000)
Dividends from the subsidiary		-	-	-	-	-	-	-	(225,481,500)	(225,481,500)
Changes in ownership interests in subsidiaries without a change in control		-	-	-	-	-	-	-	(72,000)	(72,000)
Total contributions by and distributions to owners of the parent		-	-	-	-	(501,336,000)	-	(501,336,000)	(225,553,500)	(726,889,500)
Comprehensive income (loss) for the year										
Profit or loss		-	-	-	-	960,176,811	-	960,176,811	228,007,085	1,188,183,896
Other comprehensive income (loss)		-	-	-	-	461,893	(62,098,304)	(61,636,411)	3,940	(61,632,471)
Total comprehensive income (loss) for the year		-	-	-	-	960,638,704	(62,098,304)	898,540,400	228,011,025	1,126,551,425
Transfer to legal reserve	19	-	-	-	50,965,000	(50,965,000)	-	-	-	-
Balance at 31 December 2021		2,532,000,000	1,950,684,634	(229,047,190)	95,997,574	2,127,445,337	(62,098,304)	6,414,982,051	489,113,953	6,904,096,004

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF CHANGES IN EQUITY

Consolidated financial statements											
	Retained earnings			Other components of equity							
	Issued and paid-up share capital	Share premium on ordinary shares	Surplus from business combination	Differences from business restructuring under common control	Legal reserve	Unappropriated	Fair value reserve				
								Equity attributable to owners of the parent	Non-controlling interests	Total equity	
<i>(in Baht)</i>											
<i>For the year ended 31 December 2022</i>											
Balance at 1 January 2022	2,531,000,000	-	1,950,684,634	(225,047,109)	95,997,574	2,127,445,337	(62,698,304)	6,414,982,051	489,113,953	6,904,096,004	
<i>Transactions with owners, recorded directly in equity</i>											
Called for paid-up of ordinary shares	18	1,083,000,000	3,381,235,480	-	-	-	-	4,464,235,480	-	4,464,235,480	
Dividends paid to owners of the parent	25	-	-	-	-	(289,182,350)	-	(289,182,350)	-	(289,182,350)	
<i>Total transactions with owners, recorded directly in equity</i>		<u>1,083,000,000</u>	<u>3,381,235,480</u>	<u>-</u>	<u>-</u>	<u>(289,182,350)</u>	<u>-</u>	<u>4,175,053,130</u>	<u>-</u>	<u>4,175,053,130</u>	
<i>Comprehensive income (loss) for the year</i>											
Profit or loss		-	-	-	-	20,417,594	-	20,417,594	76,425,912	96,843,506	
Other comprehensive income (loss)		-	-	-	-	(4,837,404)	(889,947,272)	(894,784,676)	-	(894,784,676)	
<i>Total comprehensive income (loss) for the year</i>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>15,580,190</u>	<u>(889,947,272)</u>	<u>(874,367,082)</u>	<u>76,425,912</u>	<u>(797,941,170)</u>	
Transfer to legal reserve	19	-	-	-	-	1,021,000	-	-	-	-	
Balance at 31 December 2022		<u>3,615,000,000</u>	<u>3,381,235,480</u>	<u>1,950,684,634</u>	<u>(229,047,109)</u>	<u>97,018,574</u>	<u>1,852,822,117</u>	<u>9,715,668,899</u>	<u>565,539,865</u>	<u>10,281,207,964</u>	

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF CHANGES IN EQUITY

	Note	Separate financial statements					Total equity
		Issued and paid-up share capital	Surplus from business combination	Retained earnings		Other components of equity	
				Legal reserve	Unappropriated	Fair value reserve	
For the year ended 31 December 2021							
Balance at 1 January 2021		2,532,000,000	1,950,684,634	45,032,574	1,338,388,059	-	5,866,105,267
Transactions with owners, recorded directly in equity							
Dividends paid to owners of the parent	25	-	-	-	(501,336,000)	-	(501,336,000)
Total transactions with owners, recorded directly in equity		-	-	-	(501,336,000)	-	(501,336,000)
Comprehensive income (loss) for the year							
Profit or loss		-	-	-	1,019,219,339	-	1,019,219,339
Other comprehensive income (loss)		-	-	-	461,893,00	(62,098,304.00)	(61,636,411)
Total comprehensive income (loss) for the year		-	-	-	1,019,681,232	(62,098,304)	957,582,928
Transfer to legal reserve	19	-	-	50,965,000	(50,965,000)	-	-
Balance at 31 December 2021		2,532,000,000	1,950,684,634	95,997,574	1,805,768,291	(62,098,304)	6,322,352,195

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

STATEMENT OF CHANGES IN EQUITY

	Note	Separate financial statements					Total equity
		Issued and paid-up share capital	Share premium on ordinary shares	Surplus from business combination	Retained earnings	Other components of equity	
					Legal reserve (in Baht)	Fair value reserve	
For the year ended 31 December 2022							
Balance at 1 January 2022		2,532,000,000	-	1,950,684,634	95,997,574	1,805,768,291	6,322,352,195
Transactions with owners, recorded directly in equity							
Called for paid-up of ordinary shares	18	1,083,000,000	3,381,235,480	-	-	-	4,464,235,480
Dividends paid to owners of the parent	25	-	-	-	-	(289,182,350)	(289,182,350)
Total transactions with owners, recorded directly in equity		1,083,000,000	3,381,235,480	-	-	(289,182,350)	4,175,053,130
Comprehensive income (loss) for the year							
Profit or loss		-	-	-	-	20,417,594	20,417,594
Other comprehensive income (loss)		-	-	-	-	(4,837,404)	(894,784,676)
Total comprehensive income (loss) for the year		-	-	-	-	15,580,190	(874,367,082)
Transfer to legal reserve	19	-	-	-	1,021,000	(1,021,000)	-
Balance at 31 December 2022		3,615,000,000	3,381,235,480	1,950,684,634	97,018,574	1,531,145,131	9,623,038,243

The accompanying notes are an integral part of these financial statements.



BGI Public Company Limited

CASH FLOW STATEMENT

	Consolidated financial statements		Separate financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in Baht)			
<i>Cash flows from operating activities</i>				
Profit for the year	96,843,506	1,188,183,896	20,417,594	1,019,219,339
<i>Adjustments to reconcile profit to cash receipts (payments)</i>				
Income tax expense	303,425	150,194,349	-	105,843,648
Finance costs	94,667,302	107,210,704	38,942,293	28,911,252
Depreciation and amortisation	421,640,514	413,697,697	6,727,235	6,652,114
Unrealised (gain) loss on foreign exchange	(47)	26,243	-	-
Losses on inventories devaluation	5,297,598	2,069,156	-	-
Loss on disposal of property, plant and equipment	1,959,246	740,877	-	-
Provision for non-current employee benefit	5,619,229	3,802,881	1,628,056	1,447,017
Interest income	(10,909,143)	(2,256,854)	(34,443,144)	(11,235,000)
Dividends income	(11,643,432)	-	(11,643,432)	-
Gain on fair value adjustment of investments	-	(611,793,050)	-	(670,835,578)
Share of profit of subsidiaries accounted for using equity method	-	-	(147,551,185)	(514,983,396)
Share of (profit) loss of associate and joint venture accounted for using equity method	7,940,526	(42,698,556)	7,940,526	(42,698,556)
	611,718,724	1,209,177,343	(117,982,057)	(77,679,160)
<i>Changes in operating assets and liabilities</i>				
Trade accounts receivable	211,583,833	(66,092,189)	(653,161)	(137,816)
Other current receivables	(192,994,978)	154,778,648	(4,771,895)	(8,540,545)
Inventories	127,520,875	375,489,413	(3,358,448)	(419,221)
Other current assets and other non-current assets	(32,502,007)	(5,689,153)	(32,635,686)	(6,927,868)
Restricted deposits at financial institutions	10,626,642	16,087,925	-	-
Trade accounts payable	(199,533,702)	187,641,665	116,293	188,748
Other current payables	(38,671,061)	15,144,823	(7,000,586)	9,582,365
Other current liabilities and non-current liabilities	(4,257,169)	625,274	(41,612)	71,438
Provisions for current employee benefits	(450,505)	(1,311,560)	-	-
Net cash from (used in) operating activities	493,040,652	1,885,852,189	(166,327,152)	(83,862,059)
Tax paid	(30,197,599)	(143,479,006)	(1,803,930)	(7,486,189)
Net cash from (used in) operating activities	462,843,053	1,742,373,183	(168,131,082)	(91,348,248)

The accompanying notes are an integral part of these financial statements.

BBGi Public Company Limited

CASH FLOW STATEMENT

	Consolidated financial statements		Separate financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in Baht)			
<i>Cash flows from investing activities</i>				
Dividends received	11,643,432	78,726,277	11,643,432	604,849,777
Interest received	10,798,545	2,155,165	34,332,569	11,131,042
Increase in current investments	(1,220,000,000)	-	(1,220,000,000)	-
Short-term loan to related parties - net	-	-	(1,680,000,000)	(744,000,000)
Cash paid for additional paid-up of investment in subsidiary	-	(72,000)	-	(50,072,000)
Proceeds from sales of investment in associate	-	234,856,800	-	234,856,800
Cash paid for investment in associate	(30,200,000)	-	(30,200,000)	-
Acquisition of property, plant and equipment and intangible assets	(387,566,272)	(484,331,146)	(443,615)	(426,000)
Proceeds from sale of property, plant and equipment	84,897	2,098,087	-	-
Net cash from (used in) investing activities	(1,615,239,398)	(166,566,817)	(2,884,667,614)	56,339,619
<i>Cash flows from financing activities</i>				
Repayment of short-term loans from financial institutions - net	(728,696,740)	(1,449,439,816)	-	(286,000,000)
Repayment of short-term loans from related parties - net	-	-	-	(200,000,000)
Proceeds from long-term loans from financial institutions	298,500,000	216,000,000	-	-
Repayment of long-term loans from financial institutions	(576,880,000)	(571,280,000)	-	-
Payment of lease liabilities	(394,628,719)	(15,115,879)	(2,398,464)	(2,372,964)
Proceeds from debentures	-	1,297,456,000	-	1,297,456,000
Repayment of debentures	(500,000,000)	-	(500,000,000)	-
Proceeds from issue of ordinary shares	4,464,235,480	-	4,464,235,480	-
Dividends paid to owners of the parent	(289,182,350)	(501,336,000)	(289,182,350)	(501,336,000)
Dividends paid to non-controlling interests	-	(225,481,500)	-	-
Financial cost paid	(90,337,152)	(100,149,420)	(39,050,000)	(22,277,038)
Net cash from (used in) financing activities	2,183,010,519	(1,349,346,615)	3,633,604,666	285,469,998
Net increase in cash and cash equivalent	1,030,614,174	226,459,751	580,805,970	250,461,369
Cash and cash equivalents as at 1 January	383,608,461	157,148,710	259,139,261	8,677,892
Cash and cash equivalents as at 31 December	1,414,222,635	383,608,461	839,945,231	259,139,261
<i>Non-cash transactions</i>				
Payables for property, plant and equipment	135,230,443	144,625,190	-	-
Accrued investment	53,000,000	-	53,000,000	-

The accompanying notes are an integral part of these financial statements.



BBGI Public Company Limited

NOTES TO FINANCIAL STATEMENTS**FOR THE YEAR ENDED 31 DECEMBER 2022**

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These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorized for issue by the Board of Directors on 16 February 2023.

1 General information

BBGI Public Company Limited, the “Company”, is incorporated in Thailand and has its registered offices at 2098, M Tower Building, 5th Floor, Sukhumvit Road, Phrakhanong Tai, Phrakhanong, Bangkok, Thailand.

The immediate parent company during the financial year is The Bangchak Corporation Public Company Limited which incorporated in Thailand.

The principal business of the Company is investing in the companies whose business is manufacturing and distribution of biofuel product and relating products. Details of the Company’s subsidiaries as at 31 December 2022 and 2021 are given in note 10.

2 Basis of preparation of the financial statements

Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (TFRS); guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements are presented in Thai Baht, which is the Company’s functional currency.

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

3 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presents on these financial statements.

(a) *Basis of consolidation*

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in associates and joint venture.

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree. In addition, when there is a change in the Group's interest in a subsidiary that do not result in a loss of control, any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received from the acquisition or disposal of the non-controlling interests with no change in control are accounted for as other surpluses in shareholders' equity.

When the Group loses control over a subsidiary, it derecognises the assets and liabilities, any related non-controlling interests and other components of equity of the subsidiary. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

The Group recognised investments in associates and joint venture using the equity method in the financial statements in which the equity method is applied. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the financial statements in which the equity method is applied include the Group's dividends income and share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated on consolidation. Unrealised gains arising from transactions with associates and joint venture are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group, other than business combinations with entities under common control. Expenses in connection with a business combination are recognised as incurred.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, any contingent consideration, share-based payment awards of the acquiree that are replaced mandatorily in the business combination and equity interests issued by the Group. If a business combination results in the termination of pre-existing relationships between the Group and the acquiree, then the lower of the termination amount, as contained in the agreement, and the value of the off-market element is deducted from the consideration transferred and recognised in other expenses.

Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group estimates provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

Business combination under common control are accounted for using a method similar to the pooling of interest method, by recognising assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the transaction date. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or deficit from business combinations under common control in shareholder's equity. The surplus or deficit will be written off upon divestment of the businesses acquired. The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

(b) *Investments in subsidiaries, associates and joint venture*

Investments in subsidiaries, associates and joint venture in the separate financial statements of the Company are accounted for using the equity method. Dividends income is recognised in profit or loss on the date on which the Group's right to receive payment is established. If the Company disposes of part of its investment, the deemed cost of the part sold is determined using the weighted average method. Gains and losses on disposal of the investments are recognised in profit or loss.

(c) *Foreign currencies*

Transactions in foreign currencies including non-monetary assets and liabilities denominated in foreign currencies] are translated to the respective functional currencies of each entity in the Group at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date.

Foreign currency differences are generally recognised in profit or loss. However, foreign currency differences arising from the translation of an investment in equity securities designated as at FVOCI (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss).

(d) Financial instruments

(d.1) Classification and measurement

Financial assets and financial liabilities (except trade accounts receivables (see note 3(f))) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value, taking into account for transaction costs that are directly attributable to its acquisition, except for financial assets and financial liabilities measured at FVTPL, which are initially and subsequently measured at fair value, and any transaction costs that are directly attributable to its acquisition are recognised in profit or loss.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or fair value through profit or loss (FVTPL). Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividends income is recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividends clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

(d.2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Derivatives

Derivative are recognised at fair value and remeasured at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss.

(d.4) Impairment of financial assets other than trade accounts receivables

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to have low credit risk when its credit rating is equivalent to the globally understood definition of 'investment grade'. The Group recognises ECLs for low credit risk financial asset as 12-month ECLs.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due, significant deterioration in credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when:

- the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is more than 90 days past due.

(d.5) Write offs

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(d.6) Interest

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability.

(e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances, call deposits and highly liquid short-term investments which has a maturity of three months or less from the date of acquisition.

(f) Trade accounts receivable

A trade receivable is recognised when the Group has an unconditional right to receive consideration. A trade receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date.

(g) Inventories

Inventories are measured at the lower of cost and net realisable value. Cost is calculated using the weighted average cost principle. Cost includes direct costs incurred in acquiring the inventories. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(h) Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

Differences between the proceeds from disposal and the carrying amount of property, plant and equipment are recognised in profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item when the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset and recognised in profit or loss. No depreciation is provided on freehold land and assets under construction.

The estimated useful lives are as follows:

Buildings and structure	5-50 years
Machinery and equipment	5-25 years
Furniture, fixtures and office equipment	5 years
Vehicles	5-7 years

(i) Intangible assets

Goodwill

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment.

Research and development

Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditure and expenditure on research activities are recognised in profit or loss as incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and impairment losses. The expenditure cost includes the cost of materials, direct labour, overhead costs that are directly attributable to preparing the asset for its intended use, and borrowing costs.

Other intangible assets

Other intangible assets that are acquired by the Group and the Company and have finite useful lives are measured at cost less accumulated amortisation and impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits. Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.

The estimated useful lives are as follows:

Right to use and cost of development of computer software	3-10 Years
Power purchase agreement from business combination	10 years

(j) Leases

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

At commencement or on modification of a contract, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices of each component. For the leases of property, the Group has elected not to separate non-lease components and accounted for the lease and non-lease components wholly as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which is recognised as an expense on a straight-line basis over the lease term.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of all lease payments that shall be paid under the lease. The Group uses the Group's incremental borrowing rate to discount the lease payments to the present value. The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a lease modification, or a change in the assessment of options specified in the lease. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

(k) *Impairment of financial assets*

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount.

The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Impairment losses of assets recognised in prior periods is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss in respect of goodwill is not reversed. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(l) Employee benefits*Defined contribution plans*

Obligations for contributions to the Group's provident funds are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods. The defined benefit obligations are discounted to the present value, which is performed regularly by a qualified actuary using the projected unit credit method.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Other long-term employee benefits

The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognised in profit or loss in the period in which they arise.

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(m) Trade and other payables

Trade and other payables are stated at amortized cost.

(n) Provisions

A provision is recognised if, as a result of past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

(o) Measurement of fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If the inputs used to measure the fair value of an assets or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as lowest level input that is significant to the entire measurement.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and asset positions at a bid price and liabilities and liability positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

(p) Revenue from contracts with customers

(p.1) Revenue recognition

Revenue is recognised when a customer obtains control of the goods in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax or other sales taxes and is after deduction of any trade discounts and volume rebates.

Revenue from sales of goods is recognised on the date on which the goods are delivered to the customers.

(p.2) Contract balances

Contract assets are recognised when the Group has recognised revenue before it has an unconditional right to receive consideration. The contract assets are measured at the amount of consideration that the Group is entitled to, less allowance for expected credit loss. The contract assets are classified as trade receivables when the Group has an unconditional right to receive consideration.

Contract liabilities are the obligation to transfer goods to the customer. The contract liabilities are recognised when the Group receives or has an unconditional right to receive non-refundable consideration from the customer before the Group recognises the related revenue.

(q) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities, using tax rates enacted or substantively enacted at the reporting date. Current deferred tax assets and liabilities are offset in the separate financial statements.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(r) Earnings per share

Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period.

(s) Segment information

Segment results that are reported to the Group's the chief operating decision maker include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly corporate assets (primarily the Company's headquarters) and head office expenses.



4 Related parties

A related party is a person or entity that has direct or indirect control or joint control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making of a person or entity.

Relationships with subsidiaries, associates and joint venture are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Country of incorporation/ nationality	Nature of relationships
Bangchak Corporation Public Company Limited	Thailand	Parent company, some common directors
Khon Kaen Sugar Industry Public Company Limited	Thailand	Other shareholder, some common directors
BCPG Public Company Limited	Thailand	Subsidiary of parent company, some common directors
Bangchak Retail Co., Ltd.	Thailand	Subsidiary of parent company
New Krung Thai Sugar Factory Co., Ltd.	Thailand	Subsidiary of other shareholder
Tamaka Sugar Industry Co., Ltd.	Thailand	Subsidiary of other shareholder
New Kwang Soon Lee Sugar Factory Co., Ltd.	Thailand	Subsidiary of other shareholder
Khon Kaen Sugar Power Plant Co., Ltd.	Thailand	Subsidiary of other shareholder
KSL Material Supplies Co., Ltd.	Thailand	Subsidiary of other shareholder
KSL Agro & Trading Co., Ltd.	Thailand	Subsidiary of other shareholder
Colossal International Co., Ltd.	Thailand	Having some common directors
Thai Fermentation Industry Co., Ltd.	Thailand	Having some common directors
T S Oil Industry Co., Ltd.	Thailand	Having some common directors
Champion Fermentation Co., Ltd.	Thailand	Having some common directors
Key management personnel	Thailand	Persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.

Significant transactions with related parties for the year ended 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Parent company				
Sales of goods	11,393.13	11,860.27	0.49	1.24
Purchases of goods	40.75	3.33	-	-
Other expenses	32.49	38.76	30.54	37.14
Dividends paid	130.13	240.03	130.13	240.03

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Other shareholder				
Purchases of goods	697.81	491.65	-	-
Other expenses	8.21	7.08	7.20	5.36
Dividends paid	86.42	160.02	86.42	160.02
Subsidiaries				
Dividends income	-	-	-	526.12
Interest income	-	-	25.00	9.72
Other income	-	-	43.18	53.54
Associates				
Dividends income	-	78.73	-	78.73
Other related parties				
Sales of goods	44.92	20.06	0.36	-
Purchases of goods	741.19	659.54	-	-
Other expenses	2.70	-	0.03	-
Interest expense	16.11	19.33	-	-
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	51.51	66.08	36.47	47.93
Post-employment benefits and long-term benefits	4.37	1.38	1.45	0.39
Total key management personnel compensation	55.88	67.46	37.92	48.32

Balances as at 31 December with related parties were as follows;

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Trade accounts receivable				
Parent company	763.16	849.19	0.02	0.14
Subsidiaries	-	-	0.15	-
Other related parties	2.44	2.19	-	-
Total	765.60	851.38	0.17	0.14
Less allowance for expected credit loss	-	-	-	-
Net	765.60	851.38	0.17	0.14
Other receivables				
Subsidiaries	-	-	6.16	11.66
Joint venture	-	0.13	-	0.13
Other related parties	246.11	0.20	-	-
Total	246.11	0.33	6.16	11.79
Less allowance for expected credit loss	-	-	-	-
Total	246.11	0.33	6.16	11.79



	Separate financial statements			
	1 January 2021	Increase	Decrease	31 December 2021
		(in million Baht)		
Loans to				
Subsidiaries	-	1,369.00	(625.00)	744.00
Less allowance for expected credit loss	-	-	-	-
Net	-	1,369.00	(625.00)	744.00

	Separate financial statements			
	1 January 2022	Increase	Decrease	31 December 2022
		(in million Baht)		
Loans to				
Subsidiaries	744.00	2,752.00	1,072.00	2,424.00
Less allowance for expected credit loss	-	-	-	-
Net	744.00	2,752.00	1,072.00	2,424.00

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in million Baht)			
Trade accounts payable				
Parent company	0.41	-	-	-
Other shareholders	-	14.82	-	-
Subsidiaries	-	-	0.04	-
Total	0.41	14.82	0.04	-

Other accounts payable				
Parent company	5.22	11.80	4.16	11.28
Other shareholders	1.59	0.57	1.50	0.48
Other related parties	4.73	18.11	0.01	-
Total	11.54	30.48	5.67	11.76

Lease liabilities				
Other related parties				
Current portion	-	-	-	-
Non-current portion	-	373.47	-	-
Total	-	373.47	-	-

Significant agreements with related parties

Product and Raw Material Sales and Purchase Agreement

The Company and subsidiaries entered into a Denatured Ethanol Sales and Purchase Agreement and Bio-diesel Sales and Purchase Agreement with the parent company. Such agreement has effective since April 2018 to October 2027 and will be automatically renewed unless terminated by either party as stipulated in the agreement. Selling prices are reference to market as stipulated in the agreement.

