



ANNUAL REPORT 2017

Global Green Chemicals Public Company Limited





# Driving Green Chemicals, Brightening Up Future



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GGC is one of the leading company in Green Chemical products based on Palm and Sugar. In order to add value to Industrial Crops and the growth of Thailand agriculture sector as well as Downstream Business, which is one of key factors in National Prosperity and Sustainability.

Moreover, we are committed in doing business with ethics in order to reduce Environmental Impact and to improve the quality of life.

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# Vision

To be a leading Green Chemical Company  
by Creating Sustainable Value

# Mission



1. Customers: Innovate and provide excellent quality products and services for long-term partnership
2. Shareholders: Maximize sustainable value for Shareholders with transparency and integrity
3. Employees: Create a work-life balance environment and high-performance organization by investing in human resources
4. Society: Show responsibility Responsible and care for sustainable development of the environment and society
5. Green Flagship for PTTGC Group



# Objectives and Goals

GGC systematically reviews its Vision, Mission, and Business Strategies annually in order to support the future Business trend and surrounding factors. For 2017-2026, GGC has its goal to become an Oleochemicals and Biochemicals Industry leader.

1.) [Become a leading Oleochemicals Company in the Region](#)

Maintain leadership position in Methyl Ester and Fatty Alcohols production both in domestic and in the Region, which includes the ability to continuously establish healthy EBITDA margin and competitiveness in Oleochemicals Industry

2) [Green Flagship Company for PTTGC Group](#)

GGC committed to become a global prominent player in Oleochemicals Industry, dividing its business into three business groups: Biochemicals, Biofuel, and Bioplastics.

3) [Continuously pursuing operational excellences to improve profitability](#)

The Company committed to expand its business. GGC plans increase revenue growth through enhancing the current plant efficiency, expanding capacity with green-filled project, increasing market share and sales revenue, emphasizing on high value products, and developing new products.

# Operating Strategies

GGC's business directions and strategic plans emphasize on establishing and maintaining competitiveness, establishing sustainable growth in the biochemical business, and organizational development to encourage future growth plans achievement both short-term and long-term goals which has executed the key strategies as follows:

1

## Maintaining and Growing Competitiveness

To maintain and grow its competitiveness from current platform, GGC emphasizes productivity through the improvement of operational and marketing excellence.



2

## Green Growth

GGC has recognized the pursuit of investment or business opportunities (organic and emerging) with comprising growth and returns through investment with business partners and organic-growth investment to strengthen its business, as described below.

- **Strengthen its core business through investment**

- **Move towards Oleospecialties :**

GGC is also pursuing ways to grow its current oleochemical business and achieve high-value downstream specialty products along with product diversity.

- **Establish Biocomplex :**

GGC strives to access knowledge and technology, while getting poised for long-term oleochemical

business growth through bioplastics or biochemical products, or both, which has aligned on Public Policy for project establishment.

- **Readiness for Green Growth :**

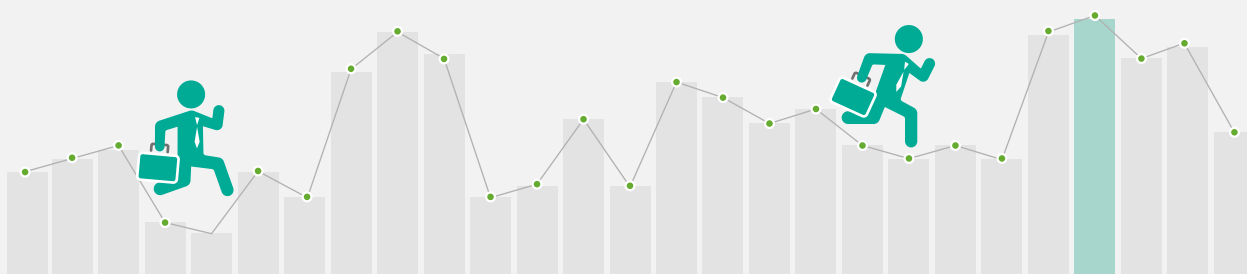
For the optimization business, GGC has defined key preparation approaches: market development, organization & stakeholder readiness, and product branding.



3

## Strategy for Capability Buildup

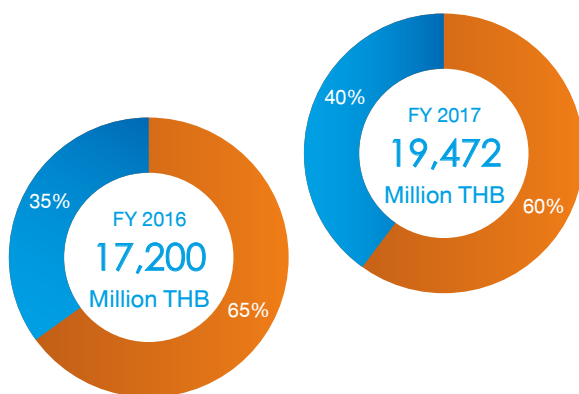
This strategy focuses on the strengthening of internal drivers to align with and support efficient execution of GGC's key strategies through capability development across the corporation and efficient business management in response to corporate business plans and future business environmental factors: innovation R&D, upgrading of corporate capability and personnel capacity, and forging of confidence in the quality of transparent organization administration.



## Key Financial Highlights

### Sales Revenue

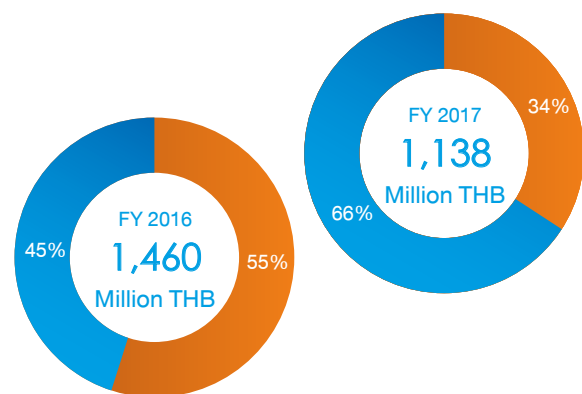
(Unit: Million THB)



● Methyl Ester ● Fatty Alcohols

### EBITDA<sup>(1)</sup>

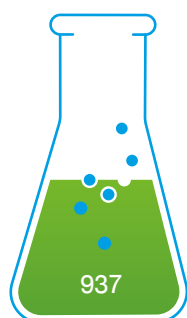
(Unit: Million THB)



● Methyl Ester ● Fatty Alcohols

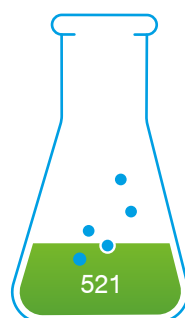
### Net Profit

FY 2016



1.27

FY 2017



0.56

● Net Profit  
(THB / Share)

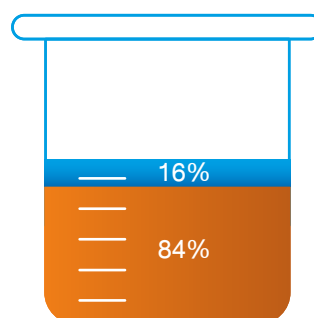
● Earning per Share  
(THB / Share)

### Adjusted EBITDA<sup>(2)</sup> Breakdown

by Business Group

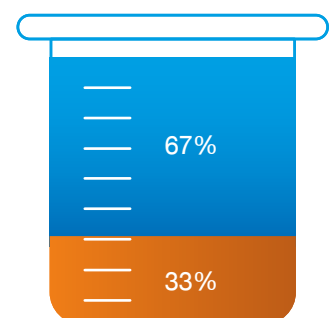
(Unit: Million THB)

FY 2016



1,104

FY 2017



1,802

● Methyl Ester ● Fatty Alcohols

Statement of Financial Position (Unit : Million THB)	FY 2015	FY 2016	FY 2017
<b>Total Assets</b>	<b>10,408</b>	<b>11,631</b>	<b>14,535</b>
Cash, Cash-equivalent and Short-term Investment	1,038	528	2,422
Other Current Assets	31	62	46
PP&E	4,520	4,166	4,706
Non-current Assets	5,292	4,985	5,572
<b>Total Liabilities</b>	<b>1,350</b>	<b>3,708</b>	<b>3,462</b>
Interest Bearing Debt	833	2,689	2,400
Other Liabilities	517	1,019	1,062
<b>Total Equities</b>	<b>9,058</b>	<b>7,923</b>	<b>11,073</b>

Financial Ratios	FY 2016	FY 2017
Current Ratio (times)	5.2	6.9
EBITDA to Total Revenues (%)	8.5	5.8
Net Profit on Total Revenues (%)	5.6	2.7
Return on Total Assets (%)	8.7	4.0
Return on Equity (times)	11.3	5.5
Debt to Equity (times)	0.5	0.3
Net Interest Bearing Debt to Equity (times)	0.3	0.2
Net Interest Bearing Debt to EBITDA (times)	1.8	2.1

Dividend Paid (THB/Share)		EPS	Dividend Payout Ratio
Year	Full Year	(THB/Share)	(%)
FY 2015 <sup>(3)</sup>	0.55	1.09	50.4
FY 2016 <sup>(3)</sup>	1.70	1.27	134
FY 2017 <sup>(4)</sup>	0.35	0.56	69

Note :

(1) EBITDA refers to earnings before Interest, tax, depreciation, and amortization

(2) Adjusted EBITDA refers to EBITDA excluding impact of inventory of Stock Gain/Loss and NRV

(3) The dividend paid in 2015 and 2016 were the case prior listed in the Stock Exchange of Thailand

(4) The Board of Directors at its meeting No 2/2018 held on February 14, 2018 has approved the proposal to propose at the 2018 Annual General Meeting of Shareholders to consider and approve on the dividend payment for year 2017 operating performance of THB 0.35 per share or 69% of the net profit, of which THB 0.15 per share was paid as an interim dividend on September 7, 2017. The final dividend payment will be THB 0.20 per share, but the right to receive dividend is subject to the approval of shareholders at the 2018 Annual General Meeting.



Prime Minister's Industry Awards 2015  
Energy Management



Prime Minister's Industry Awards 2016  
Safety Management



Prime Minister's Industry Awards 2017  
Quality Management





## Awards and Recognitions in 2017

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### The Awards and Recognitions of GGC in 2017

In addition to driving its business operation with commitment and readiness to propel the Thai economy on maximizing capacity, GGC has been striving to maintain all its operating standards, with awards and certifications to confirm a business qualification in 2017's as follow:

”



2017 Prime Minister's Industry Award (Quality Management), presented by the Ministry of Industry



2017 Environmental and Safety Governance Banner (White Banner, Green Star) Award, presented by the Industrial Estate Authority of Thailand



2017 Thailand Oleochemical Company of the Year, presented by Frost & Sullivan



2017 Green Industry Award (Level 5), presented by the Ministry of Industry



2017 CSR-DIW Continuous Award, presented by the Department of Industrial Works



2017 Outstanding National Operator (Safety, Occupational Health, and Work Environment), Gold Level, presented by the Department of Labour Protection and Welfare, Ministry of Labour



CEO Halal Award 2017 presented by the Rayong Islamic Committee Office



Zero Unplanned Shutdown 2017 Award, presented by PTT Plc



2017 PTT Group SSHE Award, presented by PTT Plc



2017 Zero Recordable Injury Operation Phase Award, presented by PTT Global Chemical Plc

Moreover, in 2017, GGC also won membership certification by the United Nations Global Compact of the United Nations, reflecting its awareness of the significance of corporate citizenship for businesses that could positively and negatively impact the world. It also entered into agreement of the 10 international principles.

GGC announced its intention to join CAC on May 11, 2017. Currently, it is still in certification process to be a member of CAC.

All these awards represent GGC's earnest aspiration to do business with "Professional, Green, and Sustainability".

## Milestones of 2017



23 January 2017

### January 23, 2017 : Signing of an agreement on Bioeconomy

This project came under the New S-Curve element of the “San Phalang Pracharath” (Collaborative Efforts to Establish the Bioeconomy within PPP Synergy Project on the Development of the Future Industrial Cluster) project featuring the public sector, the private sector, and educational institutions and designed to jointly develop bio-based industries into a Thailand 4.0 model. Beginning with the sugarcane-based and cassava-based industries, the undertaking forges diverse value addition throughout the value chain with biorefinery processes. Products would range from Bioenergy, Biochemicals, future nutrition, functional food ingredient, to medicine and advanced vaccine (biopharmaceuticals).



5 April 2017

### April 5, 2017 : Signing of an agreement on EECi (Eastern Economic Corridor of Innovation)

This collaboration upgrades the Eastern Economic Corridor with technology and innovation of the public sector, the private sector, and educational institutions. It aims to promote 10 target industries to drive the New Engine of Growth under the government's goals. To elaborate, EECi will be a hub of high-standard analytical efforts, construction of infrastructure to expand research to real-life application, and innovation R&D for real-life application.



27 April 2017

### April 27, 2017 : Foundation stone-laying of the second Methyl Ester Plant

GGC's second Methyl Ester Plant's foundation stone-laying ceremony took place at the Thai Eastern Industrial Zone in Chon Buri province, presided over by Gen. Anantaporn Kanchanarat, Minister of Energy.

### April 28, 2017 : Signing of a project promoting biodiesel consumption

With the Department of Alternative Energy Development and Efficiency, GGC participated in the signing of a project promoting biodiesel consumption.

**May 2, 2017 : First Trading Day in SET**

With a registered capital of THB 10,483,333,000, made up of 1,048,333,300 common shares priced at THB 10 per share, GGC became a SET-listed company.

**June 2, 2017 : Sale of 37 million common shares at THB 10 per share to overallotment agents**

GGC sold 37 million common recapitalization shares priced at THB 10 per share to overallotment agents to exercise the greenshoe option and return the shares to PTTGC. GGC later upped the recapitalization shares by THB 370 million, bringing its total paid-up capital to THB 10,236,667,000, of which 1,023,666,700 shares had been sold at THB 10 per share. As a result, GGC was 72.29% owned by PTTGC, with the rest of the shares (27.71%) offered to the public.

**June 21, 2017 : TBCSD membership**

GGC became a certified TBCSD (Thailand Business Council for Sustainable Development) member.

**August 1, 2017 : Signing of a research collaboration project**

With KTIS Research and Development Co., Ltd. (an affiliate of the KTIS Group), GGC participated in the signing of an academic collaboration agreement on KTIS's R&D collaboration approach.

**August 23, 2017 : Acceptance of outstanding industry award**

GGC accepted a Prime Minister's Industry Award (PM Award) for 2017 in recognition of its quality management, sponsored by the Ministry of Industry, with PM Gen. Prayuth Chan-o-cha presiding over the Outstanding Industry Award this year.



28 April 2017



2 May 2017



1 August 2017



23 August 2017

## Message from the Chairman



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Challenged by a world swiftly moving into a “New Normal”, with impacts felt across the global and domestic economy, society, and environment, all sectors have felt the need to turn crises into opportunities. Thailand is marvelously blessed with variety of natural product strengths: biodiversity and rich agricultural produce, including sugarcane, cassava, and oil palm. Such strengths have led to competitiveness in biochemicals and

oleochemicals business. This is why Global Green Chemicals Plc (GGC) is determined to drive its business towards success on the basis of a sustainable economy and society.

We took a crucial step over the last decade with our pioneering role in the Thai oleochemical business before our initial public offering this year as the green flagship of PTT Global Chemical Plc to such a warm welcome by investors, under the vision to be a leading green chemical company by creating sustainable value. Despite volatile business circumstances fraught with external factors beyond our control, including feedstock gluts, the El Nino phenomenon, and a volatile global economy, GGC has managed to overcome all obstacles, landing attractive profits for the corporation. Armed with its corporate vision and strategies, GGC is bound for sustainable strength, which will enable it to thrive.

Our future directions in parallel with its strategic plan for sustainability rely on five key strategies: competitiveness, marketing excellence, innovation, green growth, and capability buildup. Our three business targets are bioenergy, biochemicals and bioplastics, and oleochemicals. These targets will enable GGC to stand firm as a corporation of excellence.

On the national stage, GGC plays a significant role in driving the national economy through its part in the public-private panel supporting the public sector in driving the national Bioeconomy Project and in the workforce on the New S-Curve under the Pracharath (people-state) synergistic project together with the support to the EECi (Eastern Economic Corridor of Innovation)—domestic and international networking opportunities for R&D together with innovation and an opportunity for extending into future investment cooperation. This indicates its integral role of collaboration between the public sector, the private sector, and the civil sector towards Thailand 4.0, driven by science, technology, and innovation.

On the international side, we focus on economic and social excellence. **In 2017, GGC has been certified to be a member of United Nations Global Compact (UNGC)**, showcasing our awareness of the significance of corporate citizenship. GGC has also earned other acclaims and certifications from domestic public and private agencies.

GGC is ready to assert the Thai biochemical leadership that is on a par with international peers. We pledge to create good things for Thais with “Professional, Green and Sustainability”.

Finally, today's success has been made possible by excellent support from the shareholders, investors, government agencies, the private sector, communities, society, and all stakeholders. On behalf of the Board of Directors, the management, and all GGC employees, may I express my heartfelt appreciation and look forward to more of such wonderful support in years to come.



**(Mr. Supattanapong Punmeechaow)**

Chairman





## Business Highlights



# Business Flowchart

Feedstock / Raw Material

Intermediate Product

Crude Palm Oil

Methyl Ester

Crude Palm Kernel Oil

Fatty Alcohols

Ethylene Oxide

Refined Glycerine

GGC products    TEX products    Products with promising businesses





Downstream Product

Industry



• Automotive Fuel



Specialty Oleochemicals



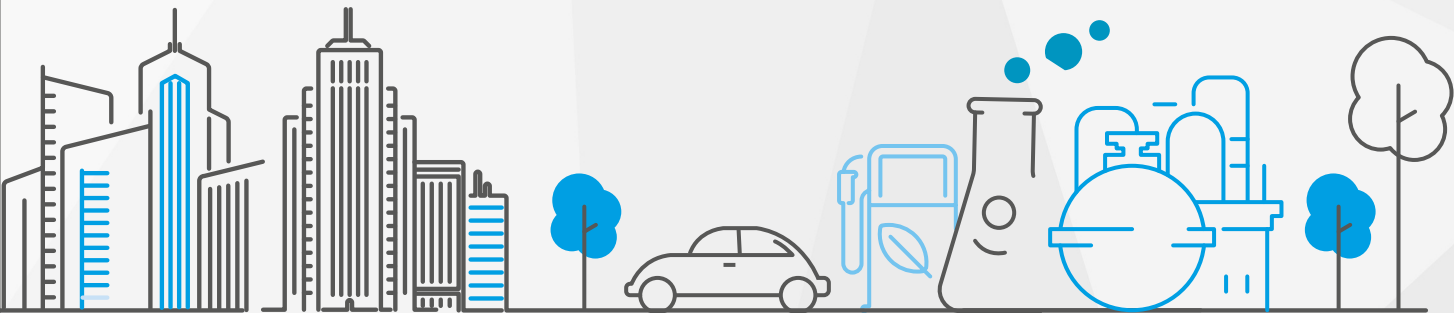
• Personal Care Products



Fatty Alcohol Ethoxylates



• Pharmaceutical  
• Personal Care Products



# Nature of Business and Performance

## Revenue Structure

Income is generated from selling goods consisting of Methyl Ester, Fatty Alcohols, and Refined Glycerine as well as by-products including Crude Glycerine, Yellow Glycerine, Potassium Sulfate, Methyl Ester Residues, and Fatty Alcohol Residues and, from selling raw materials mainly, Crude Palm Oil.

Revenue generated from individual products each year is described below:

For year ended December 31

Year	2015		2016		2017	
	Revenue from product sales	% of total revenue	Revenue from product sales	% of total revenue	Revenue from product sales	% of total revenue
Product	(million Baht, except percentage ratio)					
Methyl Ester	8,239.1	56.7%	10,257.0	59.6%	9,825.6	50.5%
Fatty Alcohols	5,080.0	34.9%	5,640.5	32.8%	6,792.6	34.9%
Refined Glycerine	592.6	4.1%	560.5	3.3%	881.0	4.5%
Others <sup>(1)</sup>	630.5	4.3%	742.1	4.3%	1,973.3	10.1%
Total	14,542.2	100%	17,200.1	100%	19,472.3	100.0%

<sup>(1)</sup> Mainly included Crude Glycerine, Yellow Glycerine, Potassium Sulfate, Methyl Ester Residues, Fatty Alcohol Residues and income from sales of raw materials.



1

## Methyl Ester

### Nature of Product

Methyl Ester (B100) is a range of environmentally friendly basic oleochemicals used as a blending agent in high-speed diesel fuel which so called biodiesel that meets the European standard (EN14214). Methyl Ester enhances diesel fuel performance by not only lubricating but also promoting efficient combustion, resulting in extended engine life. Moreover, it reduces pollution or environmental impacts.

GGC owns a commercially operated factory with an installed Methyl Ester capacity of 300,000 TPA.



### Markets and Competition

#### Policy and nature of markets

Methyl ester is sold to those who produce and blend high-speed diesel. Most of them are domestic customers. Sales agreements are signed between GGC and the customers for specific periods.

### Product and Service Procurement

Palm oil is a main raw material for Methyl Ester. The Company mainly procures local palm oil to promote domestic agriculture and downstream industry.

2

## Fatty Alcohols

### Nature of Product

Fatty Alcohols are environmental friendly basic oleochemicals leading up to the personal care industry. They are key ingredients of several industries including surfactants, plasticizers, solvents, fragrances, cleaning agents, foam stabilizers, lubricants, intermediate substances that reduce electrostatic in textile industries, cosmetics ingredients, colorant compounds, leather coating agents, and ink.

### Markets and Competition

#### Policy and nature of markets

Thai Fatty Alcohols Co., Ltd. (TFA) sells Fatty Alcohols to Thai Ethoxylate Co., Ltd. (TEX), a key domestic customers, and oversea customers, including Asia, Europe, South Africa, and South America. The key customers are consumers' of product manufacturers, oleochemicals industries, as well as traders and distributors.

### Product and Service Procurement

Crude palm kernel oil is a main raw material for Fatty Alcohols of GGC and TFA. The company mainly procures palm oil from local producers to promote domestic agriculture and downstream industries. In certain periods, GGC and TFA had to import crude palm kernel oil or coconut oil from Malaysia and Indonesia due to insufficient raw material from local producer. Nevertheless, procurement priority is given to local raw materials.



GGC owns a commercially operated factory in with an installed Fatty Alcohols capacity of 100,000 TPA

## 3

### Glycerine

#### Nature of product

A by-product of Methyl Ester and Fatty Alcohols, Glycerine is used in pharmaceutical, food and personal care product industries.



GGC owns a commercially operated factory with an installed Glycerine capacity of 31,000 TPA.

#### Markets and Competition

##### Policy and nature of markets

GGC sells Refined Glycerine to health and personal care product manufacturers and suppliers, both local and overseas, mainly through distributors. GGC also signed sales agreements with local and international medical supplies (Multinational Corporation: MNC) and personal care manufacturers, and major pharmaceutical manufacturers in South Asia. Epichlorohydrine manufacturers also purchase Glycerine directly from GGC.

#### Product and Service Procurement

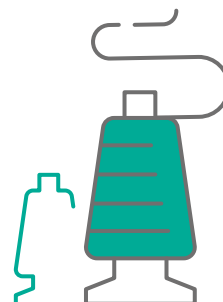
Glycerine is a by-product of Methyl Ester and Fatty Alcohols.

## 4

## Fatty Alcohol Ethoxylates

### Nature of Product

Fatty Alcohol Ethoxylates are derived from Ethylene Oxide (EO) and Fatty Alcohols, Fatty Alcohol Ethoxylate product sale through Thai Ethoxylate Company Limited (TEX). Fatty Alcohol Ethoxylates are key ingredients of home and personal care products, including shampoos, dishwashing solutions, and cleaning agents. In addition, Fatty Alcohol Ethoxylates find application in textile manufacturing as a scouring and softening agent in the final process of fiber preparation.



### Markets and Competition

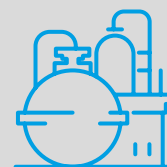
#### Policy and nature of markets

TEX plans to maintain and raise the domestic market share of Fatty Alcohol Ethoxylates while exporting mainly to Southeast Asia, where Personal Care and Home Care product manufacturing bases are located. Nevertheless, TEX expands its markets to other regions with good returns, including South Asia, the Middle East, and Africa.

### Product and Service Procurement

Fatty Alcohols and Ethylene Oxide are basic raw materials for Fatty Alcohol Ethoxylates. TEX receives Fatty Alcohols sent to its factory through pipeline from TFA's factory and partly imports, but purchases Ethylene Oxide from TOC Glycol Company Limited, a Subsidiary of PTTGC Group, under a long-term sales agreement.

TEX owns a commercially operated factory with an installed Fatty Alcohol Ethoxylate capacity of 124,000 TPA.



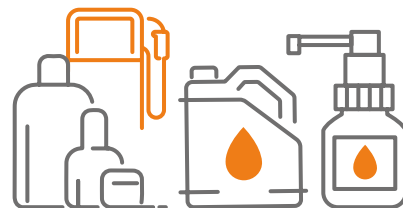
## Markets Overview and Trends

### Markets Overview

The Methyl Ester markets in 2017 is an improvement from the previous year. Though the government implemented its B5 policy at the expense of B7 to balance local palm oil markets in early 2017, the B7 policy was enforceable again on May 8, 2017 after the situation became better. Besides, the domestic stock of palm oil was climbing, causing the government to consequently request biodiesel producers to raise their reserves of Methyl Ester to valorize domestic palm oil. Methyl Ester demand forecast for 2017 was 1.24 million tons, 0.2 million tons or a 17% increase, while its price dropped due to the crude palm oil price weakening to about THB 33,248 per ton.

### Methyl Ester Markets

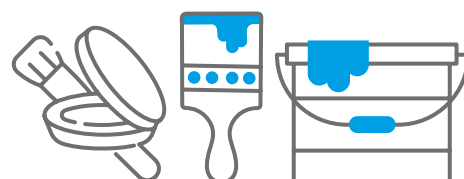
In 2018, Methyl Ester demand is expected to improve because the government will possibly enforce its B7 policy through the year to release the domestic Crude Palm Oil stock, which is around 400,000 tons in 2017. Since the demand for Biodiesel should continue to increase, it is anticipated that the demand for Methyl Ester in 2018 will reach higher, while the price of Methyl Ester would be lower than the previous year.



In the first half of 2017, Natural Fatty Alcohols markets were highly competitive to raise market shares under weaker demand. Because of the uncertainty of Palm Kernel Oil prices and the price competitiveness of Synthetic Fatty Alcohols as crude oil prices dropped, some users switched their formulas to use Synthetic Fatty Alcohols rather than Natural Fatty Alcohols. After the prices of Palm Kernel Oil and Natural Fatty Alcohols were in balance amid tight supply, the buyers returned to the markets. The average price of Natural Fatty Alcohols rose to about US\$1,937 per ton, following the Palm Kernel Oil price rise from the previous year.

### Fatty Alcohols Markets

In 2018, the demand for Natural Fatty Alcohols looks to stabilize from 2017, since customers continue to purchase them because Synthetic Fatty Alcohols cost more and supply looks tight. In addition, some producers will likely become purchasers when they are unable to procure Crude Palm Kernel Oil at appropriate prices. The Natural Fatty Alcohols price forecast in 2018 is expected to be lower than 2017 due to the weakening crude palm kernel oil price.



## Markets Overview

The Refined Glycerine market in 2017 improved from 2016 as a result of the recovery of Epichlorohydrine (ECH) manufacturing. Since Biodiesel and Oleochemicals plants worldwide lowered their capacities because Fluctuate Palm Oil prices had affected production costs, Glycerine supply dropped. The average price of Refined Glycerine climbed 48% from last year to about US\$ 821 per ton following higher demand.



## Markets Trends

### Glycerine Markets

In 2018, the domestic Refined Glycerine markets will be highly competitive, as domestic Biodiesel markets expand, resulting in more Refined Glycerine from production processes. International markets will also be highly competitive, as the EU's resolution to ease the tariff wall for Biodiesel from Argentina, a major producer in Latin America, from 22-25.7% to 4.5-8.1%, so the price of Refined Glycerine as by-product could climb. Therefore, the average refined Glycerine price may weaken from 2017.

In 2017, Fatty Alcohol Ethoxylates continuously grew 5-6% on average as a result of personal and home care products' industrial expansion in Southeast Asia. External factors include currency fluctuation in this region against the US dollar and the price of Natural Fatty Alcohols, a basic raw material, changing more than 45% this year. Also, the challenge of markets decelerating in South Asia due to Indian tax restructuring, directly impacted the costs of goods.

### Fatty Alcohol Ethoxylates Markets

As a whole, in 2018, Fatty Alcohol Ethoxylates markets can expect growth of no less than the average rates of target markets. For instance, personal and home care industries, which grow by an average of 5-6% despite challenge from external factors. Costs of goods could become volatile, and future markets prices will be difficult to forecast. These fluctuations lead to aggravating competition, especially as a new manufacturer in Indonesia enters the markets and quickly acquires market shares.



# Management's Discussion and Analysis

## Executive Summary

In 2017, palm oil production in domestic and international market had improved since recovery from drought causing by El Nino effect in 2016. As palm oil inventory remained high, crude palm oil (CPO) price continuously declined, as well as crude palm kernel oil (CPKO) price decreased. In 2017, the Thai government biodiesel mandate was set to B5 and B7, which increased from B3, B5 and B7 in previous year. Fatty Alcohols(FA) market in 2017 had improved from previous year, driven by demand for Natural FA since its price could compete to Synthetic FA price.

Based on market situation as above, the Global Green Chemicals Public Limited ("GGC" or "the Company") operated at a full utilization, which resulted to FY17 Methyl Ester sales volume of 344,173 tons, increased from FY16 sales volume of 281,688 tons, or rose by 22%. FY17 FA sales volume was posted 111,152 tons, grew from FY16 sales volume of 100,140 ton, or increased by 11%.

The Company reported FY17 sales revenue of THB 19,472 million (up 13%yoy), while the Company showed FY17 EBITDA of THB 1,138 million (down 22%yoy). In addition, GGC has recognized profit of THB 88 million from Thai Ethoxylate Co. Ltd., (TEX) a subsidiary of GGC, producing Fatty Alcohol Ethoxylates (Derivative

product of FA). As a result, the GGC announced net profit for FY17 of THB 521 million (down 44%yoy), attributed to the lower profitability of Methyl Ester due to the lower feedstock price discount when the CPO price was weak and the impact from the appreciation of the THB, in which the THB was appreciated from 35.9 THB/USD at the beginning of 2017 to 32.5 THB/USD at the end of the year or 10% appreciation.

Nevertheless, GGC's financial position for the year ended 2017 remains strong, with total asset of THB 14,535 million which comprised of cash and short-term investment amounted to THB 4,122 million; with total liabilities of THB 3,462 million; with total equities of THB 11,073 million.