The subsidiary entered into a Molasses Sales and Purchase Agreement with other shareholder and related parties. Such agreement has been effective since April 2018 to October 2027 and will be automatically renewed unless terminated by either party as stipulated in the agreement. The subsidiary has the right before another third parties to purchase entire molasses produced from other shareholder and related parties' plant for each seasonal period. The selling price is the market price as stipulated in the agreement.

The subsidiary entered into a Biogas Sales and Purchase Agreement with related party. Such agreement has been effective since April 2018 to October 2027 and will be automatically renewed unless terminated by either party as stipulated in the agreement. Related party agreed to purchase biogas at demand volumes of its power plants. The selling price is as stipulated in the agreement.

A subsidiary entered into a 10-year Biogas Sales and Purchase Agreement with another subsidiary. Such agreement has been effective since 1 January 2022 to December 2032 unless terminated by either party as stipulated in the agreement. The selling price is as stipulated in the agreement.

The subsidiary entered into a Power Purchase Agreement with a related party. Such agreement has been effective since November 2018 and will be automatically renewed for 5 years, total duration period not over 25 years from the commercial operation date. The subsidiary has agreed to purchase electricity from the related party in quantities and prices as stipulated in the agreement.

Service Agreement

The Company entered into a service agreement with subsidiaries for services and consulting. The agreement term is for a period of 1 year, effective from July 2018 and will be automatically renewed for a 1-year period unless terminated by either party as stipulated in the agreement. The Company agreed to provide professional human resources to provide consultation and service in accordance with subsidiaries' direction. Service fee is as stipulated in the agreement.

The subsidiary entered into a project management and machinery operation agreement with another subsidiary. The agreement term is for a period of 1 year effective from 1 January 2022 and will be automatically renewed unless terminated by either party as stipulated in the agreement. Service fee is as stipulated in the agreement.

The subsidiary entered into a Human Resources Management Service Agreement with other shareholder. The agreement term is for a period of 1 year effective from November 2018 and will be automatically renewed for a 1-year period unless terminated by either party as stipulated in the agreement. Service fee is as stipulated in the agreement.

Land rental agreement

A subsidiary entered into a land rental agreement with another subsidiary. The agreement term is for a period of 2 years from 1 July 2020 to 30 June 2022 and will be automatically renewed for a 2-year period under the same terms and conditions unless the parties agree otherwise.



5 Cash and cash equivalents and current investment

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in million Baht)			
Cash and cash equivalents				
Cash on hand	0.26	0.26	0.04	0.04
Cash at banks - current accounts	1.87	2.16	0.07	-
Cash at banks - savings accounts	1,412.09	381.19	839.84	259.10
Total	1,414.22	383.61	839.95	259.14
Current investment				
Bank deposits with a maturity of more than 3 months	1,220.00	-	1,220.00	-

6 Trade accounts receivable

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in million Baht)			
Related parties				
Within credit terms	765.60	851.38	0.17	0.14
	765.60	851.38	0.17	0.14
Less allowance for expected credit loss	-	-	-	-
	765.60	851.38	0.17	0.14
Other parties				
Within credit terms	145.07	270.87	0.62	-
	145.07	270.87	0.62	-
Less allowance for expected credit loss	-	-	-	-
	145.07	270.87	0.62	-
Net	910.67	1,122.25	0.79	0.14

The normal credit term granted by the Group ranges from 7 days to 70 days.

7 Other current receivables

		Consolidated financial statements		Separate financial statements	
	Note	2022	2021	2022	2021
		(in million Baht)			
Related parties	4	246.11	0.33	6.16	11.79
Other parties					
Advance payments for goods		365.36	435.76	-	-
Receivable from revenue department		52.61	32.64	23.59	15.80
Others		24.05	26.04	2.75	0.03
Total		688.13	494.77	32.50	27.62

8 Inventories

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Raw materials	318.33	316.85	0.42	-
Finished products	456.22	539.77	3.36	0.42
Semi-finished products	81.26	127.12	-	-
Supplies	43.52	43.11	-	-
	<u>899.33</u>	<u>1,026.85</u>	<u>3.78</u>	<u>0.42</u>
Less allowance for decline in value, net realizable value	(7.37)	(2.07)	-	-
Net	<u>891.96</u>	<u>1,024.78</u>	<u>3.78</u>	<u>0.42</u>
Inventories recognised as an expense in cost of sales of goods:				
- Cost	12,904.23	13,063.34	2.88	1.79
- Decline in value of inventory	5.30	2.07	-	-
Net	<u>12,909.53</u>	<u>13,065.41</u>	<u>2.88</u>	<u>1.79</u>



9 Investments in associates and joint venture

Investments in associates and joint venture as at 31 December 2022 and 2021, and dividends income from those investments for the year ended 31 December 2022 and 2021 were as follows:

Consolidated financial statements and Separate financial statements

	Ownership Interest (%)		Paid-up capital		Cost method		Equity method (in million Baht)		Impairment		At equity – net		Dividends income	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Associate														
Ubon Bio Ethanol Public Company Limited	-	-	-	-	-	-	-	-	-	-	-	-	-	78.73
Biom Co., Ltd.	20.00	-	69.38	-	83.00	-	80.65	-	-	-	80.65	-	-	-
BSGF Co., Ltd.	20.00	-	1.00	-	0.20	-	-	-	-	-	-	-	-	-
Joint venture														
WIN Ingredients Company Limited	51.00	51.00	80.00	80.00	40.80	40.80	33.67	39.06	-	-	33.67	39.06	-	-
Total					<u>124.00</u>	<u>40.80</u>	<u>114.32</u>	<u>39.06</u>	<u>-</u>	<u>-</u>	<u>114.32</u>	<u>39.06</u>	<u>-</u>	<u>78.73</u>

<i>Significant movements for the year ended 31 December</i>	Consolidated		Separate	
	financial statements		financial statements	
	2022	2021	2022	2021
		(in million Baht)		
Dividends income	-	(78.73)	-	(78.73)
Purchase of investment	83.20	-	83.20	-
Reclassified investments in associate to other non-current financial assets	-	(787.40)	-	(728.36)

All associates and joint venture were incorporated and mainly operate in Thailand.

Win Ingredients Co., Ltd.

The Company classified investment in Win Ingredients Co., Ltd. as investment in joint venture. Due to the Company has no control over Win Ingredients Co., Ltd. and all significant decisions are required the unanimous consent of all shareholder parties, even though the Company owned 51% of ownership interest.

On 7 April 2022, the Company signed a joint venture agreement with BIOM Company Limited (“BIOM”), which the Company agreed to purchase new shares of BIOM in amount limited to be not exceeding Baht 83 million. As a result, the Company’s shareholding in BIOM is at 20% of the total share issued and paid-up, the other 80% shareholding owned by the former shareholder. On 29 April 2022, the Company has made a first payment of the purchase amounting to Baht 30 million and have contingent consideration amounting to Baht 53 million which expect to be paid after the year 2024 and 2027 onward, respectively. The contingent consideration will be split into 2 installments, Baht 10 million and Baht 43 million, respectively. The payment terms and conditions are as stipulated in the agreement as when BIOM is able to match its performance with the key performance indicator (KPI). As at 31 December 2022, the Group and the Company has recognised this expected reward to be paid as other non-current financial liabilities on the Consolidated financial statements and the Separate financial statements.

On 31 August 2022, the Company has entered into an agreement with Bangchak Corporation Public Company Limited and Thanachok Oil Light Company Limited to establish BSGF Company Limited (“BSGF”). BSGF operates a business of sourcing raw materials, producing and distributing of sustainable aviation fuel from used oil. The Company purchases 20,000 shares or equivalent to 20% of total paid-up shares of BSGF, at par value of Baht 10 and has the voting right for 7% of the total voting rights over BSGF. The Company classified the investment as other financial asset. BSGF has authorised shares of Baht 1 million. And on 13 December 2022, the Extraordinary General Meeting of BSGF No. 1/2022 approved the increase in the proportion of directors from BBGI in the Board of Directors of BSGF. As a result, the Company has significant influence over BSGF and reclassified the investments in BSGF from other financial assets to investments in associates in the consolidated and separate financial statements, for the year ended 31 December 2022.

On 19 October 2022, the Board of Directors' Meeting No. 2/2022 of BSGF approved the increase of authorised shares by Baht 200 million, resulting in authorised shares to Baht 201 million by issuing 20 million ordinary shares at par value of Baht 10 per share. There are no changes in ownership interest and voting right of the Company in the shareholders’ meeting. The Board of Directors’ meeting held on 9 November 2022 approved the capital increase in BSGF at Baht 40 million. The Company paid full amount in November 2022, and is currently in the process of capital increase registration. The company therefore recorded the amount as other non-current assets in the statement of financial position as of 31 December 2022.



10 Investments in subsidiaries

Investments in subsidiaries as at 31 December 2022 and 2021 and dividends income from those investments for the year ended 31 December 2022 and 2021 were as follows:

Separate financial statements														
	Ownership Interest (%)		Paid-up capital		Cost method		Equity method		Impairment		At equity - net		Dividends income	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
<i>(in million Baht)</i>														
Subsidiaries														
BBGI Biodiesel Co., Ltd. (Formerly “Bangchak Biofuel Co., Ltd.”)	70.00	70.00	281.50	281.50	425.59	425.59	1,171.59	971.39	-	-	1,171.59	971.39	-	526.12
BBGI Bioethanol (Chachoengsao) Co., Ltd. (Formerly “Bangchak Bioethanol (Chachoengsao) Co., Ltd.”)	85.00	85.00	500.00	500.00	444.12	444.12	303.98	357.09	-	-	303.98	357.09	-	-
BBGI Bioethanol Public Co., Ltd. (Formerly “KSL Green Innovation Public Company limited”)	100.00	100.00	610.00	610.00	2,782.47	2,782.47	3,312.33	3,327.14	-	-	3,312.33	3,327.14	-	-
BBGI Utilities and Power Co., Ltd.	100.00	100.00	100.00	100.00	100.00	100.00	111.20	99.16	-	-	111.20	99.16	-	-
Total					3,752.18	3,752.18	4,899.10	4,754.78	-	-	4,899.10	4,754.78	-	526.12

**Significant movements
for the year ended 31 December**

Addition / Purchase of investment
Share of profit
Dividends income

**Separate
financial statements**

2022	2021
<i>(in million Baht)</i>	
-	50.07
147.55	514.99
-	(526.12)

All subsidiaries were incorporated and mainly operate in Thailand.

11 Non-controlling interests

The following table summarises the information relating to each of the Group's subsidiaries that has a material non-controlling interest, before any intra-group eliminations:

	BBGI Biodiesel Co., Ltd. (Formerly "Bangchak Biofuel Co., Ltd.")		BBGI Bioethanol (Chachoengsao) Co., Ltd. (Formerly "Bangchak Bioethanol (Chachoengsao) Co., Ltd.")	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Non-controlling interest percentage	30	30	15	15
Current assets	1,415.73	1,440.22	279.31	197.74
Non-current assets	1,916.49	2,037.75	877.12	921.96
Current liabilities	(839.33)	(1,065.79)	(550.12)	(382.00)
Non-current liabilities	(855.91)	(1,061.20)	(109.48)	(178.39)
Net assets	1,636.98	1,350.98	496.83	559.31
Carrying amount of non-controlling interest	491.09	405.29	74.52	83.90
Profit (loss)	286.00	764.61	(62.49)	(9.17)
Other comprehensive income	-	(0.44)	-	0.91
Total comprehensive income	286.00	764.17	(62.49)	(8.26)
Profit (loss) allocated to non-controlling interest	85.80	229.25	(9.37)	(1.24)
Cash flows from operating activities	680.81	1,062.31	(64.80)	154.11
Cash flows from investing activities	(68.86)	(92.34)	(17.46)	(26.90)
Cash flows from financing activities	(219.09)	(974.66)	78.76	(129.27)

12 Other non-current financial assets

	Consolidated financial statements and Separate financial statements	
	2022	2021
	<i>(in million Baht)</i>	
Book value as at 1 January	1,883.24	1,960.86
Changes in fair value	(966.60)	(77.62)
Book value as at 31 December	916.64	1,883.24

On 31 December 2022, there are change in fair value of the Company's other non-current financial assets, decreased by Baht 966.60 million (2021 : Baht 77.62 million) due to economic and market situation. Unrealised losses arising from fair value measurement are recognised through other comprehensive income.



13 Property, plant and equipment

	Consolidated financial statements					
	Land	Building and structure	Machinery and equipment	Fixtures and office equipment (in million Baht)	Vehicles	Asset under construction and installation
Cost						Total
At 1 January 2021	272.36	1,550.03	4,946.65	85.24	21.02	8,043.33
Additions	-	-	1.41	1.34	-	573.56
Transfers	-	365.28	215.99	4.23	-	(13.36)
Disposals	-	(0.28)	(18.68)	(4.25)	(4.09)	(27.30)
At 31 December 2021 and 1 January 2022	272.36	1,915.03	5,145.37	86.56	16.93	8,576.23
Additions	9.05	0.04	2.63	1.14	-	389.12
Transfers	156.25	256.66	478.20	2.83	2.56	378.05
Disposals	-	(0.25)	(4.36)	(0.37)	-	(4.98)
Reclassification	-	35.59	(35.59)	-	-	-
At 31 December 2022	437.66	2,207.07	5,586.25	90.16	19.49	9,338.42
Accumulated depreciation						
At 1 January 2021	-	(386.11)	(1,907.06)	(47.47)	(7.07)	(2,347.71)
Depreciation charge for the year	-	(114.38)	(255.84)	(9.27)	(2.08)	(381.57)
Disposals	-	0.18	16.26	4.21	3.81	24.46
At 31 December 2021 and 1 January 2022	-	(500.31)	(2,146.64)	(52.53)	(5.34)	(2,704.82)
Depreciation charge for the year	-	(82.30)	(300.51)	(8.34)	(1.79)	(392.94)
Transfer	-	(41.35)	(12.68)	(0.41)	(1.76)	(56.20)
Disposals	-	0.06	2.50	0.37	-	2.93
Reclassification	-	(12.77)	12.77	-	-	-
At 31 December 2022	-	(636.67)	(2,444.56)	(60.91)	(8.89)	(3,151.03)
Net book value						
At 31 December 2021	272.36	1,414.72	2,998.73	34.03	11.59	5,871.41
Owned assets						
At 31 December 2022	437.66	1,570.40	3,141.69	29.25	10.60	6,187.39
Owned assets						

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As at 31 December 2022, the Group's properties with a net book value of Baht 2,712.30 million were registered to secure loan from financial institutions (*see note 16*) (2021: Baht 2,857.26 million).

The gross amount of the Group's fully depreciated plant and equipment that was still in use as at 31 December 2022 amounted to Baht 686.68 million (2021: Baht 514.48 million).

Capitalised borrowing costs relating to the acquisition of the new factory amounted to Baht 12.22 million (2021: Baht 18.45 million), with a capitalisation rate of 2.25% - 3.65% per annum (2021: 0.90% - 3.55% per annum).

	Separate financial statements Office equipment (in million Baht)
Cost	
At 31 December 2021 and 1 January 2022	38.94
Addition	0.32
At 31 December 2022	39.26
Depreciation	
At 1 January 2021	(12.79)
Depreciation charge for the year	(4.56)
At 31 December 2021 and 1 January 2022	(17.35)
Depreciation charge for the year	(4.54)
At 31 December 2022	(21.89)
Net book value	
At 31 December 2021	21.59
At 31 December 2022	17.37

14 Leases

	Consolidated financial statements		Separate financial statements	
At 31 December	2022	2021	2022	2021
	(in million Baht)			
Land	-	156.24	-	-
Building and structure	11.03	189.23	11.03	12.85
Machinery and equipment	0.09	13.35	-	-
Office equipment	0.03	0.22	-	-
Vehicles	12.55	17.33	0.87	1.15
Total	23.70	376.37	11.90	14.00

In 2022, additions to the right-of-use assets of the Group were Baht 2.49 million.

In 2022, the right-of-use assets of the Group decreased by Baht 331.72 million, as a result of, an acquisition by a subsidiary of assets under the Purchase and Sales Agreement for land with building structures, machine and other assets and buildings, machinery and other assets from a related party.

The Company leases a number of office buildings for 11 years, with extension options at the end of lease term. The rental is payable monthly as specified in the contract.

Extension options

Some property leases contain extension options exercisable by the Company up to one year before the end of the non-cancellable contract period. Where practicable, the Company seeks to include extension options in new leases to provide operational flexibility. The extension options held are exercisable only by the Company and not by the lessors. The Company assesses at lease commencement date whether it is reasonably certain to exercise the extension options. The Company reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant changes in circumstances within its control.

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
<i>For the year ended 31 December</i>				
	<i>(in million Baht)</i>			
Amounts recognised in profit or loss				
Depreciation of right-of-use assets:				
- Building and structure	13.29	15.59	1.81	1.81
- Machinery and equipment	3.56	4.26	-	-
- Office equipment	0.18	0.20	-	-
- Vehicles	6.02	5.81	0.28	0.26
Interest on lease liabilities	17.21	19.62	0.57	0.63
Expenses relating to short-term leases	1.80	4.85	-	0.04
Expenses relating to leases of low-value assets	2.00	2.37	0.44	0.60

In 2022, total cash outflow for leases of the Group and the Company were Baht 395.04 million and Baht 2.40 million, respectively. (2021: Baht 15.12 million and Baht 2.37 million, respectively)

15 Goodwill

	Consolidated financial statements <i>(in million Baht)</i>
Cost	
At 31 December 2021 and 1 January 2022	1,602.32
At 31 December 2022	1,602.32
Impairment losses	
At 31 December 2021 and 1 January 2022	-
At 31 December 2022	-
Net book value	
At 31 December 2021	1,602.32
At 31 December 2022	1,602.32

Impairment testing for cash generating units containing goodwill

The recoverable amount of goodwill arising from business combination was prepared by based on value in use which was determined using the estimation for the next 5 years. The key assumptions used in the estimation of the recoverable amount included the discount rate which was a post-tax measure based on the rate of 10-year government bonds issued by the government in the relevant market and in the same currency as the cash flows, adjusted for a risk premium to reflect both the increased risk of investing in equities generally.

The discount rates of the relevant industries in which the Company operates are ranged from 5% - 8%. The Company's discount rate which applied in the calculation of recoverable amounts was fall within the industries' range.

The impairment test was prepared by the management and no impairment charge was required for goodwill.

If the assumptions used in the calculation on impairment tests for goodwill change, the selling price decreases by 1 Baht per litre or cost of raw material increases by 1 Baht per litre, there is still no impairment of goodwill.

16 Interest-bearing liabilities

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Current				
Short-term loans from financial institutions				
- Secured	26.61	25.31	-	-
- Unsecured	-	730.00	-	-
	<u>26.61</u>	<u>755.31</u>	<u>-</u>	<u>-</u>
Current portion of long-term loans from financial institutions				
- Secured	289.10	299.88	-	-
- Unsecured	338.00	292.00	-	-
	<u>627.10</u>	<u>591.88</u>	<u>-</u>	<u>-</u>
Debentures				
- Unsecured	-	499.41	-	499.41
Current portion of lease liabilities	6.19	7.25	1.94	1.83
Total current	<u>659.90</u>	<u>1,853.85</u>	<u>1.94</u>	<u>501.24</u>
Non-current				
Long-term loans from financial institutions				
- Secured	922.32	1,196.28	-	-
- Unsecured	449.75	489.25	-	-
	<u>1,372.07</u>	<u>1,685.53</u>	<u>-</u>	<u>-</u>
Debentures				
- Unsecured	799.32	798.81	799.32	798.81
Lease liabilities	19.52	394.17	11.65	13.59
Total non-current	<u>2,190.91</u>	<u>2,878.51</u>	<u>810.97</u>	<u>812.40</u>
Total	<u>2,850.81</u>	<u>4,732.36</u>	<u>812.91</u>	<u>1,313.64</u>

The period to maturity of interest-bearing liabilities, excluding finance lease liabilities, as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Within one year	653.71	1,846.60	-	499.41
After one year but within five years	2,164.89	2,289.46	799.32	798.81
After five years	6.50	194.88	-	-
Total	2,825.10	4,330.94	799.32	1,298.22

Under loan agreements, the Group must comply with certain conditions stipulated in the agreements such as maintain loan covenants ratio. At 31 December 2022, the subsidiaries breached loan covenants as the subsidiaries were unable to maintain debt service coverage ratio as stipulated in the agreement. However, the subsidiaries already obtained a waiver from financial institution before 31 December 2022. Accordingly, the financial statements do not include any adjustments that may necessary if the subsidiaries are unable to comply with conditions stipulated in loan agreement.