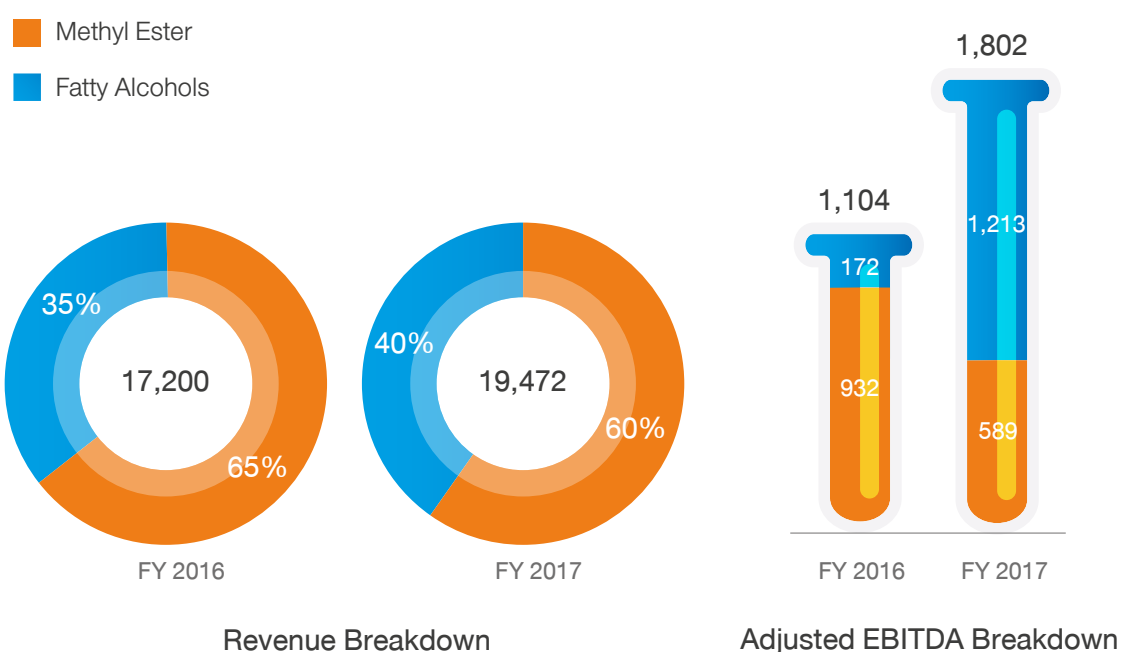
## Operating Performance

**Table 1 : Consolidated Performance FY2016 vs. FY2017 (Unit: Million THB)**

Consolidated Performance	FY 2016	FY 2017	YoY
Sales Revenue	17,200	19,472	13%
EBITDA	1,460	1,138	-22%
EBITDA Margin (%)	8.5%	5.8%	-3%
Net Profit	937	521	-44%
EPS (THB/Share)	1.27	0.56	-56%
Stockgain/(Loss) & NRV	356	-664	-286%
Adjusted EBITDA <sup>(1)</sup>	1,104	1,802	63%
Adjusted EBITDA Margin (%)	6.4%	9.3%	3%

Note : (1) Adjusted EBITDA refers to EBITDA excluding impact of stock gain/(Loss) and NRV

**Table 2 : Sales Revenue Breakdown and Adjusted EBITDA Breakdown By Business Unit FY 2016 vs. FY 2017 (Unit: Million THB)**



## Market Overview of Major Products

### Market Overview of Methyl Ester (ME or B100)

**Table 3: Product and Feedstocks' prices (Unit: THB per kg)**

Average Price	FY 2016	FY 2017	YoY
Methyl Ester (B100) (THB per litre) <sup>(1)</sup>	35.09	28.76	-18%
Crude Palm Oil (CPO) <sup>(2)</sup>	31.95	24.88	-22%
Market P2F of Methyl Ester (B100) <sup>(3)</sup>	4.41	4.96	12%
Biodiesel Mandate	B3, B5, B7	B5, B7	

Note : (1) Reference Price of EPPO

(2) Reference Price of DIT

(3) Market ME Price – Mixed Feedstock according to EPPO's B100 formula

In 2017, domestic crude palm oil prices (CPO-DIT) had been on a downward trend. FY 17 CPO-DIT price was at 24.88 THB/kg, declined by 7.07 THB/kg (down 22%YoY) from previous year, mainly due to Thailand palm oil inventory level recovery from drought effect in FY 16. The average palm oil inventory was seen higher than previous year by 162,753 tons to 405,560 tons (up 67%yoy) this year. Similarly, FY 17 ME demand were 1.2 million tons, growing from prior year by 0.2 million tons (up 17%yoy). Such demand growth was driven by government biodiesel mandate. The FY 17 mandate was set at B5 at the beginning of the year

and was raised to B7 on May 8, 2017, while FY 16 mandate was reduced from B7 to B5 on July 25, 2016 and adjusted down to B3 on August 25, 2016 before lifted back to B5 on November 25, 2016 in order to maintain price equilibrium of domestic CPO prices. In FY 17 ME EPPO price was fallen following CPO-DIT prices dropped to 28.76 THB/litre (down 18% YoY).

FY 17 ME EPPO P2F (the spread between ME and feedstock prices as per EPPO announce formula) was seen higher by 12%yoy to 4.96 THB/kg from 4.41 THB/kg in FY 16.

## Market Overview of Fatty Alcohols

**Table 4 : Product and Feedstocks' prices (Unit: USD per ton)**

Average Price	FY 2016	FY 2017	YoY
Fatty Alcohols Short Chain <sup>(1)</sup>	3,533	3,363	-5%
Fatty Alcohols Mid Cut <sup>(1)</sup>	1,778	2,074	17%
Fatty Alcohols Long Chain <sup>(1)</sup>	1,248	1,401	12%
Fatty Alcohols Mixed Chains <sup>(1)(2)</sup>	1,759	1,975	12%
Crude Palm Kernel Oil (CPKO) <sup>(3)</sup>	1,299	1,244	-4%
Market P2F Fatty Alcohols	201	483	140%

Note: (1) Reference Price of ICIS

(2) Average price of Fatty Alcohols with production proportion: Short Chain 8% Mid Cut 62% and Long Chain 30%

(3) Reference Price of Malaysian Palm Oil Board (MPOB)

In 2017, average CPKO-MPOB was at 1,244 USD/ton, decreased from prior year by 55 USD/ton or 4%. The primary cause was from global palm oil inventory recovery after El Nino effect in 2016. Overall, demand for Natural FA improved from previous year as price trended towards to equilibrium condition where price of Natural FA could be competitive to Synthetic FA.

Moreover, Natural FA supply was relatively tight as Brazil producers and many Chinese producers have reduced their production, since they were affected by the volatility of CPKO prices. Based on market situation mentioned as above, FY17 FA Market P2F grew yoy to 483 USD/ton.



## Operating Performance by Business Unit FY 2017 vs. FY 2016

### Performance Analysis for Methyl Ester Business (ME) Unit

**Table 5 : Operating Performance of Methyl Ester (ME) Business Unit**

	FY 2016	FY 2017	YoY
Plant Utilization Rate (%) <sup>(1)</sup>	82%	101%	19%
Sales Volume (Tons) <sup>(2)</sup>	281,688	344,173	22%
Sales Volume (Million Litres)	326	398	22%
Sales Revenue (Million THB)	11,111	11,659	5%
EBITDA (Million THB)	802	382	-52%
EBTDA Margin (%)	7.2%	3.3%	-3.9%
Stock Gain/(Loss) & NRV (Million THB)	-130	-206	58%
Adjusted EBITDA (Million THB) <sup>(3)</sup>	932	589	-37%
Adjusted EBITDA Margin (%)	8.4%	5.0%	-3.3%

Note: (1) Nameplate Capacity 300,000 Tons per year

(2) Conversion unit table: 0.865 Tons is approximately equal to 1,000 Litres

(3) Adjusted EBITDA refers to EBITDA excluding impact of stock Gain/(Loss) and NRV

FY17 ME revenue was relatively flat, amounted to THB 11,659 million (up 5%YoY). Though GGC accomplished 22% ME sales volume higher than that of previous year, GGC's revenue was pressured from the weakness in ME EPPO prices (following the soften of CPO-DIT price). Larger sales volume in 2017 was supported from higher biodiesel mandate and from government

special request for private sector to stock crude palm oil and biodiesel. Nonetheless, the company's revenue slightly increased, which benefited from higher revenue from byproducts and other income. As a result, EBITDA and Adjusted EBITDA were declined to THB 382 million (down 52%yoy) and THB 589 million (down 37%YoY), respectively.

## Operating Performance Analysis for Fatty Alcohols (FA) Business Unit

**Table 6 : Operating Performance of Fatty Alcohols (FA) Business Unit**

	FY 2016	FY 2017	YoY
Plant Utilization Rate (%)	98%	112%	14%
Sales Volume (Tons)	100,140	111,152	11%
Sales Revenue (Million THB)	6,089	7,813	28%
EBITDA (Million THB)	658	755	15%
EBITDA Margin (%)	10.8%	9.7%	-1.1%
Stock Gain/(Loss) & NRV (Million THB)	486	-458	-194%
Adjusted EBITDA (Million THB) <sup>(1)</sup>	172	1,213	605%
Adjusted EBITDA Margin (%)	2.8%	15.5%	12.7%

Note : (1) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV

FY 17 FA sales revenues was posted THB 7,813 million (up 28%YoY), attributed to sales volume of growth of 11% (FY 17=111,152 tons) and higher market selling prices. In this period, demand for Long Chain Fatty Alcohols from Africa, Asia and South America was much higher than previous year as some producers have

reduced their production due to CPKO price volatility. Hence, FY 17 FA EBITDA was recorded at THB 755 million (up 15%yoy), while adjusted EBITDA was recorded at THB 1,213 million (up 605%YoY) as GGC recognized stock gain last year while recognized stock loss in 2017.



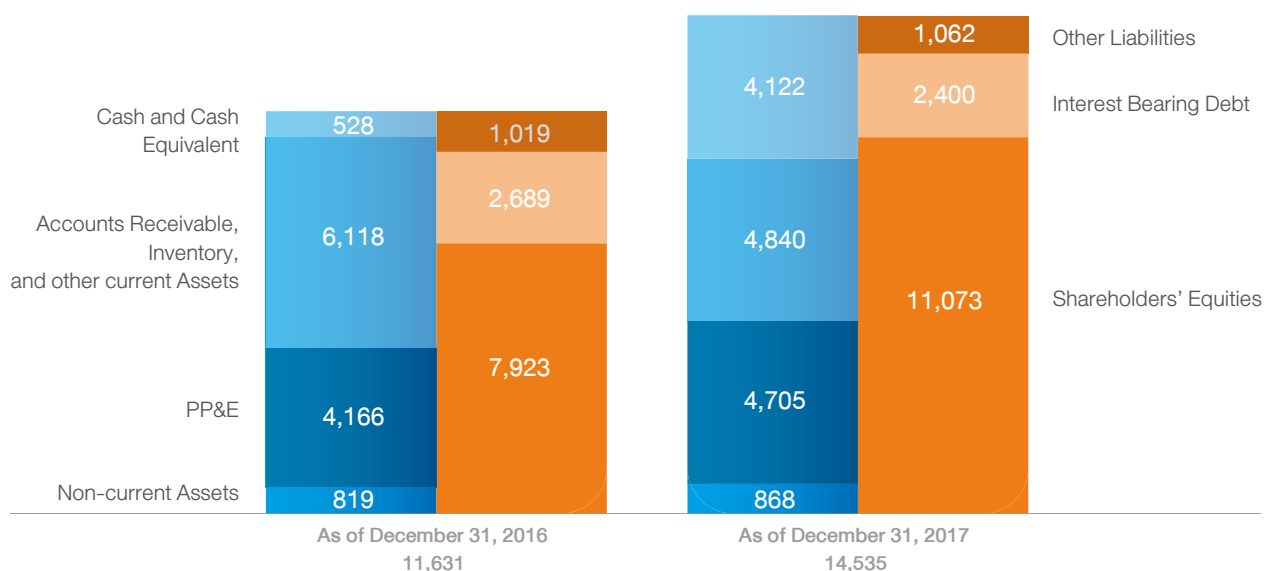
Table 7: Consolidated Operating Performance FY 2017 vs FY 2016

	FY 2016		FY 2017		YoY	
	Million THB	%	Million THB	%	Million THB	%
Sales Revenue	17,200	100	19,472	100	2,272	13
Feedstock	(13,936)	(81)	(15,131)	(78)	(1,195)	9
NRV	(0)	(0)	(2)	(0)	(2)	na.
Product to Feed Margin	3,264	19	4,339	22	1,075	33
Other Variable Costs	(1,403)	(8)	(1,693)	(9)	(290)	21
Fixed Costs	(522)	(3)	(555)	(3)	(33)	6
Stock Gain/(Loss)	356	2	(662)	(3)	(1,018)	(286)
SG&A	(283)	(2)	(342)	(2)	(59)	21
Other Incomes	48	0	52	0	3	7
EBITDA	1,460	8	1,138	6	(321)	(22)
Depreciation and Amortization	(545)	(3)	(564)	(3)	(20)	4
EBIT	915	5	574	3	(341)	(37)
Finance Costs	(60)	(0)	(57)	(0)	2	(4)
FX Gain/(Loss) <sup>(1)</sup>	33	0	(80)	(0)	(113)	(345)
Shares of Profit/(Loss) From Investment	104	1	87	0	(17)	(17)
Income Tax Expenses	(30)	(0)	(2)	(0)	28	(94)
Net Profit	962	6	521	3	(441)	(46)
Profit/(Loss) Attributable To						
Former Shareholder Before Business Restructuring	24	(0)	-	-	(24)	na.
Owners Of the Company	938	5	521	3	(416)	(44)
Adjusted EBITDA <sup>(2)</sup>	1,104	6	1,802	9	699	63

Note : (1) Including Gain/(Loss) from FX and Derivatives

(2) Adjusted EBITDA refers to EBITDA excluding impact of Stock Gain/(Loss) and NRV

## Statement of Financial Position (Unit: Million THB)



### Assets

As of December 31, 2017, the Company had total assets of THB 14,535 million, increased from December 31, 2016 by THB 2,904 million or 25% from details as follows: an increase of THB 3,056 million cash from IPO, an increase of THB 331 million from accounts receivable, a decrease of THB 1,596 million from lower inventory, and an increase of non-current asset of THB 900 million (mostly from Methyl Ester project plant 2) but there was depreciation of non-current assets of THB 499 million.

### Liabilities

As of December 31, 2017, the Company had total liabilities of THB 3,462 million, decreased from December 31, 2016 by THB 246 million or 7%, mainly attributable to THB 302 million lower account payable since the Company did not need to reserve inventory as last year there was the feedstock supply shortage from flood situation in the south of Thailand. However, the Company had higher account payable to construction of THB 201 million due to payable from construction of Methyl Ester 2. Moreover, the short-term loan was repaid THB 60 million, while long-term loan was repaid THB 231 million.

### Shareholders' Equities

As of December 31, 2017, the Company had total shareholders' equities of THB 11,073 million, increased from December 31, 2016 by THB 3,150 million or 40%. This increasing was contributed from newly issue of IPO share THB 3,056 million, FY 17 net profit of THB 521 million whereas there was the dividend payment of THB 259 million as per Annual General Meeting on March 21, 2017 resolution and the interim dividend payment of THB 154 million as the Board of Directors approved resolution on August 9, 2017.

### Statement of Cash Flows

As of December 31, 2017 the Company had cash from operating activities of THB 2,096 million which included 1) cash from net profit of THB 521 million, and non-cash adjustment and other operating activities of THB 1,575 million; 2) cash flow from investing activities of THB 2,464 million, which was spent to invest in bank deposit for THB 1,700 million, and THB 740 million for Methyl Ester project plant 2; and 3) cash Flow from financing activities of THB 2,264 million, which was cash received from IPO, deducting with short-term loan and long-term loan repayment, and dividend payment.

## Key Financial Ratios

Financial Ratios	FY 2016	FY 2017
Current Ratio (times)	5.2	6.9
EBITDA to Sales revenue (%)	8.5	5.8
Net Profit to Sales revenue (%)	5.6	2.7
Return on Total assets (%)	8.7	4.0
Return on Equity (%)	11.3	5.5
Debt to Equity (times)	0.5	0.3
Interest Bearing Debt to Equity (times)	0.3	0.2
Interest Bearing Debt to EBITDA (times)	1.8	2.1

Note:

Current Ratio	=	Current assets divided by current liabilities
EBITDA to Sales revenue	=	EBITDA divided by sales revenue
Net Profit to Sales revenue	=	Net profit divided by sales revenue
Return on Total assets	=	Net profit divided by average total assets
Return on Equity	=	Net profit divided by average equities attributable to owners of the company
Debt to Equity	=	Total debt divided by shareholders' equities
Interest Bearing Debt to equity	=	Interest bearing debt divided by shareholders' equities
Interest Bearing Debt to EBITDA	=	Interest bearing debt divided by EBITDA



## Projects Progress

In 2017, the company had projects on progress and projects under studying as follows:

### Methyl Ester Plant 2 Project

Methyl Ester Plant 2 Project is a new Methyl Ester plant with a capacity of 200,000 tons per annum to capture significant growth opportunities in the biodiesel industry in Thailand. The project has been under construction since March 2017 and is expected to start commercial operation in Q3/2018. The new plant is located at Thai Eastern Industrial Land, Nong Yai District, Chonburi Province and the total capital expenditure will be approximately Baht 1,650 million.

### Kernel Nut Extraction Project

In order to secure our access to CPKO, we have entered into a joint venture with a partner, Eastern Palm Oil Company Limited, in which we hold a 30.0% of shares to develop a palm kernel oil extraction plant with a raw material capacity of 90,000 tons per annum since November 1st, 2016, which will process palm kernels into CPKO. In addition, the Kernel Nut Extraction Project is located in the same area of Methyl Ester Plant 2 Project. We believe this joint venture will enable us to secure CPKO at more competitive prices which should improve the profitability for our fatty alcohols.

We anticipate that the total investment costs for the proposed palm kernel oil extraction plant will be approximately Baht 380 million and plans to start commercial operation in Q1/2018.

### Refined Glycerine Plant 2 Project

Purpose of Refined Glycerine Plant 2 Project is expanding Glycerine business and to capture market growth of high volume industries, where the raw material of this project is Crude Glycerine from Methyl Ester Plant 2. Refined Glycerine is a product that is

applied to be a raw material or an additive in various industries. The new plant is expected to start commercial operation in Q2/2019 with a capacity of 20,000 tons per annum and the total capital expenditure will be approximately Baht 326.0 million.

### Biocomplex Project

Biocomplex Project is a collaboration project with Kaset Thai International Sugar Corporation Public Company Limited (KTIS) with objective to pursue expansion in three key green chemicals business areas, namely (i) biofuels, (ii) biochemicals and (iii) bioplastics by extracting values from sugarcane which is one of Thailand's most important agricultural crops. Those three business areas are identified as 10 New S-Curve industries which are consistent with Thai Government policy to develop Thailand's Bioeconomy through science and innovation in alignment with Thailand 4.0.

Biocomplex Project will be located in Nakorn Sawan Province, an area with abundant sugarcane feedstock in Thailand and will be developed in two phases. The first phase will consist of 4 sections including (i) Sugar mill plant with capacity of 2.4 million tons per annum (ii) Ethanol plant with capacity of 186 million litres per annum using sugar juice from sugar mill plant as feedstock (iii) cogeneration power plant for internal use with a potential to export excess capacity by using bagasse as feedstock (iv) infrastructure to support future operation of the Biocomplex phase 2. Overall investment of Biocomplex phase 1 is expected to be Baht 7,650 million entering into Joint Venture (JV) with 50:50 share between The company and KTIS.

Currently, EIA report proposed to Office of Natural Resources and Environmental Policy and Planning (ONEP) has already been approved. Also, Engineering Design and Contractor Evaluation have already completed.

# Risk Management and Risk Factors

## Risk Management

Committed to managing risks in all aspects efficiently with incessant enhancement of its enterprise risk management (ERM), Global Green Chemicals Public Company Limited (GGC) integrates its risk appetite assessment into the formulation of strategic, investment, and business planning processes. To further ensure the alignment of its business operations with corporate objectives and goals in the short, medium and long terms, GGC fully adheres to the risk management policy, frameworks, and guidelines approved by the Risk Management Committee and the Board of Directors, with constant monitoring and improvement to be compatible with the current and future business situations.

### Risk Management Standards

Besides conforming to the internationally recognized standards of COSO (The Committee of Sponsoring Organizations of the Treadway Commission) and ISO 31000 (International Organization for Standardization), GGC's enterprise risk management policy, structure, guidelines, and practices are fully aligned with its corporate governance policy and the declaration of its anti-corruption intent.

### Risk Management Structure

GGC efficiently manages its risks with full cooperation from all staff by structuring its risk management into three levels: the Board of Directors, Executives, and departmental levels. While its Risk Management Committee (RMC), appointed by the Board of Directors performs the duties of reviewing the risk management policy, objectives, and frameworks together with giving relevant opinions and recommendations to ensure enterprise-wide alignment, and compatibility with GGC's business goals and strategies.

Appointed Managing Director as the Chairman and consisting of Vice president from diverse department as members, GGC's Enterprise Risk Management Committee (ERMC) specifies GGC's risk management directions, work plans, scopes and processes, constantly gives relevant recommendations, and regularly oversees and monitors the management of risks.

At the departmental level, Corporate Risk Management, a unit under Corporate Strategy, and the Risk Owner of each department jointly perform risk identification and assessment, undertake risk management, and regularly prepare risk management reports for submission to the Risk Management Committee under GGC's risk management structure.

### Risk Management Tools and Monitoring

GGC efficiently manages its risks by analyzing and assessing all risks potentially affecting its business operations, generating Risk Maps, specifying Mitigation Plans, and applying Key Risk Indicators (KRIs) in its Early Warning System to monitor risk management. Risk management reports are submitted to the Executives monthly and to the Risk Management Committee and the Board of Directors regularly.

### Risk Management Culture

Recognizing the importance of forging an enterprise-wide culture of risk management as part of all employees' responsibilities, GGC undertakes the following actions:

- Specify risk management approaches via the risk management policy and scope, with regular communication to all employees.
- Constantly monitor the progress of risk management undertakings and report it to the Executives, the Risk Management Committee, and the Board of Directors.

- Regularly review and improve risk-management roles, duties, and responsibilities of all related persons.
- Foster among all employees the recognition and attentiveness to take responsibility in managing risks and complying with GGC's risk management policy and system at corporate and departmental levels.
- Provide all employees with risk-management knowledge and understanding via training by experts and integrate risk management into personnel development plans.



## Risk Factors

Based on the analysis of its business environment, internal factors, and external factors, GGC has identified major risk factors potentially hindering the achievement of its business operations, investments, and strategies, or all of these, in 2017. These risk factors are described below.

### Operation and Safety Risk

Focusing on production activities and safety, GGC applies the Operational Excellence Management System (OEMS) and Process Safety Management (PSM), with strict compliance with the policy on safety, security, occupational health, and the environment. In ensuring continual and efficient production with maximum safety, GGC has issued the following risk management measures:

#### Risk Management Measures

- To ensure continual production, GGC prepares spare parts for all major production equipment and installs emergency supply of electricity for power blackouts, with preventive maintenance services provided to equipment and machinery.
- Performing Reliability & Integrity Management on machinery, with inspection carried out by GGC's experts using the Asset Integrity Assessment (AIA) program.
- Assessing on the effectiveness of process safety undertakings and reliability & integrity management on machinery, performed by internationally recognized experts.
- Undertaking Risk and Reliability Management (RRM) by conducting Risk-Based Inspection (RBI), a process for the identification, assessing and mapping of industrial risks (due to the erosion and cracking of stresses), which may compromise pressurized equipment and structural components; and performing Reliability-Centered Maintenance (RCM) tasks, which will raise the reliability of assets, their availability, and the cost effectiveness of their maintenance, if correctly undertaken.
- Developing the knowledge and competency of operators and safety personnel, and forging via GGC's B-CAREs project, the awareness of safety in performing their work.
- Conducting a BCP (Business Continuity Plan) drill annually so that personnel know the steps to be taken during emergencies and assuring one that if such situations cause business disruption, GGC will be able to mitigate their impacts.

### Operations Strategy and Investment Risks

Changes in business environment may affect GGC's implementation of its strategies, investment, and business expansion. To ensure the achievement of its strategic goals while sustaining its competitiveness, GGC has defined the following risk management measures:

#### Risk Management Measures

- In ensuring efficient and profitable management of its capital investment and the conformity of all investment projects to its strategies, GGC appoints an Investment Committee to supervise and consider these projects, conducts reviews by departments unrelated to the operation of reviewed projects, and harmonizes clear guidelines for all departments.
- Employing a meticulous and clear procedure in the consideration of investment projects, covering the identification of investment opportunities, business formats, the feasibility-study stage, and project screening before submission to the Board of Directors for approval.
- Regarding the consideration of major capital-intensive projects, the Risk Management Committee is required to screen the adequacy of risk assessment and risk management measures before submission to the Board of Directors, with constant monitoring of the management of risks facing these projects.
- In seeking new investment opportunities in 2017, GGC took part in a working group under the joint committee between the public and private sectors to support the government's Bioeconomy implementation, the New S-Curve working group under the Public-Private Collaboration Project, and the cooperation to support the Eastern Economic Corridor of Innovation (EECi). These provided GGC with the opportunities to forge R&D and innovation networks, both locally and internationally, and strengthened the connections to undertake future joint investments.

### People and Organization Capability Risks

To achieve sustainable growth of GGC's environmental-friendly products in conformity to its long-term business strategy, GGC has prepared its human resources management to fully support its future growth by improving its organization structure and manpower planning processes with knowledge and competency development for personnel, while cultivating positive behaviors in line with the corporate values and culture.

#### Risk Management Measures

- GGC has a conceptual Plan to restructure the organization to be able to best respond to the current and future business strategies
- Establishing a committee to drive the growth program of GGC to study and achieve the business expansion, and to prepare and enhance capabilities in all aspects to handle the future business plan.
- Planning and managing its manpower for responding to its strategies and changes in business competition, focusing on the current management of its personnel to address potential changes, and the recruitment of personnel to strengthen GGC's new business products in line with its strategic plan
- Formulating and implementing development plans for all employees, including the management and supervisors, and organizing orientation for employees to ensure their understanding about GGC's business and operations
- Sending the management to attend the Leadership Development Program to enhance their knowledge and skills, while improving the management efficiency of personnel in their respective departments so that all personnel perform their work in line with GGC's business goals.
- Surveying employee satisfaction to improve the human resource management plan and maintain long-term relationship between employees and GGC. In 2017, GGC focused on the employee career opportunity and employee performance Assessment system.

- Devising Career Management system, an integral part of the personnel preparation and improvement strategies, to ensure that all employees will inform in line with GGC's business direction. The career management system will also drive and improve the potential employees to grow in their career path

### Feedstock Risk

Palm oil and palm kernel oil are the main feedstock for GGC's production processes. To maintain its competitiveness, GGC consistently acquires sufficient quantities of these materials at reasonable prices, while ensuring that their qualities meet international standards. Recognizing the need to manage its Feedstock Risks, GGC has defined the following measures:

### Risk Management Measures

- Devising the Inventory Risk Management frame work, consisting of feedstock and product, Based on market situation and monitoring the operation under the said framework regularly by the Risk Management Committee
- Monitoring the prices and supplies of palm oil and palm kernel oil, climate change, import and export volumes, including domestic and international demand and supply to forecast the volume of palm-oil production and stocks. Applying the projections for appropriate preparation of and inventory management.
- Procure suitable alternative feedstock to mitigate potential impacts of changing in prices of fundamental feedstock
- Collaborating with business partners commanding relevant expertise and networks of farmers in the areas designated for the promotion of oil-palm planting in Thailand so as to support sustainable practices for oil palm plantations in conformity with RSPO (Roundtable on Sustainable Palm oil) standard, to in turn ensure that GGC will be able to procure palm oil and palm kernel oil of the RSPO standard, thus bolstering customers' confidence on the standard of GGC's products.

### Sales and Market Risks

Sales prices of methyl ester, one of GGC's products, are referenced to the government's announced prices, based on the market prices of domestic feedstock, while the prices of fatty alcohols depend on a number of factors, for example, feedstock prices, domestic and global demand for fatty alcohols, and competitive factors, which include the prices of substitute products for natural fatty alcohols. The highly competitive market and economic volatility may also affect the prices and sales of GGC's products. To sustain its competitiveness, GGC has undertaken the following risk management measures:

### Risk Management Measures

- Continually monitoring feedstock prices, products, demand and supply, while considering an appropriate improvement to facilitate the use of alternative and low-cost feedstock in the production processes to maintain the spreads of GGC's products and feedstock prices. Reporting to the Risk Management Committee on a regular basis the management of risks arising from the volatility of product and feedstock prices.
- Conducting R&D and innovation on special or new grades of products to add value as required by customers, and extending its business to downstream industries to raise the profit margin ratios of GGC's products while serving market and customers' needs.
- Incessantly enhancing relationships with customers while focusing on constantly improving the quality of products and services to expand GGC's customer base and satisfy customers' needs.

### Policy and Regulatory Change Risk

GGC is well prepared for relevant changes in government policies, regulations and announcements. To ensure a timely response to these changes, which may affect its business positively or unfavorably, GGC has undertaken the following management measures:

### Risk Management Measures

- Monitoring the public sector's information and legal changes potentially affecting its business operations to correspondingly modify GGC policies and operations.
- Providing information to support the development of biochemicals industry and other industries related to the public sectors.
- Incorporating the assessment and study of laws, government regulations and privileges in conducting project feasibility studies and risk management for GGC's investment consideration.
- Announcing GGC's anti-corruption, anti-money laundering, and combating the financing of terrorism intents and guidelines, GGC joined the Private Sector Collective Action against Corruption (CAC), and conducted risk assessment on corrupt practices within GGC's activities in contact with government agencies.

### Cyber Security Risks

GGC's business operations relies on its IT system to ensure smooth coordination of all departments, while cyber attacks and IT-based threats have become more severe and appeared in more diverse forms. If any security violation or virus attack, or both, cause the system to malfunction or break down, GGC's business and reliability may be affected. To reduce such threats, GGC has undertaken the following risk management measures:

### Risk Management Measures

- Using IT services provided by PTT Digital Solution Co., Ltd., the provider of IT services for PTT Group. Internationally recognized as a competent service provider, this company offers high levels of ICT security services through its team of specialists.
- Communicating to all employees and related persons to provide knowledge and foster their awareness of IT security, relevant threats, and IT-related laws.
- Organizing emergency drills on responsive actions against potential threats and the recovery of data, preparing BCP (Business Continuity Plan) to ensure a timely response to emergency situations to reduce potential damage to GGC's data.

### Foreign Exchange Rate Risks

Exchange rate fluctuation poses a significant financial risk, while the US dollar is the main reference currency denomination of GGC's business operations. Fluctuations of the Thai Baht and US dollar may therefore affect GGC's overall performance. To manage its exchange rate risks, GGC has undertaken the following measures:

### Risk Management Measures

- Monitoring the movement of foreign exchange markets and identifying financial instruments for the prevention of exchange rate risks.
- Employing financial instruments to manage risks by hedging on exchange rates and defining appropriate risk management goals in line with the business operation plan under GGC's risk management framework approved by the Risk Management Committee.

Through its systematic risk management process governed by the Board of Directors, the Risk Management Committee and Executives operation, GGC is convinced that its risk management system is efficient and will support the achievement of business goals in the future.



## Internal Control

Global Green Chemicals Public Company Limited (GGC) is committed to undertaking internal control practices in conformity with the international standard of The Committee of Sponsoring Organizations of the Treadway Commission (COSO) for the achievement of its internal control objectives for efficient operation, the accuracy and reliability of reports and compliance with relevant laws and regulations. This will ensure righteous and transparent operation of business in line with GGC's objectives.

At the Board of Directors' Meeting No. 2/2018 on February 14, 2018, the Board of Directors conducted assessment of GGC's internal control system. Consideration was given to the Executives assessment results on the adequacy of GGC's internal control system in line with SEC's assessment form, and the Audit Committee's report of its review on such adequacy. The view of Board of Directors was that the internal control system was adequate and appropriate. GGC also assigned responsible persons to monitor the efficiency of the internal control system.