Secured interest-bearing liabilities as at 31 December were secured on the following assets:

	Note	Consolidated financial statements		Separate financial statements	
		2022	2021	2022	2021
		<i>(in million Baht)</i>			
Restricted deposits at financial institutions		46.96	57.59	-	-
Property, plant and equipment	13	2,712.30	2,857.26	-	-
Total		2,759.26	2,914.85	-	-

Details of the Group's loans from financial institutions as at 31 December 2022 were as follows:

	Currency	Facilities (million)	Interest Interest Rates (%) p.a.	Repayment Terms
Long-term loans from financial institutions				
Subsidiary	Baht	1,120	6-month FDR plus a margin	Repayable in 28 quarterly instalments, starting from April 2020
Subsidiary	Baht	425	6-month FDR plus a margin	Repayable in 28 quarterly instalments, starting from March 2021
Subsidiary	Baht	400	6-month THBFIX plus a margin	Repayable in 12 semi-annually instalments, starting from August 2017
Subsidiary	Baht	170	6-month THBFIX plus a margin	Repayable in 12 semi-annually instalments, starting from August 2018
Subsidiary	Baht	120	6-month THBFIX plus a margin	Repayable in 8 semi-annually instalments, starting from February 2020
Subsidiary	Baht	240	MLR minus a discount	Repayable in 10 semi-annually instalments, starting from December 2020



	Currency	Facilities (million)	Interest Interest Rates (%) p.a.	Repayment Terms
Long-term loans from financial institutions				
Subsidiary	Baht	375	MLR minus a discount	Repayable in 20 quarterly instalments, starting from June 2019
Subsidiary	Baht	750	MLR minus a discount	Repayable in 18 quarterly instalments, starting from June 2020
Subsidiary	Baht	160	MLR minus a discount	Repayable in 9 semi-annually instalments, starting from March 2021
Subsidiary	Baht	100	MLR minus a discount	Repayable in 16 quarterly instalments, starting from October 2022
Subsidiary	Baht	130	MLR minus a discount	Repayable in 20 quarterly instalments, starting from October 2022

As at 31 December 2022 and 2021, the Group and the Company had unutilised credit facilities totalling Baht 7,591.39 million and Baht 720.00 million, respectively. (2021: Baht 6,334.19 million and Baht 720.00 million, respectively).

The Company issued and offering 2 series of debenture. The debentures consisted of, first, unsubordinated, unsecured, 1 year 6 months with fixed interest rate at 2.53% per annum, amounting to Baht 500 million and interest is payable semi-annually. This tranche has been matured and fully paid by the Company on 11 November 2022. Second, unsubordinated, unsecured, 3 years with fixed interest rate at 3.30% per annum which will be ended in year 2024, amounting to Baht 800 million and interest is payable semi-annually. The issue and offering of debenture which are limited to Baht 3,000 million were approved by the extraordinary shareholders meeting No.1/2020 held on 16 November 2020.

Series	Consolidated financial statements/ Separate financial statements				
	2022 (in million Baht)	2021 (in million Baht)	Interest rate (% per annum)	Maturity	Maturity Date
1	-	500	2.53	1 year 6 months	11 November 2022
2	800	800	3.30	3 years	11 November 2024
	800	1,300			

In connection with the terms of the rights and responsibilities of the debentures issuer, the Company, as the issuer, has to comply with certain restrictions and conditions as stipulated therein, such as maintaining certain financial ratios, etc.

17 Other current payables

	Note	Consolidated financial statements		Separate financial statements	
		2022	2021	2022	2021
		(in million Baht)			
Related parties	4	11.54	30.48	5.67	11.76
Other parties					
Accrued expense		77.59	66.36	13.88	16.19
Payable to revenue department		47.78	67.05	1.54	0.66
Others		116.10	139.17	2.18	3.43
Total		253.01	303.06	23.27	32.04

18 Share capital

	Par value per share (in Baht)	2022		2021	
		Number	Baht	Number	Baht
		(million shares /in million Baht)			
Authorised shares					
Authorised shares at 1 January	5	723.00	3,615.00	723.00	3,615.00
Reduction in par value					
- from Baht 5 to Baht 2.5	2.5	<u>723.00</u>	<u>-</u>	<u>-</u>	<u>-</u>
Authorised shares at 31 December		<u>1,446.00</u>	<u>3,615.00</u>	<u>723.00</u>	<u>3,615.00</u>
<i>Issued and paid-up shares</i>					
At 1 January					
- ordinary shares	5	506.40	2,532.00	506.40	2,532.00
Reduction in par value					
- from Baht 5 to Baht 2.5	2.5	506.40	-	-	-
Paid-up					
- ordinary shares	2.5	<u>433.20</u>	<u>1,083.00</u>	<u>-</u>	<u>-</u>
At 31 December					
- ordinary shares	5	<u>-</u>	<u>-</u>	<u>506.40</u>	<u>2,532.00</u>
- ordinary shares	2.5	<u>1,446.00</u>	<u>3,615.00</u>	<u>-</u>	<u>-</u>

On 24 December 2021, at the Extraordinary Shareholders' Meeting No. 2/2021, the shareholders passed a resolution to approve the reduction in par value from Baht 5 per share to Baht 2.5 per share. The Company has registered the reduction in par value with the Department of Business Development on 6 January 2022. As a result, the number of shares of the Company increased from 506.40 million shares to 1,012.80 million shares.

On 14 March 2022, the Company received payment of the 433.20 million shares at Baht 10.50 per share amounting to Baht 4,548.60 million, for the initial public offering. The Company invested some of the cash received in fixed deposit which presented as current investment in the statement of financial position. The Company registered the paid-up capital with the Department of Business Development on 15 March 2022. The Company's shares have been trading on the Security Exchange of Thailand (SET) since 17 March 2022. The Company has recorded expenses related to shares issuance amounting to Baht 84.36 million as a deduction of share premium account as at 31 December 2022. Therefore, the Company has share premium amounting to Baht 3,381.24 million.

19 Surplus and reserves

Difference on business restructuring under common control

The difference between carrying amount of net assets of subsidiaries as at the business restructuring date and the cost of business combination under common control is recognised in differences from business restructuring under common control.

Surplus from business combination

Surplus from business combination represents the measurement of net assets acquired and recognised at fair value from business combination.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividends distribution.

Share premium

Section 51 of the Public Limited Companies Act B.E. 2535 (1998) requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividends distribution.

20 Operating segments

Management determined that the Group has three reportable segments which are the Group's strategic divisions for different products and services, and are managed separately because they require different technology and marketing strategy. The following summary describes the operations in each of the Group's reportable segments.

Segment 1 Biodiesel: manufacturing and distribution of biodiesel product and relating products

Segment 2 Ethanol: production and distribution of ethanol

Segment 3 Others

Each segment's performance is measured based on segment profit before tax, finance cost, depreciation and amortisation and gain (loss) on fair value adjustment and gain (loss) on derivative ("Segment profit (loss)"), as included in the internal management reports that are reviewed by the Group's CODM. Segment profit (loss) is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing is determined on an arm's length basis.

The Group has revenue recognition mainly from sales which are revenues recognized at a point in time.

Geographical segments

The Group is managed and operates principally in Thailand. There are no material revenues derived from, or assets located in, foreign countries.

Major customer

Revenues from one customer of the Group's segment 1 and 2 represents approximately Baht 11,394 million (2021: Baht 11,860 million) of the Group's total revenue.



Consolidated financial statements

<i>For the year ended 31 December</i>	Biodiesel		Ethanol		Others		Elimination		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
<i>(in million Baht)</i>										
Information about reportable segments										
External revenues	9,404.09	9,481.73	3,965.31	4,610.79	4.38	2.42	-	-	13,373.78	14,094.94
Inter-segment revenue	-	-	0.43	-	0.14	0.01	(0.57)	(0.01)	-	-
Total revenue	9,404.09	9,481.73	3,965.74	4,610.79	4.52	2.43	(0.57)	(0.01)	13,373.78	14,094.94
Segment profit	502.80	1,019.80	234.84	264.14	66.08	489.30	(190.27)	(525.75)	613.45	1,247.49
Finance cost	-	-	-	-	-	-	-	-	(94.67)	(107.21)
Depreciation and amortisation	-	-	-	-	-	-	-	-	(421.64)	(413.70)
Gain on fair value adjustment	-	-	-	-	-	-	-	-	-	611.79
Tax income (expense)	-	-	-	-	-	-	-	-	(0.30)	(150.19)
Profit for the year	-	-	-	-	-	-	-	-	96.84	1,188.18
Other material non-cash items										
Investment in associates and joint venture	-	-	-	-	114.32	39.06	-	-	114.32	39.06
Capital expenditures	(69.04)	(86.99)	(198.30)	(300.57)	(0.32)	(161.02)	(113.46)	-	(381.12)	(548.58)
Segment assets	3,332.22	3,477.97	5,848.91	5,121.70	5,635.08	3,212.92	(710.09)	1,094.51	14,106.12	12,907.10
Segment liabilities	(1,695.24)	(2,126.99)	(3,715.69)	(3,037.33)	(911.14)	(1,546.42)	2,497.16	707.73	(3,824.91)	(6,003.01)



21 Expenses by nature

The statements of income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

<i>For the year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Changes in inventories of finished goods and work in progress	129.41	(54.72)	(2.94)	(1.79)
Raw materials and supplies used	11,161.13	11,723.42	2.88	-
Personnel expenses	206.70	242.28	47.22	46.45
Depreciation and amortisation	421.64	413.70	6.73	6.65

22 Income tax

<i>Income tax recognised in profit or loss</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Current tax expense				
Current period	4.39	49.46	-	-
Under (over) provided in prior years	0.30	(0.08)	-	-
Deferred tax expense				
Movements in temporary differences	(4.39)	100.81	-	105.84
Total	0.30	150.19	-	105.84

Reconciliation of effective tax rate

	Consolidated financial statements			
	2022		2021	
	<i>Rate (%)</i>	<i>(in million Baht)</i>	<i>Rate (%)</i>	<i>(in million Baht)</i>
Profit before income tax expense		97.15		1,338.38
Income tax using the Thai corporation tax rate	20.00	19.43	20.00	267.68
Share of (gain) loss of associates and joint venture		1.59		(8.54)
Income not subject to tax / Expenses that are deductible at a greater amount		(58.52)		(111.58)
Expenses not deductible for tax purpose / Adjustment		15.25		2.57
Current year losses for which no deferred tax asset was recognised		22.25		0.14
Under (over) provided in prior years		0.30		(0.08)
Total	-	0.30	11.22	150.19

	Separate financial statements			
	2022	2021		
	Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense		20.42		1,125.06
Income tax using the Thai corporation tax rate	20.00	4.08	20.00	225.01
Share of gain of associates and joint venture		(27.92)		(111.54)
Income not subject to tax		(17.81)		(6.97)
Expenses not deductible for tax purpose / Adjustment		0.79		(0.66)
Current year losses for which no deferred tax asset was recognised		40.86		-
Total	-	-	9.41	105.84

Deferred tax at 31 December

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
		(in million Baht)		
Deferred tax assets	7.77	6.57	-	-
Deferred tax liabilities	(59.37)	(140.30)	(13.67)	(90.31)
Net	(51.60)	(133.73)	(13.67)	(90.31)

Movements in deferred tax during the year were as follows:

	Consolidated financial statements		
	(Charged) / Credited to		
	At 1 January 2022	Profit or loss	Other comprehensive income
			At 31 December 2022
		(in million Baht)	
Deferred tax assets			
Others	6.57	0.11	1.09
Deferred tax liabilities			
Property, plant and equipment	(46.97)	3.77	-
Intangible assets	(3.02)	0.52	-
Fair value adjustments of investment	(90.31)	-	76.64
Total	(133.73)	4.40	77.73



	Consolidated financial statements (Charged) / Credited to Other			
	At 1 January 2021	Profit or loss	comprehensive income	At 31 December 2021
			(in million Baht)	
Deferred tax assets				
Others	5.93	0.76	(0.12)	6.57
Deferred tax liabilities				
Property, plant and equipment	(50.72)	3.75	-	(46.97)
Intangible assets	(3.54)	0.52	-	(3.02)
Fair value adjustments of investment	-	(105.84)	15.53	(90.31)
Total	(48.33)	(100.81)	15.41	(133.73)

	Separate financial statements (Charged) / Credited to Other			
	At 1 January	Profit or loss	Comprehensive income	At 31 December
			(in million Baht)	
2022				
Deferred tax liabilities				
Fair value adjustments of investment	(90.31)	-	76.64	(13.67)
2021				
Deferred tax liabilities				
Fair value adjustments of investment	-	(90.31)	-	(90.31)

The group and company tax losses which are Baht 487 million and Baht 389 million, respectively, will expire in 2023 to 2027. The deductible temporary differences do not expire under current tax legislation. The Group has not recognised these items as deferred tax assets because it is not probable that the Group will have sufficient future taxable profit to utilise the benefits therefrom.

23 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Group has been granted privileges by the Board of Investment relating to production of Biodiesel, Ethanol and Biogas. The privileges granted include:

- Exemption from payment of import duty on machinery approved by the Board;
- Exemption from payment of income tax for certain operations for a period of six years and eight years from the date on which the income is first derived from such operations.

As promoted companies, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted businesses:

Consolidated financial statements						
	Promoted business	2022 Non- promoted business	Total	Promoted business	2021 Non- promoted business	Total
	(in million Baht)					
Export sales	141.23	5.26	146.49	90.96	21.05	112.01
Local sales	7,952.37	5,274.92	13,227.29	7,690.48	6,292.45	13,982.93
Total revenue	8,093.60	5,280.18	13,373.78	7,781.44	6,313.50	14,094.94

24 Basic earnings per share

The calculations of basic earnings per share for the year ended 31 December were based on the profit for the period attributable to ordinary shareholders of the Company and the number of ordinary shares outstanding during the period, after adjusting for the change in the number of ordinary shares as a result from reduction in par value and an increased in paid-up capital on 6 January 2022 and 15 March 2022, respective, as described in notes 18. The number of ordinary shares used in calculations of earnings per share for the comparative previous period has been adjusted as if the event had occurred at the beginning of the earliest reporting period as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in million Baht / million shares)			
For the year ended 31 December				
Profit attributable to ordinary shareholders of the Company	20.42	960.18	20.42	1,019.22
Weighted average number of ordinary shares outstanding	1,359.36	1,012.80	1,359.36	1,012.80
Earnings per share (basic) (in Baht)	0.02	0.95	0.02	1.01

25 Dividends

	Approval date	Payment schedule	Dividends rate per share (Baht)	Amount (in million Baht)
2022				
Interim dividends	11 May 2022	9 June 2022	0.15	216.90
Interim dividends	9 August 2022	7 September 2022	0.05	72.30
2021				
Annual dividends	7 April 2021	6 May 2021	0.20	101.28
Interim dividends	9 November 2021	8 December 2021	0.79	400.06

26 Financial instruments

Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

Consolidated financial statements and Separate financial statements

	Book value	Fair value			
	Financial instruments measured at fair value through other comprehensive income (FVOCI)	Amortised cost – net	Level 1 (in million Baht)	Level 2	Level 3
					Total
At 31 December 2022					
Financial assets					
Other non-current financial assets	916.64	-	703.46	-	213.18
					916.64
Liability assets					
Debentures	-	799.32	-	800.59	-
Other non-current financial liabilities	53.00	-	-	-	53.00
					800.59
					53.00
At 31 December 2021					
Financial assets					
Other non-current financial assets	1,883.23	-	1,086.72	-	796.51
					1,883.23
Liability assets					
Debentures	-	1,298.22	-	1,298.86	-
					1,298.86



The Company consider Level 2 fair values for debentures are based on broker quotes. Those quotes are tested for reasonableness by discounting expected future cash flows using market interest rate for a similar instrument at the measurement date. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group and counterparty when appropriate.

Level 3 fair values for equity instruments measured at fair value through other comprehensive income. Investment in non-marketable securities is based on cost which considered as estimated fair values except there are significant change in their operations.

Financial risk management policies

Risk management framework

The Group is exposed to normal business risks from changes in market interest rates and from non-performance of contractual obligations by counterparties. The Group does not hold or issue derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Group. The Group has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Group's risk management process to ensure that an appropriate balance between risk and control is achieved.

The Group's Board of Directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The Board has established the Risk Management and Corporate Governance Committee, which is responsible for developing and monitoring the Group's risk management policies. The Risk Management and Corporate Governance Committee reports regularly to the Board on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

Capital management

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

Credit risk

Trade accounts receivables

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers. The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer.

Management has established a credit policy to consistently control credit risk based on an analysis of financial position of all customers with certain credit limits granted, including actual credit loss experience over the past three years, current conditions and the Group's view of economic conditions over the expected lives of receivables. At the reporting date, the Group had no significant credit risk and no significant amount was expected by management to be uncollectible.

The information about the exposure to credit risk and ECLs for trade accounts receivables is included in note 6.

Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are banks and financial institutions for which the Group considers having low credit risk.

Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

	Consolidated financial statements				
	Contractual cash flows				
	Carrying amount	1 year or less	More than 1 year but less than 5 years	More than 5 years	Total
<i>At 31 December 2022</i>					
			<i>(in million Baht)</i>		
Non-derivative financial liabilities					
Short-term loans from financial institutions	26.61	26.61	-	-	26.61
Trade accounts payable	516.81	516.81	-	-	516.81
Long-term loans from financial institutions	1,999.17	674.59	1,430.27	-	2,104.86
Debentures	799.32	26.40	809.48	-	835.88
Lease liabilities	25.71	7.03	20.91	0.21	28.15
	3,367.62	1,251.44	2,260.66	0.21	3,512.31
At 31 December 2021					
Non-derivative financial liabilities					
Short-term loans from financial institutions	755.31	757.39	-	-	757.39
Trade accounts payable	716.35	716.35	-	-	716.35
Long-term loans from financial institutions	2,277.41	638.05	1,561.13	197.66	2,396.84
Debentures	1,298.22	542.74	835.88	-	1,378.61
Lease liabilities	401.41	27.78	443.45	6.74	477.97
	5,448.70	2,682.31	2,840.46	204.40	5,727.16



Separate financial statements					
Contractual cash flows					
	Carrying amount	1 year or less	More than 1 year but less than 5 years	More than 5 years	Total
<i>At 31 December 2022</i>					
<i>(in million Baht)</i>					
<i>Non-derivative financial liabilities</i>					
Trade payables	0.31	0.31	-	-	0.31
Debentures	799.32	26.40	809.48	-	835.88
Lease liabilities	13.59	2.43	12.64	0.21	15.28
	<u>813.22</u>	<u>29.14</u>	<u>822.12</u>	<u>0.21</u>	<u>851.47</u>
<i>At 31 December 2021</i>					
<i>Non-derivative financial liabilities</i>					
Trade payables	0.19	0.19	-	-	0.19
Debentures	1,298.22	542.74	835.88	-	1,378.61
Lease liabilities	15.42	2.40	10.01	5.27	17.68
	<u>1,313.83</u>	<u>545.33</u>	<u>845.89</u>	<u>5.27</u>	<u>1,396.48</u>

Market risk

The Group is exposed to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is as follows:

Foreign currency risk

The principal currency used in Group's operation is Thai Baht. However, the Group has certain transactions for sales of goods and purchases of raw materials denominated in foreign currencies. The Group's policy on managing risk from exchange rate volatility to an appropriate level is utilising financial instruments such as foreign currency forward contracts. At the reporting date, the Group had no significant foreign currency exposure.

Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows. The Group is primarily exposed to interest rate risk from its borrowings that the majority of them are at floating interest rates (see note 16).

Exposure to interest rate risk at 31 December

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
<i>Financial instruments with variable interest rates</i>				
Financial liabilities	1,999.17	2,277.41	-	-
Net statement of financial position exposure	1,999.17	2,277.41	-	-

Cash flow sensitivity analysis for variable-rate financial liabilities

A change of 1% in interest rates is reasonable possible at the reporting date. This analysis assumes that all other variables remain constant.

	Consolidated financial statements	
	Profit or loss	
	1% increase in interest rate	1% decrease in interest rate
	<i>(in million Baht)</i>	
At 31 December 2022		
Financial instruments with variable interest rate	(17.52)	17.52
At 31 December 2021		
Financial instruments with variable interest rate	(20.48)	20.48

27 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in million Baht)</i>			
Capital commitments				
Building construction, machine installation agreement and others	47.24	139.22	-	0.12
Non-cancellable operating lease commitments				
Within one year	15.75	12.50	3.25	3.91
After one year but within five years	16.68	17.75	14.21	13.67
After five years	4.20	8.01	4.11	7.91
Total	36.63	38.26	21.57	25.49
Other commitment				
Bank guarantees	21.93	24.17	-	-

28 Litigation

In July 2021, a subsidiary of the Company has been filed an accusation of failing to comply with the hire of work agreement by a contractor. The dispute is requested the subsidiary to compensate for the loss of breaching the construction contract totalling of Baht 121.18 million. In September 2021, the subsidiary has filed an objection to the Arbitration Institute. This dispute is still in the arbitration process. In February 2022, the subsidiary has been filed a temporary suspense order to use the dispute asset. However, the Civil Court has dismissed the suspense order to use the dispute asset. However, in October 2022, the subsidiary has been re-filed a temporary suspense order to use the dispute asset which is currently in the defense and wait for the Civil Court decree process. The management of the subsidiary believes that the subsidiary has fully comply with the condition in the agreement. Therefore, the subsidiary did not recognise contingent liabilities or other impact that may occur from the disputes at 31 December 2022.

29 Events after the reporting period

On 16 February 2023, Board of Directors' meeting no.1/2023 approved to pay dividends for the year 2022 at Baht 0.25 per share, which the company has paid interim dividends at Bath 0.20 per share. The final dividends payment of 2022 will be paid at Baht 0.05 per share to the shareholders who are entitled to receive dividends. The dividends payment is subject to the approval of the Annual General Meeting of Shareholders on 5 April 2023.



PART 4

Attachments

11 ATTACHMENT 1

INFORMATION OF THE COMPANY AND ITS SUBSIDIARIES' DIRECTORS, EXECUTIVES, CONTROLLING PERSONS, PERSONS ASSIGNED THE HIGHEST RESPONSIBILITY IN ACCOUNTING AND FINANCE, PERSONS ASSIGNED TO BE DIRECTLY RESPONSIBLE FOR ACCOUNTING SUPERVISION, AND COMPANY SECRETARY

1.1 Details about Directors and Executives of BBGI



Mr. Pichai Chunhavajira

Chairman of the Board
and Authorized Director

Appointment Date

October 31, 2017

Age 74 Years

Educational Background

- Bachelor of Commerce and Accountancy, Thammasat University
- Master of Business Administration, Indiana University of Pennsylvania, USA
- Honorary Doctorate Degree in Accountancy, Thammasat University

Training Background

- Certificate of Thai Institute of Directors Association,
- Director Accreditation Program (DAP) Class of 49/2006
- Director Certification Program (DCP) Class of 143/2011

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - Present	Chairman of the Board BBGI PCL (Holding Company)
2017 - Present	Independent Director Bangchak Corporation PCL (Business of Clean Energy and Oil)
2012 - Present	Chairman of the Board Bangchak Corporation PCL (Business of Clean Energy and Oil)
2015 - Present	Chairman of the Board BCPG PCL (Electricity Generation and Transmission)
2014 - 2017	Directors Bank of Thailand (Bank)
2010 - 2012	Chairman of the Board Thai Oil Public Company Limited (Business of Clean Energy and Oil)
2008 - 2012	Chairman of the Board Thai Oil Ethanol Company Limited (Ethanol Production Business)
2009 - 2011	Directors PTT Public Company Limited (Business of Clean Energy and Oil)
2009 - 2011	Directors IRPC Public Company Limited (Production of Products from Petroleum Refinery)
2005 - 2011	Directors Thai Airways International Public Company Limited (Airline Business)
2001 - 2013	Directors PTT Exploration and Production PCL (Business of Clean Energy and Oil)
2000 - 2011	Directors Thai Oil Power Company Limited (Business of Clean Energy and Oil)
1998 - 2011	Directors Bangchak Petroleum Public Company Limited (Business of Clean Energy and Oil)



Mr. Chamroon Chinthammit

Vice Chairman of the Board
and Authorized Director

Appointment Date

October 31, 2017

Age 73 years

Educational Background

- Bachelor of Commerce and Accountancy, Chulalongkorn University
- Honorary Doctorate Degree of Arts in Socio-Geographic Management, Srinakharinwirot University

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
- Director Accreditation Program (DAP) Class of 17/2004
- Chairman 2000, Class of 10/2004

Proportion of Shareholding in the Company (Shares)

1,110,890 Shares

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2022 - Present	Executive Chairman of the Board Khon Kaen Sugar Industry PCL (Granulated Sugar Production and Distribution)
2017 - Present	Directors BBGI PCL (Holding Company)
2006 - Present	Chairman of the Board KSL. Agro & Trading Co., Ltd. (Sugarcane Farming Support and Commodity Distribution)
2006 - Present	Chairman of the Board Savannakhet Sugar Company Limited (Granulated Sugar Production and Distribution)
2006 - Present	Chairman of the Board Koh Kong Sugar Industry Co., Ltd. (Granulated Sugar Production and Distribution)
2004 - 2022	Chief Executive Officer Khon Kaen Sugar Industry PCL (Granulated Sugar Production and Distribution)
2003 - Present	Chairman of the Board Khon Kaen Sugar Power Plant Co., Ltd. (Electricity Business)
2002 - Present	Chairman of the Board K.S.L. Export Trading Co., Ltd. (Granulated Sugar Export)
2000 - Present	Chairman of the Board Thai Fermentation Industry Co., Ltd. (Monosodium Glutamate Production and Distribution)
1997 - Present	Directors Thai Sugar Millers Co., Ltd. (Marketing, Industrial, and Commercial Administrative Consultant Service Provider)
1997 - Present	Chairman of the Board Raja Ceramics Co., Ltd. (Ceramic Production and Distribution)
1996 - Present	Directors New Krung Thai Sugar Factory Co., Ltd. (Granulated Sugar Production and Distribution)
1996 - Present	Directors Tamaka Sugar Industry Co., Ltd. (Granulated Sugar Production and Distribution)
1996 - Present	Directors New Kwang Soon Lee Sugar Co., Ltd. (Granulated Sugar Production and Distribution)
1996 - Present	Chairman of the Board KSL Real Estate Co., Ltd. (Hotel, Real Estate for Rent)
1989 - Present	Chairman of the Board Champion Fermentation Co., Ltd. (Cassava Starch Business)
2000 - Present	Chairman of the Board Raja Products Co., Ltd. (Pottery, Glassware, and Kitchenware Wholesale Business)
1999 - Present	Chairman of the Board Raja Porcelain Co., Ltd. (Tableware, Stoneware, Porcelain Products Business)
2004 - Present	Directors KSL Sugar Holding Co., Ltd. (Holding Company)
1993 - Present	Directors Chavananthakij Co., Ltd. (Real Estate for Rent Business)
1989 - Present	Directors Chamroon Wattana Co., Ltd. (Commercial Buildings for Rent Business)
1976 - Present	Directors Chinakij Co., Ltd. (Real Estate for Rent and Hotel Business)



Mr. Surin Chiravisit

Director and Authorized
Director / Director of the
Nomination and Remuneration
Committee / Director of the
Risk Management Committee

Appointment Date

October 31, 2017

Age 76 years

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP)
Class of 136/2010
 - How to Develop a Risk Management Plan (HRP)
Class of 1/2012
 - Successful Formulation and Execution of Strategy (SFE),
Class of 17/2013
 - Role of the Nomination and Governance Committee
(RNG), Class of 4/2013

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - Present	Directors BBGI PCL (Holding Company)
2021 - Present	Independent Director BCPG PCL (Clean Energy and Electricity Generation Business)
2010 - 2021	Director and Vice Chairman of the Board Bangchak Corporation PCL (Business of Clean Energy and Oil)
2008 - Present	Senior Consultant Amata Corporation PCL (Real Estate and Construction)
2006 - Present	Director and Vice President of the Council Bangkok Suvarnabhumi University Higher Education Institution

Educational Background

- Bachelor of Education, Srinakharinwirot
University (Prasarnmit Campus)
- Bachelor of Laws,
Ramkhamhaeng University
- Master of Laws, Chulalongkorn University



Mr. Chaiwat Kovavisarach

Director and Authorized
Director / Director of
the Investment Committee

Appointment Date

October 31, 2017

Age 57 years

Educational Background

- Bachelor of Engineering (Honors), Electrical, King Mongkut's Institute of Technology Ladkrabang
- Master of Engineering, Asian Institute of Technology (AIT)
- Master of Business Administration, Thammasat University

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
- Director Certification Program (DCP) Class of 168/2013
- Role of the Nomination and Governance Committee (RNG), Class of 4/2013
- The National Defense Course, Class of 58, Thailand National Defense College
- Top Executive Program in Energy, Class of 10, Thailand Energy Academy
- Top Executive Program, Class of 26, Capital Market Academy, the Stock Exchange of Thailand
- Executive Program of Advance Justice Administration, Judicial Training Institute, Class of 25
- Role of the Chairman Program (RCP 46/2020), Thai Institute of Directors Association

Proportion of Shareholding in the Company (Shares)

80,000 Shares

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - Present	Directors BBGI PCL (Holding Company)
2016 - Present	Vice Chairman of the Board BCPG PCL (Electricity Generation)
2015 - Present	Directors BCPG PCL (Electricity Generation)
2015 - Present	Chief Executive Officer and President Bangchak Corporation PCL (Business of Clean Energy and Oil)
2012 - Present	Directors Bangchak Corporation PCL (Energy Business)
Present	Chairman of the Board OKEA ASA (OSE) (Norwegian Petroleum Business)



Mr. Kittiphong

Limsuwannarot

Director and Authorized
Director / Director of the
Investment Committee /
Director of the Risk Management
Committee

Appointment Date

January 1, 2021

Chief Executive Officer /
President

Starting Date

October 1, 2020

Age 59 years

Educational Background

- Bachelor of Science in Chemical Engineering, Chulalongkorn University
- Master of Business Administration, University of Dallas Texas, USA

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP), Class of 191/2014
- Capital Market Academy
 - Top Executive Course, Capital Market Academy, Class of 32 [CMA 32]

Proportion of Shareholding in the Company (Shares)

4 Shares

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2021 - Present	Director / Chief Executive Officer and President BBGI PCL (Holding Company)
2021 - Present	Deputy Managing Director Bangchak Corporation PCL (Business of Clean Energy and Oil)
2021 - Present	Chairman of the Board BBGI Biodiesel Co., Ltd. (Biodiesel Production and Byproducts Business)
2021 - Present	Directors Ubon Bio Ethanol PCL (Ethanol Production and Distribution)
2021 - 2022	Directors Ubon Sunflower Co., Ltd. (Cassava Starch Production Business)
2021 - 2022	Directors Ubon Bio Agricultural Co., Ltd. (Organic Farming Products Trading Business)
2021 - Present	Chairman of the Board BBGI Bioethanol PCL (Biogas and Ethanol Production and Distribution Business)
2020 - Present	Chairman of the Board BBGI Utility and Power Co., Ltd. (Biogas, Electricity, and Steam Generation and Distribution Business)
2020 - Present	Directors Manus Bio Inc., USA (Bio Ingredient Business)
2020 - Present	Directors Win Ingredients Co., Ltd. (Chemical Products and Bio Products Production, Distribution, Import, and Export Business)
2020 - Present	Directors BBGI Bioethanol (Chachoengsao) Co., Ltd. (Ethanol Production and Distribution)
2015 - 2020	Association President Thai Bioplastics Industry Association Association Supporting Private and Public Sectors in Bioplastics
2015 - 2019	Vice President PTT Global Chemical PCL (PTT Group's Chemical Products Business)
2014 - 2018	Managing Director Solution Creation Co., Ltd. (Plastic Resins and Additives Reseller Business)



Mr. Chalush Chinthammit

Director and Authorized
Director / Director of the
Investment Committee

Appointment Date:

October 31, 2017

Age 53 years

Educational Background

- Bachelor of Business Administration in Finance and Banking, Assumption University
- Master of Business Administration in Finance and Banking, Mercer University, USA

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Accreditation Program (DAP), Class of 17/2004
- Certificate of Capital Market Academy (CMA), Capital Market Academy Course, Class of 10
- Certificate of Thailand Energy Academy (TEA), Top Executive Program in Energy, Class of 6
- Certificate of Institute of Business and Industrial Development (IBID), Top Executive Program in Investment and Industrial Business Development, Class of 3

Proportion of Shareholding in the Company (Shares)

425,199 Shares

Family Relationship Among Directors and Executives

- Grandchild of the individual No. 2
- Cousin of the individual No. 7

Work Experience in the Past 5 Years

2017 - Present	Directors BBGI PCL (Holding Company)
2020 - Present	Directors Triton Holding PCL (Construction and Energy Group Business Investment)
2020 - Present	Association President Thai Sugar and Bio-Energy Producers Trade Association Agricultural Agency
2019 - Present	Directors Kerry Express (Thailand) Co., Ltd. (Delivery Business)
2017 - Present	Directors BBGI Bioethanol (Chachoengsao) Co., Ltd. (Ethanol Production and Distribution)
2017 - Present	Chairman of the Board DAD SPV Co., Ltd. (Asset to Capital Conversion)
2016 - Present	Directors WSP Logistics Co., Ltd. (Product Transportation and Transmission Provider)
2015 - Present	Directors Seng Press Co., Ltd. (Ceramic Production and Distribution)
2015 - Present	Director / Chairman of the Audit Committee Dhanarak Assets Development Company Limited Bangkok's Government Complex Project (Management and Construction)
2014 - Present	Independent Director Master Ad PCL (Media and Publishing Business)
2013 - Present	Directors Chinakij Co., Ltd. (Real Estate for Rent and Hotel)
2012 - Present	Directors Rajasolar Materral Co., Ltd. (Ceramic Production and Export)
2007 - Present	Directors Thai Sugar Terminal PCL (Ports)
2007 - Present	Directors TS Flour Mill PCL (Wheat Flour)
2007 - Present	Directors Raja Porcelain Co., Ltd. (Ceramic Production and Distribution)
2007 - Present	Directors Chanarat Co., Ltd. (Real Estate Development)
2007 - Present	Directors Thai Sugar Millers Co., Ltd. (Marketing, Industrial, and Commercial Administrative Consultant Service Provider)
2006 - Present	Directors KSL AGRO & Trading Co., Ltd. (Agricultural Commodity Distribution)
2006 - Present	Directors Koh Kong Plantation Co., Ltd. (Agriculture)
2006 - Present	Directors Savannakhet Sugar Company Limited (Granulated Sugar Production and Distribution)
2022 - Present	Chief Executive Officer and President Khon Kaen Sugar Industry PCL (Granulated Sugar Production and Distribution)
2004 - Present	Directors New Kwang Soon Lee Sugar Co., Ltd. (Sugar Production and Distribution)
2004 - Present	Directors New Krung Thai Sugar Factory Co., Ltd. (Sugar Production and Distribution)
2004 - Present	Directors Tamaka Sugar Industry Co., Ltd. (Sugar Production and Distribution)



2004 - Present	Directors KSL Sugar Holding Co., Ltd. (Holding Company)
2004 - Present	Directors Para Ruamchoke Co., Ltd. (Real Estate Development)
2003 - Present	Directors KSL Green Innovation PCL (Ethanol Production and Distribution)
2003 - Present	Directors Khon Kaen Sugar Power Plant Co., Ltd. (Electricity Generation and Distribution)
2003 - Present	Directors K.S.L. Export Trading Co., Ltd. (Granulated Sugar Export)
2002 - January 2023	Directors TS Transport and Logistics Co., Ltd. (Plastic Packaging Manufacturer)
2002 - January 2023	Directors TS Warehouse Co., Ltd. (Freight Arrangement)
2002 - January 2023	Directors TSG Trading Co., Ltd. (Real Estate for Rent and Services)
1997 - Present	Directors On Nuj Construction Co., Ltd. (Real Estate for Rent and Hotel)
1997 - Present	Directors Committee Under the Sugar Cane and Granulated Sugar Act (Agricultural Agency)
1997 - Present	Directors Raja Ceramics Co., Ltd. (Ceramic Production and Distribution)
1997 - Present	Directors MMP Corporation Co., Ltd. (Plastic Film Production)
1997 - Present	Chairman of the Board Colossal International Co., Ltd. (Industrial Chemicals Wholesale Business)
1996 - Present	Directors KSL Real Estate Co., Ltd. (Real Estate for Rent)
2020 - Present	Directors Chavanantha Asset Co., Ltd. (Residential Buildings, Commercial Buildings, and Buildings Construction Contractor Business)
2020 - Present	Directors Win Ingredients Co., Ltd. (Chemical Products and Bio Products Production, Distribution, Import, and Export Business)
2021 - Present	Directors Khun Chuan Co., Ltd. (Consumer Goods Wholesale and Retail Business)



Mr. Chanachai

Chutimavoraphand

Director and Authorized Director
/ Director of the Risk
Management Committee

Appointment Date

October 31, 2017

Age 50 years

Educational Background

- Bachelor of Electrical Engineering, Chulalongkorn University
- Bachelor of Laws, Chulalongkorn University
- Master of Liberal Arts, Chulalongkorn University
- Business Laws, Chulalongkorn University
- Master of Industrial Engineering, Knoxville, USA
- Master of Business Administration, University of Tennessee, USA

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Accreditation Program (DAP), Class of 37/2005
- Certificate of the Federation of Accounting Professions Under the Royal Patronage, CFO Focus on Financial Program
- Certificate of Capital Market Academy (CMA), Class of 21

Proportion of Shareholding in the Company (Shares)

1,133,294 Shares

Family Relationship Among Directors and Executives

- Grandchild of the individual No. 2
- Cousin of the individual No. 6

Work Experience in the Past 5 Years

2017 – Present	DirectorsBBGI PCL (Holding Company)
2017 – Present	DirectorsKhon Kaen Sugar Industry PCL (Granulated Sugar Production and Distribution)
2016 - Present	DirectorsWSP Logistics Co., Ltd. (Warehouse and Freight Management)
2014 – 2021	Directors KSL Real Estate Co., Ltd. (Real Estate for Rent)
2006 – Present	Directors KSL AGRO & Trading Co., Ltd. (Agricultural Commodity Distribution)
2006 – Present	Executive Director Savannakhet Sugar Company Limited (Granulated Sugar Production and Distribution)
2006 – Present	Executive Director Koh Kong Sugar Industry Co., Ltd. (Granulated Sugar Production and Distribution)
2006 – Present	DirectorsBB Capital Co., Ltd. (Hotel, Resort, and Condominium)
2006 – Present	Directors Mungkong Sayam Business Co., Ltd. (Movable Properties and Real Estate for Rent)
2004 – Present	Director / Executive Director Khon Kaen Sugar Power Plant Co., Ltd. (Electricity Generation and Distribution)
2000 – Present	Directors New Krung Thai Sugar Factory Co., Ltd. (Sugar Production and Distribution)
2000 – Present	DirectorsTamaka Sugar Industry Co., Ltd. (Granulated Sugar Production and Distribution)
2000 – Present	Directors New Kwang Soon Lee Sugar Co., Ltd. (Sugar Production and Distribution)
2000 – Present	DirectorsTS Warehouse Co., Ltd. (Freight Arrangement)
2000 – Present	DirectorsTS Transport and Logistics Co., Ltd. (Sack Production and Distribution)
2000 – Present	DirectorsTSG Asset Co., Ltd. (Real Estate for Rent and Operations)
2000 – Present	Executive Director TS Flour Mill PCL (Products From Wheat and Grains)
2000 - Present	DirectorsTS Oil Industry Co., Ltd. (Vegetable Oil and Plastic Bottles Production)
1996 - Present	DirectorsOn Nuj Construction Co., Ltd. (Real Estate for Rent and Hotel)



Assoc. Prof. Jaruporn

Viyanant

Independent Director/
Chairman of the Audit Committee

Appointment Date

October 31, 2017

Age 78 years

Educational Background

- Bachelor of Accounting, Thammasat University
- Master of Financial Economics, Middle Tennessee State University, USA
- Honorary Diploma, King Prajadhipok's Institute

Training Background

- Certificate of Financial Management, University of Bath, UK
- Certificate of Top Executive Program, Capital Market Academy (CMA 10), Class of 10
- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP), Class of 126/2009
- Audit Committee Program (ACP), Class of 28/2009
- Monitoring the Internal Audit Function (MIA), Class of 7/2010
- Monitoring Fraud Risk Management (MFM), Class of 10/2010
- Monitoring the Quality of Financial Reporting (MFR), Class of 10/2010
- Monitoring the system of Internal Control and Risk Management (MIR) Class of 9/2010
- Role of the Compensation Committee (RCC), Class of 12/2011
- Director Certification Program Update (DCPU), Class of 1/2014
- Anti-Corruption for Executive Program (ACEP), Class of 5/2015
- Boards That Make a Difference (BMD), Class of 6/2018
- Ethical Leadership Program (ELP), Class of 5/2018
- Subsidiary Governance Program Class of 1/2022

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - Present	Independent Director/ Chairman of the Audit Committee BBGI PCL (Holding Company)
2020 - Present	Director Foundation for Thammasat
1991 - 2009	University Hospital Medical and Public Health Services for the General Public
2018 - 2018	Director of the Audit and Corporate Governance Sub-Committee Thai Arbitration Institute, Ministry of Justice Arbitration and Conciliation Services
2015 - Present	Independent Director/ Chairman of the Corporate Governance and Social Responsibility Committee / Director of the Audit Committee Inoue Rubber PCL (Automotive)
2014 - Present	Independent Director / Director of the Audit Committee / Director of the Nomination and Remuneration Committee Ocean Life Insurance PCL (Financial Institution)



2012 - Present	Independent Director / Director of the Audit Committee / Chairman of the Corporate Governance Committee VGI PCL (Media and Publishing Business)
2008 - Present	Academic Experts, Department of Finance, Faculty of Commerce and Accountancy Thammasat University Education
2005 - 2021	Academic Standards Supervisory Director / Curriculum Development and Educational Standards Committee, Faculty of Business Administration Rangsit University Education
2016 - 2017	Independent Director / Chairman of the Audit Committee / Director of the Nomination and Remuneration Committee KSL Green Innovation PCL (Ethanol Production and Distribution)
2014 - 2020	Monitoring and Evaluation Sub-Committee The National Broadcasting and Telecommunications Commission (NBTC) (Television and Telecommunications)
2011 - 2014	Financial Institutions Policy Committee (FIPC) (Bank of Thailand)
2011 - 2014	Director and Chairman of the Sub-Committee for Strategic Drive Anti-Money Laundering Office
2014 - 2019	Senior Advisor and Director of the Audit Committee Electronic Government Agency (Public Organization)
2011 - 2014	Executive Director and Chairman of the Audit Committee An electronic government agency (public organization) provides services to promote and support the implementation of government agencies on digital government development.
2009 - 2011	Director and Chairman of the Audit Committee Stock Exchange of Thailand



Dr. Thitapha Smitinont

Independent Director/
Director of the Audit Committee/
Director of the Nomination and
Remuneration Committee

Appointment Date

March 26, 2018

Age 56 years

Educational Background

- Bachelor of Biotechnology,
Chulalongkorn University
- Master of Biotechnology,
The University of New South Wales
- Ph.D. in Biotechnology,
The University of New South Wales

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP) Class of 263/2018
 - Audit Committee Program (ACP), Class of 33/2019
 - Board Nomination and Compensation Program,
Class of 5/2018

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2018 - Present	Independent Director/ Director of the Audit Committee/ Director of the Nomination and Remuneration Committee BBGI PCL (Holding Company)
2018 - 2021	Director Nastda Holding Co., Ltd. (Advanced Technology)
2017 - 2022	Director of the Technology Management Center National Science and Technology Development Agency An Agency Under the Supervision of the Ministry of Higher Education, Science, Research, and Innovation
2012 - 2016	Director of the Innovation and Technology Assistance Program (ITAP), NSTDA Technology Management Center National Science and Technology Development Agency An Agency Under the Supervision of the Ministry of Higher Education, Science, Research, and Innovation



Mr. Matthew Kichodhan

Independent Director / Director of the Investment Committee / Director of the Nomination and Remuneration Committee

Appointment Date

October 31, 2017

Age 56 years

Educational Background

- Bachelor of Commerce, University of Toronto, Canada
- Master of Management, Imperial College, University of London

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP), Class of 95/2007
 - Director Accreditation Program (DAP), Class of 57/2006

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - Present	Independent Director/ Director of the Investment Committee / Director of the Nomination and Remuneration Committee BBGI PCL (Holding Company)
2015 - Present	Director Index Creative Village PLC (Management Business of Entertainment Business Events, Advertising, Public Relations, Television Filming and Production, Photography and Television Production Services)
2015 - Present	Director Event Solutions Co., Ltd. (Services of Organizing and Renting Equipment for Parties and Ceremonies)
2007 - Present	Independent Director Ocean Glass PCL (Good Quality Glassware Production and Distribution Business)
2007 - Present	Director BEC World PCL (Content Business for Television Platform and Digital Platform, Overseas Distribution of Copyrights, Procurement, and Production of Entertainment Programs and Documentaries Services)
2020 - 2022	Director S&P Syndicate PCL (Restaurant and Bakery Business)
2020 - 2022	Executive Advisor The Minor Food Group PCL (Food and Beverage Business, Hotel Business, and Other Businesses Related to the Hotel Business)
2014 - 2022	Director Jeffer Restaurant Co., Ltd. (Food Service in Restaurants/food Shops)
2014 - 2022	Director Wave Education Group Co., Ltd. (English Teaching Services)
2014 - 2022	Director Wall Street English (Thailand) Co., Ltd. (English Teaching Services)
2013 - 2022	Director Wave TV Co., Ltd. (Production, Contract Production, and Distribution of Television Programs)
2013 - 2022	Director Wave Pictures Co., Ltd. (Production of Television Programs)
2013 - 2022	Director Wave Food Group Co., Ltd. (Production and Distribution of Television Programs)
2013 - 2017	Director Thai Solar Energy PCL (Business of Selling and Distributing Electricity from Solar Energy and Other Renewable Energy)
2006 - 2022	Director / Chairman of the Board / Chairman of Executive Committee / Director of the Nomination and Remuneration Committee Wave Entertainment PCL (Media and Publishing Business)