GGC's internal control system covers all the five components of internal control, namely Control Environment, Risk Assessment, Control Environment, Information & Communication, and Monitoring Activities:

### Control Environment

The Board of Directors and Executives ensure that GGC operates its businesses in a righteous and ethical manner, while cultivating among its personnel corporate values that focus on integrity, ethics, and responsibility for their duties. GGC is committed to providing a good, appropriate, and efficient control environment as follows:

- In ensuring full compliance with relevant laws and regulations, GGC communicates to its employees for acknowledgment, GGC's Handbook of Corporate Governance, Code of Conduct, Corporate Governance Policy, and Anti-Corruption Guidance with Complaint/Whistleblowing Channels provided.
- To ensure the efficiency of GGC's operation, the Board of Directors works independently from the management in performing supervision and monitoring of the operation and performance of GGC, its Executives and the subcommittees.
- The Board of Directors has approved GGC's structure in line with its regulations and corporate governance handbook. The structure is clearly defined along with GGC's lines of command/report and scopes of duties.
- GGC's human resources management process defines the qualifications of each job position as criteria for personnel recruitment, and provides knowledge and skills development for employees, with regular monitoring and appraisal of their performances.
- Full compliance with GGC's internal control policy is required from the Board of Directors, Executives, and employees in performing their duties to achieve GGC's objectives and goals.

### Risk Assessment

GGC values the management of risks by linking risk assessment to the formulation of its short term - and long term business plans. In 2017, Appointed by the Board of Directors, the Risk Management Committee (RMC) performs the duties of setting and reviewing policies, objectives, risk management frameworks, monitoring and evaluating of compliance with the frameworks, giving opinions and recommendations on GGC's risk management and project investment risks. GGC's Enterprise Risk Management Committee (ERMC), appointed by the Managing Director, ensures that the Company manages its risks efficiently, leading to the achievement of its business goals. Below are GGC's risk management approaches:

- Define clear objectives and goals for GGC's operation in line with its vision and mission.
- Manage enterprise risks in line with ISO 31000 : Risk Management and COSO Enterprise Risk Management standards, and institute GGC's risk management policy for all related persons to comply with.
- Carry out the process of identifying, analyzing, assessing and managing risks, formulate Risk Profiles at the corporate and business unit levels, and specify measures to systematically mitigate all risks that may hinder the achievement of GGC's objectives.
- Take into account internal and external changes, monitor the management of corporate risks to keep them at appropriate levels, define Key Risk Indicators (KRIs) to track changes that may hinder the achievement of GGC's objectives, with monthly submission of risk management reports to the ERMC for acknowledgment and reporting to RMC and the Board of Directors regularly.

### Control Activities

GGC's control activities encompass all major processes, including risk management, to mitigate risks that may hinder the achievement of its objectives. These activities are as follows:

- Specify preventive and mitigation plans in line with risk assessment results to manage risks at GGC's risk acceptable level, and monitor and report the implementation of these plans to the RMC and the Board of Directors for acknowledgment.
- Organize IT-based control activities, including IT access management and the development of IT security protocols, to ensure that GGC's IT system is appropriate, efficient, and secure, without interruption.
- Based on the principles of good internal control, GGC's regulations, requirements, policies and operation manuals are specified for staff's reference, including the Corporate Governance and Code of Conduct Handbook and the policy on connected transactions.

### Information & Communication

GGC values the quality of information and communication. Internal and external channels are provided for related persons to access the information required for their effective operation as follows:

- GGC's financial statements, performance outcomes, and other reports required for submission to the Board of Directors are prepared by including the analysis of relevant data from internal and external sources, with indication of changes, trends, sales performance, and production outputs.



- Various forms of the internal communication process are provided, taking into account their compatibility with the type of data and communication objectives. GGC's business directions, goals and key policies are communicated through the MD Town Hall, cross-functional teams, site visits, the intranet, and e-mail.
- Besides communicating with external stakeholders via the company's website, GGC disseminates its information through the Investor Relations and Managerial Accounting Department and the Corporate Communication and Social Responsibility Department. GGC's Whistleblower system also manages stakeholders' complaints and recommendations, received via the company's website.

### Monitoring Activities

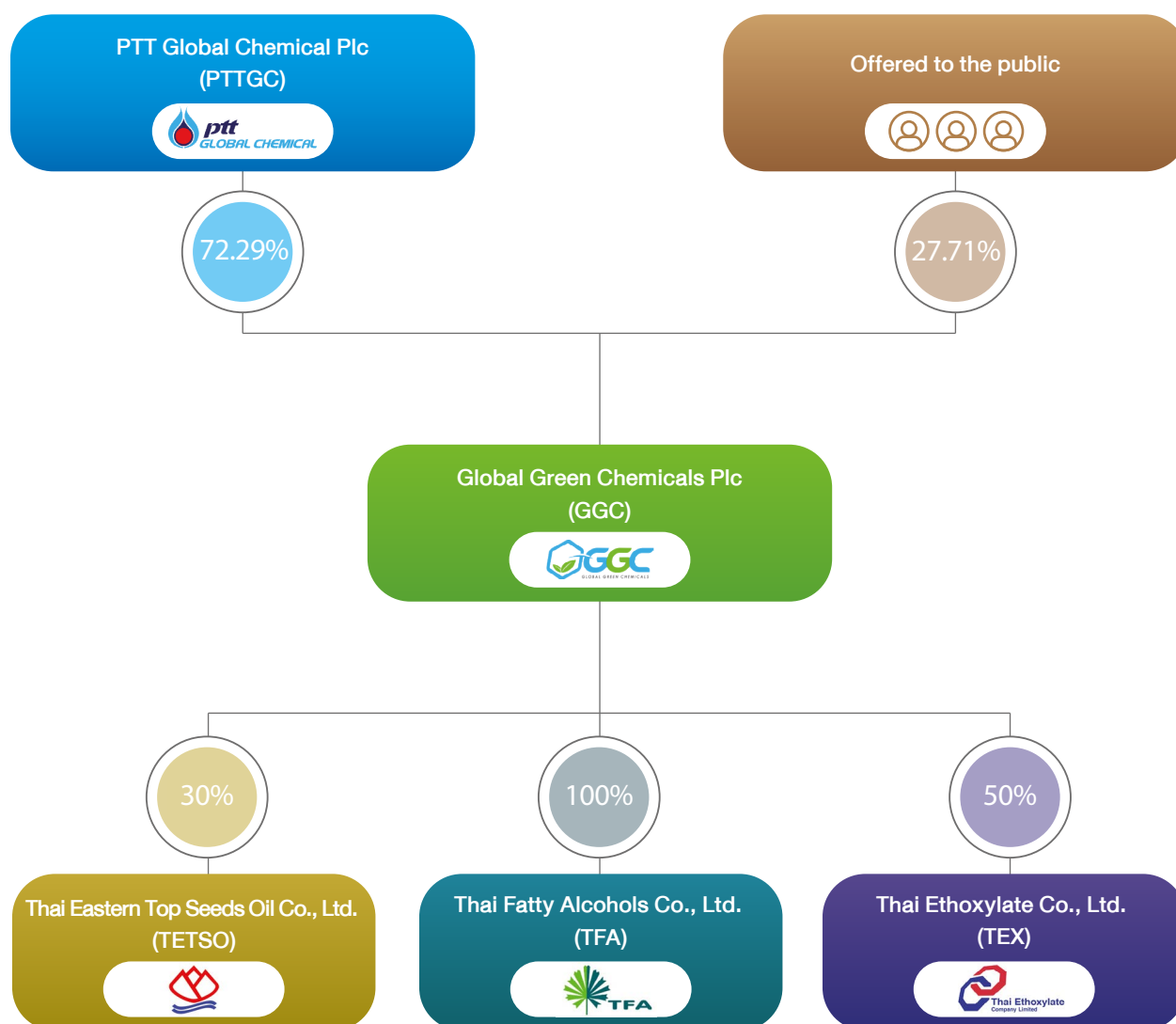
In ensuring the adequacy and efficiency of its internal control, GGC undertakes the following monitoring and assessment processes:

- Assign a business unit to take charge of managing internal control, supporting the management's assessment, development, implementation, and review of the adequacy of the internal control system, and give opinions about the 2<sup>nd</sup> line of defense. The results of internal control assessment are reported to Executives to ensure that GGC's internal control is efficient.
- Reporting directly to the Audit Committee regularly, an independent Internal Audit performs its duties and assesses the effectiveness of internal control on key activities and operations potentially affecting the outcomes of GGC's strategies, management of risks and overall operation, either favorably or negatively.

In 2017, no significant issues were found, either in GGC's internal control system or in transactions or items that may involve conflicts of interest. Assessment of all the five components of internal control found neither corruption practice nor violation of laws on securities and exchange, SEC and SET regulations, and relevant laws.



## Shareholding Structure in Subsidiaries and Affiliates



### Note:

#### Subsidiary

- Thai Fatty Alcohols Company Limited (TFA)

#### Joint Ventures

- Thai Eastern Top Seeds Oil Co., Ltd. (TETSO) represents a joint venture formed by GGC and Eastern Palm Oils Co., Ltd. (EPO), which holds 70% shares in TETSO and operates Palm Kernel Oil extraction business
- Thai Ethoxylate Co., Ltd. (TEX) represents a joint venture formed by GGC and BASF (Thai) (a subsidiary of BASF SE), which holds 50% shares in TEX

## Connected Transactions

For Fiscal Year 2017, GGC conducted business transactions with its subsidiaries and related companies with common shareholders or directors. Connected transactions with other entities of potential conflicts of interest are based on market or contractual prices if there are no reference market prices. Details of the relationships with these companies are as follows:

Company	Relationship (As of December 31, 2017)	Connected Transaction	2015	2016	2017
Million THB					
1. PTT Public Company Limited (PTT)	<ul style="list-style-type: none"> <li>Major shareholder holding 48.89% of the shares in PTTGC</li> <li>Sales / purchase transactions of products and services</li> <li>Directors who are PTT Executive: Mr. Supattanapong Punmeechaow</li> </ul>	<b>Statement of Income Items</b>			
		Sales of goods or services	4,926	5,207	5,245
		Purchases of goods or services	311	275	675
		Other income	13	16	16
		Other expenses	-	3	5
		<b>Statement of Financial Position Items</b>			
		Trade accounts receivable - related parties	431	330	356
		Other accounts receivable – related parties	2	1	3
		Trade accounts payable - related parties	-	31	37
		Other accounts payable – related parties	-	1	2
2. PTT Global Chemical Public Company Limited (PTTGC)	<ul style="list-style-type: none"> <li>Major shareholder holding over 72.29% of the shares.</li> <li>Common director: Mr. Supattanapong Punmeechaow</li> <li>Directors who are PTTGC Executives:               <ol style="list-style-type: none"> <li>Mr. Supattanapong Punmeechaow</li> <li>Mr. Patiparn Sukondhaman</li> <li>Mr. Narongsak Jivakanun</li> <li>Mr. Jirawat Nooritanon</li> </ol> </li> <li>Sales / purchase transactions of products and services</li> </ul>	<b>Statement of Income Items</b>			
		Sales of goods or services	750	961	1,230
		Purchases of goods or services	173	166	188
		Other income	56	19	13
		Interests receivable	18	-	-
		Other expenses	42	84	92
		Interests payable	40	-	-
		<b>Statement of Financial Position Items</b>			
		Trade accounts receivable - related parties	44	60	52
		Other accounts receivable – related parties	23	9	11
		Trade accounts payable - related parties	4	8	9
		Other accounts payable – related parties	20	36	43

Company	Relationship (As of December 31, 2017)	Connected Transaction	2015	2016	2017
Million THB					
3. Thai Ethoxylate Company Limited (TEX)	<ul style="list-style-type: none"> <li>Joint-venture company (GGC holds 50% equity)*</li> <li>Common Director: Mr. Jirawat Nooritanon</li> <li>Director who is a TEX director and executive: Mr. Piya Suri</li> <li>Sales / purchase transactions of products and services</li> <li>* GGC bought the shares from PTTGC on March 31, 2016</li> </ul>	Statement of Income Items			
		Sales of goods or services	743	1,757	1,669
		Other income	-	1	5
		Statement of Financial Position Items			
		Trade accounts receivable - related parties	126	419	394
		Other accounts receivable - related parties	-	1	2
4. TOC Glycol Company Limited (TOCGC)	<ul style="list-style-type: none"> <li>PTTGC holds over 100% of the shares</li> <li>Common Director: Mr. Patiparn Sukondhaman</li> <li>Sales / purchase transactions of products and services</li> </ul>	Statement of Income Items			
		Sales of goods or services	-	-	-
		Other expenses	11	10	10
		Statement of Financial Position Items			
5. Thai Tank Terminal Company Limited (TTT)	<ul style="list-style-type: none"> <li>PTTGC holds 51% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Sales of goods or services	17	17	18
		Statement of Financial Position Items			
6. Solution Creation Company Limited (SUN)	<ul style="list-style-type: none"> <li>PTTGC holds 100% of the shares</li> <li>Common Director: Mr. Patiparn Sukondhaman</li> <li>Sales / purchase transactions of products</li> </ul>	Statement of Income Items			
		Sales of goods or services	19	17	26
		Statement of Financial Position Items			
7. Advanced Biochemical (Thailand) Company Limited (Advanced Biochemical)	<ul style="list-style-type: none"> <li>PTTGC holds 24.98% of the shares through Vinythai Public Company Limited</li> <li>Sales / purchase transactions of products and services</li> </ul>	Statement of Income Items			
		Sales of goods or services	134	159	282
		Statement of Financial Position Items			
8. TOP Solvent (Vietnam) LLC. (TSV)	<ul style="list-style-type: none"> <li>Thai Oil holds 100% of the shares through TOP Solvent</li> <li>Sales / purchase transactions of products and services</li> </ul>	Statement of Income Items			
		Sales of goods or services	-	1	3
		Statement of Financial Position Items			
9. PTT Maintenance and Engineering Company Limited (PTTME)	<ul style="list-style-type: none"> <li>PTTGC holds 60% of the shares and PTT holds the remaining 40%</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	18	18	17
		Statement of Financial Position Items			
		Assets under construction	-	11	29
		Trade accounts payable – related parties	2	7	5
		Accounts payable (contractor) – related parties	-	4	7

Company	Relationship (As of December 31, 2017)	Connected Transaction	2015	2016	2017
Million THB					
10. NPC Safety and Environmental Service Company Limited (NPC S&E)	<ul style="list-style-type: none"> <li>PTTGC holds 100% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	15	9	8
		Statement of Financial Position Items			
		Other accounts payable - related parties	1	1	4
11. Global Power Synergy Public Company Limited (GPSC)	<ul style="list-style-type: none"> <li>PTT holds 22.58% and PTTGC holds 22.73% of the shares</li> <li>Common Director:               <ol style="list-style-type: none"> <li>Mr. Supattanapong Punmeechaow</li> <li>Mr. Payungsak Chartsutipol</li> </ol> </li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	554	483	492
		Statement of Financial Position Items			
		Trade accounts payable – related parties	47	42	89
12. PTT Digital Solutions Company Limited (PTT Digital)	<ul style="list-style-type: none"> <li>PTTGC holds 40%, PTT 20%, Thai Oil 20%, and PTTEP the other 20% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Other expenses	3	1	1
		Statement of Financial Position Items			
		Other accounts payable - related parties	3	-	-
13. Business Services Alliance Company Limited (BSA)	<ul style="list-style-type: none"> <li>PTT holds 100% of the shares</li> <li>PTTGC holds 25% of the preferred shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	3	2	2
		Other expenses	-	5	7
		Statement of Financial Position Items			
14. Eastern Fluid Transport Company Limited (EFT)	<ul style="list-style-type: none"> <li>PTTGC holds 15% and TTT 15% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	1	1	1
		Statement of Financial Position Items			
		Other accounts payable - related parties	2	2	2
15. Dhipaya Insurance Public Company Limited (DHIPAYA)	<ul style="list-style-type: none"> <li>PTT holds 13.33% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	32	31	18
		Other expenses	-	4	-
		Statement of Financial Position Items			
		Other accounts receivable - related parties	26	14	12
		Other accounts payable - related parties	1	1	-
16. Thai Oil Public Company Limited (Thai Oil)	<ul style="list-style-type: none"> <li>PTT holds 49.10% of the shares</li> <li>Sales / purchase transactions of products and services</li> </ul>	Statement of Income Items			
		Sales of goods or services	788	999	1,098
		Other income	-	2	2
		Statement of Financial Position Items			
		Trade accounts receivable - related parties	47	50	68
		Other accounts payable - related parties	-	-	8

Company	Relationship (As of December 31, 2017)	Connected Transaction	2015	2016	2017
Million THB					
17. PTT Polymer Logistics Company Limited (PTTPL)	<ul style="list-style-type: none"> <li>PTT holds 50%, PTTGC 49% and SUN 1% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	-	-	-
		Other expenses	7	6	9
		Statement of Financial Position Items			
		Other accounts payable - related parties	-	-	1
18. Star Petroleum Refining Public Company Limited (SPRC)	<ul style="list-style-type: none"> <li>PTT holds 5.41% of the shares, and before December 3, 2015, it had held 35.99% of the shares. (SPRC is not a potential juristic entity with conflicts of interest with GGC and its subsidiaries).</li> </ul>	Statement of Income Items			
		Sales of goods or services	198	-	-
		Statement of Financial Position Items			
		Trade accounts receivable - related parties	-	-	-
19. IRPC Public Company Limited (IRPC)	<ul style="list-style-type: none"> <li>PTT holds 38.51% of the shares</li> <li>Sales / purchase transactions of products and services</li> </ul>	Statement of Income Items			
		Sales of goods or services	266	317	-
		Statement of Financial Position Items			
		Trade accounts receivable - related parties	-	13	-
20. PTT Phenol Company Limited (PPCL)	<ul style="list-style-type: none"> <li>PTTGC holds 100% of the shares</li> <li>Common directors: 1. Mr. Narongsak Jivakanun 2. Mr. Patiparn Sukondhaman</li> </ul>	Statement of Income Items			
		Other expenses	-	4	-
21. Bangchak Biofuel Company Limited (BBF)	<ul style="list-style-type: none"> <li>BCP holds 70% of the shares. PTT had held 27.22% in BCP before selling all the shares on April 30, 2015. (BBF is not a potential juristic entity with conflicts of interest with GGC and its subsidiaries)</li> </ul>	Statement of Income Items			
		Sales of goods or services	3	-	-
22. NPC S&E Security Guard Company Limited (NPCSG)	<ul style="list-style-type: none"> <li>NPC S&amp;E holds 100% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Purchases of goods or services	-	2	4
23. Energy Complex Company Limited (ENCO)	<ul style="list-style-type: none"> <li>PTT holds 50% of the shares</li> <li>Service transactions</li> </ul>	Statement of Income Items			
		Others	-	-	11
24. TOP Solvent Company Limited (TOPSOLV)	<ul style="list-style-type: none"> <li>A subsidiary of the Thai Oil Group</li> <li>Sales / purchases of products</li> </ul>	Statement of Income Items			
		Income from selling goods and services	-	-	1
25. Thai Eastern Top Seeds Oil Company Limited (TETSO)	<ul style="list-style-type: none"> <li>GGC holds 30% of the shares</li> <li>Products and sales transactions</li> <li>Directors who are TETSO directors: 1. Mr. Wanlop Thianthong 2. Mr. Chanasiri Vanit</li> </ul>	Statement of Income Items			
		Purchase of goods and services	-	-	86
		Statement of Financial Position Items			
		Trade accounts payable - related parties	-	-	2

### Measures or approval procedures for connected transactions

To engage in transactions with related parties, GGC is to review all transactions' suitability before such engagement and set prices and terms on an Arm's Length Basis.

When GGC or its subsidiaries have engaged in connected transactions applicable to SET and SEC announcements on information disclosure and actions by listed companies on related transactions, the Board of Directors is to strictly ensure such actions' conformance to the criteria, provisions, and procedures of these announcements together with disclosure of such transactions in the annual report and Form 56-1 to ensure transparency of related transactions and eliminate conflicts of interest.

If Directors wish to buy their assets or sell to GGC or do business with it—whether by themselves or on behalf of others—GGC regulations specify that such transactions must obtain an approval of the Board of Directors in order for such transactions to bind the Company. In any case, under GGC regulations, Directors with vested interests in asset purchase or sale, or in engaging with GGC, are not entitled to vote on such matters.

Apart from the required the Board of Directors Approved, if engagement by GGC or its subsidiaries in related transactions or actions result in the acquisition or sale of their significant assets, under the criteria of SEC announcements on related transactions of listed companies, or the acquisition or sale of assets of listed companies, GGC or its subsidiaries (or both) must conform to the rules and procedures under such announcements.

The Audit Committee must express its views on the measures or procedures for engagement in connected transactions. If they object to them, they must state their dissent.

Connected transactions call for review under audit plans, which Internal Audit must perform and report

to the Audit Committee. Internal Audit must have measures for the control, audit, and assurance of random checks of actual transactions' conformance to contracts, policies, or terms. Any transactions with related parties must be undertaken for regular businesses. To this end, the volumes of goods or feedstock traded or services received by GGC from such related parties must match its needs and business operation. In addition, the prices, as well as the giving or acceptance of services by related parties, must conform to contractual provisions and benefit the businesses of both GGC and the related parties without the siphoning of benefit or any irregular items. After such connected transactions, GGC is to exercise its inspection measures by assigning Internal Audit to review them and report to the Audit Committee. Finally, GGC is to establish measures to control and inspect as well as ensuring random checks of these transactions' conformance to contracts, policies, or provisions.

### Necessity and sensibility of connected transactions

GGC's connected transactions for the fiscal year ended on December 31, 2017, were undertaken in the course of normal businesses under general business terms, as reasonable people would do with contractual partners under similar circumstances on the Arm's Length Basis.

### Policy or trends of connected transactions

If GGC wishes to engage in transactions with related parties, related transactions, or connected transactions with parties of potential conflicts of interest or parties with vested interests, GGC must strictly conform to the above-mentioned policy, measures, and procedures. To this end, the Audit Committee is to review connected transactions' legality and conformance to SET requirements to ensure sensibility and the best interests of GGC.

To prevent conflicts of interest, GGC has defined good practices for connected transactions, as highlighted below:

- The process for reviewing and disclosing data on vested interests, connected transactions, or conflicts of interest must strictly and prudently comply with the laws as well as SEC and SET regulations. To this end, the Board of Directors, Executives, or employees with vested interests, or all of them, must not attend the review of such matters. And if it is necessary for such persons to clarify details in support of the review, they must refrain from voting or comment in the course of review and approval so that the review may be fully independent.
- Stakeholders must not take part in decision-making on connected transactions. At every Board of Directors' meeting, the Chairman is to inform the meeting of this and request the Directors to comply with the policy on connected transactions. Directors are to inform the meeting so as to refrain from voting or from commenting on the agenda items concerning their vested interests.
- The Board of Directors is to ensure accurate and complete disclosure of the transactions with potential conflicts of interest in Form 56-1 and the annual report (Form 56-2).
- Connected transactions requiring shareholders' approval must be screened by the Audit Committee to ensure fair, sensible, and beneficial transactions for the shareholders and in compliance with the laws as well as SEC and SET regulations.





## Shareholder Structure

List of top six major shareholders (register book closing date on August 28, 2017)

No.	Shareholders	Shares	%
1.	PTT Global Chemical Plc	739,999,980	72.29
2.	Muang Thai Life Assurance Plc	9,194,800	0.90
3.	SCB Long-term Dividend Share 70/30 Open-Ended Fund	8,911,100	0.87
4.	Bangkok Life Assurance Plc	8,812,700	0.86
5.	Mr. Smith Jungsuppaisarn	6,847,400	0.67
6.	Mr. Pichit Chinwitthayakul	5,800,000	0.57

- In practice, The major shareholder with significant influence on the establishment of GGC's policy and strategy is PTT Global Chemical Plc, within total holds 72.29% in GGC.

### Foreign shareholders

- As of August 28, 2017, GGC had a total of seven foreign shareholders with a combined of 2,472,500 shares, or 0.24% paid-up capital.
- GGC's has a foreign shareholding limitation under Clause 8 of the Articles of Association "GGC's Share can be transferred without any restriction except in the case where the said transfer would result in more than thirty seven (37) percent of the company's total paid up shares being held by foreigners.

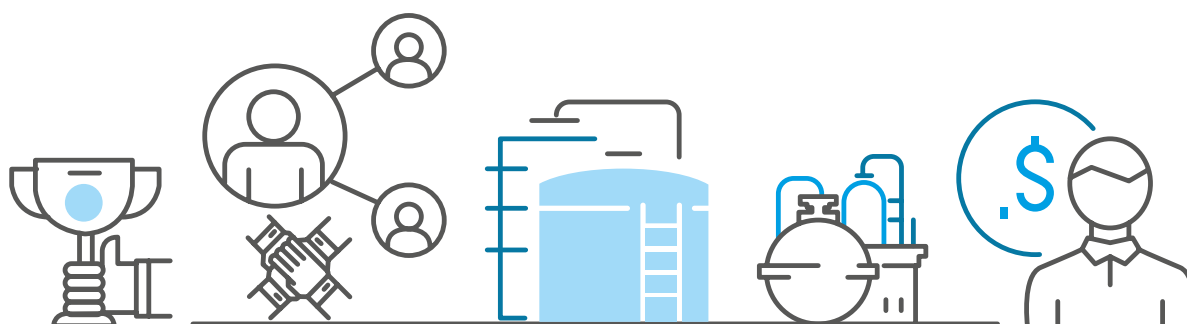
## Dividend Policy

### Global Green Chemicals Public Company Limited

The Board of Directors Meeting No. 7/2015 held on September 25, 2015 resolved that the dividend payment Policy of GGC is to pay dividend at a rate of no less than 30% of net profit after tax and allocation to all reserve fund of GGC. Such dividend payment however subject to the investment plan, other necessary and appropriate consideration in the future.

### Subsidiaries' Dividend payment

For GGC subsidiaries, their Boards of Directors approve the dividend payment and proposed the matter for respective shareholders' meetings to formally approve at it Annual General Meeting. The dividend payment is based on investment plans and other requirement considerations, such as the adequacy of cash flow of each subsidiary after deducting reserve fund in accordance with the Laws.







Organization Structure

## GGC Board of Directors



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1. Mr. Supattanapong Punmeechaow

Chairman

2. Mr. Permsak Shevawattananon

Independent Director / Chairman of Audit Committee  
(February 17, 2016 – December 31, 2017)

3. Prof. Dr. Kumchai Jongjakapun

Independent Director / Chairman of Audit Committee

4. ACM Songtam Chokkanapitag

Independent Director / Chairman of Nomination and Remuneration Committee

5. Ms. Kannika Ngamsopee

Independent Director /  
Director to Audit Committee /  
Chairman of Risk  
Management Committee

6. Mr. Payungsak Chartsutipol

Independent Director / Chairman of  
Corporate Governance and Sustainable  
Development Committee



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7. Mr. Patiparn Sukondhaman

Director / Director to Nomination and Remuneration Committee

8. Mr. Athavudhi Hirunburana

Director / Director to Nomination and Remuneration Committee / Director to Corporate Governance and Sustainable Development Committee

9. Mr. Apichart Jongskul

Independent Director / Director to Audit Committee

10. Mr. Suphit Suwagul

Director / Director to Corporate Governance and Sustainable Development Committee

11. Mr. Narongsak Jivakanun

Director / Director to Risk Management Committee

12. Mr. Jirawat Nooritanon

Director / Director to Risk Management Committee

## Mr. Supattanapong Punmeechaow

**Chairman**

**Age: 58**

**Appointed:** 17 February 2016

### Education / Training:

- M.B.A., Chulalongkorn University
- B. Eng. (Chemical Engineering), Chulalongkorn University
- Advanced Management Program, INSEAD, France
- The National Defence Course (Class 50) and Joint State - Private Sector Course (Class 20), National Defence College
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Oxford Energy Seminar 2013, United Kingdom
- Corporate Governance Program for Directors and Executive of State Enterprises and Public Organizations (Class 12), 2014, King Prajadhipok's Institute, State Enterprise Policy Office, and Office of the Public Sector Development Commission
- The Rule of Law and Democracy Course (RLD) Class 3, 2015, College of the Constitutional Court
- Capital Market Academy Leader Program, Class 23, Capital Market Academy

### Director Training:

- Director Certification Program (DPC) Class 131/2010, Thai Institute of Directors Association (IOD)
- Role of the Chairman Program (RCP) Class 30/2013, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 4

- Chairman, Global Green Chemicals Public Company Limited
- Senior Executive Vice President, PTT Public Company Limited
- Director / Director to Risk Management Committee / President and Chief Executive Officer, PTT Global Chemical Public Company Limited
- Director and Director to Risk Management Committee, Global Power Synergy Public Company Limited

### Board Member / Management in Non-listed Companies: 1

- Director, PTT Chemical International Private Limited

### Positions in Other Organizations / Institutions: 8

- President, Chulalongkorn Engineering Alumni
- Director, Thai Institute of Directors (IOD)
- Director, Thai Listed Companies Association
- Director, The Federation of Thai Industries
- Trustees, Petroleum Institute of Thailand
- Council Member, Kamnoetvidya Science Academy
- Honorary Member of Vidyasirimedhi Institute Council
- Vice Chairman, PIN and PLearn Foundation

### Work Experience (5 Years):

- 2014 - 2017 Vice Chairman / Member of the Nomination and Remuneration Committee, Vinythai Public Company Limited
- 2015 - 2016 Chairman, Thai Oleochemicals Company Limited
- 2015 - 2016 Chairman, Thai Fatty Alcohols Company Limited
- 2014 - 2016 Director, PTT Chemical International (Asia Pacific ROH) Limited
- 2014 - 2015 Chairman, Sport Services Alliance Company Limited
- 2013 - 2014 Director / Director to Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
- 2012 - 2014 Executive Vice President, Corporate Strategy, PTT Public Company Limited

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## Mr. Permsak Shevawattananon

**Independent Director / Chairman of Audit Committee**

**Age: 67**

**Appointed:** 26 February 2016 - Chairman of Audit Committee  
31 December 2017  
17 February 2016 - Independent Director  
31 December 2017

### Education / Training:

- B.Eng. (Mechanical Engineering), University of Santo Tomas Manila, Philippines
- Certificate, ASEAN Executive Program (AEP) and GE Management Development Institute
- Senior Executive Program, SASIN Graduate Institute of Business Administration, Chulalongkorn University

### Director Training:

- Director Certification Program (DCP) Class 51/2004, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: None

### Board Member / Management in Non-listed Companies: None

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2016 - 2017 Independent Director, Global Green Chemicals Public Company Limited
- 2016 - 2017 Chairman of Audit Committee, Global Green Chemicals Public Company Limited
- 2015 - 2016 Director, Thai Oleochemicals Company Limited

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## Prof. Dr. Kumchai Jongjakapun

**Independent Director / Chairman of Audit Committee**  
**Age: 57**

**Appointed:** 1 January 2018 Chairman of Audit Committee  
 17 February 2016 Independent Director

### Education / Training:

- Ph.D., King's College London (KCL), University of London, United Kingdom
- LL.M. in International Business Law (with Merit) University College London (UCL), University of London, United Kingdom
- LL.B. (2nd Class Honors), Thammasat University
- B.A. (Political Science), Ramkhamheang University
- Barrister-at-law, The Thai Bar Under The Royal Patronage
- The National Defence Course (Class 50) and Joint State - Private Sector Course (Class 20), National Defence College
- Juridical Executives Program (Class 15), Juridical Training Institute
- Capital Market Academy Leader Program (Class 9), Capital Market Academy
- Corporate Governance Program for Directors and Executive of State Enterprises and Public Organizations (Class 12), King Prajadhipok's Institute, State Enterprise Policy Office, and Office of the Public Sector Development Commission

### Director Training:

- Director Certification Program (DCP) Class 128/2010, Thai Institute of Directors Association (IOD)
- Audit Committee Program (ACP) Class 38/2012, Thai Institute of Directors Association (IOD)
- Role of the Chairman Program (RCP) Class 34/2014, Thai Institute of Directors Association (IOD)

**Board Member / Management in Listed Companies - The Stock Exchange of Thailand:** 1

- Independent Director, Chairman of Audit Committee, Global Green Chemicals Public Company Limited

**Board Member / Management in Non-listed Companies:** None

**Positions in Other Organizations / Institutions:** 3

- Chairman, Pearl S. Buck (Thailand)
- Legal Consultant, The Stock Exchange of Thailand
- Law Councillor, Office of the Council of State

### Work Experience (5 Years):

- 2015 - 2016 Director, Thai Oleochemical Public Company Limited
- 2014 - 2015 Honorary member, Securities and Exchange Commission, Thailand
- 2011 - 2014 Chairman, Audit Committee, Expressway Authority of Thailand

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## ACM Songtam Chokkanapitag

**Independent Director / Chairman of Nomination and Remuneration Committee**  
**Age: 63**

**Appointed:** 26 February 2016 Chairman of Nomination and Remuneration Committee  
 17 February 2016 Independent Director

### Education / Training:

- Air Command and Staff College (Class 35) Air War College
- Royal Thai Air Force Academy (Class 21)
- Armed Forces Academies Preparatory School (Class 14)
- The National Defence course (Class 50), National Defence College

### Director Training:

- Director Certification Program (DCP) Class 227/2016, Thai Institute of Directors (IOD)

**Board Member / Management in Listed Companies - The Stock Exchange of Thailand:** 1

- Independent Director, Chairman of Nomination and Remuneration Committee, Global Green Chemicals Public Company Limited

**Board Member / Management in Non-listed Companies:** None

**Positions in Other Organizations / Institutions:** 1

- Member, The National Legislative Assembly

### Work Experience (5 Years):

- 2015 - 2016 Director, Thai Oleochemicals Company Limited
- 2013 - 2016 Deputy Permanent Secretary for Defence
- 2012 Assistant Commander-in-Chief, RTAF

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None



## Ms. Kannika Ngamsopee

Independent Director / Director to Audit Committee /  
Chairman of Risk Management Committee

Age: 61

**Appointed:** 13 January 2017 Chairman of Risk Management Committee  
26 February 2016 Director to Audit Committee  
17 February 2016 Independent Director

### Education / Training:

- M.B.A. Sasin Graduate Institute of Business Administration, Chulalongkorn University
- M.Acc. (Accounting), Thammasat University
- B.B.A. (Accounting) 2nd Class Honors, Thammasat University
- LL.B. (Law), Thammasat University
- Capital Market Academy Leader Program (CMA), Class 3, Capital Market Academy
- The National Defence Course (Class 52), National Defence College
- Management Joint State - Private Sector Course (Class 1), Royal Thai Police
- Advanced Strategic Management Programme, IMD, Switzerland (2012)
- Certified Public Accountant no. 3156
- Certificate of International Trading (Class 1), The Thai Bar under the Royal Patronage

### Director Training:

- Director Certification Program (DCP) Class 21/2002, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 3

- Independent Director / Director to Audit Committee / Chairman of Risk Management Committee, Global Green Chemicals Public Company Limited
- Independent Director / Chairman of Audit Committee, Scan Inter Public Company Limited
- Independent Director / Director to Audit Committee, Thonburi Healthcare Group Public Company Limited

### Board Member / Management in Non-listed Companies: 2

- Director, Bamrungmuang Plaza Company Limited (Thonburi Healthcare Group)
- Director, Premiere Home Health Care Company Limited (Thonburi Healthcare Group)

### Positions in Other Organizations / Institutions: 4

- Sub-committee of Public Sector Auditing and Evaluation Directorate, Office of the Public Sector Development Commission
- Asset Management Committee, Vajiravudh College
- Member, Audit Committee, Social Security Office
- Honorary Member, Financial Institutions Policy Committee, Bank of Thailand

### Work Experience (5 Years):

- 2017 Independent Director / Director to Audit Committee and Director to CG&CSR Committee, Thai Credit Guarantee Corporation (TGC)
- 2013 - 2017 Director / Director to Audit Committee, Sukhumvit Asset Management Co., Ltd.
- 2016 - 2017 Advisor, Internal Control Improvement, Siam Commercial Bank Public Company Limited
- 2015 - 2016 First Executive Vice President, Head of Audit Group, Siam Commercial Bank Public Company Limited
- 2015 - 2016 Director / Director to Audit Committee, Thai Oleochemicals Company Limited
- 2011 - 2015 First Executive Vice President, Audit and Compliance Office, Siam Commercial Bank Public Company Limited
- 2012 - 2015 Director / Chairman of Risk Management Committee, National Credit Bureau Company Limited
- 2009 - 2015 Director, Vinasiam Bank, Vietnam
- 2011 - 2014 Director / Treasurer, Federation of Accounting Professions Under the Royal Patronage of His Majesty the King
- 2002 - 2012 Independent Director / Director to Audit Committee, Finansia Public Company Limited

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## Mr. Payungsak Chartsutipol

Independent Director / Chairman of Corporate  
Governance and Sustainable Development Committee

Age: 65

**Appointed:** 13 January 2017 Chairman of Corporate Governance and Sustainable Development Committee  
6 January 2017 Independent Director

### Education / Training:

- Honorary Doctorate Degree in Engineering, Suranaree University of Technology
- Honorary Doctorate Degree in Philosophy, Organization Development Administration, Chaopraya University
- B.Eng. (Electrical Engineering), Chulalongkorn University
- Certificate of Management Development Program, North Western University, U.S.A.
- Top Executives in the Energy Education Program (Class 1), Thailand Energy Academy
- Phumpalung Phandin Executive Program (Class 1), Chulalongkorn University (2012)
- Administrative Justice for Executives (Class 2), Administrative Court Office
- Capital Market Academy Leader Program (Class 11), Capital Market Academy
- Top Executive Program in Commerce and Trade (Class 2), Commerce Academy, University of the Thai Chamber of Commerce

### Director Training:

- Director Accreditation Program (DAP SCC/2004), Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 2

- Independent Director / Chairman of Corporate Governance and Sustainable Development Committee, Global Green Chemicals Public Company Limited
- Independent Director / Chairman of Audit Committee / Chairman of Risk Management Committee, Global Power Synergy Public Company Limited

### Board Member / Management in Non-listed Companies: 4

- Director, Siam United Steel (1995) Company Limited
- Chairman, Siam City Capital Public Company Limited
- Director, Linde (Thailand) Public Company Limited
- Director, Sapthip Company Limited

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2012 - 2014 Honorary Member, Office of Insurance Commission
- 2012 - 2013 Chairman of Corporate Governance and Social Responsibility Committee, Krungthai Bank Public Company Limited
- 2011 - 2015 Chairman / Honorary Member, Board of National Catastrophe Insurance Fund Committee
- 2011 - 2014 Chairman, Board of Executive Directors, Krungthai Bank Public Company Limited
- 2010 - 2014 Chairman, The Federation of Thai Industries
- 2010 - 2014 Council Member, Suranaree University of Technology
- 2010 - 2014 Director, Board of Investment
- 2007 - 2014 Director, Board of Trustees, Sirindhorn International Institute of Technology Thammasat University

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None



## Mr. Patiparn Sukondhaman

Director / Director to Nomination and Remuneration Committee

Age: 56

**Appointed:** 26 February 2016 Director to Nomination and Remuneration Committee  
17 February 2016 Director

### Education / Training:

- M.B.A (Finance), The American University, U.S.A.
- B.A. Political Science (Public Administration - Public Finance), 2nd Class Honors, Chulalongkorn University
- Graduate Diploma in Public Law and Management (PLM 8), King Prajadhipok's Institute
- Certificate Program for Senior Management (Ex-PSM 5) 2009, Fiscal Policy Research Institute Foundation
- Executive Program 2012, GE Institute, U.S.A.
- Breakthrough Program for Senior Executives 2014, IMD, Executive Development Services, Switzerland
- Leadership Development Program (LDP III) 2014, PTT Leadership and Learning Institute
- The National Defence Course (Class 59), The National Defence College

### Director Training:

- Director Certification Program (DCP) Class 73/2006, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 2

- Director / Director to Nomination and Remuneration Committee, Global Power Synergy Public Company Limited
- Chief Operation Officer, Downstream Petrochemical Business, PTT Global Chemical Public Company Limited

### Board Member / Management in Non-listed Companies: 9

- Chairman, GC Oxyren Company Limited
- Chairman, GC Polyols Company Limited
- Chairman, Thai Styrenics Company Limited
- Chairman, TOC Glycol Company Limited
- Chairman, Solution Creation Company Limited
- Chairman, PTT Polymer Marketing Company Limited
- Vice Chairman, HMC Polymers Company Limited
- Director, PTT Phenol Company Limited
- Director, PTT Asahi Chemical Company Limited

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2015 - 2017 Director to Nomination and Remuneration Committee, Global Power Synergy Public Company Limited
- 2009 - 2016 Director, Thai Fatty Alcohols Company Limited
- 2011 - 2015 Executive Vice President, Finance & Accounting, PTT Global Public Company Limited
- 2012 - 2015 Director, PTT Chemical International Private Limited
- 2011 - 2015 Director, PTT ICT Solutions Company Limited
- 2009 - 2015 Director, Thai Oleochemicals Company Limited
- 2009 - 2015 Director, Bio Creation Company Limited
- 2009 - 2012 Director, PTT Polyethylene Company Limited
- 2009 - 2012 Director, Thai Ethanolamines Company Limited

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## Mr. Athavudhi Hirunburana

Director / Director to Nomination and Remuneration Committee / Director to Corporate Governance and Sustainable Development Committee

Age: 62

**Appointed:** 13 January 2017 Director to Corporate Governance and Sustainable Development Committee  
26 February 2016 Director to Nomination and Remuneration Committee  
17 February 2016: Director

### Education / Training:

- M.Sc. (Mechanical Engineering), Manhattan College, New York, U.S.A.
- B.Sc. (Mechanical Engineering), New York Institute of Technology, U.S.A.
- Senior Executive Program 2007, Stanford University, U.S.A.
- Senior Executive Program, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Executive Program For Senior Management 2005, Fiscal Policy Research Institute
- Managing People for HR Executives, Thammasat University

### Director Training:

- Director Certification Program (DCP) Class 79/2006, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 3

- Director / Director to Nomination and Remuneration Committee / Director to Corporate Governance and Sustainable Development Committee, Global Green Chemicals Public Company Limited
- Advisor, PTT Global Chemical Public Company Limited
- Chairman, Selic Corp Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Positions in Other Organizations / Institutions: 2

- Director, Plastics Institute of Thailand
- Deputy Secretary-General, The Federation of Thai Industries

### Work Experience (5 Years):

- 2015 - 2016 Director, Thai Oleochemicals Company Limited
- 2013 - 2015 Chief Operating Officer, Downstream Petrochemical Business, PTT Global Chemical Public Company Limited
- 2013 - 2015 Chairman, Thai Styrenics Company Limited
- 2014 - 2015 Chairman, Thai Oleochemicals Company Limited
- 2013 - 2016 Chairman, TOC Glycol Company Limited
- 2014 - 2015 Chairman, Thai Fatty Alcohols Company Limited
- 2012 - 2015 Director, PTT Polymer Marketing Company Limited
- 2013 - 2014 Chairman / Director, PTTGC International (USA) Inc.
- 2013 - 2014 Member Representative to the Governance Board, Nature Works LLC
- 2013 Director, Bangkok Polyethylene Public Company Limited
- 2013 Director, PTT Polyethylene Company Limited
- 2011 - 2013 Executive Vice President, Polymers Business Unit, PTT Global Chemical Public Company Limited

**Shareholding:** None

**Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries:** None

## Mr. Apichart Jongskul

**Independent Director / Director to Audit Committee**  
Age 62

**Appointed:** 13 January 2016 Director to Audit Committee  
6 January 2016 Independent Director

### Education / Training:

- Honorary Doctorate Degree in Science (Geosocial-Based Sustainable Development), Maejo University
- M.Sc. (Environmental Management Technology), Mahidol University
- B.Sc. (Physics), Chulalongkorn University
- National Defence Course (Class 50), National Defence College
- Capital Market Academy Leader Program (Class 17), Capital Market Academy

### Director Training:

- Director Certification Program (DCP) Class 109/2008, Thai Institute of Directors Association (IOD)
- Audit Committee Program (ACP) Class 30/2010 Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 1

- Independent Director / Director to Audit Committee, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2016 Member, Integrated Forest Resources Restoration Committee, National Reform Steering Assembly (NRSA)
- 2016 Advisor to Sub-committee on Agricultural Economic Reform, National Reform Steering Assembly (NRSA)
- 2009 - 2016 Member, Sub-committee (Administration), Agricultural Futures Trading Commission
- 2015 Advisor, Chaipattana Foundation
- 2015 Member, Sub-committee on Broadcast Radio, Television, and Telecommunications, National Reform Steering Assembly (NRSA)
- 2015 Member, Committee on Mass Communication Reform, National Reform Steering Assembly (NRSA)
- 2015 Member, National Reform Steering Assembly (NRSA)
- 2014 - 2015 Chairman, Operating Committee on Cooperatives, Land Development Department
- 2014 - 2015 Chairman, Dairy Farming Promotion Organization of Thailand
- 2013 - 2015 Honorary Member, National Science and Technology Development Committee
- 2013 - 2015 Director-General, Land Development Department
- 2014 - 2015 Advisor, Soil and Fertilizer Association of Thailand
- 2014 - 2015 Chairman, Soil and Water Reservation Association of Thailand
- 2010 - 2013 Vice President, Agricultural Economics Association of Thailand
- 2009 - 2013 Chairman, Audit Committee, Export and Import Bank of Thailand
- 2009 - 2013 Secretary to Natural Rubber Policy Committee
- 2008 - 2013 Secretary to National Palm Oil Policy Committee
- 2008 - 2013 Secretary to National Oil Plant and Vegetable Oil Policy Board
- 2008 - 2013 Secretary, National Pineapple Policy Committee
- 2007 - 2013 Secretary, Agricultural and Cooperatives Development Policy and Planning Committee
- 2007 - 2013 Director, Dairy Farming Promotion Organization of Thailand
- 2007 - 2013 Director, Export and Import, Bank of Thailand
- 2008 - 2013 Spokesperson, Ministry of Agriculture and Cooperatives
- 2008 - 2013 Governor (Alternate), Governor Council, Common Fund for Commodity
- 2007 - 2012 Member, Sub-committee on Commercial Agriculture, Agricultural Research Development Agency

### Shareholding: None

### Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

## Mr. Suphit Suwagul

**Director / Director to Corporate Governance and Sustainable Development Committee**  
Age 61

**Appointed:** 1 January 2018 Director / Director to Corporate Governance and Sustainable Development Committee

### Education / Training:

- Master's Degree, Development Economics, National Institute of Development Administration
- B.Econ., Thammasat University

### Director Training:

- Director Certification Program (DCP) 177/2013, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 1

- Director / Director to Corporate Governance and Sustainable Development Committee, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2010 - 2016 Chairman, Business Services Alliance Company Limited (BSA)
- 2013 - 2016 Director, PTT Green Energy Company Limited (PTTGE)
- 2010 - 2016 Director, Energy Complex Company Limited (EnCo)
- 2010 - 2016 Director, Sustainable Energy Foundation
- 2014 - 2016 Managing Director, Energy Complex Company Limited (EnCo)
- 2012 - 2014 Executive Vice President, Organization Effectiveness, PTT Public Company Limited
- 2010 - 2013 Director, PTT Digital Solution Company Limited
- 2010 - 2012 Senior Vice President, Corporate Human Resources, PTT Public Company Limited
- 2005 - 2009 Vice President, Investment Strategy, Head Office, PTT Public Company Limited
- 2005 Vice President, Corporate Organization Development, Head Office, PTT Public Company Limited

### Shareholding: None

### Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

## Mr. Narongsak Jivakanun

**Director / Director to Risk Management Committee**  
Age 48

**Appointed:** 13 January 2017 Director to Risk Management Committee  
17 February 2016 Director

### Education / Training:

- M.Sc. (Chemical Engineering), Oregon State University, U.S.A.
- B.Eng. (Chemical Engineering), Chulalongkorn University
- TLCA Leadership Development Program (LDP) 2013 (Class 1), Thai Listed Companies Association and IMD
- Top Executives in the Energy Education Program (Class 8), Thailand Energy Academy

### Director Training:

- Director Certification Program (DCP) Class 165/2012, Thai Institute of Directors Association (IOD)

### Board Member / Management in Non-Listed Companies: 3

- Deputy Chairman / Director to Nomination and Remuneration Committee, Vinythai Public Company Limited
- Executive Vice President - Corporate Strategy, PTT Global Chemical Public Company Limited
- Director / Director to Risk Management Committee, Global Green Chemical Company Limited

### Board Member / Management in Unlisted Companies: 5

- Director, GC Polyols Company Limited
- Director, PTT Phenol Company Limited
- Director, PTTGC America Corporation
- Director, PTTGC America LLC
- Director, Sermkij Textile Company Limited

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2017 - 2018 Chairman, PTT MCC Biochem Company Limited
- 2016 - 2017 Director, PTT Digital Solution Company Limited
- 2016 - 2017 Director, PTT Chemical International Private Limited
- 2016 - 2017 Director, PTT Chemical International (Asia Pacific ROH) Limited
- 2011 - 2017 Director / Director to Remuneration Committee, Myriant Corporation
- 2010 - 2016 Chief Executive Officer, PTT Chemical International Private Limited
- 2016 Senior Vice President - Corporate Strategy, PTT Global Chemical Public Company Limited
- 2015 - 2016 Director, Emery Oleochemicals (M) Sdn. Bhd.
- 2015 - 2016 Director, Emery Specialty Chemicals Sdn. Bhd.
- 2014 - 2016 Senior Vice President attached to Executive Vice President Office, International Business Operations, PTT Global Chemical Public Company Limited
- 2010 - 2016 Director, Bio Spectrum Company Limited
- 2012 - 2015 Director, Vencorex Holding SAS
- 2011 - 2015 Director, PTTGC International (Netherlands) B.V.
- 2011 - 2014 Director, Bio Creation Company Limited

### Shareholding: None

### Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

## Mr. Jirawat Nooritanon

**Director / Director to Risk Management Committee**  
Age 50

**Appointed:** 13 January 2017 Director to Risk Management Committee  
17 February 2016 Director

### Education / Training:

- M.Eng. (Energy Technology), Asian Institute of Technology (AIT)
- M.B.A. (Business Administration), Thammasat University
- B.Eng. (Chemical Engineering), Chulalongkorn University

### Director Training:

- Director Accreditation Program (DAP) class 124/2016, Thai Institute of Directors Association (IOD)
- Director Certification Program (DPC) Class 221/2016, Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 2

- Managing Director, Global Green Chemicals Public Company Limited
- Director / Director to Risk Management Committee, Global Green Chemicals Public Company Limited
- Executive Vice President, Green Chemicals Business Unit, PTT Global Chemical Public Company Limited

### Board Member / Management in Non-listed Companies: 3

- Chairman, PTT MCC Biochem Company Limited
- Chairman, Thai Fatty Alcohols Company Limited
- Director, Thai Ethoxylate Company Limited

### Positions in Other Organizations / Institutions: None

### Work Experience (5 Years):

- 2012 - 2016 Director / Managing Director, Thai Fatty Alcohols Company Limited
- 2012 - 2016 Director, Thai Oleochemicals Company Limited
- 2012 - 2015 Managing Director, Thai Oleochemicals Company Limited
- 2012 - 2015 Vice President, Sales & Marketing - Oleochemicals, PTT Global Chemical Public Company Limited
- 2010 - 2015 Vice President, Marketing, Commerce & Trade and Planning, Thai Oleochemicals Company Limited

### Shareholding: None

### Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

## GGC Executives



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5

**Mr. Jirawat Nooritanon**  
Managing Director

1

**Ms. Uramanee Puttong**  
Vice President, Corporate Affairs and  
Corporate Secretary

2

**Ms. Sornraya Yoobho**  
Vice President, Corporate Affairs and  
Corporate Secretary  
(August 24, 2015 – December 31, 2017)

3

**Ms. Kunakorn Witthayapaisarn**  
Vice President, Internal Audit

4

**Mr. Apichart Kullavanijaya**  
Vice President, Corporate Strategy

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**Ms. Sirintra Chatchawanpreecha**

Vice President, Technology, Engineering and Maintenance

6

**Mr. Wanlop Thianthong**

Vice President, Marketing, Commercial and Supply

7

**Ms. Wanlapa Sophiskhaunkhant**

Vice President, Corporate Finance and Accounting

8

**Ms. Sunanta Promroj**

Vice President, HR and Corporate Support

9

**Mr. Sayan Saesue**

Vice President, Operations

10

**Mr. Chanasiri Vanit**

Vice President, Project

11



## Mr. Jirawat Nooritanon

Age 50

Managing Director

Appointed: 18 February 2016

### Education / Training:

- M.Eng. (Energy Technology), Asian Institute of Technology
- M.B.A. (Business Administration), Thammasat University
- B.Eng. (Chemical Engineering), Chulalongkorn University
- Director Certification Program (DCP 221/2016) Thai Institute of Directors Association (IOD)
- Director Accreditation Program (DAP 124/2016) Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies –

#### The Stock Exchange of Thailand: 2

- Managing Director, Global Green Chemicals Public Company Limited
- Director / Director to Risk Management Committee, Global Green Chemicals Public Company Limited
- Executive Vice President, Green Chemicals Business Unit, PTT Global Chemical Public Company Limited

### Board Member / Management in Non-listed Companies: 3

- Chairman, PTT MCC Biochem Company Limited
- Chairman, Thai Fatty Alcohols Company Limited
- Director, Thai Ethoxylate Company Limited

### Work Experience (5 Years):

- 2012 - 2016 Director / Managing Director, Thai Fatty Alcohols Company Limited
- 2012 - 2016 Director, Thai Oleochemicals Company Limited
- 2012 - 2015 Managing Director, Thai Oleochemicals Company Limited
- 2012 - 2015 Vice President, Sales & Marketing - Oleochemicals, PTT Global Chemical Public Company Limited
- 2010 - 2015 Vice President, Marketing, Commerce & Trade and Planning, Thai Oleochemicals Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

## Ms. Uramanee Puttong

Age 54

Vice President, Corporate Affairs and Corporate Secretary

Appointed: 1 January 2018

### Education / Training:

- M.A. (Communication), Ramkhamhaeng University
- B.A. (Management), Valaya Alongkorn Rajabhat University under the Royal Patronage
- Advances for Corporate Secretaries, Class 2/2017, Thai Companies Association (IOD)
- Company Secretary Program (SCP 24/2007), Thai Institute of Directors Association (IOD)
- Board Reporting Program (BRP 15/2014), Thai Institute of Directors Association (IOD)
- Anti-Corruption: The Practical Guide (ACPG 4/2013), Thai Institute of Directors Association (IOD)
- Modern Public Relation Business Plan (MPR 33), Public Relations Society of Thailand

### Board Member / Management in Listed Companies –

#### The Stock Exchange of Thailand: 1

- Vice President, Corporate Affairs and Corporate Secretary, Global Green Chemical Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2011 - 2017 Division Manager, Corporate Governance and Corporate Secretary, PTT Global Chemical Public Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Ms. Sornraya Yoobho

Age 60

Vice President, Corporate Affairs and Corporate Secretary

Appointed: 24 August 2015 – 31 December 2017

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### Education / Training:

- Master of Public and Private Management Program, National Institute of Development Administration
- B.A. (Public Administration), Kasetsart University
- Company Secretary Program (SCP 69/2016) Thai Institute of Directors Association (IOD)
- Director Certification Program (CDP 221/2016) Thai Institute of Directors Association (IOD)

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Corporate Affairs and Corporate Secretary, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2011 - 2015 Vice President, Corporate Communication and Branding, PTT Global Chemical Public Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Ms. Kunakorn Witthayapaisarn

Age 51

Vice President, Internal Audit

Appointed: 1 January 2018

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### Education / Training:

- B.A. (Accounting), Thammasat University
- Certified Internal Auditor, Institute of Internal Audit, U.S.A.
- Accreditation in Quality Assessment, Institute of Internal Auditors, U.S.A.

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Internal Audit, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2015 - 2018 Member, Internal Audit Committee, National Science Technology and Innovation Policy Office
- 1992 - 2017 Senior Assistant Director, Internal Audit, Securities and Exchange Commission

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Mr. Apichart Kullavanijaya

Age 43

Vice President, Corporate Strategy

Appointed: 1 June 2016

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### Education / Training:

- B.Eng. (Industrial Engineering), Kasetsart University
- Petrochemicals Market and Forecast
- Joint Venture Development Framework
- Enterprise Risk Management (ERM)
- Internal Audit ISO 14001 and Environment Auditing (UK)

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Corporate Strategy, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2011 - 2016 Manager, Portfolio Management, PTT Global Chemical Public Company Limited
- 2013 - 2014 Manager (Acting), Subsidiaries Management, PTT Global Chemical Public Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Ms. Sirintra Chatchawanpreecha

Age 40

Vice President, Technology, Engineering and Maintenance

Appointed: 1 October 2015

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### Education / Training:

- M.Eng. (Chemical Engineering), King Mongkut's University of Technology Thonburi
- B.Eng. (Chemical Engineering), King Mongkut's University of Technology Thonburi

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Technology, Engineering and Maintenance, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2011 - 2015 Manager, Plant Techniques, Biochemicals Business Group, Thai Oleochemicals Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Mr. Wanlop Thianthong

Age 45

Vice President, Marketing, Commercial and Supply

Appointed: 1 October 2015

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### Education / Training:

- B.Sc. (Engineering Chemistry), Chulalongkorn University

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Marketing, Commercial and Supply, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: 2

- Director / Managing Director, Thai Fatty Alcohols Company Limited
- Director, Thai Eastern Top Seeds Oil Company Limited

### Work Experience (5 Years):

- 2014 - 2015 Manager, Marketing and Green Commerce, Thai Oleochemicals Company Limited
- 2011 - 2014 Manager, Production and Supply Planning, Thai Oleochemicals Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Ms. Wanlapa Sophiskhaunkhant

Age 38

Vice President, Corporate Finance and Accounting

Appointed: 24 August 2015

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### Education / Training:

- M.Eng. (Chemical Engineering), King Mongkut's University of Technology Thonburi
- B.Eng. (Chemical Engineering), King Mongkut's Institute of Technology Ladkrabang

### Board Member / Management in Listed Companies – The Stock Exchange of Thailand: 1

- Vice President, Corporate Finance and Accounting, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: 1

- Director, Thai Fatty Alcohols Company Limited

### Work Experience (5 Years):

- 2014 - 2015 Manager, Strategic Partnership and Business Administration, International Business Administration Unit, PTT Global Chemical Public Company Limited
- 2012 - 2013 Specialist, Strategy and Business Development, Specialty Chemicals Business Unit, PTT Global Chemical Public Company Limited
- 2012 - 2013 Senior Process Engineer, Process Technology, PTT Aromatics and Refining Public Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None



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## Ms. Sunanta Promroj

Age 59

Vice President, HR and Corporate Support

Appointed: 24 August 2015

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### Education / Training:

- B.Ed. (Social Sciences), Sukhothai Thammathirat Open University

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 1

- Vice President, HR and Corporate Support, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2013 - 2015 Manager, Human Resources, Polymers Business Unit, PTT Global Chemical Public Company Limited
- 2008 - 2012 Specialist, Human Resources, Ethylene Product Business Unit, PTT Global Chemical Public Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Mr. Sayan Saesue

Age 46

Vice President, Operations

Appointed: 1 October 2015

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### Education / Training:

- M.Eng. (Industrial Engineering), King Mongkut's University of Technology North Bangkok
- B.Eng. (Control Systems and Instrumentation Engineering), King Mongkut's Institute of Technology Ladkrabang

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 1

- Vice President, Operations, Global Green Chemicals Company Limited

### Board Member / Management in Non-listed Companies: None

### Work Experience (5 Years):

- 2011 - 2015 Manager, Plant Operations, Thai Oleochemicals Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

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## Mr. Chanasiri Vanit

Age 47

Vice President, Project

Appointed: 1 October 2016

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### Education / Training:

- M.A. (Economics), Kasetsart University
- B.Eng. (Chemical Engineering), Kasetsart University

### Board Member / Management in Listed Companies - The Stock Exchange of Thailand: 1

- Vice President, Project, Global Green Chemicals Public Company Limited
- Acting Manager, Quality, Safety, Occupational Health & Environment, Global Green Chemicals Public Company Limited

### Board Member / Management in Non-listed Companies: 1

- Director, Thai Eastern Top Seeds Oil Company Limited

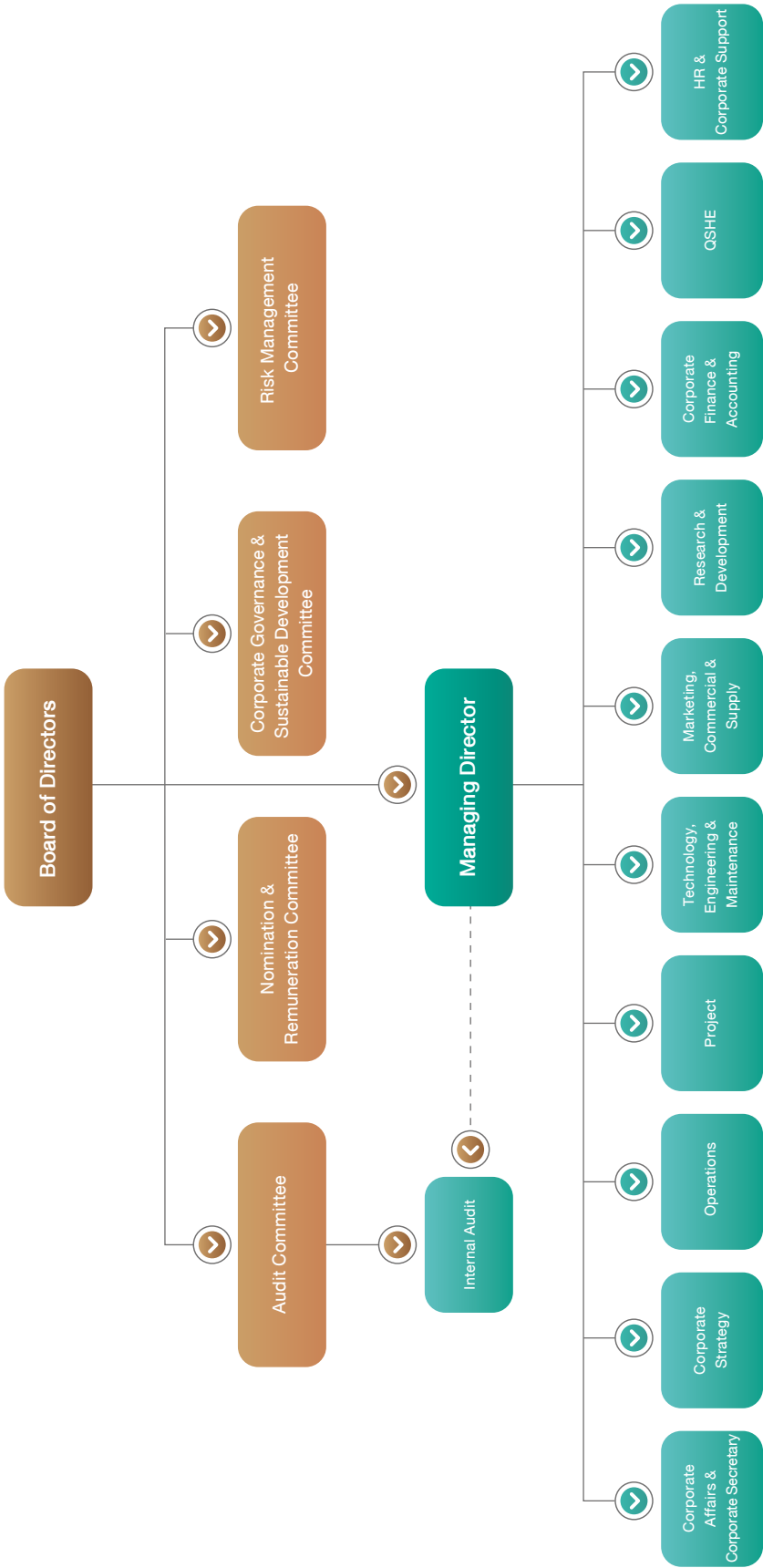
### Work Experience (5 Years):

- 2015 - 2016 Manager, Quality, Safety, Occupational Health & Environment, Global Green Chemicals Public Company Limited
- 2014 - 2015 Section Head, Plant Assets, Thai Oleochemicals Company Limited
- 2011 - 2014 Section Head, Plant Operation, Thai Oleochemicals Company Limited

Shareholding: None

Family Relations with Other Directors, Management, Major Shareholders of the Company or Subsidiaries: None

# Organization Structure



This organization chart as of January 1, 2018, contains the Board of Directors and its four sub-committees, namely the Audit Committee, Nomination and Remuneration Committee, Risk Management Committee, and Corporate Governance and Sustainable Development Committee. These sub-committees report to the Board of Directors.