Mrs. Patricia Mongkhonvanit

Independent Director /
Director of the Audit Committee

Appointment Date

October 1, 2020

Age 51 years

Educational Background

- Bachelor of Public Administration, Chulalongkorn University
- Master of Laws (Tax), London School of Economics and Political Science, UK
- Master of Arts, University of Wisconsin Madison, USA

Training Background

Certificate of Thai Institute of Directors Association (IOD),

- Director Certification Program (DCP), Class of 274/2019
- Director Accreditation Program (DAP), Class of 159/2019
- Financial Statements for Directors (FSD), Class of 43/2020
- IT Government and Cyber Resilience Program (ITG), Class of 13/2020

Judicial Training Institute

- Top Executive Program on Justice Administration, Class of 25/2021

Ministry of Digital Economy and Society in collaboration with the Digital Economy Promotion Agency (DEPA) and the Thailand Management Association (TMA)

- The Cullinan: The Making of Digital Board, Class of 1/2022
- TMB Thanachart Bank Public Company Limited
- Security Awareness Training: Cybersecurity and Cyber Resilience
- Decentralized Finance (DeFi)
- Digital Marketing Strategy
- Open Banking and Virtual Banking
- ESG - Environmental, Social, Governance

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2020 - Present	Independent Director / Director of the Audit Committee BBGI PCL (Holding Company)
2019 - Present	Director TMB Thanachart Bank PCL (Commercial Bank)
2019 - Present	Director Public Debt Management Office Government Agency Under the Ministry of Finance
2019 - Present	Director PTT International Trading Co., Ltd. (Petroleum Trading)
2018 - 2021	Director Krungthai Bank PCL (Commercial Bank)
2017 - 2021	Director Thai Smile Airway PCL (Scheduled Air Passenger Transport)
2018 - 2019	Government Inspector Office of the Permanent Secretary, Ministry of Finance Government Agency Under the Ministry of Finance
2017 - 2018	Director Liquor Distillery Organization, Excise Department Alcohol Commerce and Industry
2017 - 2018	Deputy Director General / Consultant on Tax Collection Strategy (Energy Business Group) The Revenue Department Government Agency Under the Ministry of Finance
2014 - 2017	Director The Revenue Department Government Agency Under the Ministry of Finance



Mrs. Suttida Sukhanindr

(The person assigned the highest responsibility in the accounting and finance)

Senior Executive Vice President of Corporate Finance and Accounting

Age 49 years

Educational Background

- Bachelor of Economics, Banking and Finance, Chulalongkorn University
- Master of Business Administration, Assumption University

Training Background

- Certification of the Federation of Accounting Professions, CFO Certification Program, Class of 19/2015
- Certification of the Capital Market Knowledge Development Center and the Stock Exchange of Thailand, CFO's Orientation Course for New IPOs Program, Class of 2
- Certificate of Thai Institute of Directors Association (IOD),
 - Financial Statements for Directors (FSD), Class of 37/2018
 - Director Certification Program (DCP), Class of 273/2019
 - Director Diploma Examination, Class of 69/2019
 - Subsidiary Governance Program, Class of 3/2022
 - Advanced Audit Committee Program, Class of 44/2022
- NYC Management Institute
 - Accounting Knowledge Training, TFRS Course, 2023
- KPMG Phoomchai Tax & Legal Company Limited
 - Important Accounting Issue Update, 2023

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

- Cousin of the individual No. 2, 6 and 7

Work Experience in the Past 5 Years

2018 - Present	Senior Executive Vice President of Corporate Finance and Accounting BBGI PCL (Holding Company)
2019 - Present	Director BBGI Bioethanol PCL (Ethanol Production and Distribution)
2019 - June 2022	Director Ubon Bio Ethanol PCL (Ethanol Production and Distribution)
2017 - 2018	Assistant Managing Director of Investor Relations Bangkok Expressway and Metro PCL (Concession)
2014 - 2017	Assistant Managing Director of Finance Bangkok Expressway and Metro PCL (Concession)



Mr. Skulrath Siriphannon

Senior Executive

Vice President of Operations

Age 46 years

Educational Background

- Bachelor of Electrical Engineering (Honors), King Mongkut's University of Technology Thonburi
- Master of Electrical Engineering, Chulalongkorn University
- Master of Business Administration (M.B.A), University of Massachusetts

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP) of 2018
 - Strategic Board Master Class (SBM) of 2019

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2017 - 2022	Senior Executive Vice President of Operations BBGI PCL (Holding Company)
2021 - Present	Director BBGI Bio Diesel Co., Ltd. (Biodiesel Production and Byproducts Business)
2020 - Present	Director and Managing Director BBGI Utility and Power Co., Ltd. (Biogas, Electricity, and Steam Generation and Distribution Business)
2019 - Present	Director / Managing Director BBGI Bioethanol (Chachoengsao) Co., Ltd. (Ethanol Production and Distribution)
2018 - May 2022	Executive Director Ubon Bio Ethanol PCL (Ethanol Production and Distribution)
2019 - Present	Director / Managing Director BBGI Bioethanol PCL (Ethanol Production and Distribution)
2016 - 2017	Deputy Managing Director BBGI Bioethanol PCL (Ethanol Production and Distribution)
2013 - 2016	Commercial Manager Univanich Palm Oil PCL (Ethanol and Biodiesel Production and Distribution)



Ms. Kittima Wongsan

Senior Executive Vice President
of Business Development and
Commerce

Age 50 years

Educational Background

- Bachelor of Chemical Engineering,
Chulalongkorn University
- Master of Science in Computer and
Engineering Management,
Assumption University

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
- Strategic Board Master Class (SBM) of 2018

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2021 - Present	Senior Executive Vice President of Business Development and Commerce BBGI PCL (Holding Company)
2021 - Present	Director BBGI Bioethanol PCL (Ethanol Production and Distribution)
2021 - Present	Director BBGI Bio Diesel Co., Ltd. (Biodiesel Production and Byproducts Business)
2021 - Present	Director BBGI Bioethanol (Chachoengsao) Co., Ltd. (Ethanol Production and Distribution)
2021 - Present	Assistant President Bangchak Corporation Public Company Limited (Clean Energy and Oil Business)
2019 - 2020	Senior Director of Strategy and Organization Planning Bangchak Corporation Public Company Limited (Clean Energy and Oil Business)
2017 - 2018	Director of Corporate Strategy and Business Investment Management Bangchak Corporation Public Company Limited (Clean Energy and Oil Business)
2016	Director of Strategy and Planning for Oil Procurement Bangchak Corporation Public Company Limited (Clean Energy and Oil Business)



Mr. Supong Pongparit

Executive Vice President of
Corporate Strategy and Business
Support

Age 45 years

Training Background

- Certificate of Thai Institute of Directors Association (IOD),
 - Director Certification Program (DCP), Class of 329/2022

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2022 - Present	Executive Vice President of Corporate Strategy and Business Support BBGI PCL (Holding Company)
2022 - Present	Director BBGI Bioethanol PCL (Ethanol Production and Distribution)
2017 - 2021	Manager of Corporate Strategy and Risk Management Bangchak Corporation PCL (Clean Energy and Oil Business)
2015 - 2016	Assistant Manager of Business Investment Management Bangchak Corporation PCL (Clean Energy and Oil Business)

Educational Background

- Bachelor of Civil Engineering, Kasetsart University
- Master of Economics (Business Economics), National Institute of Development Administration



Mr. Soopachoke Pattanapisalsak

Executive Vice President
of Operations

Age 57 years

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2022 - Present	Executive Vice President President of Operations BBGI PCL (Holding Company)
2018 - 2021	Manufacturing Director Dole Thailand Company Limited (Production and Export of Fruit in Sealed Containers, Production and Export of Canned Pineapples, Vegetables, and Fruit, Production and Export Concentrated Pineapple Juice)
2014 - 2018	Site Leader Hexion (Thailand) Co., Ltd. (Chemical Products)
2013 - 2014	Assistant Managing Director of Regional Operations Khon Kaen Sugar Industry PCL (Production and Distribution of Granulated Sugar, Ethanol Business, and Other Businesses from Sugar Production)

Educational Background

- Bachelor of Chemical Engineering,
King Mongkut's Institute of Technology
Ladkrabang
- Master of Business Administration,
Chulalongkorn University



Ms. Amporn Thongdonpum

Corporate Accounting Manager

Age 41 years

Training Background

- Training Course on Sustainability Reporting Workshop (RE02) on August 30 - September 1, 2022, with the Stock Exchange of Thailand
- Accounting Knowledge Training, TFRS Course of 2023 on November 25, 2022, with the NYC Management Institute
- Accounting Knowledge Training, 2022's 9 TFRS Course on November 28, 2022, with the NYC Management institute

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2020 - Present	Corporate Accounting Manager BBGI PCL (Holding Company)
2018 - 2020	Assistant Accounting Manager BBGI PCL (Holding Company)
2016 - 2018	Senior Accounting Officer BBGI Bioethanol PCL (Ethanol Production and Distribution)

Educational Background

- Bachelor of Accounting, Technology
Rajamangala Krungthep Bophit Phimuk
Mahamek Center
- Master of Accountancy, Ramkhamhaeng
University



Mr. Ekarat Sumaytirakul

Director of Finance and Investor Relations

Age 43 years

Proportion of Shareholding in the Company (Shares)

-

Family Relationship Among Directors and Executives

-

Work Experience in the Past 5 Years

2022 - Present	Director of Finance and Investor RelationsBBGI PCL (Holding Company)
2019 - 2022	Senior Manager of Finance and Investor RelationsBBGI PCL (Holding Company)
2016 - 2018	Senior Financial Manager Samart Corporation PCL (Information and Communication Technology)
2013 - 2016	Director of Finance and Investor Relations Eastern Water Resources Development and Management PCL (Utility)

Educational Background

- Bachelor of Engineering , Chulalongkorn University
- Bachelor of Accountancy, University of Thai Chamber of Commerce
- Master of International Economics and Finance, Chulalongkorn University

Remark: Information as of January 1, 2023

Profile of Company Secretary



Mr. Somchai

Sathiramongkolkul

Director of Legal and Company
Secretary

Age 51 Years

Educational Qualification

- Bachelor of Law, Chulalongkorn University
- Master of Law, Chulalongkorn University
- Graduate Diploma in Business Law , Thammasat University

Training Background

- Advances for Corporate Secretary Program Class of 2/2561 , Thai Listed Companies Association
- Company Reporting Program-CRP Class of 21/2561 Thai Institute of Directors

Proportion of Shareholding in the Company (Shares)

100,000 Shares

Family Relationship Among Director and Executives

-

Work Experience in the Past 5 Years

2018 - Present	Director of Legal and Company Secretary BBGI PCL (Holding Company)
2014 - 2018	Partner A.I.Tax and Legal Advisors Co. Ltd. (Legal & Tax Consultants)
1997 - 2014	Associate Director Pricewaterhouse Coopers Legal & Tax Consultants Limited (Legal & Tax Consultants)

Duties and Responsibilities of the Company Secretary

The Company has designated the company secretary to be responsible for the following tasks:

1. Offering basic guidance on the requirements and regulations that the board of directors, sub-committees, and executives should be familiar with.
2. Coordinating training and orientation programs and furnishing information that is necessary for both the present and recently appointed directors to carry out their duties effectively.
3. Oversee, assist, and monitor the Company in complying with laws, regulations, requirements, and resolutions of the board of directors' and shareholders' meetings, as well as the good corporate governance policy, with complete and accurate adherence. Collaborate with relevant parties and promptly report significant changes in legal requirements to the board of directors and executives.
4. Supervise the information disclosure and reporting in the respective role in line with the regulations, notifications, and requirements of the Stock Exchange of Thailand, the Office of the Securities and Exchange Commission, the Capital Market Supervisory Board, and/or the Securities and Exchange Act B.E. 2535 (and its amendments).
5. Deliver a copy of the report of interests, as stipulated by Section 89/14 of the Securities and Exchange Act B.E. 2535 (and its amendments), that is prepared by directors and executives of the Company to the chairman of the board and the chairman of the audit committee within 7 working days from the date the Company receives the report. Additionally, maintain an archive of the reports of interests prepared by such directors and executives.
6. Prepare and maintain an archive of the following documents:
 - Director Registration
 - Board of Directors' Meeting Notice and Minutes, including the Preparation of Information and Documents for the Meeting
 - Shareholders' Meeting Notice and Minutes, including the Preparation of Information and Documents for the Meeting
 - Annual Report
7. Coordinate the board of directors' meetings and shareholders' meetings in accordance with the laws and the articles of association.
8. Carry out additional duties as assigned by the board of directors and/or sub-committees that align with the Company's regulations, the articles of association, the Securities Act, as well as pertinent notifications, regulations, and rules of the Capital Market Supervisory Board, the Office of the Securities and Exchange Commission, and the Stock Exchange of Thailand, and other relevant laws.

In doing so, the company secretary is required to fulfill the aforementioned responsibilities with accountability, prudence, and integrity.



1.1 Details of Directors and Executives of BBGI Bioethanol Public Company Limited

Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
1. Mr. Kittiphong Limsuwannarot - Chairman of the Board					Refer to the details of Mr. Kittiphong Limsuwannarot according to the profile topic of 1.1, item 5.		
2. Mr. Chalush Chinthammit - Director					Refer to the details of Mr. Chalush Chinthammit according to the profile topic of 1.1, item 6.		
3. Mrs. Suttida Sukhanindr - Director					Refer to the details of Mrs. Suttida Sukhanindr according to the profile topic of 1.1, item 12.		
4. Ms. Kittima Wongsan - Director					Refer to the details of Ms. Kittima Wongsan according to the profile topic of 1.1, item 14.		
5. Mr. Skulrath Siriphannon - Director					Refer to the details of Mr. Skulrath Siriphannon according to the profile topic of 1.1, item 13.		
6. Mr. Supong Pongparit - Director					Refer to the details of Mr. Supong Pongparit according to the topic of 1.1, item 15.		
7. Mr. Nirut Panyasit - Production Director of Nam Phong Branch	49	Educational Qualification <ul style="list-style-type: none"> Master of Engineering in Chemical Engineering, Chulalongkorn University 	-	-	Present 2015 – Present	Production Director of Nam Phong Branch Director	BBGI Bioethanol PCL KSL Material Supplies Co., Ltd.
8. Mr. Songsak Sirichomchan - Production Director of Bo Phloi Branch	46	Educational Qualification <ul style="list-style-type: none"> Bachelor of Business Administration, Ramkhamhaeng University Master of Engineering, Center of Rajamangala University of Technology 	-	-	Present 2017 – Present 2009 – 2017	Production Director of Bo Phloi Branch Production Manager Maintenance Engineer	BBGI Bioethanol PCL BBGI Bioethanol PCL Thai San Miguel Liquor Co., Ltd.



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
9. Mrs. Hataithip Phukan - Production Manager	44	Educational Qualification • Master of Chemical Engineering, Khon Kaen University	-	-	2005 – Present	Production Manager	BBGI Bioethanol PCL
10. Ms. Netchanok Kamphao - Accounting and Finance Manager	38	Educational Qualification • Bachelor of Accounting, College of Innovation Management, Rajamangala University of Technology Rattanakosin	-	-	2022 – Present 2016 – 2022	Accounting and Finance Manager Senior Accounting Officer	BBGI Bioethanol PCL BBGI Bioethanol PCL



1.2 Details of Directors and Executives of BBGI Bioethanol (Chachoengsao) Company Limited

Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
1. Prof. Dr. Anusorn Tamajai - Chairman of the Board	56	Educational Qualification <ul style="list-style-type: none"> Bachelor of Political Science (Honors), Chulalongkorn University Master of Economics, Fordham University, New York, USA Master of Business Administration, Southeastern University PhD, International Economics in Finance and Development, Fordham University New York, USA 	-	-	2016 – Present	Chairman of the Board	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2012 – Present	Independent Director / Chairman of the Audit Committee	Cho Thavee PCL
					2005 – Present	Director, Director of the Sub-Committee of Memorandum of Agreement and Performance Evaluation of State Enterprises	Ministry of Finance
					2003 – Present	Director	Foundation and Pridi Banomyong Institute
					2015 – 2018	Director	Ubon Bio Ethanol PCL
					2006 – 2018	Director	Freedom Media for Reform Co., Ltd.
					2003 – 2018	Vice President of Research and Academic Services / Dean of Faculty of Economics	Rangsit University

Training Background

- Certificates of Thai Institute of Directors Association (IOD),
- Director Certification Program (DCP), Class of 28/2003
- Director Accreditation Program (DAP), Class of 19/2004
- Strategy and Policy Development (SPD), Class of 2004
- Audit Committee Program (ACP), Class of 11/2006
- Role of the Chairman Program (RCP), Class of 19/2008
- Role of the Compensation Committee (RCC), Class of 3/2008



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years	
					Period	Position
		<ul style="list-style-type: none"> Financial Statements for Directors (FSD), Class of 6/2008 Monitoring the system of Internal Control and Risk Management (MIR), Class of 7/2009 Monitoring the Quality of Financial Reporting (MFR), Class of 8/2009 Successful Formulation and Execution of Strategy (SFE), Class of 2/2008 Advance Audit Committee Program (ACP), Class of 16/2014 Anti-Corruption for Executive Program (ACEP), Class of 5/2013 				
2. Mr. Kittiphong Limsuwannarat - Director		Refer to the details of Mr. Kittiphong Limsuwannarat according to the profile topic of 1.1, item 5.				
3. Mr. Chalush Chinthammit - Director		Refer to the details of Mr. Chalush Chinthammit according to the profile topic of 1.1, item 6.				
4. Ms. Kittima Wongsan - Director		Refer to the details of Ms. Kittima Wongsan according to the profile topic of 1.1, item 14.				
5. Mr. Skulrath Siriphannon - Director / Managing Director and Acting Factory Director		Refer to the details of Mr. Skulrath Siriphannon according to the profile topic of 1.1, item 13.				



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
6. Mr. Thaweewat Nantiruj - Director	60	Educational Qualification <ul style="list-style-type: none"> Bachelor of Industrial Engineering, King Mongkut's Institute of Technology Thonburi Training Background <ul style="list-style-type: none"> Certificate of Technology Promotion Association (Thailand-Japan) on Entrepreneurial Manager Certificate of Thailand Productivity Institute on Internal Quality Audit Training Course Certificate of Thai Institute of Directors Association (IOD), Director Accreditation Program (DAP), Class of 91/2011 	-	-	2017 – Present 2010 – Present 2009 – Present 2006 – Present 2003 – Present 1998 – Present 1997 – Present 1993 – Present 1990 – Present 1985 – Present 1989 – 2017 1989 – 2017	Director Executive Director Executive Director Executive Director Managing Director Managing Director Executive Director Managing Director Managing Director Executive Director Executive Director Executive Director	BBGI Bioethanol (Chachoengsao) Co., Ltd. Carbon Energy Co., Ltd. K.S. Chanthaburi Co., Ltd. Energy Plus Co., Ltd. Thai Austro Mould Co., Ltd Thai German Processing Co., Ltd Sima Inter Product Co., Ltd. Thai Trafo Manufacturing Co., Ltd. Preeda View Co., Ltd. Roi-et Flour Co., Ltd. Kalasin Flour Co., Ltd. K.S. Bio-Plus Co., Ltd.
7. Ms. Benjamaporn Onkreng - Administration and Finance Director	53	Educational Qualification <ul style="list-style-type: none"> Bachelor of Accounting, Chiang Mai University Training Background <ul style="list-style-type: none"> Certificate from Cornell University on Leadership Development Program 	-	-	2017 – Present 2016 – Present	Administration and Finance Director Senior Manager of Associated Company	BBGI Bioethanol (Chachoengsao) Co., Ltd. Bangchak Corporation PCL



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
8. Mr. Noppadon Bunsra - Assistant Factory Director	37	Educational Qualification <ul style="list-style-type: none">Bachelor of Chemical Engineering, University of Technology Rajamangala Thanyaburi	-	-	2022 – Present	Assistant Factory Director	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2017 – 2022	Head of Production Department	KSL Green Innovation Co., Ltd. Bo Phoi Branch
					2012 – 2017	Head of Fermentation Department	KSL Green Innovation Co., Ltd. Bo Phoi Branch
9. Ms. Naline Thansrisa - Production Manager	48	Educational Qualification <ul style="list-style-type: none">Bachelor of Biology, Burapha University	-	-	Present	Production Manager	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2004 – 2016	QA Supervisor	Sima Inter Product Co., Ltd. (Branch 2)
					2002 – 2004	QA Supervisor	Corn Products Amardass (Thailand) Co., Ltd.
					1997 – 2002	QA Supervisor	National Foods Corporation Co., Ltd.
10. Mr. Krairoek Inunchote - Maintenance Manager	45	Educational Qualification <ul style="list-style-type: none">Bachelor of Engineering, Post-Harvest and Process Engineering, Institute of Technology Rajamangala Thanyaburi	-	-	2017 – Present	Maintenance Manager	Bangchak Bioethanol (Chachoengsao) Co., Ltd.
					2012 – 2016	Head of Engineering Department	Sima Inter Product Co., Ltd. (Branch 2)
					2002 – 2011	Mechanical Engineer	Sima Inter Product Co., Ltd. (Branch 2)
11. Ms. Watchaporn Pongpal - Accounting and Finance Manager	37	Educational Qualification <ul style="list-style-type: none">Bachelor of Accounting, RajabhatRajanagarindra University	-	-	2020 – Present	Accounting and Finance Manager	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2018 – 2019	Head of Accounting Department	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2016 – 2017	Accounting Officer	BBGI Bioethanol (Chachoengsao) Co., Ltd.
					2012 – 2015	Cost Accountant	Sonish Starch Technology Co., Ltd.



1.3 Details of Directors and Executives of BBGI Bio Diesel Company Limited

Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company

1. Mr. Kittiphong Limsuwanarot according to the profile topic of 1.1, item 5.

- Chairman of the Board

2. Mr. Surachai Kositsareewong	58	Educational Qualification <ul style="list-style-type: none"> Bachelor of Business Administration, Chulalongkorn University Master of Finance, Stetson School of Economics and Business Administration Mercer University, USA Training Background <ul style="list-style-type: none"> Certificate of Thai Institute of Directors Association (IOD), Director Accreditation Program (DAP), Class of 49/2006 Audit Committee Program (ACP), Class of 16/2007 Director Certification Program (DCP), Class of 152/2011 Certification of the Federation of Accounting Professions, CFO Certification Program Certification from Thailand Securities Institute on The Training Program on Structured Notes Certification from The World Bank Institute on Frontiers in Infrastructure Finance Distance Learning Course 	-	-	2009 – January 2023 2016 – Present 2015 – Present 2014 – Present	Director Director Director Director	BBGI Bio Diesel Co., Ltd. BCP Trading Pte. Ltd. BCP Innovation Pte. Ltd. BCP Energy International Pte. Ltd.
					2014 – 2017	Qualified Director	Electronic Transactions Commission
					2013 – 2022	Vice President	Bangchak Corporation PCL
					2013 – Present	Qualified Director	Board of the Thai Arbitration Institute
					2012 – 2014	Director	MCOT PCL
					2012 – 2014	Director	Government Savings Bank
					2009 – 2013	Assistant President	Bangchak Corporation PCL
					2007 – 2009	Deputy Managing Director / Chief Financial Officer	Dhanarak Asset Development Co., Ltd.
					2004 – 2007	Independent Director / Director of the Audit Committee	Wyncoast Industrial Park PCL
					1998 – 2004	Financial Administration Director	Small and Medium Enterprise Development Bank of Thailand



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
<ul style="list-style-type: none">• Certification from Aon onEnergy Training Program• Certification from Fiscal Policy Research Institute onExecutive Development Program (EDP)							
3. Mr. Skulrath Siriphannon - Director					Refer to the details of Mr. Sakulrat Siripannon according to the profile topic of 1.1, item 13.		
4. Ms. Kittima Wongsaeen - Director / Managing Director					Refer to the details of Ms. Kittima Wongsaeen according to the profile topic of 1.1, item 14.		



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
5. Mr. Kitti Jivacate - Director	69	Educational Qualification <ul style="list-style-type: none"> Bachelor of Engineering in Chemical Engineering, Chulalongkorn University Master of Business Administration, Sasin School of Management, Chulalongkorn University Training Background <ul style="list-style-type: none"> Certificate of Thai Institute of Directors Association (IOD), Director Accreditation Program (DAP), Class of 82/2010 Director Certification Program (DCP), Class of 142/2010 Certification from King Prajadhipok's Institute on Government Management Program and Public Law (PM), Class of 3 Certificate of Capital Market Academy (CMA) on Senior Executive Program, Class of 16 	-	-	2008 – Present 2019 – Present 2016 – Present 2015 – Present 2013 – Present 2012 – Present 2011 – Present 2008 – Present 1997 – Present	Director Chairman of the Board / General Director Director Director Director Director Director Chairman of the Board Director	BBGI Bio Diesel Co., Ltd. Vientiane Waste Management Co., Ltd. PPWE Co., Ltd. UAC Advance Polymer & Chemicals Co., Ltd. UAC Energy Co., Ltd. UAC & TPT Energy Co., Ltd. UAC Utilities Co., Ltd. UAC Global PCL Suthosamit Co., Ltd.



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
6. Mr. Chatchaphol Prasopchoke - Director	55	Educational Qualification <ul style="list-style-type: none">- Bachelor of Electrical Engineering, Control System, King Mongkut's Institute of Technology Ladkrabang- Master of Business Administration, Thammasat University	-	-	2012 – Present	Director	Bangchak Biofuel Co., Ltd.
					2019 – Present	Director	Vientiane Waste Management Co., Ltd.
					2017 – Present	Director	Odin Power Co., Ltd.
					2017 – Present	Director	Odin Myanmar Co., Ltd.
					2017 – Present	Director	UAC Top Energy Co., Ltd.
					2016 - Present	Director	PPWE (Thailand) Co., Ltd.
					2015 – Present	Director	UAC Advance Polymer & Chemicals Co., Ltd.
					2014 – Present	Director	UAC TPT Pellets Co., Ltd.
					2014 – Present	Director	Solar Energy Roof Power Co., Ltd.
					2013 - Present	Director	Sebigas UAC Co., Ltd.
					2013 - Present	Director	UAC Energy Co., Ltd.
					2012 – Present	Director	UAC & TPT Energy Co., Ltd.
					2012 – Present	Director	UAC Utilities Co., Ltd.
					2012 – Present	Director of the Risk Management Committee	UAC Global PCL
					2010 – Present	Chief Executive Officer and Managing Director	UAC Global PCL
					2010 – Present	Director	UAC Global PCL
					2010 – Present	Executive Director	UAC Global PCL
					2014 – 2019	Managing Director	UAC Global PCL
		Training Background <ul style="list-style-type: none">• Certificate of Thai Institute of Directors Association (IOD),• Director Accreditation Program (DAP), Class of 82/2010• Director Certification Program (DCP), Class of 147/2011• Certificate from the Thai Listed Association on• Executive Development Program (EDP), Class of 8/ 2011• Leadership Development Program (LDP), Class of 3/ 2015• Certificate from Sasin School of Management, Senior Executive Program(SEP), Class of 21/2007• Certificate of Creative Entrepreneurship Development Institute (CED), Future Entrepreneurs (FEF), Class of 1/2013• Certificate of Thailand Energy Academy (TEA), Senior Executive Program in Energy Literacy, Class of 7/2015• Certification from Institute of Research and Development for Public Enterprises on Leadership Succession Program (LSP), Class of 5/2015					



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
7. Mr. Prasit Tantaworanart - President	53	Educational Qualification <ul style="list-style-type: none"> Bachelor of Science in Chemical Engineering, Chulalongkorn University Master of Business Administration, Thammasat University 	-	-	2017 – Present 2011 – Present 2016 – 2017 2009 – 2015	President Director Manager of Business Development Trading and Marketing Manager	BBGI Bio Diesel Co., Ltd. Biodiesel Manufacturer Association Bangchak Corporation PCL BBGI Bio Diesel Co., Ltd.
Training Background <ul style="list-style-type: none"> Certificate of the Ministry of Energy, Energy Executive Program, Class of 9 Certificate of the Business Management Association of Thailand on Intensive Management Development Program (IMDP), Class of 1/2013 Certificate from Lead Business Institute on Certificate of Management, Class of 1/2016 							
8. Mr. Porapon Ubonban - Maintenance Manager	48	Educational Qualification <ul style="list-style-type: none"> Bachelor of Engineering, Mechanical Engineering, King Mongkut's University of Technology North Bangkok Master of Engineering, Mechanical Engineering, King Mongkut's University of Technology North Bangkok 	-	-	2017 – Present 2015 – 2017 2009 – 2015 2007 – 2009 2002 – 2007	Maintenance Manager Engineering and Maintenance Manager Senior Engineer Senior Engineer Mechanical Engineer	BBGI Bio Diesel Co., Ltd. BBGI Bio Diesel Co., Ltd. BBGI Bio Diesel Co., Ltd. Avery Dennison Co., Ltd. Conwood Co., Ltd.



Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
9. Mr. Santitid Wangthamkhum - Electrical Engineering and Project Manager	41	Educational Qualification <ul style="list-style-type: none"> Bachelor of Automotive Engineering, Chulalongkorn University Master of Science in Mechanical Engineering, University of Southern California 	-	-	2020 - Present	Technology and Engineering Project Manager	BBGI Bio Diesel Co., Ltd.
					2018 - 2020	Project Maintenance and Management Manager	BBGI Bio Diesel Co., Ltd.
					2016 - 2018	Engineering and Maintenance Manager	BBGI Bio Diesel Co., Ltd.
10. Ms. Janyawan Butpun - Production Manager	43	Educational Qualification <ul style="list-style-type: none"> Bachelor of Industrial Chemistry, Chiang Mai University Master of Chemical Techniques, Chulalongkorn University 	-	-	2020 - Present	Production Manager	BBGI Bio Diesel Co., Ltd.
					2015 - 2019	Senior Strategic Planner / Acting Production Techniques Department	BBGI Bio Diesel Co., Ltd.
					2011 - 2015	Strategic Planner	BBGI Bio Diesel Co., Ltd.
					2008 - 2010	Laboratory Supervisor	BBGI Bio Diesel Co., Ltd.
					2006 - 2007	QA/QC and R&D Supervisor	Bangkok Renewable Energy Co., Ltd.
					2004 - 2005	Supply Planner	Hitachi Global Co., Ltd.
11. Mrs. Nartlada Rajapakdee - Accounting and Finance Manager	37	Educational Qualification <ul style="list-style-type: none"> Bachelor of Accounting, Rajamangala University of Technology Thanyaburi Master of Finance and Banking, Ramkhamhaeng University 	-	-	2020 - Present	Accounting and Finance Manager	BBGI Bio Diesel Co., Ltd.
					2019 - 2020	Assistant Accounting Manager	Baanrai Sugar Industry Co, Ltd.
					2018 - 2019	Head of Accounting Department	Baanrai Electricity Generating Co., Ltd.
					2013 - 2018	Head of Audit Department	S.K. Accountant Services Co., Ltd.
					2008 - 2012	Assistant Auditor	S.K. Accountant Services Co., Ltd.

1.4 Details of Directors and Executives of BBGI Utility and Power Company Limited

Name - Surname / Position	Age (Years)	Educational Qualification / Training Background	Proportion of Shareholding in the Company (%)	Family Relations Among Directors and Executives	Work Experience in the Past 5 Years		
					Period	Position	Company
1. Mr. Kittiphong Limsuwananarot - Chairman of the Board					Refer to the details of Mr. Kittiphong Limsuwananarot according to the profile topic of 1.1, item 5.		
2. Mr. Ekarat Tokarunkayaseth - Director	38	Educational Qualification <ul style="list-style-type: none"> Bachelor of Engineering, Thammasat University and University of Nottingham Master of International Business, Sofia University 	-	-	2021 – Present 2016 – 2021	Director Acting Factory Manager	BBGI Utility and Power Co., Ltd. Khon Kaen Sugar Power Plant Co., Ltd. (Wang Saphung Branch)
3. Mr. Skulrath Siriphannon - Director / Managing Director					Refer to the details of Mr. Skulrath Siriphannon according to the profile topic of 1.1, item 13.		

12 ATTACHMENT 2

DETAILS OF THE DIRECTORS OF THE SUBSIDIARY AND ASSOCIATED COMPANIES

Details of Directors of Subsidiaries

Details of executive positions and the controlling person of the Company in subsidiaries and associated companies (information as of December 31, 2022)

Name	BBGI	Subsidiary Companies				Associated Companies		
		BBGI- NP/BP	BBGI- PS	BBGI- BI	BUP	WIN	BIOM	BSGF
1. Mr. Pichai Chunhavajira	C							
2. Mr. Chamroon Chinthammit	D							
3. Mr. Surin Chiravisit	D							
4. Mr. Chaiwat Kovavisarach	D							
5. Mr. Kittiphong Limsuwannarot	D	C	D	C	C	D	D	D
6. Mr. Chalush Chinthammit	D	D	D			D		
7. Mr. Chanachai Chutimavoraphand	D							
8. Assoc. Prof. Jaruporn Viyanant	D, I, II							
9. Dr. Thitapha Smitinont	D, I, III							
10. Mr. Matthew Kichodhan	D, I							
11. Mrs. Patricia Mongkhonvanit	D, I, III							
12. Mrs. Suttida Sukhanindr	IV	D						
13. Mr. Skulrath Siriphannon	IV	D	D	D	D			
14. Ms. Kittima Wongsan	IV	D	D	D				D
15. Mr. Supong Pongparit	IV	D						
16. Mr. Soopachoke Pattanapisalsak	IV							
17. Mr. Ekarat Sumaytirakul	IV							
18. Prof. Dr. Anusorn Tamajai			C					
19. Mr. Thaweewat Nantiruj			D					
20. Mr. Surachai Kositsareewong				D				
21. Mr. Kitti Jivacate				D				
22. Mr. Chatchaphol Prasopchoke				D				
23. Mr. Ekkarat Tonkaranyaset					D			

Remark

C Chairman of the Board

D Directors

I Independent Director

II Chairman of the Audit Committee

III Director of the Audit Committee

IV Executives



13 ATTACHMENT 3

DETAILS OF THE HEAD OF INTERNAL AUDIT DIVISION

Name - Surname / Position	Age (years)	Educational Background / Training Background	Proportion of Shares (Percent)	Family Relations Among Directors and Executives	Work Experience			
					Period	Position	Company	Business Type
Mr. Wongwarit Ussaranitroj Appointed on July 1, 2020	43	Educational Qualification <ul style="list-style-type: none"> Master of Science (Corporate Governance) Chulalongkorn University Master of Business Administration (Accounting) Burapha University Certified Professional Internal Audit of Thailand [CPIAT No.458] Forensic Accounting Certificate [FAC Class 2] Financial Auditing for Internal Auditors or Non Accountants / IIA COSO ERM 2017 / FAP Quality Assurance and Improvement Program [QAIP] / FAP Certified Professional Internal Auditors of Thailand [CPIAT-48] / IIA Internal Control Framework [COSO-IC 2013] / FAP Enterprise Risk Management [COSO-ERM] / FAP Fraud Audit / FAP Risk Assessment for Internal Audit Planning / FAP Internal Audit Practice for IT Audit / FAP Control Self-Assessment : An Introduction 	-	-	Jun. 8, 20 - Present	Internal Audit Manager	BBGI PCL	Operates business by holding shares in other companies (Holding Company) that operate biofuel products, including production and distribution of ethanol, biodiesel, and by-products, as well as operates business related to such products.
					May. 2019 - Jan. 2020	Internal Audit Office Manager	Chumporn Palm Oil Industry PCL	Operates business of producing and distributing various types of palm oil products, namely crude palm oil, palm kernel oil, refined palm oil, refined palm kernel oil, and olein oil.
					Jun. 2018 - Apr. 2019	Freelance Consultant	The Best Solution Ltd.,Part.	Provides comprehensive accounting professional service, internal audit services, and consulting services.
					Feb. 2018 - May 2018	Internal Audit Division Manager	Buriram Sugar PCL	Operates sugar production business, electricity business, fertilizer business, and bagasse packaging business.
					Jun. 2016 - Jan. 2018 June 2012 - May 2016	Internal Audit Office Manager Senior Internal Audit Officer	Chumporn Palm Oil Industry PCL	Operates business of producing and distributing various types of palm oil products, including crude palm oil, palm kernel oil, refined palm oil, refined palm kernel oil, and olein oil.
					Jun. 2007 - May 2012	Internal Audit Officer		

14 ATTACHMENT 4

ASSETS USED IN BUSINESS OPERATIONS AND DETAILS OF ASSET VALUATION

Operating Assets

Disclosed on page 70-76

Details of the Asset Valuation

None

15 ATTACHMENT 5

COMPANY-ISSUED CORPORATE GOVERNANCE POLICY AND PRACTICE AND BUSINESS CODE OF CONDUCT

BBGI Public Company Limited (“Company”) has established a good corporate governance policy for the Board of Directors, executives, and all employees to adhere and practice to promote the operation of the Company to have a good, transparent, and verifiable management system, as well as having a board of directors with visions and responsibility and be a good role model for employees in the organization. At the same time, we cultivate a culture within the organization to be an organization with morality and ethics, which will help build value and confidence among all shareholders, investors, and stakeholders so that the Company’s business can sustainably continue to exist.

The Company has announced a good corporate governance policy and issued a good corporate governance handbook (CG handbook) for the Board of Directors, executives, and all employees of the Company to acknowledge and implement. The manual was published on the Company’s website.

See full policy published on company website at

<https://www.bbgigroup.com/th/corporate-governance/corporate-governance-policy>



16 ATTACHMENT 6

- DATA AUTHENTICATION FOR 56-1 ONE REPORT SUBMISSIONS
- REPORT OF THE AUDIT COMMITTEE
- REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE
- REPORT OF RISK MANAGEMENT AND CORPORATE GOVERNANCE COMMITTEE
- REPORT OF INVESTMENT COMMITTEE

PART 4


DATA AUTHENTICATION FOR 56-1 ONE REPORT SUBMISSIONS OF NON-LISTED COMPANIES

To certify the accuracy of information in the Annual Registration Statement/Annual Report/Form 56-1 One Report, the authorized director must sign to bind the Company. Sign and seal the company seal (if any) in the Annual Registration Statement/Annual Report/Form 56-1 One Report, and authorize any person to sign the document in the Annual Registration Statement instead with text and format as follows:

“The company has carefully reviewed the information in this Annual Registration Statement/Annual Report/Form 56-1 One Report and hereby certified that such information is correct, complete, unfalse, and not mislead others or lack of essential information that should be reported. In addition, the company certifies that

- (1) the financial statements and financial information summarized in the Annual Registration Statement/Annual Report/Form 56-1 have presented accurate and complete information on essential aspects of the financial position, performance and cash flows of the Company and its subsidiaries.
- (2) The company has set up a good information disclosure system to ensure that the Company discloses information in the material parts of both the Company and its subsidiaries correctly and completely, including supervision to have compliance with such system.
- (3) The Company has set up a good internal control system and has supervised to ensure compliance with such system. In addition, the Company has informed the internal control system assessment information of the latest available date to the Company’s auditors and Audit Committees, which covers deficiencies and significant changes in the internal control system, including wrongful acts that may affect the preparation of the Company’s and subsidiaries’ financial reports.

In this regard, as evidence that all documents are the same set of documents that the Company has verified, the Company assigned Mr. Somchai Sathiramongkolkul as the signatory in all pages of this document. If any documents do not have Mr. Somchai Sathiramongkolkul’s signature, the Company does not consider it as verified information from the company.

Name	Position	Signature**
1. Mr. Kittiphong Limsuwannarot	Director	
2. Mr. Chalush Chinthammit	Director	

REPORT OF THE AUDIT COMMITTEE

Dear Shareholders

The Board of Directors of BBGI Public Company Limited (the “Company”) has appointed an Audit Committee. It consists of 3 qualified independent directors with knowledge, expertise and various experiences, namely Associate Professor Jaruporn Viyanant as the Chairman of the Audit Committee and Mrs. Patricia Mongkhonvanit and Dr. Thitapha Smitinont as members of the Audit Committee with Mr. Wongwaris Ussaraniroj, the internal audit manager, is the secretary of the audit committee. Each member of the Audit Committee met qualifications as specified in the Audit Committee Charter. This is in line with the requirements and best practices for the audit committee of the Securities and Exchange Commission (SEC Office), the Stock Exchange of Thailand, and related laws. The Audit Committee held meetings throughout 2022 as follows:

Name	Position	Number of Attendance/ Number of Meetings in 2022
1. Associate Professor Jaruporn Viyanant	Chairman of the Audit Committee	6/6
2. Mrs. Patricia Mongkhonvanit	Director of the Audit Committee	6/6
3. Dr. Thitapha Smitinont	Director of the Audit Committee	6/6

In 2022, the Audit Committee performed their duties independently within the scope of authority specified in the charter of the Audit Committee. In some meetings, the Audit Committee discussed with chief executive officers, management division, auditors, and internal auditors on an appropriate agenda which the Audit Committee has independently reported and provided opinions and recommendations every meeting. In addition, a summary of opinions that are questions and objections, as well as recommendations and material advice, are reported to the Board of Directors’ meeting at least twice a year. The performance essence of duties is as follows:

Review the Accuracy, Completeness, and Credibility of Financial Reports

The Audit Committee has reviewed both quarterly and annual financial reports that have been reviewed and audited by the auditors by meeting with the management division, internal audit department, related departments, and auditors by inquiring from the auditors about the correctness and completeness of the financial reports, important accounting entry adjustments, and the disclosure of accurate and complete information sufficiently to ensure that the preparation of the Company’s financial reports is in accordance with accounting standards under the generally accepted accounting principles and for the benefit of financial reporting users. In addition, the Audit Committee held one meeting with the auditors without the presence of the management division to acknowledge issues that were found from the audit and to consider the annual audit plan of the auditor and the independence of the auditor. The Audit Committee is of the opinion that the Company’s financial reports have been prepared in accordance with the accounting standard that is accurate, complete as it should be, and reliable, including sufficient disclosure of important information.

Review the Effectiveness of the Internal Control and Internal Audit Systems.

The Audit Committee has reviewed the effectiveness of the internal control system with the internal audit department every quarter by considering operational aspects, use of resources, custody of assets, compliance with regulations, including the prevention or reduction of damage that may occur. The Audit Committee has regularly consulted with the auditors to acknowledge issues related to the internal control system, reviewed the performance of the internal audit department, annual internal audit plan as well as the manpower and personnel development plan of the internal audit department so that the operation of the internal audit department shall be independent and have sufficient resources to perform the internal audit work. The Audit Committee is of the opinion that the Company's internal control system is sufficient and appropriate without material flaws and that the internal audit of the Company has independence in their work.

Review the Relevant Requirements and Laws Compliance.

The Audit Committee has reviewed with the Company's management division in regards to the Company's compliance with the Securities and Exchange Act, requirements of the Stock Exchange, or laws related to the business of the Company by meeting with related executives. From the review, the Audit Committee found that the Company does not comply with the Securities and Exchange Act, requirements of the Stock Exchange, or laws related to the business of the Company

Review Inter-company Transactions or Transactions With Possible Conflicts of Interest.

The Audit Committee has reviewed the inter-company transactions or transactions that may cause conflicts of interest to ensure that the Company and its subsidiaries has operated in accordance with the criteria and requirements of the regulatory agencies rationally and take into account the best interests of the Company, and that the management division's actions are in accordance with the policy on inter-company transactions approved by the Board of Directors. The Audit Committee is of the opinion that the inter-company transactions considered are ordinary business transactions with general trade conditions as if transactions were made with third parties (arm's length basis) reasonably, transparently, and fairly without causing a conflict of interest and in the utmost benefit for the Company.