## Management Structure

### The Board of Directors (as of January 1, 2018)

Name	Position	Appointed Date*
1. Mr. Supattanapong Punmeechaow	Chairman, Board of Directors	February 17, 2016
2. Prof. Dr. Kumchai Jongjakapun <sup>(1)</sup>	Chairman of Independent Directors and Chairman of Audit Committee	February 17, 2016
3. ACM Songtam Chokkanapitag	Independent Director and Chairman of Nomination and Remuneration Committee	February 17, 2016
4. Mr. Payungsak Chartsutipol	Independent Director and Chairman of Corporate Governance and Sustainable Development Committee	January 6, 2017
5. Ms. Kannika Ngamsopee	Independent Director, Director to Audit Committee and Chairman of Risk Management Committee	February 17, 2016
6. Mr. Patiparn Sukondhaman	Director and Director to Nomination and Remuneration Committee	February 17, 2016
7. Mr. Athavudhi Hirunburana	Director, Director to Nomination and Remuneration Committee and Director to Corporate Governance and Sustainable Development Committee	February 17, 2016
8. Mr. Apichart Jongskul	Independent Director and Director to Audit Committee	January 6, 2017
9. Mr. Suphit Suwagul <sup>(1)</sup>	Director and Director to Corporate Governance and Sustainable Development Committee	January 1, 2018
10. Mr. Narongsak Jivakanun	Director and Director to Risk Management Committee	February 17, 2016
11. Mr. Jirawat Nooritanon	Director and Director to Risk Management Committee	February 17, 2016

Note:

(1) Appointed to replace Mr. Permsak Shevawattananon, Chairman of Audit Committee, who resigned on December 31, 2017, with effect from January 1, 2018. He was also appointed as Chairman of Independent Directors, at Independent Directors' Meeting No. 1/2017 of December 20, 2017.

(2) Appointed as Director to replace Mr. Permsak Shevawattananon who resigned and appointed as Director to Corporate Governance and Sustainable Development Committee, in replace of Prof. Dr. Kumchai Jongjakapun, Director who was appointed as Chairman of Audit Committee, with effective from January 1, 2018, at the Board of Directors Meeting No. 10/2017 of December 20, 2017.

\* Directors No 2 and 10 was reappointed as Directors for their first term on March 15, 2016 and Directors No 3, 5, 6, 11 was reappointed as Directors for their first term on March 21, 2017

### Directors who resigned in 2017

Name	Position	Time in Office
1.Mr. Permsak Shevawattananon	Independent Director and Chairman of Audit Committee	February 17, 2016- December 31, 2017

### Authorized Directors

According to GGC's Articles of Association and Certification of Incorporation from Department of Business Development, Ministry of Commerce, dated January 3, 2018, the Directors authorized to sign on behalf of GGC were Mr. Supattanapong Punmeechaow, Mr. Athavudhi Hirunburana, Mr. Patiparn Sukondhaman, Mr. Narongsak Jivakanun, and Mr. Jirawat Nooritanon. The signatures of two of these five are required together with GGC's Seal affixed.

### Composition and appointment of Directors

The Board of Directors's composition and Directors' appointment, removal, or dismissal is spelled out in GGC's regulations and of Corporate Governance and Code of Conduct Handbook as highlighted below.

1. The Board of Directors is made up of 5 to 11 Directors, elected and removed at the shareholders' meeting. At least half must reside in Thailand, and all of them must be legally qualified, have no forbidden characteristics by laws, and be up to 70

years old. Directors are to choose one of them as Chairman and may appoint another as Vice Chairman.

2. Shareholders at the shareholder meeting shall vote to appoint Director(s) according to the following guidelines:

- (1) A shareholder has one vote per share.

- (2) In the event that the number of nominees does not exceed the number of vacant positions during the election, shareholders shall vote on those eligible nominees. Shareholders must allocate all of their votes to one nominee per (1) without dividing their votes.

- (3) In the event that the number of nominees exceed the number of vacant positions during the election, the voting method shall be made on a person-by-person basis. In casting votes, shareholders must allocate all of their votes to one nominee per (1) without dividing their votes. Nominees receiving the majority votes shall be elected to the Board of Directors until there are no vacancies left. Additionally in the event that the number of nominees with equal votes exceeds the number of available positions, the Chairman of the meeting shall cast the deciding vote.

3. In each Annual General Meeting, one-third (1/3) of the serving Directors shall step down as their terms end. In the event that the number of serving Directors is not equally divisible by three (3), the number of Directors stepping down shall be as close to the aforementioned ratio of 1:3 as possible. In the first and second years after Company registration, Directors may voluntarily step down. In the event the number of the volunteer still fall short, Director to step down shall be drawn by lots; however, for later years, Directors serving the longest terms shall step down. Directors whose term has ended maybe re-elected to the Board of Directors.
4. Resigning Directors must submit their resignation notice to GGC. Resignation is effective on the day GGC receives the said notice. In addition, Directors may also notify the registrar of their resignation for acknowledgement.

5. In the event that a Director's position becomes vacant for any reason other than the end of term, the Board of Directors may appoint a new Director who is qualified and does not possess any attributes prohibited by laws to attend the next Board of Directors meeting, except the remaining term is less than two (2) months. The new Director shall only serve the remaining term of his or her predecessor. This decision must be made with the agreement of three-quarters (3/4) of the remaining Directors.

6. At a shareholder meeting, shareholders may pass a resolution to force the termination of a Director before his or her term ends with three-fourths (3/4) of the attending and eligible shareholders' votes. Additionally, these, majority votes must constitute at least half (1/2) of their shares held by attending and eligible shareholders.

### Authorities and responsibilities of the Board of Directors

The Board of Directors is responsible for proactively performing key duties of decision-making and devising directions and supervision as follows.

1. Perform their duties and supervise GGC's businesses in strict compliance with the law, objectives, regulations, and shareholders' resolutions by adhering to SET's good practices for directors of listed companies
2. Dedicate their time and focus to the setting of GGC's vision, mission, directions, and strategies through free expression of views and pursuit of information that are helpful for setting GGC's business directions
3. Review and endorse key strategies and policies, objectives, financial goals, and work plans, while supervising and ensuring the management's compliance with these plans set in line with the annual corporate directions and strategies. This way, it can ensure that the management will efficiently execute such vision, mission, and strategies.

4. Devise a policy on Corporate Governance Policy and Code of Conduct, consisting of principles and good practices for the Directors, management, employees, and personnels, with a focus on forging awareness of responsibility for their duties, understanding, as well as strict observance in tandem with GGC's rules and regulations for fairness to all stakeholders
5. Define approval authority for matters beyond the authority delegated to the Managing Director in GGC's regulations, namely the approval of budgets, investment, project execution for GGC and subsidiaries, engagement in key contracts, appointment of Directors replacing those leaving during the year, appointment of sub-committees, naming of Directors authorized to sign and bind GGC, setting the AGM date, and interim dividend payment
6. Ensure that accounting, financial reporting, and account audit systems are credible, while instituting assessment processes for internal control and internal audit with a focus on efficiency and effectiveness
7. Consider potential key risk factors and set risk management approaches that are comprehensive. Ensure that Executives command efficient risk management processes, pursue potential business opportunities resulting from such risks, and establish adequate, effective internal control
8. Monitor and manage with potential conflicts of interest and related transactions, focusing on key transactions for the best interests of shareholders and stakeholders as a whole
9. Establish suitable communication channels with each shareholder group and supervise information disclosure to ensure accuracy, clarity, credibility, and standard practices
10. Appraise the performances of itself and the Managing Director and review them
11. Institute a system for deciding remuneration for top GGC Executives that is suitable and in line with performance outcomes for short-term and long-term incentives.
12. Lead and provide role models for job execution and personify the Code of Conduct in line with GGC's Corporate Governance Policy.
13. Establish appraisal of compliance with the Corporate Governance Policy and Business Code of Conduct at least annually.
14. Establish a suitable personnel recruitment system for all those to be appointed to all key executive positions along with a transparent, fair recruitment process. Top Executives, meaning Vice Presidents upward, are to be appointed with the Board of Director's majority votes.
15. Report to GGC any conflicted of interest that its members on their affiliates may have towards the management of GGC or subsidiaries
16. All Directors are to attend all Board of Directors meetings and shareholders' meetings. Should more important businesses preclude this, they must inform the Chairman
17. Value business conduct with social and environmental responsibility. Promote Thai society's sustainable, improved quality of life, beginning with communities around GGC's plants, for sustainable co-existence
18. Support GGC's resistance to corrupt practices in all forms for the sake of its sustainable progress and growth.

### Managing Director's scope of authority

Appointing Mr. Jirawat Nooritanon to the Managing Director position, the Board of Directors drew up a scope of authority for managing GGC's businesses in line with the policies, plans, and budgets approved by the Board of Directors as the top manager. The Managing Director must proceed under the objectives, regulations, resolutions, and company rules. His board-assigned authority is referenced to four board-approved regulations, namely (1) finance, accounting, and budget (2) procurement of materials (3) personnel administration, and (4) marketing, procurement, and product sales and services. The criteria and scope of approval authority include the following.

1. Approval of procurement and sale of materials of up to THB 100 million each time, except for procurement of chemicals or catalysts needed for processes
2. Approval of investment under board-approved budget
3. Procurement and sale of products and services
  - Procurement of products and by-products with period of contract less than 1 year under up to one year's contract or any contract of less than 30,000 tons in volume
  - Procurement of utility and services apart from the above, with a contractual period of up to five years
  - Sale of products, utility, and services without any limit on time and budget. If any of these transactions are related transactions, GGC must abide by the criteria and procedures stated on such matters.
3. To apply, represent to, sign the form, enter into agreement, make payment to the Factory Registrar, Department of Industrial Works, the Ministry of Industry or Pollution Control Department, The Ministry of Natural Resource and Environment, or Industrial Estate Authority of Thailand, or the National Environment Board, or other local council authorities, or any other government authorities or agencies, concerning any permits required for the operation and expansion of the plants, the displacement of the machinery of the Company and the renewal of the operation permit, the management of the environment, occupational health and safety of the Company and to do all acts necessary until such permits are given by the authorities concerned;
4. To apply, represent to, sign the form, enter into agreement, make payment to the Electricity Generating Authority of Thailand, the Metropolis Electricity Authority, the Provincial Electricity Authority in any provinces or to any other juristic persons in order to get the supply of electricity from the authorities concerned for the Company's plants and office buildings;

If any of these transactions are related transactions, GGC must abide by the criteria and procedures stated on such matters.

In addition to these regulations, the Board of Directors has delegated to the Managing Director duties and responsibilities under the scope stated in the Power of Attorney dated September 14, 2016, which expires on September 30, 2019. Below are the highlights of this scope

1. To have general authority to do all acts on behalf of the Company pursuant to Section 801 of The Thai Civil and Commercial Code;
2. To apply, represent to, sign the form, enter into agreement, make payment to the building control authorities or the Bangkok Metropolis, or Industrial Estate Authority of Thailand, or any municipal or local council concerning building permit, planning permit and any permits required for the erection, construction, demolition, displacement, expansion of, alteration in and addition to the Company's plants and office buildings, and to do all acts necessary until all permission and permits are given by the authorities concerned;
5. To apply, represent to, sign the form, enter into any agreement, make payment or deposit to the TOT Corporation Public Company Limited, or CAT Public Company Limited or any government authority or body in order to get telephone communication systems, equipment and facilities and telex machines, equipment and facilities and to do all acts necessary until telephone communication systems, equipment and facilities are installed and capable of being utilized by the Company and the Company's personnel;
6. To apply, represent to sign the form, enter into any agreement, make payment or deposit to the Board of Investment or any government authority in order to get Promotion Certificate, all rights and benefits and any approval from the Board of Investment;
7. To remit into Thailand foreign currencies or Baht currencies in the business of the Company including representation to the Bank of Thailand for the purpose of getting its permission or approval for the said remittance;

8. To remit out of Thailand foreign currencies or Baht currencies in the business the Company including representation to the Bank of Thailand for the purpose of getting its permission or approval for the said remittance;
9. To carry into effect and perform all agreements duly concluded by the Company with any person or corporation;
10. To apply, represent to, sign the form and/or any documents, to enter into, to sign, to perform, to amend or modify and terminate all kinds of contracts with persons, partnership, associations, companies, state enterprise or any other juristic persons, municipalities and government organizations including the registration of various business of the Company which are beneficial to the purposes of the Company and to accept such rights, privileges, public facility services and concessions from the government as the Attorney shall think fit;
11. To apply, represent to, sign the form and/or any documents with the Revenue Department, Custom Department or Excise Department and any authorities thereof and/or any other government authorities in order to obtain all kind of Tax/Duty Registration Certificate, to change in any kind of Tax/Duty Registration, to file tax/duty return, to apply for and obtain any kind of tax/duty refund and to pay any fine/ surcharge, penalty, stamp duty and all kind of fees;
12. To represent to any government authority on behalf of the Company in the course of the business of the Company in verbal or writing;
13. To appoint any person to be an attorney to do any act as provided in this Power of Attorney;

This delegation of authority excludes the approval of transactions involving the vested interests of the Managing Director and parties of potential conflicts, other potential conflicts of interest with GGC or subsidiaries. Parties of potential conflicts consists of GGC's (a) Executives, (b) major shareholder, (c) controllers, (d) parties related by blood, marriage, or legal registration with parties under (a), (b), or (c), namely father, mother, spouse, child, or

any close relative, and (e) any juristic persons in which parties under (a), (b), or (c) hold shares, control, or have significant vested interests, either directly or indirectly. Delegation of authority for the above matters must be done under GGC's regulations.

### Independent Directors

According to GGC's Corporate Governance and Code of Conduct Handbook, at least one-third of the Board of Directors must be Independent Directors, and must be not less than three. All Independent Directors must be qualified and competent, be legally independent, express their independent views at meetings, regularly attend meetings, access enough financial and other business data to express their independent views, maintain the interests of those involved, and prevent conflicts of interest between GGC and Executives, Directors, the major shareholder, or other companies with the same Directors, Executives, or major shareholder. In addition, Independent Directors must verify their independence upon their appointment and report such verification annually for disclosure in the annual report, in addition to informing GGC upon each change.

GGC's Independent Directors must command the following key qualifications:

1. Holding no more than 1% of the total voting shares in GGC, parent companies, subsidiary companies, associated companies, major shareholders, or any persons with controlling power over GGC. This limit includes the shares held by Independent Directors' related parties.
2. Not currently be or never been the Company's Directors participating in the management of GGC, employees, staff, advisers with regular salaries, or any persons with controlling power over GGC, parent companies, subsidiary companies, associated or sister companies, major shareholders, or persons with controlling power over GGC, unless such qualifications have ended for at least two years.



3. Not related by blood or legal registration as parents, spouses, siblings, or children, spouses of the children of any Directors, Executives, major shareholders, persons with controlling power, or persons about to be nominated as Directors, Executives or persons with controlling power over GGC or its subsidiaries.
4. Engaged in no business relationship with GGC, parent companies, subsidiary companies, associated companies, major shareholders, or persons with controlling power over GGC, where such Independent Directors' discretion may be compromised. Are not current or past substantial shareholders or persons with controlling power over the person with business relationship with GGC, parent companies, subsidiary companies, associated companies, major shareholders, or persons with controlling power over GGC, unless such qualifications have ended for at least two years. The business relationship referred to above includes any ordinary business transactions, lease of properties, transactions relating to assets or services, or any sponsorship or acceptance of sponsorship by either lending, borrowing, guaranteeing, collateral provision, or similar behavior that could result in an obligation on the applicant or the party to it for 3% or more of the net tangible asset value of THB 20 million or more, whichever is lesser. The method for calculating the value of connected transactions under the Capital Market Supervisory Board's notification on Rules of Entering into Connected Transactions must be applied mutatis mutandis in the calculation of the amount of debt. In calculating such debt, the debt incurred during the past year leading to the date on which such business relationship with such person exists must also be included.
5. Not currently having or never been auditors of GGC, parent companies, subsidiary companies, associated companies, major shareholders, or persons with controlling power over GGC, and not significant shareholders (those who held over 10% of all GGC voting shares, including those shares held by related parties), persons with controlling power, or partners of any audit firms or offices which employ the auditors of GGC, parent companies, subsidiary companies, associated companies, major shareholders, or persons with controlling power over GGC, unless when such qualifications have ended for at least two years
6. Not currently be providing or never provided professional services, legal consulting nor financial consulting services to GGC with a fee more than Baht 2 million per year. Also the person should not currently be or never be a significant shareholder controlling person or partner of current service provider, unless when such qualifications have ended for at least two years.
7. Are not Directors appointed as a representative of a Director of GGC, its major shareholder, or a shareholder who is related to its major shareholder.
8. Not currently be operating under similar business nature and significant competition to the GGC or its subsidiary or not a significant partner of the partnership, Executive Director, personnels, employees or consultant, or holding more than 1% of total voting shares of any other company operating similar business nature and significant competition to GGC and its subsidiaries.
9. Not under any conditions that may impede the person from having independent views towards GGC's operation.

GGC has five Independent Directors, a number exceeding legal requirements.

### Sub-committees

In compliance with corporate governance, at Meeting No. 1/2016 of February 26, 2016, two sub-committees were appointed, namely the Audit Committee and the Nomination and Remuneration Committee. At Meeting No. 1/2017 of January 13, 2017, two additional sub-committees were appointed, namely the Corporate Governance and Sustainable Development Committee and the Risk Management Committee. Each is to serve for three years in examining key specialized matters with prudence and efficiency before tabling their comments to the Board of Directors. Below are the lists and duties of each sub-committee as of January 1, 2018.



## Audit Committee

Name	Position	Appointed date
1. Prof. Dr. Kumchai Jongjakapun*	Chairman of Audit Committee (Independent Director)	January 1, 2018
2. Ms. Kannika Ngamsopee	Director to Audit Committee (Independent Director)	February 26, 2016
3. Mr. Apichart Jongskul**	Director to Audit Committee (Independent Director)	January 13, 2017

Note:

\* [Change in chairmanship](#) Board of Directors Meeting No. 10/2017 of December 20, 2017, appointed Prof. Dr. Kumchai Jongjakapun as the Chairman of the committee in place of Mr. Permsak Shevawattananon, who resigned from independent directorship and Chairman of the committee with effect from January 1, 2018.

\*\* [Change in committee composition](#) Board of Directors Meeting No. 1/2017 of January 13, 2017, appointed Mr. Apichart Jongskul as Director to the committee in place of Prof. Dr. Kumchai Jongjakapun, who was appointed by the Board of Directors as Director to Corporate Governance and Sustainable Development Committee with effect from January 13, 2017.

Mr. Siriphong Suebsuk, VP, Internal Audit, served as secretary for the committee until his retirement on June 30, 2017. During recruiting a new VP as the Chief of Audit Executive, Mr. Sungkard Karivate, Division Manager, took care of Internal Audit Department and worked as temporary audit committee secretary. The Board of Directors, with new appointment on Chief of Audit Executive by the Audit Committee consent, established Ms. Kunakorn Wittayapaisarn as the VP for Internal Audit Department with effective on January 1, 2018.

The committee comprises at least three directors. The committee is subject to a three-year terms. The directors must retire from office by rotation at Annual General Meeting of Shareholders. Nevertheless a retiring director is eligible for re-election. With re-assignment for directors, they must have fully qualifications, roles and responsibilities complied with SEC standard requirements on laws and regulations and also serve for The Board of Directors upon their assignment. At least one member of committee, must have extensive knowledge and experienced, are responsible for reviewing the reliability of the financial statements; [this was Ms. Kannika Ngamsopee, who has fully well-experienced on finance and accounting background.](#)

The Audit Committee consists of at least three independent directors which The Board of Directors is fully confident on audit committee capabilities with their qualification, a wide range of knowledge, and well-experienced to drive an effective performance.

To ensure on reliability of the financial statement, at least one of member are well accepted and have fully understanding of, and experience in accounting or finance. Furthermore, the committee received more business knowledge and more information on control activities to support their audit duties. The benefits from those knowledgeable are to review the appropriateness of GGC financial reporting system and disclosure of information in its financial statement in accordance with the legally defined Financial Reporting Standards, effectiveness internal control system, and well-prepared on risk management and effectiveness mitigation plan. The committee selects and proposes the appointment or discharge an independent person to perform the duties of the Company's auditor also propose the remuneration of the Company's auditor and evaluate the effectiveness of auditor's performance. Following on SEC standard laws and regulations, the committee must review related parties transactions and conflict of interests that company given an appropriate reason to a highly company's benefits with transparency system to disclose an adequate information and transaction to public. As internal Audit roles and responsibilities, the committee reviews the effectiveness internal Audit activities to be complied with IIA's International Standards for the Professional Practice of Internal Auditing.

The Board of Directors also endorsed Audit Committee Charter, which stated its objective, composition and

qualifications of audit committee members, scope of engagement and duties, responsibilities under good corporate governance principles, meeting, reporting and performance evaluation. The charter is part of the Corporate Governance Handbook and Code of Conduct which appear on GGC website.

To perform as state in Audit Committee Charter duties, the committee held totally of eight meetings and included meeting exclusively with external auditor. Audit Committee annual performance report was also submitted to the Board of Directors and disclosed in GGC's annual report.

### Nomination and Remuneration Committee

Name	Position	Appointed Date
1. ACM Songtam Chokkanapitag	Chairman of Nomination and Remuneration Committee (Independent Director)	February 26, 2016
2. Mr. Athavudhi Hirunburana	Director to Nomination and Remuneration Committee	February 26, 2016
3. Mr. Patiparn Sukondhaman	Director to Nomination and Remuneration Committee	February 26, 2016

Ms. Sornraya Yoobho, VP, Corporate Affairs & Corporate Secretary, served as committee secretary until her retirement on December 31, 2017, when her successor, Ms. Uramanee Puttong, took over with effect from January 1, 2018.

This committee consists of at least three Directors, one of whom must be an Independent Director. The Chairman must also be an Independent Director. It serves for three years or end terms on retirement, resignation, or removal. Dismissed members may be re-appointed by the Board of Directors.

Under systematic and transparent practices, this committee recruits and nominates Directors and the Managing Director, and considers their compensation guidelines. In nominating Directors, it examines

experiences, professions, diverse skills, and specialized qualifications needed for business under the Board Skill Matrix so as to strike a balance and best interests. In addition, it reviews name lists or Directors' Pool of credible organizations before tabling them to Board of Directors meetings or shareholders' meetings, or both.

The Board of Directors has endorsed this committee's charter, which defines its composition, qualifications, terms of office, and scope of duties under good corporate governance principles. Finally, the charter appears in the annual report and on GGC's website.

This year the committee met five times to perform charter and board-assigned duties, reporting its performance to the Board of Directors and summarized it for the shareholders in the annual report.

### Corporate Governance and Sustainable Development Committee

Name	Position	Appointed Date
1. Mr. Payungsak Chartsutipol	Chairman of Corporate Governance and Sustainable Development Committee (Independent Director)	January 13, 2017
2. Mr. Athavudhi Hirunburana	Director to Corporate Governance and Sustainable Development Committee	January 13, 2017
3. Mr. Suphit Suwagul*	Director to Corporate Governance and Sustainable Development Committee	January 1, 2018

Note

\* [Change in committee composition](#) Board of Directors Meeting No. 10/2017 of December 20, 2017, appointed Mr. Suphit Suwagul as member in place of Prof. Dr. Kumchai Jongjakapun, who was now appointed by the Board of Directors as Chairman of Audit Committee, with effect from January 1, 2018.

Ms. Sornraya Yoobho, VP, Corporate Affairs & Corporate Secretary, served as committee secretary until her retirement on December 31, 2017, when her successor, Ms. Uramanee Puttong, took over with effect from January 1, 2018.

The current committee consists of three, one of whom must be an independent Director serving for three years each time. The Chairman of the committee is an Independent Director.

The committee performed its board-assigned duties in deliberating and recommending to the Board of Directors and the management policy/practical approaches to the

Code of Conduct and business ethics under good corporate governance principles. It also supervised, advised, appraised, and revised the policy and practices under good corporate governance principles so as to align with the guidelines of SEC, SET, and leading entities in pursuit of international standards.

This year the committee met five times to fulfill its mandates stated in the charter and assigned by the Board of Directors, and reported to the Board of Directors its monitored compliance with the corporate governance policy and summarized this for the shareholders in the annual report.

### Risk Management Committee

Name	Position	Appointed Date
1. Ms. Kannika Ngamsopee	Chairman of Risk Management Committee (independent director)	January 13, 2017
2. Mr. Narongsak Jivakanun	Director to Risk Management Committee	January 13, 2017
3. Mr. Jirawat Nooritanon	Director to Risk Management Committee	January 13, 2017

Mr. Apichart Kullavanijaya, VP, Corporate Strategy, served as secretary to this committee. This committee consists of at least three Directors, one of whom must be an Independent Director, with a three-year term. Members may leave their posts when they complete their directorships, complete their terms on this committee, resign, or face removal. Those who leave their posts on term completion may be re-appointed by the Board of Directors. Their duties are to define and review policies, objectives, and scopes of risk management for uniform execution in corporate risk management processes in line with business goals and strategies. To this end, regular reviews of such policies, objectives, and scopes take place, with priority given to warning signs. They are also to supervise risk

identification based on external and internal factors that could prevent GGC from achieving its objectives; assess impacts and their probabilities so as to assess risks and choose suitable risk management methods; supervise risk management for effectiveness; appraise risk management effectiveness; annually review its own charter; and perform other board-assigned duties and duties included in GGC's regulations.

This year the committee met six times to perform their charter and board-assigned duties, reporting its performance to the Board of Directors every quarter and summarized it for the shareholders in GGC's annual report

## Board of Directors' Meetings

In 2017, the Board of Directors, Independent Directors, and Sub-committees held various meetings as shown below. These meetings were called in advance, Directors who could not attend sent their letters to the Chairman, stating their reasons for their absences, of which the Chairman then informed the meeting before proceeding.

For a given year, the Board of Directors schedules its meeting dates in advance, as a rule meeting once a month (every third Wednesday of the month) so that Directors may plan their attendance without undue conflicts with their main duties. Directors that are government officials will allocate their personal hours or apply for leave to apply their experiences and ability to their extra GGC duties, regarded as another role in national development as the Directors with a vision for biochemical leadership under the mission of creating sustainable value for stakeholders, which include the country and society.

Board of Directors' Meetings							
Name	Board of Directors	Independent Directors	Non-executive Directors	Audit Committee	Nomination & Remuneration Committee	Corporate Governance & Sustainable Development Committee	Risk Management Committee
	Total 10	Once	Once	Total 8	Total 5	Total 5	Total 6
1. Mr. Supattanapong Punmeechaow	10/10	-	1/1	-	-	-	-
2. Mr. Permsak Shevawattananon	10/10	1/1	1/1	8/8	-	-	-
3. ACM Songtam Chokkanapitag	9/10	1/1	1/1	-	5/5	-	-
4. Mr. Payungsak Chartsutipol	10/10	1/1	1/1	-	-	5/5	-
5. Ms. Kannika Ngamsopee	10/10	1/1	1/1	8/8	-	-	6/6
6. Mr. Patiparn Sukondhaman	9/10	-	1/1	-	4/5	-	-
7. Mr. Athavudhi Hirunburana	8/10	-	1/1	-	5/5	5/5	-
8. Mr. Apichart Jongskul	9/10	1/1	1/1	7/8	-	-	-
9. Prof. Dr. Kumchai Jongjakapun	10/10	1/1	1/1	-	-	5/5	-
10. Mr. Narongsak Jivakanun	9/10	-	1/1	-	-	-	5/6
11. Mr. Jirawat Nooritanon	10/10	-	-	-	-	-	5/6

## Management

So that the Management of GGC proceeds with efficiency and compliance with the policies and directions of the Board of Directors, the Managing Director has appointed a Management Committee (MC), consisting of top management team members from Vice Presidents upward. The MC is led by the Managing Director, the top executive charged with day-to-day GGC management under the policies, plans, and budgets approved by the Board of Directors.

As of January 1, 2018, the Management consisted of the following members.

Name	Title
1. Mr. Jirawat Nooritanon	Managing Director
2. Ms. Uramanee Puttong <sup>(1)</sup>	Vice President, Corporate Affairs and Corporate Secretary
3. Ms. Kunakorn Witthayapaisarn	Vice President, Internal Audit
4. Mr. Apichart Kullavanijaya	Vice President, Corporate Strategy
5. Ms. Sirintra Chatchawanpreecha	Vice President, Technology, Engineering and Maintenance
6. Mr. Wanlop Thianthong	Vice President, Marketing, Commercial and Supply
7. Ms. Wanlapa Sophiskhaunkhant	Vice President, Corporate Finance and Accounting
8. Ms. Sunanta Promroj	Vice President, HR and Corporate Support
9. Mr. Sayan Saesue	Vice President, Operations
10. Mr. Chanasiri Vanit	Vice President, Project

(1) Appointed in place of Ms. Sornraya Yoobho, VP, Corporate Affairs and Corporate Secretary, who retired on December 31, 2017, with effect from January 1, 2018.

Name	Title
1. Mr. Piya Suri	Vice President, Reporting to the Managing Director

\* Full-time secondee at TEX

The MC is charged with setting GGC's directions and business guidelines through reviewing and providing recommendations on corporate policies, approaches to businesses, matters leading to significant changes to the businesses of GGC's business groups and product groups. They also comment on and review meeting agendas ahead of the consideration of the Board of Directors together with matters needing compliance with laws and regulations to conform to the businesses of the business group.

On average, the MC meets at least twice a month, and in 2017, met 15 times. The VP, Corporate Affairs and Corporate Secretary, serves as its secretary and recorder of their meetings.

## Corporate Secretary

In compliance with Article 89/1 and Article 89/2 of the SEC Act (No. 4) of 2008, the Board of Directors Meeting No. 6/2015 on August 26, 2015, appointed Ms. Sornraya Yoobho Corporate Secretary, with effect from August 26, 2015. The Board of Directors Meeting No. 9/2017 on November 8, 2017, appointed Ms. Uramanee Puttong, as Ms. Yoobho's successor on her reaching retirement age, with effect from January 1, 2018. The Corporate Secretary performs her duties in compliance with the laws in preparing and storing key corporate documents, namely the director roster, meeting notices, Board of Directors meeting minutes, shareholders' meeting minutes, annual reports, reports of vested interests of Directors and Executives. She also takes action concerning the Board of Directors and shareholders' meetings. The Corporate Secretary also attends key training courses that prove helpful to her complete range of duties.

## Directorships of Subsidiary / Joint Ventures / Related Companies

Directorships of Subsidiary / Joint Ventures / Related Companies (as of January 1, 2018)								
Company Name	Mr. Supattapong Punmeechaow	Mr. Payungsak Chartutipol	Mr. Patiparn Sukondharnan	Mr. Narongsak Jivakanun	Mr. Jirawat Nooritanon	Mr. Wanlop Thianthong	Ms. Wanlapa Sophiskhaunkhant	Mr. Chanasiri Vanit
<b>Subsidiary</b>								
1. Thai Fatty Alcohols Co., Ltd. (TFA)					Chairman	Director	Director	
<b>Joint Ventures</b>								
1. Thai Ethoxylate Co., Ltd. (TEX)					Director			Director
2. Thai Eastern Top Seeds Oil Co., Ltd. (TETSO)						Director		Director
<b>Related Companies</b>								
1. PTT Plc. (PTT)	Management							
2. PTT Global Chemical Plc. (PTTGC)	Director	Management	Management	Management				
3. TOC Glycol Co., Ltd. (TOCGC)			Chairman					
4. Solution Creation Co., Ltd. (SUN)			Chairman					
5. Global Power Synergy Plc. (GPSC)	Director	Director						
6. PTT Phenol Co., Ltd. (PPCL)			Director	Director				

Chairman

Director

Management

## The Board of Directors and Executives Remuneration

The remuneration of Directors, Directors to Audit Committee, Directors to Nomination and Remuneration Committee, Directors to Corporate Governance and Sustainable Development Committee and Directors to Risk Management Committee has significant detail as follows;

Committee	Monthly Compensation (THB)		Meeting Allowance (THB/Meeting)*	
	Chairman	Director	Chairman	Director
Board of Directors	37,500	30,000	-	-
Audit Committee	-	-	25,000	20,000
Nomination and Remuneration Committee	-	-	25,000	20,000
Corporate Governance and Sustainable Development Committee	-	-	25,000	20,000
Risk Management Committee	-	-	25,000	20,000
Other Compensation	-	-	-	-

\* For those in attendance only

In the event that the Company payouts dividend, the Board of Directors shall receive the bonus payouts at 0.5% of net profit. However, such bonus shall not more than THB 10 million per year. The bonuses were prorated to each director's term, with the Chairman receiving 25% more than individual Directors.

In 2017, total Remuneration of Directors as of December 2017 as shown below

For the year ended December 31, 2017								
Remuneration (Baht)								
Name	Position	Board of Directors	Audit Committee	Nomination and Remuneration Committee	Corporate Governance and Sustainable Development Committee	Risk Management Committee	Total	Bonus for the performance of 2016 paid in 2017
1. Mr. Supattanapong Punmeechaow	Chairman	429,435.48	-	-	-	-	429,435.48	-
2. Mr. Permsak Shevawattananon	Independent Director / Chairman of Audit Committee	346,290.32	200,000.00	-	-	-	546,290.32	510,960.04
3. ACM Songtam Chokkanapitag	Independent Director / Chairman of Nomination and Remuneration Committee	346,290.32	-	125,000.00	-	-	471,290.32	510,960.04
4. Mr. Payungsak Chartsutipol <sup>(1)</sup>	Independent Director / Chairman of Corporate Governance and Sustainable Development Committee	342,246.32	-	-	125,000.00	-	467,246.32	-
5. Ms. Kannika Ngamsopee	Independent Director / Member of Audit Committee / Chairman of Risk Management Committee	346,290.32	160,000.00	-	-	150,000.00	656,290.32	510,960.04
6. Mr. Patiparn Sukondhaman	Director / Director to Nomination and Remuneration Committee	346,290.32	-	80,000.00	-	-	426,290.32	-
7. Mr. Athavudhi Hirunburana	Director / Director to Nomination and Remuneration Committee / Director to Corporate Governance and Sustainable Development Committee	346,290.32	-	100,000.00	100,000.00	-	546,290.32	-
8. Mr. Apichart Jongskul <sup>(1)</sup>	Independent Director / Director to Audit Committee	342,246.32	120,000.00	-	-	-	462,246.32	-
9. Prof. Dr. Kumchai Jongjakapun	Independent Director / Director to Corporate Governance and Sustainable Development Committee	346,290.32	-	-	100,000.00	-	446,290.32	510,960.04
10. Mr. Narongsak Jivakanun	Director / Director to Risk Management Committee	346,290.32	-	-	-	100,000.00	446,290.32	-
11. Mr. Jirawat Nooritanon	Director / Director to Risk Management Committee	346,290.32	-	-	-	100,000.00	446,290.32	-
<b>Total</b>		<b>3,884,250.68</b>	<b>480,000.00</b>	<b>305,000.00</b>	<b>325,000.00</b>	<b>350,000.00</b>	<b>5,344,250.68</b>	<b>2,043,840.16</b>

(1) The Extraordinary Shareholders Meeting No 1/2017 held on January 6, 2017 has approved 2 additional Directors of the Board of Directors

### Directors' remuneration for directorships at major subsidiaries

GGC's Directors serve at subsidiaries to ensure that their businesses are operated under the Group's policies.

Name	Position	Total Compensation
<b>Thai Fatty Alcohols Company Limited</b>		
Mr. Jirawat Nooritanon	Director	No Remuneration

### Remuneration for executives

GGC evaluates the performances of its executives annually using Key Performance Indicator (KPI). These include financial performance, implementation of long-term strategic goals, personal performance, GGC performance, and guidelines from peer SET-listed companies of a similar size. The evaluation also takes into account their responsibilities, management development, and overall economic conditions. Remuneration for the Managing Director is determined using transparent, fair, and reasonable criteria. The position's duties and responsibilities are also taken into account in conjunction with personal performance. The Nominating and Remuneration Committee reviews it before submission to the Board of Directors for approval. At the highest level of GGC's management hierarchy, the Managing Director earns compensation and other benefits in addition to those received as a Director on the Board of Directors.

Total compensation received by the Executives under SEC's definition who served in 2017

Item	Amount (THB)
Salary, bonuses, wages, and other welfares	37,829,241.45
Provident fund contribution	2,814,459.70





**Securities held by Directors, their spouses and their minors as of December 31, 2017**

Shares			
Directors*	As of May 2, 2017**	As of December 31, 2017	increased / (decreased) during the year
1. Mr. Supattanapong Punmeechaow	-None-	-None-	-No Change-
2. Mr. Permsak Shevawattananon	-None-	-None-	-No Change-
3. ACM Songtam Chokkanapitag	-None-	-None-	-No Change-
4. Mr. Payungsak Chartsutipol	-None-	-None-	-No Change-
5. Ms. Kannika Ngamsopee	-None-	-None-	Increased and decreased during the year for 10,400 shares
6. Mr. Patiparn Sukondhaman	-None-	-None-	-No Change-
7. Mr. Athavudhi Hirunburana	-None-	-None-	-No Change-
8. Mr. Apichart Jongskul	-None-	-None-	-No Change-
9. Prof. Dr. Kumchai Jongjakapun	-None-	-None-	-No Change-
10. Mr. Narongsak Jivakanun	-None-	-None-	-No Change-
11. Mr. Jirawat Nooritanon	None	None	Increased and decreased during the year for 5,000 shares

\* Including shares held by Director's spouse and minor children

\*\* GGC's first trading day

**Securities held by Executives under SEC's definition, their spouses and their minors as of December 31, 2017**

Shares			
Executives*	As of May 2, 2017**	As of December 31, 2017	increased / (decreased) during the year
1. Mr. Jirawat Nooritanon	-None-	-None-	Increased and decreased during the year for 5,000 shares
2. Ms. Sornraya Yoobho	-None-	-None-	-No Change-
3. Mr. Sayan Saesue	-None-	-None-	-No Change-
4. Ms. Sirintra Chatchawanpreecha	-None-	-None-	-No Change-
5. Mr. Wanlop Thianthong	-None-	-None-	-No Change-
6. Ms. Wanlapa Sophiskhaunkhant	-None-	-None-	-No Change-
7. Ms. Sunanta Promroj	-None-	-None-	-No Change-
8. Mr. Apichart Kullavanijaya	-None-	-None-	-No Change-
9. Mr. Chanasiri Vanit	-None-	-None-	-No Change-

\* Including shares held by Executive's spouse and minor children

\*\* GGC's first trading day





Corporate Governance

## Corporate Governance

The Board of Directors of Global Green Chemicals Public Company Limited emphasizes business operations based on a good corporate governance, which will strengthen the confidence to investors, shareholders, financial institutions, customers, business partners, as well as other stakeholders in business operations. It is also a crucial principle to the stabilized and sustainable business growth, creating long-term value for shareholders, social and community development, as well as attentions and responsibilities toward stakeholders, as the green flagship of PTT Global Chemical Public Company Limited.

### Corporate Governance Policy

The Board of Directors stipulates that corporate governance must comply with international standards, which has always been a part of the business operation policy since 2016. The Corporate Governance and Sustainable Development Committee conducts supervision, monitoring, and assessment to maintain the international standards of the operations, aligned with Global Green Chemicals Public Company Limited (“GGC” or “The Company”) strategies and business directions, with rules, regulations, laws, and practices on a par with international guidelines, as well as conducting annual monitoring and assessment of performance based on a good corporate governance through regular meetings of the board.

### Corporate Governance and Business Code of Conduct

To concretely implement corporate governance based on the Corporate Governance Policy, the Board of Directors has issued a Corporate Governance and Business Code of Conduct Handbook which consisted of the structure of corporate governance that directors, executives, and employees at any levels have to abide by signing for acknowledgment, and understand overall commitment.

### Communication of Good Corporate Governance Principle

GGC sets up six principles of Corporate Governance which are easy to memorize, namely Creation of long-term value, Responsibility, Equitable treatment, Accountability, Transparency, and Ethics (CREATE), and communicates them to employees and implement to their orientation by instilling awareness and constantly reminding through training, seminars, and activities, including assessment of directors' performance, assessment of employees' acknowledgment and implementation, as well as assessment of performance in accordance with supervising agencies such as the Securities and Exchange Commission (SEC), Stock Exchange of Thailand (SET), Thai Institute of Directors (IOD), and Thai Investors Association to gauge the implementation of good corporate governance and upgrade GGC's corporate governance on a par with international standards.

### Business Code of Conduct

This code consists of principles that Directors and Executives are going to implement as a leadership and good example which based on ethics, promote culture of good corporate governance, take responsibilities toward related stakeholders, and promote implementations and business operations based on human rights, consumers' rights, and fairly use for labour, systemize monitoring, following up plan, assessment, and review systems to ensure employees will completely comply and follow the Business Code of Conduct.

Ethics are defined in the Corporate Governance and Business Code of Conduct of Global Green Chemicals Group delivered to all directors, executives, and moreover, employees for acknowledgment, understanding, and sign as commitment of adherence and implementation. It was published on [www.ggcgpl.com](http://www.ggcgpl.com) in the topic of a Good Corporate Governance which facilitates information access entry to overall stakeholders as well as shareholders, investors, interested persons, our subsidiaries, agencies and partners such as customers and business partners.

## Dissemination of Good Corporate Governance based on International Standards

GGC continuously adheres to the principles of good corporate governance based on international standards, including regulations of SET, ASEAN CG Scorecard, and DJSI (Down Jones Sustainability Indices). In 2017, GGC implemented a good corporate governance through five principles as follows:

### • Shareholders Rights

The Board of Directors valued the protection of shareholders' rights by defining the principles in the Corporate Governance and Business Code of Conduct Handbook. For ensuring the thorough implementation.

#### 1. The Provision of important and pertinent Information to Shareholders

An essential information for shareholders are concerning in a business operations which are clear and up-to-date through GGC's website and via the Stock Exchange of Thailand's portal and also disclosed information that deemed necessary.

#### 2. The Annual General Meeting of Shareholders (AGM)

- GGC scheduled an AGM within four months after the annual closing date of its accounting books. For urgently matters affecting or involving interests of shareholders, conditions, or laws requiring shareholders' approval, GGC might call an extraordinary meeting of shareholders on a case-by-case basis.
- GGC adhered to the guidelines and AGM preparation process based on the AGM Checklist which is collaborative between Thai Investors Association, Thai Listed Companies Association, and the Securities and Exchange Commission (SEC) for further a good quality in organizing the AGM of listed companies.

- GGC provided opportunities for minority shareholders to propose agenda items and nominate qualified candidate to be elected as Director prior to the meeting in any single or a group of shareholders at least 5% of all shares with eligible voting right as well as announcing the criteria of nomination and clear procedures between October 1st, 2017 to December 31st, 2017 on the website at [www.ggcplc.com](http://www.ggcplc.com), which is founded Investor Relations > Shareholder Information > Shareholder's meeting.
- GGC wouldn't deprive shareholders' rights for accessing to any information. The shareholders must be completely informed of meeting procedures, meeting agenda, and accompanying documents, with sufficient time for considering ahead of the meeting based on a good practices. GGC must also arrange multiple communication channels to facilitate shareholders in case of queries about the meeting.
- The Board of Directors must accommodate shareholders with an appropriate venue area, proximity of the venue to GGC's Head Office in Bangkok or in adjacent areas, convenient travelling, facilities, and security system which ready for emergencies.
- All Board members and Sub-Committee members as well as the Corporate Secretary and all top management must attend the AGM for

possible queries or shareholders' opinions.

- Shareholders had the right of separate voting of each proposed agenda. The Annual General Meeting (AGM) resolutions must be based on transparency, convenience, speed, and more efficiency with equipment performing results and allowing shareholders to immediately receive the result of the vote.

### • Equitable Treatment of Shareholders

The Board of Directors have always immerged the company to treat an equitable of shareholders as possible whether they are majors or minors, Thais or foreign shareholders through the following actions:

#### 1. Structure of Corporate Governance and Scope of Responsibilities

GGC sets up a transparent structure of corporate governance which consisted of composition, qualifications, appointment, roles and responsibilities, position, and operation of directors, executives, and employees, including written Policies, regulations, practices, and operational handbook to stabilize and efficiently monitoring process of Internal Audit performs duties under the charter approved by the Audit Committee, who audits an operations to ensure that the Company will operates according to the directions, comply to laws, related regulations, and efficiently to meet the targets.

#### 2. Opportunities for shareholders to propose agenda items, nominate directors, and submit queries in advance

The Company provides opportunities for shareholders to propose agenda, nominate directors, and submit queries ahead of the AGM as defined by the Corporate Governance and Sustainable Development Committee. Eligible shareholders may unofficially submit the above information via email or on GGC's website, and send their signed original documents with proofs by mail to Corporate Affairs and Corporate

Secretary. Moreover, the Company disseminates the criteria on the website and informs shareholders via Stock Exchange of Thailand's portal so as to shown up an equitable treatment of all shareholders. The agenda or names of directors will be considered according to the criteria set by the Board of Directors. The Board of Directors will consider and screen the agenda items which are truly beneficial to the Company. The Nomination and Remuneration Committee will consider the qualifications of the persons whose names are nominated before the Board of Director's consideration. The Board of Directors will inform of the results of the consideration to shareholders during the AGM.

In the Meeting No. 4/2560 of the Corporate Governance and Sustainable Development Committee on September 5, 2017, approved the criteria and guidelines to determine the ratio of shareholding of no less than 5% of GGC's total voting shares for the eligible shareholders to propose agenda and nominate directors ahead of the Annual General meeting (AGM).

#### 3. Monitoring of Directors' and Executives' Use of Inside Information

The Board of Directors stipulates a measurement to disclose or prevent insider trading that might cause conflicts of interest of related parties including directors, executives, and employees who may know inside information including their spouses and minors, which is defined in the Corporate Governance Policy and Business Code of Conduct as follow:

- Business Code of Conduct for Board of Directors covers the use of inside Information, also the safeguarding of confidential information and communicates them to Board of Directors, executives and employees for acknowledgment and implementation.
- The Board of Directors decides the Business Code of Conduct, related to the prohibit of using inside confidential information, to prevent any

conflict of interest or disclosure the significant information, to avoid any misconduct and make sure that GGC takes into account the equitable treatment of all shareholders and investors.

- GGC notifies Directors and executives who are related to the preparation of financial information that they are prohibited from trading of GGC's securities prior to the disclosure of financial statement to SET at least 30 days and after the disclosure at least 24 hours.

#### 4. The Prevention of Conflicts of Interest

The Board of Directors formulates a policy on the Business Code of Conduct on the conflicts of interest as follows:

- GGC formulates the policy for Directors or Executives that may engage in transactions with potential conflicts of interest or interests on any meeting agenda items to abstain from attending the meeting. If they have to attend the meeting to provide necessary information for consideration, they must then abstain from voting or giving opinions on the particular agenda item.
- The Board of Directors decide a Business Code of Conduct conflicts of interest in the Corporate Governance and Business Code of Conduct Handbook to ensure that Directors, executives, and all employees adhere to the principles. Moreover, formulates the best corresponding practices by stipulating that all employees have to report their own conflicts of interest to the company as part of their duty to ensure their transparency, and prevent unintended potential conflicts of interest.

#### • Roles of Stakeholders

GGC have been placing much importance on the rights of every group of stakeholders by compiling principles covering the rights protection and impacts mitigation on every group of stakeholders and formulating good practices in written form, and disseminating them on website and other channels provided to stakeholders for sending their opinion or suggestions to GGC. Nevertheless, The policy which

treated to stakeholders and completely implementation in 2017 as reported to the Corporate Governance and Sustainable Development Committee as follows:

#### 1. Shareholders

The board encouraged shareholders to exercise their basic rights and was committed to providing the utmost satisfaction to the shareholders, taking into the consideration of sustainable growth, value added creation, continuous a proper investment and returns, and operate the business based on a good corporate governance.

Apart from basic rights, the rights is stipulated by law, GGC's regulations, and Corporate Governance and Business Code of Conduct Handbook, such as the rights to attend the AGM and vote, proposal of agenda items and nomination of directors, the shareholders were entitled to make queries and suggestions, and channels were provided to communicate with them via the website [www.ggcplc.com](http://www.ggcplc.com) and email: [corporategovernance@ggcplc.com](mailto:corporategovernance@ggcplc.com). Moreover, GGC formulated the Corporate Governance Action Plan 2017-2023 to enhance GGC's corporate governance towards international standards and in line with the commitment to reach the target of business operations at regional and international levels, taking into account creation of satisfaction and value added to the business that directly affected the shareholders.

#### 2. Customers

The Board of Directors was committed to bringing satisfaction and confident to customers and the public by receiving products and services with a good quality, competitive prices, and continuously upgraded standards, as well as maintaining, sustainable relationships through various activities such as monthly performance review with customers, inspection of product quality, including development of new products to regularly meet customers' need.

### 3. Business partners

GGC recognized the equality and integrity in business operations and essentially protected business partners by strictly complying with law and fundamental rules based on the Business Code of Conduct.

Moreover, GGC uses shared services of PTT Global Chemicals Public Company Limited (PTTGC) for e-Procurement and Approved Vendor List (AVL) to increase more confidence and efficiency in operations, and communicated Anti-Fraud and Anti-Corruption Policy, as well as the policy of receiving/giving gifts, assets, or other benefits between GGC and business partners for acknowledgment.

### 4. Business Competitors

GGC treated competitors in compliance with international principles under the framework of law concerning practices of competition, trading and adhered to the rules of fair, transparent competition, while abstaining from seeking competitors' trading secrets by dishonestly or inappropriate means, or damaging competitors' reputation through slandering.

### 5. Creditors

GGC adhered to fairly practices according to the terms and responsibilities toward creditors, guarantor creditors, and institutional creditors by respecting on time payment and strictly implementation as committed to them and financial institutions also, performing duties to all creditors under contract terms without concealing information or facts that might harmful to the creditors. If it is impossible to fulfil any condition, the Company will immediately inform creditors to solve problems together.

Moreover, GGC has formulated capital management strategies to force more stability and strength to prevent itself from being caught in a difficulty situation in repaying its creditors, and applies

liquidity management to be settled for the time payment due.

### 6. The Public Sector

GGC valued the public sector a significant stakeholders by formulating policy toward this sector in the countries where investment was made to avoid any inappropriate action and transaction. It is disclosed the implementation policy toward the government sector in the Corporate Governance and Business Code of Conduct Handbook. GGC was also committed to complying with law, rules, and regulations concerning to the lawful and complete acquisition of permits and incentives, and coordinating with the public sector, including local authorities and state enterprises, which also offer full disclosure per governmental requirement

### 7. Employees

GGC focus on developing its employees' competence with an aim of becoming on organization of learning. In addition, promoting culture and teamwork, affording fair compensation, a safe work environment, focusing on development, knowledge transfer, and ability of employees, as well as equally listening to opinions and suggestions of employees.

Moreover, GGC set up a human resource management in line with business operations which accommodate GGC group's businesses and prepare employees for the future business expansion.

### 8. Community, Society, and Environment

GGC operates the business based on responsibilities toward communities, society, and the environment by taking into account issues such as safety, quality of life, conservative of natural resources, efficient energy consumption, taking into account the quality of life of communities and society around plants and across Thailand as a whole, and formulated 2016-2020 Sustainable Development Plan, which



was approved by the Corporate Governance and Sustainable Development Committee to support and develop a broad range of society and move toward the international standards by setting the target of being ranked as a model organization from Dow Jones Sustainability Indices (DJSI) by 2020. In 2017 GGC got two awards from the Ministry of Industry, namely the CSR-DIW Continuous Awards and Green Industry Level 5 Award, as well as the membership of the United Nations Global Compact (UNGC).

### Anti-Corruption

GGC intends to operate business based on transparency and accountability along the audit procedures and control were decided with a Good Corporate Governance principles to reduce and prevent the risks of fraud within the organization, including all corruption, both directly and indirectly. In 2017, GGC took a significant actions reflecting to a commitment of combating fraud and corruption as follows:

- **Implementation of Anti-Corruption Policy:** The Company reviewed and revised Anti-Corruption Policy in line with different situations and risks, and reported them to the Corporate Governance and Sustainable Development Committee for acknowledgment.
- **A Declaration of Intention on Collective Action Coalition Against Corruption (CAC) Project:** GGC announced its intention to join CAC on May 11, 2017. which in the consideration process of CAC's committee to be certified.
- **Fraud Risk Assessment:** GGC provided Fraud Risk Management within the organization to analyze and assess the risk of opportunities that fraud might occur and potentially impacts of fraud in various processes within the organization. It used Risk Management form as a tool and invited special guest speakers from NACC (Office of the National Anti-Corruption Commission) to provide knowledge



and understanding of Anti-Corruption to Executives and Employees on September 1, 2017, and for Board of Directors on September 13, 2017.

- **Internal Communication:** Communication planning, called, "CG News" were devised to promote and communicate, and create knowledge to employees to ensure that they recognized the importance and guideline to against fraud and corruption. Email newsletter "CG News" comes out at the average of once a month, as well as invitation of special guest speakers from NACC, which contents are involved the concept and any forms of fraud and corruption, as well as raising awareness of morality and ethics in line with a Good Corporate Governance Principles.
- **External Communication:** GGC communicated Anti-Corruption Policy and practices to customers/ business partners, such as the policy of receiving/ giving gifts, entertainment, or other benefits.
- **Whistleblower System:** GGC formulated and

disseminated a Whistleblower Policy to support stakeholders in every sector for participating of development and improvement of the Company, by providing the opportunities for stakeholders to given information, submit complaints about inappropriate behaviour that contradicted to Corporate Governance and Business Code of Conduct Handbook, by themselves via mail, phone, fax, email, and GGC's website. Complainants will be protected against unfairly retaliation and also Internal Audit development and the Corporate

Secretary were assigned as central agencies of independently receive complaints perfectly. A timeframe was clearly set for clear implementation as recommendations from the CAC.

- GGC separated complaints into eight categories. In 2017, there was no complaints on Corporate Governance from stakeholders. Those who wish to submit complaints may define the subject of complaints at <http://www.ggcplc.com/th/cg#whistleblower-policy>.

Subject of Complaint	Number of Complaints	Number of Inspections and Corrections	Number of Completed Corrections
1. Business Code of Conduct	0	0	0
2. Antitrust / Competition Law	0	0	0
3. Anti-Corruption / Anti-Bribery	0	0	0
4. Human Rights	0	0	0
5. Intellectual Property Law	0	0	0
6. The Confidentiality Information	0	0	0
7. Anti-Money laundering and Combating The Financing of Terrorism Law	0	0	0
8. Other Laws, Rules and Regulations which concern Business of GGC's Policy	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>

### • Disclosure and Transparency

The Board of Directors recognizes and values the quality and disclose an information based on equality, transparency, and fairness for reliable to access on information. It formulates and supervises the preparation and disclose of financial and non-financial Information, based on sufficiency, reliability, and timeliness. The disclosed information must be done with caution, clarity, accuracy, transparency, and accountability in with concisely and simply language. Material information must be regularly disclosed, including positive and negative information, to ensure that GGC's shareholders and stakeholders are confident and receive information on an equal basis with rules, law, and regulations of GGC and state agency.

### 1. Quality of Information

GGC focuses on the disclosure of information to stakeholders based on an accuracy, completeness, rapidity, and transparency in order to receive reliable access to information, via SET Portal, and the [www.ggcplc.com](http://www.ggcplc.com). Meanwhile, Investor Relations and Corporate Affairs and the Corporate Secretary will provide information and answer questions with the following details:

- **Financial and Non-Financial Information:** GGC monitors action of the financial statements based on a completion, actual information under accounting standards via the audit of an Independent Auditor and the Audit Committee. GGC follows the criteria of SEC and SET, based on accuracy, completeness, timeliness, and comply with the

corporate governance.

- **Directors' Information and Disclosure of Information:** Directors and Executives have involved in the business operations or subsidiaries under SET's regulations prepare reports according to the law, as well as related reports with accuracy to ensure that there are no conflicts of interest in GGC's decision-making, such as the report on the interests of Directors, Executives, and related parties, report on security holding and change in security holding acknowledgment of the duties to report security holding, reports of internal audit, internal control, and risk management, charter of Sub-committees, independence certification of independent directors, and reports of sub-committees.

- **Report of GGC's Performance:** GGC discloses information apart from the requirement of SEC and SET to shareholders and also to the public, such as investment in major projects, GGC's operations, and projects for society, communities, and environment.

## 2. Channels of Disclosure of Information

GGC discloses information under the regulations via the following channels:

- **Stock Exchange of Thailand (SET Portal):** GGC discloses information via SET Portal and GGC's website both written in Thai and English and regularly improves the information on the website. It also provides channels to communicate with various departments.
- **External Communication:** Interviews granted by Executives to the mass media contribute to the dissemination of GGC's Vision, Mission, Strategies, Goals, and Performance outcomes. This complies with the practice of disclosure of information and news and expression of opinions to outsiders, as stipulated by the Corporate Governance and Business Code of Conduct Handbook.
- **Internal Communication:** Key information is disseminated to GGC's employees via various forms of internal communication, including email, intranet, bulletin board to inform them of strategies,

directions, policies, and internal news. Then, employees can apply the information to their work, steering clear of inside information and safeguarding confidential information under the Business code of conduct.

## 3. Supervision of Internal Information

The Board of Directors values the disclosure of information and transparency by formulating a Policy in the Corporate Governance and Business Code of Conduct Handbook as disclosed on GGC's website for shareholders to acknowledge and to remind Directors, Executives, and employees to recognize the importance and implementation, which are summarized as follows:

1. Directors and Executives which named by SEC, counting from Vice-President to a higher level have to provide signature for acknowledge the duty to report the change in GGC's security holding within three working days after each change.

Moreover, the board follows up the performance of the implementation based on the Business Code of Conduct on the use of internal information. A person who defined in the above paragraph must send a copy of the report on changing of security holding to the Corporate Secretary so as to report to the Board every time when the Board of Directors meeting is managed or whenever there is a change. He or she must disclose information on security holding comparison between the beginning and the end of the year in the annual report.

2. Directors and Executives will receive the letter which reminding the policy to forbid from trading of security for 30 days before the disclosure of quarterly/annually financial statements or other information that may affect the value prices of GGC's shares vis a vis the public, and abstain from the trading of GGC's share 24 hours after publicizing the information.

3. Directors, Executives, and employees are regularly informed of regulations and policies on the use of inside information via GGC's various

channels to ensure that the formulated regulations and policies are acknowledged and implemented. The regulations and policies are also served to prevent the use of inside Information for one's own interests or the other interests and the discipline punishment is clearly defined. Then, supervisors must insist or advise their own personnel on this inform. During the past year, there was no any reports of such offending

- **Investor Relations:** GGC sets up Investor Relations Department as the center of communication with the duty of monitoring the disclosure of information to shareholders, investors from financial institutions, and minor investors, as well as analysts and related supervising agencies. Investor Relations Department supervises the quality of the process of reporting financial statements, including material information that affects the prices of GGC's security such as financial budget, report of performance, preparation of reports, and report of Management Discussion and Analysis (MD&A), quarterly/annually reports which present GGC's situation, performance, and trends, as well as information disclosed to the public via SET Portal to foreign and domestic investor.

Furthermore, In 2017, Executives regularly meet shareholders, securities analysts, investors, and employees through a number of diverse activities and events to present them with company's performance as summarized below:

Investor Meetings	
Domestic Investor Meetings	5 times
SET Opportunity Day	3 times
Meetings with financial analysts	3 times
Meeting at the company	9 times
Teleconferences	37 times

#### Information Disclosure

Disclosure via SET Community Portal and Company website	64 times
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#### Activities

Basic knowledge training for financial analysts	3 times
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Investors or any interested parties may contact GGC via the following five channels for more information :

- 1) Mail: Investor Relations Department  
Global Green Chemicals Public Company  
Limited 555/1 Energy Complex Building A, 4th Floor  
Vibhavadi Rangsit Road, Chatuchak, Chatuchak,  
Bangkok 10900
- 2) Telephone: +66 (0) 2558-7303,  
+66 (0) 2558-7345
- 3) Email: [ir@ggcplc.com](mailto:ir@ggcplc.com)
- 4) Fax: +66 (0) 2558-7301
- 5) Website: [www.ggcplc.com](http://www.ggcplc.com)

Moreover, shareholders, investors, and public may also contact the Corporate Secretary for company information on GGC via email at [corporategovernance@ggcplc.com](mailto:corporategovernance@ggcplc.com)

- **Corporate Affairs and Corporate Social Responsibility:** consists of a public relations and dissemination of information and news, updates, latest business activities of GGC Group to the media, such as

- 1) A press conference was held on "First Trading day at Stock Exchange of Thailand (SET)" on April 4, 2017
- 2) Top executives granted special interviews to various groups of media such as television, newspaper, and magazines to provide information on the structure/direction of business operations and the organization's vision
- 3) Photo releases, press releases, scoops, and calendar news were provided to the media for dissemination to the public.

The 2017 Sustainability Report was prepared and disseminated to stakeholders based on transparency and accountability via communication channels for to understanding GGC's commitment and business Operations, make acquaintances and familiarize with the executives, as well as the Company CSR Policy so as to forge understanding and good relations between GGC and communities, including stakeholders, to formulate the action plan on improvement CSR Activities.

Moreover, there were field trips for making relation, queries, and explanation with communities so that they may be acquainted with projects and operations, as well as public relations activities to engage communities, such as various activities, namely "A Young Painters -The Unity for Sustainability", under the topic "Oleochemicals from GGC's plants"; construction of nursery to breed shoots of pineapple trees; continued project of "GGC shares the love through readers". Furthermore, Communication channels were also conveniently and rapidly provided via mail or email disseminated on GGC's website under Corporate Governance. Shareholders, investors, and the public may contact the Corporate Secretary for more information via [corporategovernance@ggcplc.com](mailto:corporategovernance@ggcplc.com).

- **Responsibilities of the Board of Directors**

The board formulates GGC's Vision, Mission, Directions, and strategies for operation, equipped with following-up system and efficient performance assessment of Executives and independence from management. and responsible to its own performance based on Corporate Governance as following:

### 1. The establishment of business strategies, policies and directions

The Board of Directors approves and reviews critical issues which concerning to GGC's operations such as the Vision, Mission, Strategies, financial targets, Risks, action plans and budgets, as well as Key Performance Indicators (KPIs) on financial matters and action plans to monitor management operation.

### 2. Corporate Governance and Code of Conduct

The Company Established Policies on a Good Corporate Governance and Business Code of Conduct to ensure that Directors, Executives, and employees adhere to and implement them in order to enhance GGC's business operations based on efficiency, standards, ethics, transparency, and accountability, as well as fairly ensuring stakeholders' fundamental rights in order to raise up the confident and general recognition. Consequently. the Corporate Governance and Sustainable Development Committee strictly monitors GGC's operations in line with the a Good Corporate Governance and Code of Conduct, as well as law, objectives, rules, and resolutions of the Annual General Meeting (AGM), supervises and ensures the equitable benefits/rights of all shareholders, and instill the understanding of a Good Corporate Governance in mind.