Consideration and Proposal to the Board of Directors to Appoint Auditors for 2022

The Audit Committee has considered the performance, scope, work experience, knowledge, credibility, work quality, and qualifications of auditors, as well as the sufficiency of resources and the appropriateness of the audit fee, including reviewing the qualifications and independence of the auditors. Therefore, it proposes to appoint Ms. Dussanee Yimsuwan CPA No. 10235 and / or Mr. Waiyawat Kosamarnchaiyaki CPA No. 6333 and / or Mr. Sakda Kaothanthong CPA No. 4628 and / or Mr. Charoen Phosamritlert CPA No. 4068 from KPMG Phoomchai Audit Company Limited as the Company's auditors for 2022. It also proposes to the Board of Directors to consider and propose to the shareholders' meeting to appoint the auditors and approve the audit fee for 2022.

Overall Opinions of the Audit Committee

In summary, the Audit Committee performed its roles, duties, and responsibilities specified in the charter of the Audit Committee adequately except for reviewing the accuracy of reference documents and self-assessment forms regarding the Company's anti-corruption measures according to the Thai Private Sector Coalition Against Corruption because the Company is in the process of preparing reference documents and a self-assessment form regarding the Company's anti-corruption measures. The Company has already participated in the declaration of intent to join the Thai Private Sector Coalition Against Corruption according to the resolution of the Board of Directors' meeting on September 21, 2022.

The Audit Committee performed its duties by using their knowledge, cautiousness, prudence and independence. For the utmost benefit to the stakeholders, the Audit Committee is of the opinion that the Company's financial statements for 2022 are accurate and reliable in accordance with generally accepted accounting standard. The Company has disclosed information sufficiently. The overall internal control system is efficient with no material flaws with relevant laws and regulations compliance. The management division is committed to continuous development to support the Company. There is an internal control system that is sufficient and appropriate, along with follow-up and correction according to the suggestions regularly.



(Associate Professor Jaruporn Viyanant)

Chairman of the Audit Committee

BBGI Public Company Limited

REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE

Dear Shareholders

The Board of Directors of BBGI Public Company Limited has appointed the Nomination and Remuneration Committee consisting of 3 qualified directors. The Nomination and Remuneration Committee consists of:

Name	Position	Number of Attendance/ Total Meetings Year 2022
1. Mr. Surin Chiravisit	Chairman of the Nomination and Remuneration Committee	2/2
2. Dr. Thitapha Smitinont	Independent Director/Nomination and Remuneration Committee	2/2
3. Mr. Matthew Kichodhan	Independent Director/Nomination and Remuneration Committee	2/2

In 2022, the Nomination and Remuneration Committee performed the important duties as follows:

The Nomination and Remuneration Committee has performed its duties as assigned by the Board of Directors as specified in the Nomination and Remuneration Committee Charter. It is responsible for recruiting qualified persons to serve as directors of the Company and members of various sub-committees, chief executive officers and presidents, including taking into account the diversity in the structure of the Board of Directors (Board Diversity) and knowledge and expertise (Board Skills Matrix) as well as determining the remuneration of the Company's directors, chief executive officers, and presidents to propose to the Board of Directors for consideration. In 2022, the Nomination and Remuneration Committee held a meeting to perform the assigned duties, follow up, and consider important matters assigned by the Board of Directors which are defined in the Charter of the Nomination and Remuneration Committee as summarized as follows:

1. In selection of directors for sub -committees including the CEO and the President, the Nomination and Remuneration Committee will consider the qualifications, knowledge, skills, skills, diverse expertise, and leadership as well as vision and good attitude toward the organization which is beneficial to the operation of the company without specifying gender, including considering the structure size and composition of the board according to good corporate governance principles and to provide effective and efficient management and in accordance with the relevant laws and rules and situations.

2. Recommend remuneration structures for directors, subcommittees, the chief executive officer, and president, or equivalent positions as an incentive to work in accordance with the objectives and main goals of the organization and in line with the long-term benefits of the business. This includes (1) determining the appropriateness of the salary compensation ratio, short-term performance such as bonuses, and long-term performance such as the employee stock ownership plan; (2) Determine the policies on compensation based on factors such as higher or equal compensation levels to the approximate industrial level of the business performance (3) Determine the policies on assessment criteria and communication for acknowledgment based on performance, achievements compared to key performance indicators and goals, including obligations, assigned responsibilities as well as operating results, business environment, factors that may affect the business of the Company, and overall economic conditions appropriately and present to the Board of Directors for consideration and approval at every annual general meeting of shareholders.
3. Assess the performance of the Nomination and Remuneration Committee, chief executive officers and presidents or equivalent positions annually to provide suggestions on appropriate remuneration to the Board of Directors for approval and communicate the consideration results, including providing issues for development to chief executive officers and presidents for acknowledgment.
4. Review the personnel development and nomination policy and the succession plan of chief executive officers and presidents or equivalent positions annually, and have chief executive officers and presidents report to the Board of Directors for acknowledgment.

On December 31, 2022, the Board consists of 11 directors. The directors' compensation information is shown in the directors' and executives' compensation topic in this report. The Nomination and Compensation Committee agreed that the compensation is appropriate and consistent with responsibilities and in accordance with the policy and criteria of the Nomination and Remuneration Committee.

(Mr. Surin Chiravisit)

Chairman of the Nomination and Remuneration Committee
BBGI Public Company Limited

REPORT OF RISK MANAGEMENT AND CORPORATE GOVERNANCE COMMITTEE

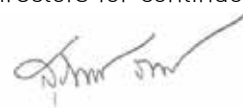
Dear Shareholders

Board of BBGI Public Company Limited has appointed the Risk Management and Corporate Governance Committee consisting of 3 qualified members to set policies and supervise risk management that complies with standards (COSO) as well as promoting and supporting risk management throughout the organization in order to move towards achieving the organization's objectives and goals with efficiency and effectiveness and to promote good corporate governance for the business operation of the Company with transparency, and fair, build confidence and reliability for stakeholders. Consisting of

Name	Position	Number of Attendance/ Number of Meetings in 2022
1. Mr. Surin Chiravisit	Chairman of the Risk Management and Corporate Governance Committee	6/6
2. Mr. Chanachai Chutimavoraphand	Director of the Risk Management and Corporate Governance Committee	6/6
3. Mr. Kittiphong Limsuwannarot	Director of the Risk Management and Corporate Governance Committee	6/6

In 2022, the Risk Management and Corporate Governance Committee performed the important duties as follows:

1. Define policies, strategies, and targets for risk management throughout the organization. Develop an organization-wide risk management system for continuous efficiency, including supporting and pushing for cooperation in risk management at all levels of the organization.
2. Consider the risk factors that affect the achievement of the organization's strategic goals with efficiency and effectiveness by carefully considering both external and internal risks to cover all dimensions throughout the organization, including providing useful suggestions as a protection or opportunity for the organization, along with defining and reviewing the risk management framework throughout the organization to be appropriate and consistent with the strategic plan and operations of the Company according to the situation.
3. Follow up, evaluate, and provide feedback on the Company's operations on a quarterly basis to ensure that the management manages operations under the acceptable risk level, along with guidelines for setting measures to control or mitigate risks that may occur in a timely manner.
4. Provide good corporate governance and anti-corruption policy to a working group to support corporate governance work as appropriate, including supporting the performance of the Board of Directors and the management division in order to comply with corporate governance code, along with reviewing corporate governance code for sustainable business operations to cover economic, social, environmental, and good governance (Economic Social and Governance) by comparing with international standards and presenting to the Board of Directors for continuous improvement consideration.



(Mr. Surin Chiravisit)

Chairman of the Risk Management Committee
BBGI Public Company Limited

REPORT OF INVESTMENT COMMITTEE

Dear Shareholders

The Board of Directors of BBGI Public Company Limited (the Company) has appointed the Investment Committee which consists of 4 qualified members in order to consider the investment proportion, profit, and/or returns that are expected to receive, potential risks, and financial status of the Company before making a decision to invest in various projects to benefit and support, including strengthening stability to the business operations of the Company. The approval of such investment may require consideration from the Board of Directors' meeting and/or the shareholders' meeting within the scope of approval authority set (as the case may be), consisting of

Name	Position	Number of Attendance/ Total Meetings
1. Mr. Chaiwat Kovavisarach	Chairman of the Investment Committee	7/7
2. Mr. Chalush Chinthammit	Director of the Investment Committee	7/7
3. Mr. Matthew Kichodhan	Independent Director / Director of the Investment Committee	6/7
4. Mr. Kittiphong Limsuwannarot	Director of the Investment Committee	7/7

In 2022, the Investment Committee performed the important duties as follows:

- Carefully and prudently consider screening criteria for investment projects and opportunities which may provide feasibility study of the investment plan including potential and risk factors from investment, returns, financial liquidity of the Company, and economic conditions to be in line with the Company's strategies and policies before proposing to the Board of Directors for approval.
- Monitor and assess strategic implementation projects and the ability to expand business both domestically and internationally to be in accordance with the directions, goals and policies of the Company.
- Consider approving provision, procurement, employment, including hiring of consultants for new business projects, plans, and budgets to present to the Board of Directors for approval.
- Consider and review the investment policy in subsidiaries and associated companies to propose to the Board of Directors for approval.

(Mr. Chaiwat Kovavisarach)

Chairman of the Investment Committee
BBGI Public Company Limited

17 ATTACHMENT 7

ASSESSMENT OF THE ADEQUACY OF THE INTERNAL CONTROL SYSTEM

Assessment of the Adequacy of the Internal Control System

BBGI Public Company Limited

Dated on February 16, 2023

This assessment was prepared by the Board of Directors and represents the opinion of the Board of Directors on the adequacy of the internal control system



ASSESSMENT OF THE ADEQUACY OF THE INTERNAL CONTROL SYSTEM

Internal Control of the Organization (Control Environment)

1. The organization demonstrates its commitment to the values of integrity and ethics.

Question		Yes	No	Current Action
1.1	The Board of Directors and executives set guidelines and practices that are based on integrity and ethics in operations, covering: 1.1.1 Daily duty and decision-making on various matters 1.1.2 Treatment of business partners, customers, and third parties	✓		The Board of Directors and executives of the Company have assigned the duties and responsibilities of the Board of Directors, executives, and employees to perform their duties in accordance with the code of conduct, including the treatment of stakeholders which are shareholders, employees, business partners, customers, creditors, or competitors with integrity. This has been set out in the code of conduct and the good corporate governance policy. The said policy has been communicated to executives and employees of the Company and the BBGI Company Group for execution in order to maintain ethics in work and business operations.
1.2	There are written requirements for executives and employees to perform their duties under integrity and the code of conduct, covering: 1.2.1 There is an appropriate requirement regarding the code of conduct for executives and employees. 1.2.2 There is a requirement that prohibits executives and employees from acting in ways that may cause conflicts of interest with the business, including preventing corruption that may cause damage to the organization ¹ . 1.2.3 There are appropriate penalties in case of violation of the above requirements. 1.2.4 The aforementioned requirements and penalties are communicated to all executives and employees for acknowledgment. For example, they are included in the new employee orientation, employees have to sign to acknowledge the requirements and penalties annually. This includes disseminating the code of conduct to employees and third parties for acknowledgment.	✓		The Company's Board of Directors and executives have established a written code of conduct for executives and employees to follow. It stipulates that executives and employees are not allowed to seek personal benefits and operate businesses that compete or conflict with the Company's interests. In addition, an anti-corruption policy has been established to prohibit directors, executives, and employees from engaging in or supporting corruption in all forms, both directly and indirectly, as well as setting measures and guidelines for practice. The rules of punishment has, also, been established if there is a violation of the Company's regulatory requirements, as approved by the Business Ethics and Anti-Corruption Policy Handbook. These have been communicated to executives and employees for their acknowledgment. In addition, the employee handbook has defined penalties for violations which is included in the orientation of new employees.

¹ The Company should determine the internal control according to the anti-corruption measures suitable for the Company's risks.



Question		Yes	No	Current Action
1.3	There is a process to monitor and evaluate the compliance with the code of conduct.	✓		Executives and employees of the Company have signed or confirmed by replying to the email to acknowledge the code of conduct. The Company requires to monitor and evaluate the compliance with ethics and requirements of the Company through the internal audit process. In the past, business ethics compliance assessments have been included as part of the process audit approach.
	1.3.1 Monitoring and evaluation by an internal audit unit or a compliance unit			
	1.3.2 Self-assessment by executives and employees			
	1.3.3 Assessment by an independent expert from outside the organization			
1.4	Timely action is taken if non-compliance with the integrity and ethical requirements is discovered.	✓		The Company has set up a follow-up and evaluation of the compliance with the ethics and requirements of the Company through the internal audit process and an performance evaluation of executives and employees. In addition, the Company has set up a process for receiving complaints, the whistle blowing policy, to receive complaints from both internal and external parties through several channels as follows:
	1.4.1 There is a process that allows violations to be detected in a timely manner.			<ul style="list-style-type: none"> • Postal Mail • E-Mail: IA@bbgigroup.com • Website: www.bbgigroup.com • Phone: 0-2335-8673
	1.4.2 There is a process that allows punishment or deal with violations appropriately and in a timely manner.			
	1.4.3 Actions that violate the principles of integrity and ethics are corrected appropriately and in a timely manner.			The Company has determined to protect the informant and keep the information related to the complaint confidential by communicating with the relevant person through the Company's website. There is a process for checking and considering punishment according to the degree of the offense committed.



2. The Board of Directors is independent from the management division, and provides oversight and development of internal control operations.

Question	Yes	No	Current Action
2.1 The roles and responsibilities of the Board of Directors are clearly defined separately from those of the management division, with the specific authority of the board clearly reserved.	✓		The Company has clearly defined the duties and responsibilities of the Board of Directors in a written form in the good corporate governance policy, specifying guidelines for composition, qualifications, roles, responsibilities, and responsibilities of meetings, term of office, evaluation, and determination of remuneration for the Board of Directors.
2.2 The board supervises the establishment of clear and measurable business goals as a guideline for the operations of executives and employees.	✓		Executives have a meeting together to set goals and business plans for the Company in the short and long terms, including key performance indicators (KPIs) of the Company and each of its subsidiaries, comprising indicators of the Company, line, department, and individual employee across the organization. This is a measure used to evaluate the performance of different departments. The goals and business plans are reported at the Board of Directors' meeting.
2.3 The Board of Directors supervises the Company to determine the roles and responsibilities of the Board of Directors and executives in accordance with laws and charters, covering the key roles of the Audit Committee, auditors, internal auditors, and those responsible for financial reporting.	✓		The Board of Directors has appointed sub-committees to assist and support the performance of the Board of Directors, namely the Audit Committee, the Nomination and Remuneration Committee, the Risk Management and Corporate Governance Committee, and the Investment Committee. The charters of various committees have been prepared and specified the roles and responsibilities of the committees. In the Audit Committee Charter, the Audit Committee has duties and responsibilities in considering, selecting, and nominating independent persons to act as auditors, and is able to attend a meeting with the auditors without the presence of the management division. This includes a review to ensure that there is an internal control system and an internal audit of the Company that are suitable, efficient, and effective.
2.4 The Board of Directors is knowledgeable about the Company's business and have expertise that is beneficial to the Company or can seek advice from experts in that area.	✓		The Board of Directors consists of people with knowledge, expertise, and experiences in many areas that are necessary and beneficial to the business operations of the Company and its subsidiaries. In addition, the good corporate governance policy has specified that the Board of Directors is able to seek professional opinions from external advisors on business operations as necessary in order to make appropriate decisions.

Question		Yes	No	Current Action
2.5	The Board of Directors consists of independent directors who are knowledgeable, competent, reliable, and truly independent in performing their duties, for example, having no business relationship with the Company or any other relationship that may influence their discretion and independent performance in an appropriate and sufficient amount.	✓		The good corporate governance policy stipulates that the Board of Directors must consist of independent directors, at least 1/3 of the total number of directors. At present, the Company has 4 independent directors out of its 11 directors. The qualifications of independent directors are specified in writing in the good corporate governance policy.
2.6	The committee oversees the development and implementation of internal control in the organization, covering the establishment of the control environment, risk assessment, control activities, information and communication, and monitoring.	✓		The Board of Directors is authorized to supervise the business of the Company and its subsidiaries by assigning the Audit Committee the authority, duty, and responsibility of reviewing so that the Company and its subsidiaries have appropriate and effective internal control and internal audit systems, by giving opinions on the adequacy of the Company's internal control system, including the review and monitoring of corporate risk management by the Risk Management and Corporate Governance Committee.



3. The management division has established a structured reporting line, defining appropriate authority and responsibility for the organization to achieve its objectives under the oversight of the Board of Directors.

Question		Yes	No	Current Action
3.1	Top executives establish an organizational structure that supports the achievement of the Company's objectives by considering business and legal suitability, including the arrangement of effective internal control, such as the segregation of duties in important departments that cause checks and balances between each other, the internal audit work that directly reports to the Audit Committee, a clear line of reporting, etc.	✓		Executives have established an organizational structure to support the achievement of the company's objectives and business operations. The suitability has been taken into account based on many factors, such as business plans and future business expansion. In addition, the responsibilities of important functions have been segregated in order to achieve good and efficient internal control. There is an internal audit department that reports directly to the Audit Committee for independence in auditing and reporting.
3.2	Top executives determines the reporting line within the Company, taking into account the appropriateness of authority, responsibility, and communication of information.	✓		Executives have defined reporting according to the chain of command in the organizational structure and specified the chain of reporting in the job description document. In addition, the Company and each of its subsidiaries have set up a table of approval authority for the Company's operations in order to determine the authority and an approval hierarchy for important business transactions of the Company.
3.3	Authorities and responsibilities between the Board of Directors, top executives, executives, and employees are determined, assigned, and limited appropriately.	✓		The Company has defined the roles, authorities, and responsibilities of the Board of Directors, chief executive officers, presidents, executives, and employees at various levels in the Company's authorization table.



4. The organization demonstrates its commitment to motivate, develop, and retain talented people.

Question		Yes	No	Current Action
4.1	The Company has policies and procedures in place to recruit, develop, and retain personnel with appropriate knowledge and abilities, and has a process to regularly review those policies and procedures.	✓		<p>The Company has specified the principles for treating employees in its code of conduct by taking into account fair remuneration for employees and giving importance to employees' knowledge and ability development by giving all employees equal opportunities.</p> <p>The Company has established a recruitment and personnel development policy covering recruitment, creating an efficient work culture, and personnel development.</p>
4.2	The Company has a performance assessment process, offers incentives or rewards for personnel with good performance, and manages personnel whose performance does not meet the goals, including communicating these processes to executives and employees.	✓		<p>The Company has clearly defined the criteria used in performance evaluation and specified performance indicators by arranging for an annual evaluation of the performance of executives and employees. The assessment results will be used as information for consideration of annual bonus payments, salary adjustments, and promotion. The supervisors are responsible for communicating the performance of employees to their subordinates, both those with good performance and those whose performance does not meet the set goals. Based on performance indicators that have been mutually agreed upon, guidelines for further improvements have been established. Performance indicators have been defined as KPIs, which are defined as KPIs for employees and executives at various levels. There are 5 levels of evaluation criteria (5 = Excellent and 1 = Improvement needed), consisting of the topics as follows:</p> <ol style="list-style-type: none"> 1. Corporate Financial - Common financial KPIs which are BBGI Operating EBITDA, PAT, etc. 2. Corporate Activity / Cross-Functional - KPIs on activities that have been deployed to each line of work or that are jointly operated between lines 3. BU Performance - KPIs that measure the internal performance of each function <p>The Company has a policy to continuously recruit and select personnel with knowledge and competency in important positions and with qualifications in accordance with the Company's needs in order to adequately support the Company's business operations. This may involve recruiting suitable personnel from within the Company Group or outside the Company by preparing a manpower plan which has been approved by the Board of Directors.</p>
4.3	The Company has a process to solve problems or prepare for the lack of personnel with appropriate knowledge and ability in a timely manner.	✓		
4.4	The Company has procedures for recruiting, developing, and retaining all executives and employees, such as the systems of mentoring and training.	✓		<p>The Company has required to promote and develop personnel by providing training according to the training plan, promoting knowledge development from real work (on-the-job training), and transferring knowledge from training within the Company. It includes sending personnel to attend seminars and training in various areas that are necessary and related to various fields as appropriate in order to develop the knowledge and competency of personnel.</p>



Question		Yes	No	Current Action
4.5	The Company has an important succession plan and process.	✓		The Company has established guidelines for the recruitment and development of personnel for the succession of important positions in the Company (Succession Plan). It is part of the corporate governance policy (requirements of the Board of Directors on top executive succession plan and development plan), which defines the succession procedures in writing.

5. The organization imposes duties and responsibility on personnel for internal control in order to achieve its objectives.

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5.1	The board and executives have mandatory processes and communications that all personnel must be responsible for internal control and provide necessary revisions to the procedures.	✓		The Company has established a policy on corporate governance and business ethics, which consists of practices and penalties for non-compliance with the Company's regulations. In addition, it has communicated with executives and employees of the Company and its subsidiaries for their acknowledgment and compliance.
5.2	The board and executives set overall operation indicators, incentivization, and appropriate rewards by considering the compliance with the code of conduct and the Company's short-term and long-term objectives.	✓		The Company has set KPIs to assess the performance of executives and employees, which consist of performance indicators for the performance of the Company's goals at the departmental level and individual performance indicators. The results of the evaluation will be used as information for consideration for promotion, salary adjustment, and annual bonus payments to motivate executives and employees to work.
5.3	The board and executives constantly assess incentives and rewards with an emphasis on linkage to the success of duties in complying with internal control.	✓		Refer to item 5.2.
5.4	The board and executives consider that there should be no excessive pressure on the operation of individual personnel.	✓		The Company has systematically set criteria for the performance assessment of executives and employees, referring to the KPIs setting in which supervisors and subordinates have clearly agreed on goals and success indicators together. In evaluating performance, supervisors and subordinates will evaluate performance based on agreed-upon indicators. Supervisors will communicate their subordinates' performance as well as areas for improvement.

Risk Assessment

6. The organization sets its objectives clearly enough to enable identification and assessment of the risks involved in the achievement of its objectives.

Question		Yes	No	Current Action
6.1	The Company is able to comply with generally accepted accounting standards and is suitable for the business at that time. It can show that the transactions in the financial report are real, complete, correctly representing the rights or obligations of the Company, have appropriate values, and are disclosed completely and accurately.	✓		The consolidated financial statements and the Company's financial statements have been prepared in accordance with generally accepted accounting standards and have been audited by the Company's certified public accountant, who has expressed an opinion in the certified public accountant's report.
6.2	The Company determines the essence of financial transactions by considering important factors such as users of financial reports, transaction size, and business trends.	✓		The Company has defined the essence of financial transactions in its closing policy and guidelines, including the essence of such transactions in the notes to the financial statements.
6.3	The Company's financial reports truly reflect the Company's operating activities.	✓		The Company has prepared financial reports in accordance with generally accepted accounting principles, which have been audited by a certified public accountant approved by the Securities and Exchange Commission.
6.4	The Board of Directors or the Risk Management Committee approves and communicates the risk management policy to all executives and employees for acknowledgment and execution until it becomes part of the corporate culture.	✓		The Company has established a risk management policy for the whole organization and a written risk management manual. The risk management policy is approved by the Board of Directors' meeting resolution, and the risk management manual is approved by the Risk Management and Corporate Governance Committee. The Company has organized training on risk management for executives and employees of the Company and related subsidiaries for their acknowledgement and compliance.

7. The organization identifies and analyzes all types of risks that may affect the achievement of objectives comprehensively throughout the organization.

Question		Yes	No	Current Action
7.1	The Company identifies all types of risks that may affect business operations at the corporate level and within business units, departments, and functions.	✓		The Company has a risk assessment that covers both internal and external risk factors that may affect the Company's goals, business plans, and finances. The risk is divided into 4 aspects: strategic risk, operational risk, financial risk, and reputation risk. Executives who own the risk (the risk owner) participate in the assessment and formulate a risk management plan by specifying both the existing and required risk responses, the time to take action, the responsible person, and the status of the action to manage risk. The risk assessment considers the likelihood of occurrence and the severity of the potential impact of that risk. The strategy and enterprise risk management department has collected the Company's risk reports to present to the Management Committee and the Risk Management and Corporate Governance Committee.
7.2	The Company analyzes all types of risks that may arise from both internal and external factors. This includes strategic, operational, reporting, compliance, and information technology risks.	✓		Refer to item 7.1.
7.3	Executives at all levels participate in risk management.	✓		The Company's risk management handbook requires all executives and employees to be responsible for risk management. In addition, there is an enterprise strategy and risk management department responsible for advising, monitoring, and overseeing the risk management of various departments as well as collecting risk reports and presenting them to the Management Committee and the Risk Management and Corporate Governance Committee.
7.4	The Company assesses the importance of risks by considering both the likelihood of the event and the impact that may occur.	✓		In its risk assessment, the Company has considered the likelihood of occurrence and potential impacts of such risks, both monetary and non-monetary. There are clearly defined assessment criteria to classify the level of risk as very high, high, medium, or low. Then, it brings the aforementioned risks to be presented in the form of a diagram to further formulate a risk management plan.



Question	Yes	No	Current Action
7.5 The Company has measures and action plans to manage risks, which may include acceptance, reduction, avoidance, or sharing of risk.	✓		In the risk management handbook, there are several types of risk management measures: acceptance (take), control (treat), transfer, and avoidance (terminate) by taking into account the cost of implementing the risk management plan compared to the impact that may occur from that risk (cost-benefit analysis). The Company will choose measures that are suitable for each risk. In addition to the aforementioned policies, the Company has set up a risk management plan, including responsible persons and a period of time for implementing that risk management plan.

8. The organization considers the potential for fraud in assessing the risks necessary to achieve its objectives.

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8.1 The Company assesses the potential for fraud, covering various types of fraud such as fraudulent financial reporting, loss of property, corruption, management override of internal controls, changes to important report information, improper acquisition or use of property, etc.	✓		The Company has assessed the risks and the likelihood of fraud as part of the enterprise risk management process. In addition, an anti-corruption policy has been established and approved by the Board of Directors.
8.2 The Company carefully reviews the performance targets, taking into account the feasibility of the targets set, including considering the reasonableness of giving incentives or rewards to employees. There are no characteristics that encourage employees to act inappropriately, such as not setting the Company's sales target higher than reality until creating an incentive to decorate sales numbers, etc.	✓		The Company's executives will have a meeting to set goals and discuss business plans based on past performance, current economic conditions, and future business growth forecasts. In addition, performance indicators for various departments have been clearly identified. The results of the evaluation will be used as information for consideration of annual bonus payments, salary adjustments, and promotion.
8.3 The Audit Committee considers and asks executives about the possibility of fraud and measures taken by the Company to prevent or correct fraud.	✓		The Company has considered the possibility of corruption and the measures taken by the Company to prevent or correct corruption. It is part of the risk management and internal audit processes. The Company has reported the risk management to the Risk Management and Corporate Governance Committee for acknowledgement, and reported the internal audit to the Audit Committee for acknowledgement in the meeting of the Audit Committee.
8.4 The Company communicates to all employees the need to understand and comply with the specified policies and guidelines.	✓		Refer to item 1.2.

9. The organization can identify and assess changes that may affect the internal control system.

	Question	Yes	No	Current Action
9.1	The Company assesses changes in external factors that may affect business operations, internal controls, and financial reports, as well as establishes adequate measures to respond to such changes.	✓		The Company has assessed risks that may affect the goals and operations of the Company both from factors inside and outside the organization. Various risks have been identified in order to assess the likelihood and impact that may occur, as well as the determination of responsible persons and plans to manage those risks.
9.2	The Company assesses changes in business models that may affect business operations, internal controls, and financial reports, as well as having adequate measures to respond to such changes.	✓		The Company has organized meetings among relevant executives to prepare business plans and assess changes that may affect the business model and performance of the Company. Measures to correct or prevent the impact of such changes have been set up appropriately.
9.3	The Company assesses changes in organizational leadership that may affect business operations, internal controls, and financial reporting, as well as having adequate measures to respond to such changes.	✓		The Company has assessed the opportunity to change the organization's leaders and top executives, including considering various impacts that may occur. The Company has established the top executive succession plan and development plan for key positions in order to enable the Company to continue its business.



Control Activities

10. The organization has control measures that reduce the risk of not achieving its objectives to an acceptable level.

Question		Yes	No	Current Action
10.1	The Company's control measures are appropriate to the risks and specific characteristics of the organization, such as the environment, work complexity, nature of work, scope of operations, and other specific characteristics.	✓		The Company has designed control measures both at the corporate level and at the business process level of the Company and its subsidiaries through various policies and procedures by considering the nature of business operations, the scope of operations, the complexity of the nature of work, the environment, and various related risk factors.
10.2	The Company has written internal control measures that cover various processes appropriately, such as having policies and procedures for financial transactions, purchasing, and general management as well as specifying the scope, authority, and hierarchy of approval by executives at each level clearly and concisely in order to prevent corruption; for example, setting the amount of money and the approval authority of each level of executives, procedures for approval of investment projects, procurement procedures, vendor selection methods, recording of purchase decision details, procedures of equipment disbursement or tool withdrawal, etc. There is a process for the following cases: 10.2.1 information about major shareholders, directors, executives, and those related to such individuals, including connected persons, is collected for the purpose of monitoring and reviewing related transactions or transactions that may have conflicts of interest, as well as always updating information. 10.2.2 In the event that the Company already approved transactions or entered into contracts with related parties in a way that has a long-term binding effect on the Company, such as contracts for the purchase of goods, lending, or guarantees, the Company has followed up to ensure that the agreed terms and conditions have been complied with throughout the period of binding the Company, such as following up on debt repayment as scheduled or reviewing the suitability of the contract, etc.	✓		For the clear and concise determination of authority and approval hierarchy of executives at each level to prevent corruption, refer to items 3.2 and 3.3. The Company has established policies and guidelines for related transactions or inter-company transactions as guidelines for executives and employees to implement. Details of inter-company transactions are shown in the remarks on financial statements and annual reports. In the event that the Company enters into a long-term contract, the relevant departments are responsible for complying with the contract.



Question		Yes	No	Current Action
10.3	The Company requires a variety of appropriate internal controls, such as manual and automated controls or preventive and monitoring controls.	✓		The Company and its subsidiaries have set up internal control as part of the manual and operational procedures of various processes such as limit setting, payment approval, clear segregation of duties, etc. The Company has implemented the SAP system in business operations by defining access rights and segregating duties according to duties and responsibilities.
10.4	The Company establishes internal controls at all levels of the organization, such as the levels of the Company Group, business units, divisions, departments, divisions, or processes.	✓		The Company and its subsidiaries have established organizational-level internal controls and business processes of the Company through policies, procedures, and operating manuals. In addition, the Company has set up an internal audit department to audit the internal control over each process of the Company and its subsidiaries.
10.5	The Company completely separates the duties and responsibilities in the following 3 aspects of work for the purpose of checking each other: (1) Duty to approve (2) Duty to record statements and information, and (3) Duty to handle and store properties	✓		The Company and its subsidiaries have segregated important duties in approving, recording statements, and information, and taking care of properties.

11. The organization selects and develops general control activities with technological systems to help support the achievement of objectives.

Question		Yes	No	Current Action
11.1	The Company should determine the relationship between the use of information technology in the operational process and the general control of the information system.	✓		<p>The Company has established policies and procedures for operating information technology as a framework and guidelines for system security, regulating the process of developing and fixing the work system, and managing the system so that it can be used continuously.</p> <p>At present, the Company has hired outsourced service providers to provide services in managing and improving information technology systems as follows:</p> <ul style="list-style-type: none"> Bangchak Corporation Public Company Limited ("BCP") is responsible for system administration for BBGI Public Company Limited ("BBGI"), BBGI Biodiesel Company Limited (BBGI – BI – BI Bang Pa-in), BBGI Bioethanol Company Limited (BBGI – PS Phanom Sarakham), and BBGI Bioethanol Public Company Limited ("BBGI – NP Nam Phong and BBGI – BP Bo Ploy").
11.2	The Company should determine the appropriate control of the infrastructure of the technology system.	✓		<p>The Company has established a control process for the infrastructure of the technology system to ensure that it is always safe and ready for use and meets the business objectives of the Company. There is an analysis and follow-up of basic information technology system solutions. The Company will follow up on the performance compared to the service agreement (service level agreement).</p>
11.3	The Company should determine the appropriate security control of the technology system.	✓		<p>The Company has a written information technology security policy that specifies the security controls of the technology system. The content covers guidelines for the segregation of duties and rights of access to data and computer centers, etc.</p>
11.4	The Company should determine the appropriate control over the acquisition, development, and maintenance of the technology system.	✓		<p>The Company has established procedures for requesting changes/development of information systems. It must be approved by an authorized person, and tested for the correctness of changes / developments of programs and data before use. In addition, the Company has a backup and recovery process for information systems to keep them always available.</p>



12. The organization provides control activities through policies that define the expectations and procedures so that the established policies can be implemented.

Question		Yes	No	Current Action
12.1	The Company has a strict policy to monitor that the transactions of major shareholders, directors, executives, or persons related to such persons must go through the required approval process, such as the articles of association, the Stock Exchange of Thailand's criteria, the office's criteria, etc., in order to prevent taking advantage of an opportunity or taking advantage of the Company for personal use.	✓		The Company has a policy to prevent conflicts of interest as part of its business ethics by prohibiting directors, executives, and employees from seeking personal benefits. In addition, the Company has established a policy on related transactions to be used as a guideline in the event that the Company makes transactions with persons who may have conflicts of interest or those connected to them. The consideration of related transactions must be reported to the Audit Committee's meeting.
12.2	The Company has a policy to consider and approve transactions by persons who have no interest in the transaction.	✓		The Company has a policy to prevent conflicts of interest, which is part of its business ethics, including the Company's guidelines on related transactions, which require that directors, executives, or employees who have interests in the transactions not take part in actions that may cause conflicts of interest.
12.3	The Company has a policy to consider and approve transactions by taking into account the utmost benefit of the Company and treating them as if they are transactions with outsiders (at an arm's length basis).	✓		The Company has established a guideline for conducting related transactions requiring that related transactions use the same prices and commercial terms as market prices or contract prices made with general customers and fair conditions that generate the utmost benefit to the Company. Details of related transactions have been disclosed in the remarks on financial statements and annual reports.
12.4	The Company has a process to monitor the operations of the subsidiaries or the associated companies, and sets guidelines for the persons appointed by the Company as directors or executives in the subsidiaries or associated companies. <i>(If the Company does not have investments in the subsidiaries or the associated companies, this question is not required.)</i>	✓		The Board of Directors has appointed directors to monitor and supervise the operations of the subsidiaries according to the proportion of shares held by the Company. The operating results and financial statements of the subsidiaries have been examined and monitored through the Management Committee and the Board of Directors' meetings.
12.5	The Company defines duties and responsibilities for implementing policies and processes by executives and employees.	✓		The Company has defined the duties and responsibilities of executives and related employees in the policies and procedures for each matter. This has been communicated to executives and relevant employees through announcements, orders, and e-mails. In addition, the work regulations in the employee handbook require executives and employees to strictly follow the policies and procedures.



Question		Yes	No	Current Action
12.6	The Company's policies and procedures are implemented in a timely manner by competent personnel, including comprehensive procedures for correcting operational errors.	✓		The Company has defined the duties and responsibilities of executives and related employees in the policies and procedures for each matter. This has been communicated to executives and relevant employees through announcements, orders, and e-mails. The internal audit department is responsible for inspecting and monitoring the internal control system of the Company and its subsidiaries according to the annual audit plan. In the event that errors are found, the internal audit department will report the issues found and provide recommendations to relevant departments to determine solutions.
12.7	The Company always reviews policies and procedures to ensure they are appropriate.	✓		The unit that owns the process has reviewed, improved, or revised the manual and procedures to suit the current operations and situations.

Information and Communication

13. The organization has relevant and quality information to support internal controls' ability to operate as intended.

Question		Yes	No	Current Action
13.1	The Company determines the information required for operation, both internal and external information that is quality and relevant to the job.	✓		The Company has considered the use of both internal and external information for analysis and decision-making in business operations. The internal information of the Company includes information relating to the Company's and its subsidiaries' operating results and financial information. The corporate finance and accounting division of the Company is responsible for preparing financial reports of the Company Group. For outside information, the Company has used information from government agencies, various statistical data, or relevant legal and regulatory notices. In addition, the Company has hired consultants to prepare necessary information and use it as information for decision making in planning, investment, and business operations by taking into account the cost and benefits that will be received, including the quantity and correctness of the information.
13.2	The Company considers both the costs and benefits that will be received, including the quantity and accuracy of information.	✓		Refer to items 13.1 and 13.3.



Question		Yes	No	Current Action
13.3	The Company operates to provide the board with sufficient important information for decision-making. Examples of the important information includes details of matters proposed for consideration, reasons and effects on the Company, and various options.	✓		The Company's operating results and investment projects are reported at the Board of Directors' meeting and related committees, namely the Investment Committee and the Management Committee. The responsible unit is responsible for preparing documents, information, and other relevant and necessary reports for the Board of Directors at least 7 days before the meeting through the secretary of each committee, so that the committee has sufficient time to study important information for decision-making.
13.4	The Company proceeds to send directors the meeting invitations or meeting documents that contain necessary and sufficient information for consideration prior to the meeting, at least within the minimum period required by laws.	✓		The Company has sent the meeting invitation letter, attached with meeting documents, to the Board of Directors 7 days in advance of the meeting, which is in line with the minimum period required by laws.
13.5	The Company proceeds to ensure that the minutes of the Board of Directors' meetings contain appropriate details so that they can be examined retrospectively regarding the suitability of each director's performance of duties, such as recording directors' inquiries, opinions, or remarks on the matter under consideration, the opinion of the director who disagrees with the proposed matter with reasons, etc.	✓		In each meeting of the Board of Directors, the company secretary is assigned to prepare the minutes of the meeting, which will include details of the matters considered, the opinions of the directors, and the resolutions of the meeting on that agenda. In each meeting of the Board of Directors, there will be an agenda to consider and certify the minutes of the previous meeting.
13.6	The Company takes the following actions: 13.6.1 Important documents are kept completely by category. 13.6.2 In the event that an auditor or an internal auditor was notified that there was a defect in internal control, the Company completely corrects that defect.	✓		<p>The Company has stored documents by specifying the storage period for each type of document. Each department that produces documents is required to store important documents in order. For example, the corporate finance and accounting department has to store accounting and tax documents for 5 years. Important contracts are kept by the law office and the company secretary. There is also a collection of control documents according to the quality system (ISO).</p> <p>In the event that the Company is notified about deficiencies in internal control, the Company will assign relevant departments to take action to improve the issues found. The internal audit department is responsible for monitoring the status of revisions on a quarterly basis.</p>

14. The organization communicates information within the organization, including the objectives and responsibilities of internal control, which is necessary to support the functioning of internal control.

Question		Yes	No	Current Action
14.1	The Company has an effective internal information communication process and has appropriate communication channels to support internal control.	✓		The Company has established several communication channels for employees, including town hall meetings, weekly and monthly executive meetings, email communications, a website, an internal Company intranet, and postings at the Company's bulletin board. The Company will choose a communication channel for employees depending on the information and the group of employees to ensure that the required information is communicated to the group of employees completely and thoroughly.
14.2	The Company regularly reports important information to the Board of Directors, and the board can access information sources necessary for operations or reviewing various transactions as required, for example, by assigning a contact center person to be able to contact for information other than that provided by executives, including contacting auditors for information, internal auditors, meetings between the board and executives as requested by the board, organizing meetings between the board and executives other than the Board of Directors' meetings, etc.	✓		The Company has arranged a meeting of the board 1 time in a month, whereby the company secretary is responsible for organizing the meeting and preparing meeting documents to be sent to the board for consideration at least 7 days in advance. In the case that directors would like additional information or would like to arrange a meeting or meet executives other than at the board meeting, they can contact the company secretary to request information and arrange such meetings. In every Board of Directors' meeting, top executives of the Company will also attend the meeting to answer questions and exchange views with the directors.
14.3	The Company provides special or secret communication channels for people within the Company to safely report information or clues about fraud or corruption within the Company (whistle-blower hotline).	✓		Refer to item 1.4.



15. The organization communicates with external parties about issues that may affect internal control.

Question	Yes	No	Current Action
15.1 The Company has a process for communicating information with external stakeholders efficiently and has appropriate communication channels to support internal control, such as by setting up officers or investor relations units, complaint centers, etc.	✓		The Company has communicated information to external stakeholders through its website, www.bbgroup.com . It contains important content such as the Company's information, product information, a list of directors and executives, the Company's news and activities, complaint channels, etc. The Company has set up a finance and investor relations department for investors or interested parties to contact and inquire about the Company's information.
15.2 The Company provides a special or secret communication channel for stakeholders outside the organization to safely report information or clues about fraud or corruption (whistle-blower hotline) to the Company.	✓		Refer to item 1.4.

Monitoring System (Monitoring Activities)

16. The organization monitors and evaluates the internal control system to ensure that it continues to function properly.

Question	Yes	No	Current Action
16.1 The Company has a process to follow up on compliance with business ethics and prohibit management and employees from acting in ways that may cause conflicts of interest, such as requiring each department to monitor compliance and report to supervisors, or assigning the internal audit department follow up on operations and report to the Audit Committee, etc.	✓		Currently, the Company has followed-up and evaluated the compliance with business ethics and requirements of the Company through the internal audit process. In the event that there is an event or suspicion that there is a transaction or action that may significantly affect the financial position and operating results of the Company, such as conflicts of interest, corruption, significant deficiencies in internal controls systems, or violations of relevant laws, the management division or internal auditors have a duty to promptly report this to the Audit Committee and the Board of Directors.
16.2 The Company arranges to audit the compliance with the established internal control system through self-assessment and/or independent assessment by internal auditors.	✓		The Company has arranged for an inspection of compliance with the internal control system that has been established. The internal audit department, which is an independent unit, will report the results of the implementation of the internal control system to the Audit Committee.

Question		Yes	No	Current Action
16.3	The frequency of monitoring and evaluation is appropriate to the changes of the Company.	✓		The internal audit department has a 3-year risk-based audit plan and an annual audit plan that specify the frequency and subject matter to be audited in accordance with the risks and changes of the Company.
16.4	The internal control system is monitored and evaluated by knowledgeable and competent personnel.	✓		The Company has set up an internal audit department consisting of internal auditors who have an understanding of auditing and the business of the Company Group.
16.5	The Company has set guidelines for reporting internal audit results directly to the Audit Committee.	✓		The internal audit department has a line of command directly reporting to the Audit Committee and a line of management reporting to chief executive officers and presidents (CEOs).
16.6	The Company encourages internal auditors to perform their duties in accordance with the international standards for the professional practice of internal auditing (IIA).	✓		Internal audit procedures have been set in accordance with the international standards for the professional practice of internal auditing (IIA).

17. The organization timely assesses and communicates deficiencies in internal control to responsible parties, including top executives and the Board of Directors, as appropriate.

Question		Yes	No	Current Action
17.1	The Company evaluates and communicates deficiencies in internal control and takes action to promptly take corrective action if the results of operations significantly deviate from the set targets.	✓		The Company has monitored the operations according to the indicators compared with budgets and targets on a monthly basis. In the event that the performance does not meet the target, the executives will immediately set up a corrective action plan. Furthermore, if the internal audit department discovers any flaws or improvements to the internal control system, it will coordinate with relevant departments to jointly discuss solutions and summarize the results, including identifying improvement plans and reporting progress to the Audit Committee.
17.2	The Company has a reporting policy as follows:	✓		In case of events or suspicions that there are transactions or actions that may have a significant impact on the financial position and operating results of the Company, such as conflict of interest, fraud, a significant defect in the internal control system, or a violation of applicable laws, the management division or internal auditors are responsible for promptly reporting to the Audit Committee and the Board of Directors. The internal audit department shall report the audit results to executives of the auditing unit, chief executive officers and presidents (CEO), and the Audit Committee. In addition, the internal audit department has followed up on the progress of resolving issues from the audit upon the expiration of the working period and reported them to the Audit Committee in its meeting.
17.2.1	The management division must promptly report to the Board of Directors any occurrence or suspicion of serious corruption, a violation of laws, or any other unusual activity that may affect the reputation and financial status of the Company significantly.			
17.2.2	Significant bugs must be reported with solutions (even though they are already begun to be managed) to the Board of Directors / the Audit Committee for consideration within a reasonable time.			
17.2.3	The progress of improvement of significant deficiencies must be reported to the Board of Directors/the Audit Committee.			





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