### 3. Internal Control and Internal Audit

The Board of Directors mandates that the Company and subsidiaries shall effectively have internal control system which comparable to universally accepted standard, aligned with a manageable risk appetite and taking into account on controlling environment. The Audit Committee and Internal Audit Department are tasked with performing reviews and monitoring internal audit on a regular basis. It provides activities of efficient control, sufficient, reliable information and communication systems, both internally and externally, and regularly follows up and process the performance to reach the operational objectives, reports, and complies with the law, related rules, and regulations, as well as fostering confidence among Executives, investors, and other stakeholders of GGC.





#### 4. Risk Management

The Board of Directors oversees the risk management system that may derail our strategic objectives. The Board assigns the Risk Management Committee to devise policies and framework of risk management, to supervise GGC's risk management in order to ensure efficiency; to assess risk that may affect GGC's objectives; to consider substantial risk that may occur on project and organization level; formulate action plans; follow up, assess, and to constantly improve plans to reduce risk to an acceptable levels; as well as to regularly report risk management performance to the Board.

#### 5. Conflicts of Interest

The Board of Directors lays down a policies and guidelines to consider transactions or potential transactions of conflicts of interest in Corporate Governance and Business Code of Conduct Handbook to ensure that Directors, Executives, and employees have to implement and pay attention to connected transactions that may violate the regulations of SEC and SET. Directors and Executives from the Vice-President upward and finance-related positions as stipulated by SEC are required to report their own interests and the interests of related parties to GGC. Also, Employees has to report connected transactions with potential conflicts of interest annually in the event that a conflict of interest has arisen immediately. Moreover, GGC devises a defensive measures to prevent conflicts of interest. Directors, Executives, employees, and related parties should refrain from partaking in a financial transaction and/or relation with an external entity that may result in a conflict of interest with GGC or may hinder the efficiency of the operation. In the event that conflict of interest has arisen in procurement, bidding, decision making or transaction approval, they are required to report the conflict of interest to their immediate supervisor or the party involved, using company conflict of interest form or and withdraw from process

#### 6. Promotion of CSR and Environmental Protection

The Board of Directors values GGC's business operations based on responsibilities for society and the environment. By striving to reduce problems which derived from the industry promotes higher living standards of the Thai society at the same time, Enhance a better quality of life of the people around the plants, and solving a problem together. Reducing of impacts may occur to communities, respect of human rights, and fairly use of labour for the sustainable livelihood.

#### 7. Promotion of Innovation

The Board of Directors approves a research and development (R&D) plans, requiring an updates on GGC's R&D reports from the R&D Department in order to create value added to products and develop technology to increase competitiveness from existing assets, recruit researchers and experts to lay down the R&D foundation for higher efficiency, as well as consulting with Marketing Department to use an information for developing future products.

#### 8. Information Technology

The board devises a framework for IT monitoring and management in line with GGC's operations in order to increase potential and business opportunities. The practice of monitoring of IT includes installation of data's security system, assessment and review of information technology risks that may affect GGC, reports the update of information systems through management meetings, and allocation of qualified employees to inform the operation for higher efficiency.



## Board of Directors and Sub-Committees

### Board of Directors

Now, the Board of Directors comprises 11 members, which five are independent directors. All directors are experts from various fields of knowledge, ability, and experience. The combination of their skills qualification and experiences bring about advantages to GGC. They must also devote themselves in their duties for the utmost benefit of GGC and shareholders. They are recruited and elected under appropriate criteria. Their roles and responsibilities are founded on law, regulations and Articles of Association, Meeting Resolutions, shareholder meeting resolution and corporate governance principles. Directors duties and responsibility are effectuated in way that steer them from conflicts of interest with GGC, so as to foster confidence among the shareholders and the investors. The structure of the Board as appear in Management Structure allow them to efficiently perform their duties. The number of Directors suits the size and types of business, and is approved by shareholders.

### Sub-committees

The Board of Directors has established four sub-committees, namely the Audit Committee, Nomination and Remuneration Committee, Corporate Governance and Sustainable Development Committee, and Risk Management Committee. The members are experts with expertise and specific experience appropriate to performing their duties on specific committees as stipulated by GGC to screen work in various fields within their assigned scopes. The Board of Directors specifies qualifications, terms of directorship, and scope of duties and responsibilities under the charter of each committee. The names of Directors on these sub-committees, their responsibilities, number of meetings, and meeting attendances of each director appear under "Management Structure".

All committees must regularly report their performance to the Board of Directors and report their performances in the previous year to the shareholders using Form 56-1 and the annual report.

## Nomination and Appointment of Directors and Top Executives

### Nomination and Appointment of Directors and Independent Directors

The Board of Directors appoints the Nomination and Remuneration Committee with the responsibility of recruiting and selecting persons with knowledge, ability, expertise, experience, and specific qualifications beneficial to that aligns with GGC's business strategies. When a Director position becomes vacant or when the term limit of a Director is due, shareholders are provided with the opportunity to nominate a qualified person for the vacant seat apart from the Board Skill Matrix and IOD's Director's Pool to ensure that the composition of the Directors are complete with maximum advantages to GGC, taking into account the conflicts of interest of Directors based on holistic view and transparency. The guidelines of the appointment of Directors are as follows:

- **Board of Directors**  
**Recommendations on the Appointment of New Directors :** Consideration is based on composition such as qualifications complying with relevant law and regulations, expertise, ability, and experience in various professional fields which advantage to the duties of Directors and the composition of the structure of Directors complying with strategies of business operations. Consideration is based on the Skill Matrix of engineering, economics/finance, accounting, business administration, security and social science, law, strategic planning, agriculture, and natural resources and environment to combine the knowledge and ability beneficial to GGC's operations. Also considered interests or conflicts of interest may occur.

### Recommendations on the Appointment of

**Current Directors:** The performance of the previous year, dedication, and involvement in activities of each Director will be taken into account.

- **Independent Directors**

The recruitment and appointment of independent Directors is considered in terms of the number of Independent Directors in the composition of the Board of Directors in compliance with SEC's regulations. There are now five Independent Directors out of 11 members. Independent Directors are defined and qualified as independent in

accordance with the criteria in the Corporate Governance and Code of Conduct Handbook and disclosed on GGC's website.

### Recruitment and Appointment of the Managing Director (MD)

The recruitment of the Managing Director in case of vacancy will be considered by the Nomination and Remuneration Committee from the ranks of those with skill, experience, professionalism, specific qualifications in various fields that are necessary and beneficial to GGC's business operations, pending the approval of the Board of Directors as follows:

- Directorship under GGC's Articles of Association
- Knowledge and ability in business operations
- Experience in GGC's business
- Experience in organizational leadership
- High level of leadership
- Recognition by related business entities.



### Role of the Chairman and Managing Director

GGC's Chairman of the Board of Directors and MD must not be the same person, with different roles and duties as follows:

**The Chairman** supports operation of the management. Although not an independent director, the Chairman is not involved in GGC's day-to-day management. The Chairman's main roles are as follows: to supervise the Sub-committees and to ensure their efficiency and independence from the management; to set up meeting agenda items under the responsibilities of Directors in conjunction with the MD, who serves as secretary of the board; to perform the duty of Chairman of the Board of Directors meeting and the AGM with high efficiency; to encourage all Directors to participate in the meeting; and to ensure that all Directors adhere to GGC's Corporate Governance Policy and the Business Code of Conduct principles; to take responsibilities for shareholders and related

stakeholders. Moreover, the Chairman is prohibited from being part of any Sub-committees, as defined by the scope of duty of the Board and all Sub-committees in order to make clear and appropriate separation of duties and operations. As for the independence of current Chairman, he performs his duty with caution and independent judgment, with high level of leadership, taking into account GGC's utmost advantage.

**Managing Director** is the top executive of GGC's employees who is selected and appointed by the Board of Directors from the ranks of Directors under GGC's Articles of Association. He is responsible for managing GGC based on the policies, action plans, budgets, and authority assigned by the Board and stipulated by GGC's Articles of Association. The MD also serves as secretary to the Board of Directors. His duties are disseminated on GGC's website. GGC's Articles of Association also mandate that the MD receives compensation and benefits as GGC's top executive in addition to what he earns as a Director.



## Board Meeting

The Board of Directors schedules the exact date and time of Board meetings for the entire year in advance. It also clearly outlines the agenda of each meeting. It may also call an extraordinary meeting as appropriate and necessary. The Directors receive the invitation letter to a Board meeting, draft minutes of previous meeting, and information accompanying the agenda items for consideration in advance at least seven days prior to the meeting. There were a total of 10 scheduled meetings in advance.

The Chairman presides over the Board of Directors' meetings and ensure that every Director participates in the meeting and expresses his/her opinion freely. In Board meetings, there must be at least two-thirds of members in attendance to constitute a quorum, and the quorum must remain the same until the time of voting. The resolutions of Board meetings are based on the majority votes. Each Director has one vote. If the votes are equal, the Chairman shall cast the decisive vote. The Board focuses on the management of conflicts of interest of related parties with caution, fairness, and transparency, by completely making disclosure of the information. If a Director is involved in conflicts of interest of the issue under consideration, he or she must abstain from decision making on such issue.

After the meeting, the Corporate Secretary is responsible for completing the minutes of the meeting and submits them to the Board of Directors for approval as the first agenda item of the next meeting. The Chairman will then provide his signature to guarantee the accuracy. The approved meeting resolutions will be systematically filed in electronic form as GGC's confidential documents, with documents accompanying agenda items for ease of retrieval reference proposes.

Moreover, to ensure compliance with a Good Corporate Governance, the Board also calls the Non-executive Directors for their opinion and guidelines in the management and operation of GGC, as well as the yearly meetings of Independent Directors to exchange views, review their roles and duties. In 2017, there was one meeting of Non-executive Directors and one meeting of the Independent Directors. The results of the meetings were submitted to the Board of Directors for acknowledgment every time.

For convenience and swiftness in communicating between the Board of Directors and the Corporate Secretary, GGC uses LINE Application to communicate with the board about the issues relating to the meetings and other important issues.



## Board of Directors Performance Assessment

### Board of Directors

In 2017, an assessment review of the Directors' performances was conducted so that the Directors might review their performances, problems, and obstacles in the previous year. There are three types of assessment, Group assessment, Self-assessment, and Cross-assessment of other directors. The scores were divided into five levels. The overall assessment is summarized to the Board and disclosed in the annual report. GGC improved the questions and assessment criteria in compliance with the guidelines of the Board of Directors assessment and applied the assessment to partly consider directors' annual remuneration in addition to GGC's performance. It submitted the assessment results to the Board of Directors, which acknowledged them and submitted the recommendations arising from the assessment to devise guidelines to concretely improve the Board's operation.

- **Group Assessment :** The questions consisted of

- 1) Board Policy
- 2) Board Performance
- 3) Board Structure
- 4) Board Style
- 5) Board Meeting and
- 6) Board Development

The Directors who underwent this assessment were Directors as of October 2017, in total 11 Directors.

**Group assessment: average scores of 90.35%**

- **Self-assessment :** The questions consisted of

- 1) Responsibility toward duties,
- 2) Independence and
- 3) Self-development and team work

**Self-assessment: average scores of 91.29%**

- **Cross-assessment:** The questions consisted of

- 1) Knowledge and Expertise
- 2) Independence and
- 3) Devotion and Meeting Attendance

**Cross-assessment: average scores of 91.21%**

### Sub-committees

The sub-committees consist of the Audit Committee, Nomination and Remuneration Committee, Corporate Governance and Sustainable Development Committee, and Risk Management Committee. These sub-committees were also assessed individually. In 2017, each sub-committee reviewed and improved the topic and questions and criteria of the assessment.

- **Audit Committee:** The assessed topics consisted of the charter, composition, meetings, training and resources, responsibilities, relationship with department managers, Internal Audit, auditor, shareholders, and maintenance of their performance quality.

**Group assessment: average scores of 91.94%**

**Individual assessment: average scores of 90.85%**

- **Nomination and Remuneration Committee:** The assessed topics consisted of composition and qualifications, scope/duties, meetings, reporting, and performance evaluation.

**Group assessment: average scores of 91.14%**

**Individual assessment: average scores of 90.99%**

- **Corporate Governance and Sustainable Development Committee:** The assessed topics consisted of composition and qualifications, scope/duties, meetings, reporting, and performance evaluation.

**Group assessment: average scores of 92.58%**

**Individual assessment: average scores of 92.38%**

- Risk Management Committee:** The assessed topics consisted of composition and qualifications, scope/duties, meetings, reporting, and performance evaluation.  
**Group assessment: average scores of 83.02%**  
**Individual assessment: average scores of 85.27%**
- Additionally, The Nomination and Remuneration Committee will partly use the result of Group assessment of the Board as one of the criteria in considering appropriate remuneration for the Board of Directors 2018 on top of GGC's performance and other criteria.

## Assessment of the Managing Director

In the Nomination and Remuneration Committee Meeting No 5/2017, on December 12, 2017, the criteria of performance evaluation and remuneration of the MD were reviewed. Consideration was made on the performance of his management during the previous year that reflected duties and responsibilities based on fairness and sensibility. The outcome was submitted to the Board of Directors for consideration and approval.

## Development of Directors and Executives

The Board of Directors emphasize the development of directors' knowledge and ability to promote its operation with higher efficiency and the Executives development to equip them with the readiness to rotate within the corporation and to succeed to the positions of MD and other senior Executives. Consequently, the Board emphasize on training, seminars, courses relating to the duties of Directors and Executives assigned to be Directors of Subsidiaries, as well as the potential assessment of Executives to develop readiness in performing duties at the executive level as follows:



### Orientation for New Directors

The orientation includes a presentation of the business and information, guidelines to GGC's business operations, related law, rules and regulations, Corporate Governance, the Business Code of Conduct, and other useful information for the assumed position. Directors also receive handbook and other documents, such as strategic plans, company regulations, Article of Association, Annual Reports, related regulations, and Corporate Governance and Business Code of Conduct Handbook.

### Training for Directors

GGC encouraged training program for Directors in accordance with the Board Skill Matrix by supporting all Directors' pursuit of additional education and training to constantly enhance their knowledge to support the business, as follows:

- All Board members passed the courses which are relevant their responsibilities, organized by Institute of Directors (IOD) and other renown institute. Participating in various courses are illustrated in the table as below.
- Internal training and seminar for the Board of Directors: On September 13, 2017 GGC invited Mr. Prayat Phuangjumpa, Deputy Secretary General, Office of the National Anti-Corruption Commission (NACC), for giving guidelines and practices to prevent fraud and corruption under the topic of "Anti-fraud and Anti-Corruption for Organization".

No.	Name	DCP	DAP	ACP	RCP	PDI	CMA	TEA	Justice Administration
1	Mr. Supattanapong Punmeechaow	131/2010			30/2013	class 12	class 23	class 4	
2	Prof. Dr. Kumchai Jongjakapun	128/2010		38/2012	34/2014	class 12	class 9		class 15
3	ACM Songtam Chokkanapitag	227/2016							
4	Mr. Payungsak Chartsutipol		scc/2004				class 11	class 1	
5	Ms. Kannika Ngamsopee	21/2002					class 3		
6	Mr. Patiparn Sukondhaman	73/2006							
7	Mr. Athavudhi Hirunburana	79/2006							
8	Mr. Apichart Jongskul	109/2008		30/2010			class 17		
9	Mr. Suphit Suwagul (appointed on 1 January 2018)	177/2013							
10	Mr. Narongsak Jivakanun	165/2012						class 8	
11	Mr. Jirawat Nooritanon	221/2016	124/2016						

DCP : Director Certification Program

DAP : Director Accreditation Program

ACP : Audit Committee Program

RCP : Role of the Chairman Program

PDI : Corporate Governance Program for Directors and Executive of State Enterprises and Public Organizations

CMA: Capital Market Academy Leadership Program Academy

TEA : Executive Program on Energy Literacy for a Sustainable Future

Justice Administration : The Programme of Senior Executives on Justice Administration

## Succession Plan

GGC has systematic succession plans in place for positions crucial to the operation, using talent grouping 360-degree Executive Evaluation and Assessment Centre that gauges leadership competency organization knowledge, and formulate the effective individual development plan. Moreover to support business expansion and organizational structure change and replacement of retirement, this will effectively contribute to the achievement of strategic goals. As a consequence, GGC sets up a Succession Plan for the positions that will become vacant due to retirement/transfers. Those who will be considered for the succession will be systematically ready for the positions in a timely manner.

## Governance of GGC and its Subsidiaries

GGC conducts its business through subsidiaries, the details of shareholding in this entities appear under Shareholding Structure. GGC operates in conformity with the Business Principle and the Way of Conduct, as summarized as follows:

- The Managing Director shall have the authority to formulate policies, announcements, criteria, operating practices, managerial practices, has the authorities to approve and sign to perform duties as necessary, except salary structure, recruitment, appointment from department manager upward, where approval must be sought from the board.
- Major policies such as Corporate Governance Policy, Whistleblowing Policy, Anti-corruption Policy, and the other related policies that align the operations with the regulations of Securities and Exchange Commission of Thailand, Stock Exchange of Thailand, and related laws, rules and regulations.
- Supervises subsidiaries or persons who are assigned to take charge of subsidiaries may comply to Related Parties Transaction Policy, Filing of information, and accounting entry booking for the Company to check and consolidates financial statement on time.

## Chief of Internal Audit Department and Corporate Compliance

### Chief Audit Executive

Mr. Siriphong Suebsuk, VP, Internal Audit, acting as a secretary of the Audit Committee, resigned in June 30, 2017. During the recruitment of the new VP, Internal Audit, Mr. Sungkard Karivate, Division Manager, Internal Audit, acting as the secretary from July 1st to December 31, 2017. The Board of Directors, upon the approval of the Audit Committee, approved the appointment of Ms. Kunakorn Witthayapaisarn, to be the VP, Internal Audit and new appointed as the new secretary to the Audit Committee with effective from January 1, 2018.

The appointment, dismissal, and transfer of the VP, Internal Audit, must be approved by the Audit Committee as specified in its charter.

### Head of Compliance

The Board of Directors Meeting No. 10/2017, on December 20, 2017, reviewed and appointed Ms. Uramanee Puttong, as the new Corporate Secretary, effective from January 1, 2018, replacing Ms. Sornraya Yoobho, who retired on December 31, 2017. The Corporate Secretary is responsible for supervising the compliance of the Company as a listed company in compliance with Securities and Exchange Commission of Thailand and Stock Exchange of Thailand, related regulations, including the Public Limited Companies Act, and the Securities and Exchange Act.



Ms. Kunakorn Witthayapaisarn



Ms. Uramanee Puttong

## Compliance with other Principle of a Good Corporate Governance

In 2017, GGC completely and continuously comply with a Good Corporate Governance principle which is summarized below:

### Charter of Sub-committees:

Modified charters of sub-committees including the Audit Committee and the Corporate Governance and Sustainable Development Committee charters by adding the scope of duties to consider and devise guidelines, recommend policies/practices which concern business on ethics and morality, as well as anti-corruption policy/measures in line with a Good Corporate Governance, and submitted the change to the Board of Directors and the Executives.

### CG Roadmap and Sustainable Development Plan

- The Board of Directors Meeting No. 13/2016, dated November 14, 2016, approved and advised on

Company to integrate CG Roadmap in the Business Plan of 2017-2021.

- The Board of Directors Meeting No. 13/2016, on December 29, 2016, acknowledged the CG Roadmap and advised the Company to improve more consciousness and repeatedly summited to Sub-committees once again.
- The Corporate Governance and Sustainable Development Committee Meeting No. 3/2017, on July 25, 2017, approved the CG Roadmap of 2017-2021 after improvement, and approved the Sustainable plan of 2016-2020 in parallel.

### Report of Corporate Governance and Sustainable Development Committee

- The charter of the Corporate Governance and Sustainable Development Committee stipulates the committee to report its performance to the Board of Directors for acknowledgment and prepare the report in GGC's Annual Report, signed by the Chairman.
- The meeting of the Corporate Governance and Sustainable Development Committee No. 5/2017, on November 28, 2017, approved the report of its performance for submission to the board, and disseminated it in the 2017 Annual Report.

### Criteria of the rights of shareholders to propose agenda items and nominate directors

- Meeting of the Corporate Governance and Sustainable Development Committee No. 4/2017, September 5, 2017, approved the criteria of the rights of shareholders to propose agenda items and nominate directors in advance of the 2018 AGM.
- GGC disseminated the rights to shareholders and procedures to propose agenda items and nominate directors in advance on its website.

### Minute of Board of Directors Meetings:

The Minute of the Board of Directors meetings shall submitted to the Board, within 14 days in compliance with Stock Exchange of Thailand Regulation to allow the Board of Directors sufficiently consider and review the information in the minute of meeting and feedback to the company for any additional recommendations.

Board of directors recognize Roles and responsibilities as leaders who create value for the organization, setting objective and goals of company in compliance with the CG Code. Any practices that are not yet operated or have not been implemented, Corporate Governance and Sustainable Development Committee was also reviewed and included in Corporate Governance plan of 2018 to apply the CG Code to fit the business context and proposed to the Board of Directors for consideration in the next practice.



## Personnel Management and Development Policy

Company emphasized itself toward becoming a learning organization with a happy workplace and a good teamwork, GGC provides employees with a safety and supportive working environment, fairly compensation, knowledge and skills development. By equitably listen into recommendations, while cultivating GGC's corporate culture, it instils their awareness that GGC values their contribution to the achievement of its success and sustainable growth.

Besides forging business growth, GGC's competency and competitiveness enhancement plan is in place to enable employees to tackle significant changes. To ensure the accomplishment of its objectives and harmonized efforts toward the goals, Moreover, executives take part in encouraging personnel to develop their competency, learning and sharing knowledge, and team working, with personnel development technology and effectively tools.

GGC's policy regarding its Performance Management System (PMS) comprises of annual goals, systematic monitoring and appraisal of staff performance, both annually and semi-annually and personnel development. After that, Supervisors will provide feedback on appraisal results to their staff called "One-on-One". GGC undertakes competency appraisal for employees to identify their gaps and to formulate Individual Development Plans (IDPs) together with individual functional/technical development plans. Supervisors are required to analyze data and identify tools or methods to individually bolster the strength of their staff, enabling them to develop and maximize their competency.



GGC has provided training on diverse courses compatible with its development plans, while employing development tools and mechanisms through assorted activities and projects. These include project assignment, leadership development programs, talent development, and on-the-job training,

To achieve concrete results, supervisors and staff are required to jointly formulate IDPs to speedily develop talented staff and those identified as potential successors to grow on their respective career paths. GGC emphasizes on utilizing systematic job rotation to prepare these individuals for their future or targeted job positions under their respective IDPs or career plans. This conforms to GGC's 70:20:10 (Experience : Exposure : Education) policy on staff development.

Concerning personnel development, GGC provides internal and external training to support a corporate strategies. For instance, it formulated Marketing & Sales Competency Development (MSCD) to improve the competency of all sales and marketing personnel up to the executive level. The Leadership Development Roadmap is aimed to develop all employees through the likes of Personal Effectiveness (PE), 7 Habits, and Foundation of Leadership (FOL) courses for junior management. The Leadership Development Program 1 (LDP 1) to enhance management skills from the perspectives of leadership and business.

In support of safety, occupational health, and the environment including energy conservation, GGC focuses on developing skills and knowledge which provided a 27 training courses (Account for 56.25% of internal training plan) such as "Energy Awareness ISO 5001", "Process Safety in Design", "SIF Introduction" and more.





## Report of the Risk Management Committee

### Dear Shareholders,

The Risk Management Committee (RMC) has emphasized and closely monitors the execution of risk management, defines risk management framework in its aspects of business so as to be compatible with the corporation's internal and external circumstances, supervises risk management practices on a suitable level under corporate governance, and follows the risk management processes in order to allow GGC's risk management to proceed with efficiency and the corporation to achieve its business goals.

In 2017, RMC perform its duties to the best of its ability and would like report on accomplishments as below,

- Drove and constantly monitored the 2017 Corporate Risk Management while offering its comments and recommendations for developing GGC's risk management to ensure that such risk management embraces key aspects compatible with any situations potentially affecting corporate businesses.
- Screened and endorsed the corporate risk management scopes, consisted of price spreads between products and feedstock, inventory, the exchange rates. It also endorsed project investment consideration principles, while closely monitoring execution of risk management against scopes so as to manage risks efficiently
- Screened, commented, and provided recommendations on 2018 Corporate Risk Factors to align with business directions as well as critical international and domestic circumstances
- Commented and provided recommendations on Risk assessment and Mitigation Plan under Key Capital investment projects so as to yield investment decision data
- Revised and endorsed amendments to its own charter, Risk management policy, and Enterprise Risk Management Manual to keep them suitable for GGC's businesses and to align them with SEC's corporate governance principles
- Screened, commented, and provided recommendations on 2018 Corporate Risk management factors to align with critical business circumstances under prevailing circumstances and with GGC's goals and corporate strategies
- Advocated awareness of risk management among employees, regarded as their duties and responsibilities and an integral part of their function, both department and corporate
- Assessed its own performance as a group and as individuals.

The Risk Management Committee completely fulfilled its scope, authority, and duties spelled out in its charter in regularly governing, screening, providing opinions, and tracking corporate risk management—all these to enable GGC to fulfill its objectives goals and additional value to shareholders and stakeholders.

On behalf of the Risk Management Committee

*(Signed) Kannika Ngamsopee*

(Ms. Kannika Ngamsopee)

Chairman of the Risk Management Committee

## Report of the Nomination and Remuneration Committee

### Dear Shareholders,

The Nomination and Remuneration Committee consists of ACM Songtam Chokkanapitag (Chairman), Mr. Patiparn Sukondhaman and Mr. Athavudhi Hirunburana. The committee held a total of five meetings during 2017, the committee performed its duties set forth in its own charter as well as board-assigned duties, as highlighted below.

### Nomination of Directors

- Nominated persons to replace members of the Board of Directors who retired by rotation at the 2017 Annual General Meeting (AGM), and proposed the names of those qualified with experience, skills, and suitable with GGC Board of Directors and subsequent endorsed by the shareholder at the AGM.
- Nominated the suitable person to replace those who resigned, the Committee has also reviewed their expertise based on the skills and experiences which is beneficial to their duties in accordance with the prescribed criteria to use for the recruitment and Director selection.
- Proposed Directors' names to fill the vacant position on Sub-committees, and reviewed the compositions in reference with SEC, SET, GGC's regulations, in addition to their qualifications, expertise, skills, and specific experiences considered helpful to their directorships.

### Remuneration

- Proposed the 2017 remuneration for the Board of Directors and Sub-committees, including bonus based on GGC's performance of 2016 by comparing to current economic circumstances, Board responsibilities, and remuneration of other companies of similar size. The Board then endorsed their proposals for the 2017 AGM and unanimously approved by the shareholders.
- Reviewed the assessment of the Board of Directors performance criteria and the MD's compensation, based on the 2017 performance in the position and against his duties and responsibilities. It then sought approval from the Board.

### Assessment of the Board of Directors Performance in 2017

- Reviewed and revised questions on the 2017 board performance assessment to make it complete, up to date and in line with standard. The assessment result became part of the criteria in annual compensation consideration in addition to GGC's performance.
- Launched its own performance appraisal annually and reported the assessment result to the Board.

### Performance Improvement and Development

- The Committee reviewed and improved the Skill Matrix to make it more diverse and suitable for businesses which is part of the nomination process.
- Defined criteria for Director Nomination, criteria to review a qualifications, and the selection process for individuals who qualify to be nominated as director in compliance with applicable laws and regulations to enable shareholders to nominate directors three months ahead the AGM
- Ensured that the nominations of Directors as well as the disclosure of their remunerations in the Annual Reports and AGM thoroughly comply with CGR regulations.

The Nominating and Remuneration Committee is committed to performing duties in transparent manner, and with strict adherence to the Good Corporate Governance Principles to ensure confidence among shareholders and stakeholders, which will culminate GGC's excellent growth in the long run.

On behalf of the Nomination and Remuneration Committee

*(Signed) ACM Songtam Chokkanapitag*

(Songtam Chokkanapitag)

Chairman of the Nomination and Remuneration Committee

## Report of the Corporate Governance and Sustainable Development Committee

### Dear Shareholders,

In 2017, the Corporate Governance and Sustainable Development Committee is comprised of Mr. Payungsak Chartsutipol (Chairman) with Mr. Athavudhi Hirunburana and Prof. Dr. Kumchai Jongjakapun as members—performed their duties and giving their opinion under their scope which stated in its own charter and executed the tasks mandated by the Board of Directors. A total of five meetings were held with the following highlights.

### Good Corporate Governance

- Reviewed the Corporate Governance Roadmap for 2017-2023 so as to establish an effectively Corporate Governance that aligns with the Corporate strategies, provided recommendations to amend details of GGC's Corporate Governance Plans to be able to efficiently monitor the performance of the plan
- Revised the Corporate Governance and Code of Conduct Handbook, Anti-Corruption Policy and Anti-Money Laundering and Combating the Financing of Terrorism Policy
- Provided recommendations on the self-assessment form for participating in CAC (Thai Private Sector Coalition Against Corruption) and supervised compliance with the Anti-Corruption Policy to ensure that GGC emphasized the Anti-Corruption practices and collaborate with others organization to resisted a Corruption

### Sustainable Development

- Reviewed the Corporate Sustainable Development Plan for 2016-2023 so as to align with corporate strategies. It is recommended that GGC shall establish a unique position and differentiation on its CSR activities and drive cooperation and development both the agricultural sector and communities
- Monitored the reporting of sustainable development outcomes, provided recommendations to specify a sustainable development goal in corporate KPI to boost more confidence in yearly achievement.

### Compliance with applicable Laws and Regulations

- Defined guidelines for report on securities holding of Directors and Executives in compliance with the SEC guidelines, together with communication channels and methods to keep the Board informed of critical data or intelligence
- Defined criteria for giving the shareholders rights to nominate meeting agenda and nominate directors within three months ahead of the 2018 AGM (from October 1, 2017 to December 31, 2017) to promote the rights and equitability of shareholders

### Performance and Appraisal

- Revised its own charter to ensure that the charter will be relevant and in line with a good practices
- Appraised its own performances to ensure that this yearly performance is efficient, fulfils in any scope of its board-assigned duties and responsibilities.

The Corporate Governance and Sustainable Development Committee performed its duties with a prudential and transparency under a Good Corporate Governance and committed a further efficiency of Corporate Governance, social responsibility, and sustainable development practices to provide confidence to shareholders and stakeholders which will be affected to a long term value creation of the Company.

On behalf of the Corporate Governance  
and Sustainable Development Committee

*(Signed) Payungsak Chartsutipol*

(Mr. Payungsak Chartsutipol)

Chairman of the Corporate Governance  
and Sustainable Development Committee





Sustainable Development

## Sustainable Development

### Social Responsibility and Sustainable Development Policy

As the pioneer in the Thai Oleochemicals industry, GGC strives to conduct its business in communities in a socially and environmentally responsible manner as well as the commitment to progress the Thai economy. A policy has been established to provide a clear guideline focusing on improving the quality of life around communities and nationwide. Funds have been allocated to build and accommodate benevolent activities with an emphasis on active participation and sustainable mutual coexistence. For safety and the environment, GGC has established policies and guidelines encompassing all stages of production from construction of facilities, technology, raw materials selection, production processes, to waste disposal. Integrating research, development, and innovation in all stages of production which enables GGC to maximize energy efficiency.

### Guidelines for Social Responsibility

GGC has always intended to conduct the business responsibly for stakeholders including communities, society, and the nation so that GGC may progress in harmony with all relevant stakeholders. Through Social Responsibility Policy, the Board of Directors, management, and employees are responsible for

1. Integrating social responsibility into decision-making processes
2. Ethically conducting the business and Corporate Governance
3. Promoting and respecting a human rights, cultures, traditions, both employees' and stakeholders' values
4. Committing to the implementation of safety, occupational health, and the environment
5. Advocating research or innovation for safe and efficient technologies that are beneficial to mankind and natural resources
6. Contributing to the advancement of the corporation and society where GGC operates
7. Engaging and communicating with stakeholders efficiently and transparently
8. Encouraging customers, business partners, and service users to embrace these guidelines.

In addition to the policy, GGC has established a social responsibility framework for all activities related to stakeholders as follows;

1. Transparent and auditable business management with fair and equitable returns to the shareholders
2. Enhancement of the quality of life for both managements and employees. Cultivate the social responsibility awareness every level of employees so that they may actively participate and coordinate well in activities related to social responsibility
3. Value customers and business partners by emphasizing on building supply chains and a value chain together to develop business processes which are benign to employees, communities, society, and the environment
4. Continually support and value community activities, especially those in alignment with government policies regarding socio-economic development, education, and the environment, so that communities may sustain themselves
5. Promote learning, education development, and enhance employees' and general public awareness of the conservation of natural resources, the environment, and energy
6. Listen to the opinions and the needs of communities so that GGC's response and the development of corporate governance practices may be effective



7. Provide accurate information fostering understanding, as well as listening to challenges and potential impacts on each surrounding community. Any unscheduled incidents, such as emergency incidents, are managed in a timely manner to bolster trust and foundation of sustainable co-existence.

### Guidelines for Sustainable Development

Sustainability is another strategy incorporated into GGC's Corporate Social Responsibility (CSR) strategy, which is the key mechanisms to enhance GGC's business leadership for sustainable development. It enables GGC to become a high-performance organization in continual improvement of technological development, innovation, and knowledge in areas of management, working processes, production, and product sales and services, under the Good Corporate Governance and the Code of Conduct, GGC is committed to transparency, fairness, and respect to law and regulations. Furthermore, it values environmental

management and improvement of the quality of life, GGC works with caring to foster value. GGC plans to seek international certification to confirm its standards.

In 2017, GGC has been certified to be a member of the United Nations Global Compact (UNGC) by the United Nation (UN). Being a member of UNGC demonstrates GGC's commitment to becoming a good corporate citizen. To be recognized as responsible corporate citizens in the global society, GGC and other UNGC members are committed to 10 principles for their business operations. The principles encompass human rights, labor, environment, and anti-corruption. In addition, GGC is currently in the data-gathering stage to soon become a member of the Dow Jones Sustainability Indices (DJSI), measuring business performance in line with sustainable development practices of leading companies around the world. Complete details is published in Sustainability Report 2017.



# Safety, Occupational Health, and Environment Management

## Quality, Security, Safety, Occupational Health, Environment and Business Continuity (QSHEB) Policy

GGC is committed to conducting its businesses to become a biochemical industry leader that is socially responsible. It pledges to continually improve the effectiveness of its quality, security, safety, occupational health, and environmental practices as follows;

1. Comply with laws, standards, regulations, and applicable requirements for quality, security, safety, health, the environment, and business continuity
2. Manage quality throughout the organization by utilizing measurement and tools to manage quality, knowledge, and productivity to meet customer satisfaction and develop eco-friendly innovations
3. Manage the risks to prevent harmful, occupational illnesses, accidental injuries, and property damage. Cultivate and sustain a safety culture (B-CAREs) as well as process safety management (PSM)
4. Recognize security threats in order to protect lives, properties, information, and business continuity
5. Emphasize the occupational health and a good working environment. Encourage the workforce to achieve their goals with good health and joy
6. Protect the environment and prevent pollution. Maintain biodiversity by focusing on improving and protecting the habitat and efficient resource utilization. Foster an environmental culture by disseminating information and encouraging employees and stakeholders to be aware and actively contribute to GGC's environmental culture.

As a result of GCC's business conduct which is in aligned in QSHEB Policy, regulations, requirements, and international standards, GCC has won prestigious awards. This confirms GCC's commitment to conducting its business for excellence.



Management at all levels of GGC are responsible for achieving its objectives and goals. They are role models for the development and achievement of QSHEB by providing sufficiently resources. All employees will actively participate in the implementation of the policy. Management will communicate the results of QSHEB implementation throughout GGC.

Summary of safety, occupational health and environmental management performance in 2017

1. Safety Management in 2017, GGC experienced zero Total Recordable Injury (TRIR) for the fourth consecutive year since 2014. As a result, it was the fourth consecutive year that the TRIR statistics have beaten the target, which is 0.12 case per 200,000 working man hours. Proudly, GGC received the 2016 Prime Minister's Industry Safety Award. This year is also the fourth consecutive year (2014-2017) that GGC has won the Outstanding National Safety, Occupational Health, and Work Environment Award. In addition, GGC received an OHSAS 18001: 2007 Occupational Health and Safety Management System-certified organization. To ensure a continually improvement of the system and maintaining the certification, it requires an annual review of the management system, which GGC has undertaken.

The outstanding safety performance the certification of OHSAS 18001:2017 was clearly defined GGC as a leader of the Thai industry in efficiently implementation of safety.

2. Occupational Health Management, GGC cares about the well-being of employees and contractors, especially those who work in operation. Therefore, GGC has implemented an industrial hygiene program including heat, noise, light intensity, and chemical exposure in the workplace as a proactive measurement. A regularly health surveillance program is functional to monitor health conditions of the workforce. Data from both the industrial hygienics program and the health surveillance program are used to regularly assess health risks to determine appropriate preventive measures and plans to ensure continual improvement of healthy workplace and hygiene. In particular, to cope with the potential flu endemic, GGC provided free vaccine to employees including free hepatitis B vaccine to employees who have no immunity. In

addition, GGC extended this invitation to their family members for vaccination at a cost price.

3. Environmental Management, GGC strictly adheres to environmental regulations, requirements, and standards. It has implemented the ISO 14001 environmental management system as the fundamental operating standard. It also employs a proactive environmental management strategic plan, which aligns with its long-term business strategy. In 2017, it received environmental awards such as Good Governance of Environment and Safety Award from the Industrial Estate Authority of Thailand for the fifth consecutive year (2012-2016), CSR-DIW Continuous Award for the forth consecutive year (2014-2017). and the Green Industry Level 5. from the Ministry of Industry. Moreover The implementation of its ISO 14001: 2008 environmental management system has been audited and certified by MASCI. To maintain the certification, the system must be audited and reviewed annually to ensure a conformance to the requirements of the new





version, namely the ISO 14001:2015 standard, which demonstrates the continual improvement of efficiency in its environmental management.

4. In March 2017, GGC started the construction of its second facility of Methyl Ester at Amphoe Nong Yai, Chon Buri Province. The new facility is located in the Eastern Economic Area (EEC) in line with the government policies. To make the project more effective and efficient, safety and environmental considerations form part of the project. GGC established a safety, health, and Environmental Safety Committee for contractors for the project as a venue to discuss and improve safety, health, and environmental conditions along the project. The committee has also provided recommendations to employees and contractors to eliminate insecure behavior.

Furthermore, the committee organized activities to foster awareness and a workforce culture of safety and security, occupational health, and the environment. Activities included weekly safety

audits, random check of alcohol and substance abuse, training courses, and emergency responding plans. They enabled the project to be carried out safely. The workforce achieved 500,000 hours with zero accident in October 2017. As of December 31, 2017, the project continued to achieve 902,217 hours with zero accident as well.

5. Apart from valuing energy conservation, optimal consumption of resources, preservation of the environment, GGC is relentlessly committed to improving its energy efficiency, suiting the business and technology being used through adherence to the principles of improvement and sustainable development. It manages energy consumption and raises corporate energy efficiency by launching projects on energy conservation to achieve the goal in reducing the Energy Index. Instances of these are a steam generator from surplus process heat and installation of a water ring pump to cut down on steam consumption to create vacuum. Execution of energy conservation in 2017 year has led to a



reduction of the index by 113 kilojoules per kilogram of products (1.43% of the reduction in energy consumption from 2016). In short, it has gone in line with GGC's goal on reducing the Energy Index.

6. GGC has provided training to employees on environmental management, organized communication on the subject ranging from employee orientation, requirement of biennial refreshment of such knowledge for employees, and promotion of environmental education in meetings and on other occasions, including meetings of the safety, occupational health, and Work Environment Committee, The Welfare Committee, SEEK Day activities in conjunction with PTTGC Group, education on community garbage management, GGC's welcoming activities for intern visitors from various institutes, and other activities. Also,

supplementary training have been provided, including that during the annual turnaround for contractors who come in to work at GGC's plants. This training features the environment as a topic in the safety instruction course, required of all contractors to remind themselves of the safety awareness and environmental emphasis ahead of their services.







# Financial Statements

## Report of the Audit Committee

### Dear Shareholders,

Consisting of three Independent Directors that are qualified and experienced in Law, Administration, Finance and Economic and equipped with efficiency, which fulfilled the compositions and qualifications stated by the applicable Stock Exchange of Thailand (SET) announcement. As of 2017, the Audit Committee consist of

- |                                  |                                 |
|----------------------------------|---------------------------------|
| 1. Mr. Permsak Shevawattananon** | Chairman of The Audit Committee |
| 2. Ms. Kannika Ngamsopee         | Director to the Audit Committee |
| 3. Mr. Apichart Jongskul*        | Director to the Audit Committee |

During the beginning of 2017, the committee underwent personnel change, after the Board of Directors approved the appointment of Mr. Apichart Jongskul to replace Prof. Dr. Kumchai Jongjakapun at its 1/2017 meeting on January 13, 2017.

\*\* Due to Mr. Permsak as Chairman of Audit Committee and Independent Director resignation to be effective on December 31, 2017, the Board of Directors approved the appointment of Prof. Dr. Kumchai Jongjakapun to be a Director to Audit Committee and also appointed Prof. Dr. Kumchai Jongjakapun as Chairman of Audit Committee at its 10/2560 meeting on December 20, 2017. The new appointment on Chairman of Audit Committee and Director to Audit Committee for Prof. Dr. Kumchai Jongjakapun shall be effective on January 1, 2018

These Directors fulfill the composition and qualifications stated by the applicable SET announcement. During the year, the committee underwent personnel change, after the Board of Directors approved the appointment of Mr. Apichart Jongskul to replace Prof. Dr. Kumchai Jongjakapun at its 1/2017 meeting on January 13, 2017.

The committee performed its board-assigned duties and under its own charter, which in turn aligned with SET and The Securities and Exchange Commission (SEC) announcements. Its policy stressed compliance with the corporate governance principles as well as with business-applicable laws and regulations (domestic and international), while valuing the adequacy and effectiveness of the internal control system and internal audit system, together with the performance of all GGC business units and key investment.

In 2017, a total of eight meeting were held, with Mr. Permsak Shevawattananon and Ms. Kannika Ngamsopee in attendance all of these meeting, and Mr. Apichart Jongskul attending seven of them. The committee performed its duties with independence, with the following performance highlights and opinions.

### Review of Financial reports:

In reviewing 2017 Financial Statements and the Q1/2017 Financial Statements, the Committee examined performance reports, analytical reports of consolidated Financial Statements, Major Changes, Sensibility of the notes to the financial statements, and the external auditor's observations. It invited relevant members of the management and the external auditor to join on agenda items to review the Financial Statements to clarify and answer its queries to their accuracy and completeness, key accounting entry adjustments affecting the Financial Statements, and adequacy of disclosed information in the statements. It is our opinion that GGC's Financial Statements showed essentially accurate items under generally accepted financial report standards and accounting principles.



In addition, the Committee called exclusive meetings with the external auditor to consult on various issues related to account and financial report preparation, namely its scope, approach, and annual audit plans, risks, internal control, internal audit, and other matters not clarified by the auditor. The committee agreed that the auditor had received good cooperation from the management, had performed with independently, and were both duly qualified and experienced, and exercised an approach toward reviewing or auditing financial reports that had proved adequate and suitable for the audit profession.

## Review of Risk Management

The Board of Directors, the Risk Management Committee, and GGC management have given priority to Risk Management by assessing Internal and External risk factors together with their impacts and likelihood, as well as devised risk management plans to ward off or mitigate potential impacts to manageable levels. The board appointed the Risk Management Committee to supervise corporate risk management, which regularly updated its performance to the Board of Directors. In 2017, the committee also follow up and acknowledged GGC's risk management outcomes from the reports submitted by GGC's management. It also reviewed the effectiveness of risk management practices based on the reports of individual management responsible for the audits of Internal Audit and the external auditor. These actions led the guarantee of GGC capability to maintain risk within its risk tolerance levels.

## Review of Internal Control System Effectiveness

Valuing the development of the Internal Control System, the management hired an external consultant to provide advice and jointly develop system with GGC management and Internal Audit. In place was a review of business processes and an appraisal of the internal control effectiveness of each sub-activities, leading to GGC's improvement and development of its internal control. The committee reviewed GGC's Internal Control system against the outcomes of the assessment of system adequacy prepared by the management in line with SEC's approach. With the findings of Internal Audit and the external auditor revealing no material aspect or defects potentially affecting GGC, and with continual corrective actions following the advice of the committee, Internal Audit, and the external auditor, it can be sensibly concluded that GGC commanded an adequate and effective internal control system.

## Oversight of Internal Auditing

- The committee approved the amendment of Internal Audit's Charter to ensure that it aligned with international-standard audit professions, with comprehensive and clear scopes of duties and responsibilities
- The committee endorsed risk-based Audit plans embracing key control activities for GGC and subsidiaries, strategic plans focusing on capacity building for auditing and supporting GGC's strategies together with goals and performance indices embracing key performances Indicator (KPIs) of Internal Audit. Providing recommendations to add audit plans to include more key risks and comprehensively include GGC's key processes, the committee also advocated recruitment and development of internal auditors so that they are adequate in numbers, with diverse competencies so as to promote internal audit work fulfillment against plans
- In monitoring Internal Audit findings, the committee found that Internal Audit had fulfilled its stated plans, with regular application of its professional Internal Audit that was in compliance with international standards

and relevant good practices. Showing commitment to the Business Code of Conduct of Internal Auditors, the Internal Auditors commanded freedom under defined structures and coordinated well with the management and the external auditor. Finally, the Internal Auditors provided excellent support to the performance of the committee. All these showed that GGC commanded an internal audit filled with freedom as well as international-standard and effective practices.

## Review of Good Corporate Governance

The Board of Directors appointed the Corporate Governance and Sustainable Development Committee to supervise its compliance with the Good Corporate Governance principles, Transparency, and fairness to GGC's stakeholders. This committee regularly reported its performance to the Board of Directors. In addition, GGC is in the process of seeking CAC certification. To this end, the committee verified the accuracy and adequacy of the self-assessment form concerning GGC's 71 Anti-Corruption Assessment, involving data and evidence under four main topics: Principles, Development of Anti-Corruption Measures, Forms of Corruption and Measures to Be Enforced. GGC has also reviewed its Anti-Corruption Measures and Anti-Corruption Risk Assessment under its current work procedures, evidence that GGC took seriously and supervised compliance with good Corporate Governance and Anti-Corruption measures.

## Compliance with Securities and Stock Market laws, Regulations of the Stock Exchange of Thailand (SET) requirements, and or other Applicable Laws

- In reviewing and commenting on Connected Transactions and transactions with potential conflicts of interest, the committee summoned relevant members of the management to relevant meeting agenda items to clarify and respond to its queries. It also reviewed requirements and terms of Connected Transactions dealing with necessity, sensibility, practices free of conflict of interest or siphoning of interests, as well as the transparency of engaging in transactions between GGC Group and parties of potential conflicts. In addition, the committee acknowledged disclosure reports of connected transactions or transactions with potential conflict of interest, which the external auditor reported to be straightforward with the law and SET's requirements. No irregularity was found.
- The committee assigned Internal Auditors to review related transactions where GGC was involved in buying feedstock/services or in its product sale with related parties. The findings concluded that such randomly inspected transactions were free of deviation from contract terms, approved by the SEC announcement on the criteria for engaging in related transactions.
- Also, the committee received no report from the external auditor, complaints from external parties, or the management's information disclosure that indicated non-compliance with the laws, which could materially affect GGC. Thus it is reasonable to believe that GGC commanded internal control processes that resulted in effective compliance with the laws, and that there are no non-compliances that could significantly affect the corporation.

## Appointment of 2018 Auditor

The Audit Committee nominated the following auditors to the Board of Directors who proposed these names at the shareholders meeting for appointment of 2018 Auditors Mr. Nutthaphong Tantijuttanon (CPA No. 8829) or Ms. Wiphawan Pathawanwiwek (CPA No. 4795) or Mr. Waiyawat Kosamarnchaiyakij (CPA No. 6333) from KPMG Phoomchai Audit Ltd. These auditors were selected from a pool auditors proposed their service for the Company

for three years. The Audit Committee reviewed their qualifications and capabilities, as well as their fee suitability given the scope of works competence, and distinguished auditing performances in 2016. These auditors were among the approved auditors of the SEC and judged to be knowledgeable and experienced enough. They were also not former auditors that had reviewed, examined, or commented on GGC's financial statements of the past five consecutive fiscal years.

### **Review of Audit Committees Charter**

The Audit Committee revised the charter to ensure its suitability and compatibility with SET's announcement on the qualifications and work scope of Audit Committees B.E. 2558 (2015) and Audit Committee handbooks. The committee's view was that the board-approved charter, enforced since October 18, 2016, remained suitable.

### **Audit Committee's performance appraisal**

The committee conducted group and individual appraisals this year and reported the findings to the Board of Directors. This appears in the annual report.

Based on the Audit Committee's performance this year, as reported above, it is reasonably believed that GGC commanded a Good Corporate Governance, an Internal Control System that is adequate and suitable for its businesses, effective risk management, accurate and credible accounting systems and financial reports, and compliance with the Law and Regulations concerning its businesses.

The Audit Committee prudently and independently performed its duties with excellent cooperation from the Board of Directors, the management, the External Auditor and the Internal Audit.

On behalf of the Audit Committee

*(Signed) Permsak Shevawattananon*  
(Mr. Permsak Shevawattananon)  
Chairman

## Report of the Board's of Directors' Responsibility for Financial Reports

The consolidated financial statements of Global Green Chemicals Public Company Limited ("GGC") and its subsidiaries was prepared in accordance with the Securities Exchange Commission under the Securities and Exchange Act B.E. 2535 and Department of Business Development, issued under the Accounting Act B.E. 2543 Section 11 Paragraph 3 in accordance with the Federation of Accounting Professions' Thai Financial Reporting standards.

The Board of Directors is responsible for the Financial report of GGC's and its subsidiaries in providing responsible assurance that the financial report present fairly financial position, financial performance and cash flows. The accounting data is sufficiently and accurately recorded to preserve GGC's asset and prevent fraud and irregularity. The financial report has been prepared accordingly to appropriate accounting policy and in accordance with consistency practices, and in accordance with Thai Financial Reporting standards. Significant information have been adequately disclosed in notes of financial statements, where the auditors expressed an opinion on the financial statement of GGC's and its subsidiaries in the auditor's report.

*(Signed) Supattanapong Punmeeaow*  
(Mr. Supattanapong Punmeeaow)  
Chairman

*(Signed) Jirawat Nooritanon*  
(Mr. Jirawat Nooritanon)  
Managing Director

# Independent Auditor's Report

## To the Shareholders of Global Green Chemicals Public Company Limited

### Opinion

I have audited the consolidated and separate financial statements of Global Green Chemicals Public Company Limited and its subsidiary (the "Group") and of Global Green Chemicals Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2017, the consolidated and separate statements of income and 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 2017 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.

**Valuation of inventories**

Refer to Notes 3(f) and 8 to the financial statements.

**The key audit matter**

Inventory is valued at the lower of its cost and net realisable value. As a result of fluctuation in crude palm oil and crude palm kernel oil price may cause the net realisable value to be lower than its cost. The measurement of inventories together with their net realisable values are based on assumptions about the production yield of each product. Due to the high level of the management's judgement, and the significance of the carrying amounts of inventory involved, I considered as the key audit matter.

**How the matter was addressed in the audit**

My audit included enquiring the management and performing test of design and implementation as well as randomly test the operating effectiveness of controls over inventory valuation process. I assessed assumptions used in the key measurement of inventory by evaluating the production assumptions and comparing them to the actual production in the past and randomly tested the selling price of each finished goods with reference to current market prices. I tested reliable of information and the calculation of net realisable value of inventories. In addition, I assessed the adequacy 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.

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 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. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

**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, related safeguards.

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.



(Natthaphong Tantichattanont)

Certified Public Accountant

Registration No. 8829

KPMG Phoomchai Audit Ltd.

Bangkok

14 February 2018



## Statement of Financial Position

Global Green Chemicals Public Company Limited and its Subsidiary

		Consolidated financial statements		Separate financial statements	
		31 December		31 December	
Assets	Note	2017	2016	2017	2016
<i>(in Baht)</i>					
<b>Current assets</b>					
Cash and cash equivalents	5	2,422,230,058	527,722,791	1,946,238,489	371,725,675
Short-term deposits at financial institutions		1,700,000,000	-	1,700,000,000	-
Trade accounts receivable	4, 6	1,841,624,983	1,510,432,843	1,983,484,613	1,763,013,361
Other receivables	4, 7	49,586,042	43,145,676	66,238,484	60,059,327
Value-added tax receivable		124,762,953	128,596,691	-	60,405,484
Inventories	8	2,778,111,575	4,374,394,154	2,376,407,216	4,031,508,851
Other current assets		46,249,982	61,954,790	43,415,692	59,748,521
<b>Total current assets</b>		<b>8,962,565,593</b>	<b>6,646,246,945</b>	<b>8,115,784,494</b>	<b>6,346,461,219</b>
<b>Non-current assets</b>					
Investments in subsidiary	4, 9	-	-	1,685,000,000	1,685,000,000
Investments in joint venture	4, 10	708,815,228	695,744,719	690,500,000	690,500,000
Investments in associate	4, 10	45,445,435	16,197,313	46,693,290	16,650,075
Plant and equipment	11	4,704,516,045	4,166,489,459	4,305,666,629	3,735,294,246
Intangible assets	12	75,780,119	80,394,403	42,093,241	46,866,985
Deferred tax assets	13	21,901,173	19,072,182	21,901,173	19,072,182
Other non-current assets		15,796,159	7,282,298	15,796,159	7,282,298
<b>Total non-current assets</b>		<b>5,572,254,159</b>	<b>4,985,180,374</b>	<b>6,807,650,492</b>	<b>6,200,665,786</b>
<b>Total assets</b>		<b>14,534,819,752</b>	<b>11,631,427,319</b>	<b>14,923,434,986</b>	<b>12,547,127,005</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Financial Position

Global Green Chemicals Public Company Limited and its Subsidiary

		Consolidated financial statements		Separate financial statements	
		31 December		31 December	
Liabilities and equity	Note	2017	2016	2017	2016
		(in Baht)			
<b>Current liabilities</b>					
Short-term borrowings from financial institution	14	-	60,000,000	-	60,000,000
Trade accounts payable	4, 15	410,041,907	711,682,150	386,727,356	699,962,814
Other payables	4, 16	368,881,978	222,391,415	319,724,274	174,633,932
Payables to contractors		227,633,691	26,962,708	226,776,363	22,795,059
Short-term borrowings from related party	4, 14	-	-	-	310,000,000
Current portion of long-term borrowings					
from financial institutions	14	280,125,000	230,625,000	280,125,000	230,625,000
Current portion of finance lease liabilities	14	3,600,903	2,964,870	3,600,903	2,964,870
Income tax payable		-	21,122,521	-	21,122,521
<b>Total current liabilities</b>		<b>1,290,283,479</b>	<b>1,275,748,664</b>	<b>1,216,953,896</b>	<b>1,522,104,196</b>
<b>Non-current liabilities</b>					
Long-term borrowings from financial institutions	14	2,104,840,845	2,383,809,155	2,104,840,845	2,383,809,155
Finance lease liabilities	14	10,998,982	11,593,551	10,998,982	11,593,551
Deferred tax liabilities	13	1,527,781	1,930,052	-	-
Non-current provision for employee benefit	17	53,992,498	35,384,436	53,992,498	35,384,436
<b>Total non-current liabilities</b>		<b>2,171,360,106</b>	<b>2,432,717,194</b>	<b>2,169,832,325</b>	<b>2,430,787,142</b>
<b>Total liabilities</b>		<b>3,461,643,585</b>	<b>3,708,465,858</b>	<b>3,386,786,221</b>	<b>3,952,891,338</b>
<b>Shareholders' equity</b>					
Share capital	18				
Authorized share capital		10,483,333,000	10,483,333,000	10,483,333,000	10,483,333,000
Issued and paid share capital		10,236,667,000	7,400,000,000	10,236,667,000	7,400,000,000
Share premium		219,066,911	-	219,066,911	-
Difference arising from business combination					
under common control		(4,134,457)	(4,134,457)	-	-
Retained earnings					
Appropriated					
Legal reserve	19	245,621,000	230,117,100	245,621,000	230,117,100
Unappropriated		375,955,713	296,978,818	835,293,854	964,118,567
<b>Total shareholders' equity</b>		<b>11,073,176,167</b>	<b>7,922,961,461</b>	<b>11,536,648,765</b>	<b>8,594,235,667</b>
<b>Total liabilities and equity</b>		<b>14,534,819,752</b>	<b>11,631,427,319</b>	<b>14,923,434,986</b>	<b>12,547,127,005</b>

The accompanying notes are an integral part of these financial statements.

## Statement of Income

Global Green Chemicals Public Company Limited and its Subsidiary

	Note	Consolidated financial statements		Separate financial statements	
		For the year ended 31 December		For the year ended 31 December	
		2017	2016	2017	2016
		(in Baht)			
Revenue from sales	4, 27	19,472,369,186	17,200,050,967	18,880,809,331	16,714,453,049
Cost of sales	4, 8	(18,218,843,921)	(15,715,755,442)	(18,054,264,345)	(15,374,945,086)
<b>Gross profit</b>		<b>1,253,525,265</b>	<b>1,484,295,525</b>	<b>826,544,986</b>	<b>1,339,507,963</b>
Interest income and dividend income	4	29,939,763	6,937,619	98,448,985	74,581,233
Other income	4	52,330,176	47,762,603	83,117,726	82,346,508
Selling and distribution expenses	4, 21	(385,973,015)	(330,090,824)	(213,754,833)	(176,269,801)
Administrative expenses	4, 22	(346,312,927)	(287,698,191)	(331,847,909)	(253,221,220)
Net foreign exchange gain (loss)		(24,366,527)	23,966,352	2,593,395	7,914,185
Net derivatives gain (loss)		(55,914,375)	8,757,993	(60,854,895)	5,582,499
Finance costs	4, 25	(87,271,895)	(67,252,434)	(92,014,913)	(65,244,331)
Share of profit of investments in joint venture	10	87,530,849	104,460,740	-	-
Share of loss of investments in associate	10	(795,093)	(452,762)	-	-
<b>Profit before income tax expense</b>		<b>522,692,221</b>	<b>990,686,621</b>	<b>312,232,542</b>	<b>1,015,197,036</b>
Tax expense	26	(1,752,874)	(29,580,381)	(2,155,144)	(29,618,936)
<b>Profit for the year</b>		<b>520,939,347</b>	<b>961,106,240</b>	<b>310,077,398</b>	<b>985,578,100</b>
<b>Profit attributable to:</b>					
Owners of the parent		520,939,347	936,899,676	310,077,398	985,578,100
Former shareholder before business restructuring		-	24,206,564	-	-
<b>Profit for the year</b>		<b>520,939,347</b>	<b>961,106,240</b>	<b>310,077,398</b>	<b>985,578,100</b>
<b>Basic earnings per share</b>		<b>0.56</b>	<b>1.27</b>	<b>0.33</b>	<b>1.33</b>

The accompanying notes are an integral part of these financial statements.

## Statement of Comprehensive Income

Global Green Chemicals Public Company Limited and its Subsidiary

	<i>Note</i>	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
		For the year ended 31 December		For the year ended 31 December	
		2017	2016	2017	2016
		<i>(in Baht)</i>			
Profit for the year		520,939,347	961,106,240	310,077,398	985,578,100
<b>Other comprehensive income</b>					
<i>Items that will not be reclassified to profit or loss</i>					
Losses on remeasurements of defined benefit plans	17	(10,848,206)	-	(10,848,206)	-
Share of other comprehensive loss of investment in joint venture	10	(3,060,341)	-	-	-
<b>Total items that will not be reclassified to profit or loss</b>		<b>(13,908,547)</b>	<b>-</b>	<b>(10,848,206)</b>	<b>-</b>
<b>Other comprehensive income for the year, net of tax</b>		<b>(13,908,547)</b>	<b>-</b>	<b>(10,848,206)</b>	<b>-</b>
<b>Total comprehensive income for the year</b>		<b>507,030,800</b>	<b>961,106,240</b>	<b>299,229,192</b>	<b>985,578,100</b>
<b>Total comprehensive income attributable to:</b>					
Owners of the parent		507,030,800	936,899,676	299,229,192	985,578,100
Former shareholder before business restructuring		-	24,206,564	-	-
<b>Total comprehensive income for the year</b>		<b>507,030,800</b>	<b>961,106,240</b>	<b>299,229,192</b>	<b>985,578,100</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Changes in Equity

Global Green Chemicals Public Company Limited and its Subsidiary

	Note	Issued and paid-up share capital	Difference arising from business combination under common control	Consolidated financial statements				Former shareholder before business restructuring	Total shareholders' equity
				Retained earnings	Equity attributable to owners of the parent	Unappropriated (in Baht)	Legal reserve		
<b>For year ended 31 December 2016</b>									
<b>Balance at 1 January 2016</b>		<b>7,400,000,000</b>	<b>-</b>	<b>138,980,743</b>	<b>857,215,499</b>	<b>8,396,196,242</b>	<b>662,158,979</b>	<b>9,058,355,221</b>	
<b>Transaction with owners, recorded directly in equity</b>									
<i>Distributions to owners of the parent</i>									
Dividends to owners of the Company	29	-	-	-	(1,406,000,000)	(1,406,000,000)	-	(1,406,000,000)	
<i>Total distributions to owners of the parent</i>		<b>-</b>	<b>-</b>	<b>-</b>	<b>(1,406,000,000)</b>	<b>(1,406,000,000)</b>	<b>-</b>	<b>(1,406,000,000)</b>	
<b>Changes in interests from business restructuring</b>									
Impact of business restructuring		-	(4,134,457)	-	-	(4,134,457)	(686,365,543)	(690,500,000)	
<i>Total changes in interests from business restructuring</i>		<b>-</b>	<b>(4,134,457)</b>	<b>-</b>	<b>-</b>	<b>(4,134,457)</b>	<b>(686,365,543)</b>	<b>(690,500,000)</b>	
<i>Total transaction with owners, recorded directly in equity</i>		<b>-</b>	<b>(4,134,457)</b>	<b>-</b>	<b>(1,406,000,000)</b>	<b>(1,410,134,457)</b>	<b>(686,365,543)</b>	<b>(2,096,500,000)</b>	
<b>Comprehensive income for the year</b>									
Profit		-	-	-	936,899,676	936,899,676	24,206,564	961,106,240	
Other comprehensive income		-	-	-	-	-	-	-	
<b>Total comprehensive income for the year</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>936,899,676</b>	<b>936,899,676</b>	<b>24,206,564</b>	<b>961,106,240</b>	
Transfer to legal reserve	19	-	-	91,136,357	(91,136,357)	-	-	-	
<b>Balance at 31 December 2016</b>		<b>7,400,000,000</b>	<b>(4,134,457)</b>	<b>230,117,100</b>	<b>296,978,818</b>	<b>7,922,961,461</b>	<b>-</b>	<b>7,922,961,461</b>	

The accompanying notes are an integral part of these financial statements.



# Statement of Changes in Equity

Global Green Chemicals Public Company Limited and its Subsidiary

	Note	Separate financial statements				Total shareholders' equity
		Issued and paid-up share capital	Retained earnings		Unappropriated	
			Legal reserve	(in Baht)		
<b>For year ended 31 December 2016</b>						
<b>Balance at 1 January 2016</b>		<b>7,400,000,000</b>	<b>138,980,743</b>	<b>1,475,676,824</b>		<b>9,014,657,567</b>
<b>Transaction with owners, recorded directly in equity</b>						
<i>Distributions to owners of the Company</i>						
Dividends to owners of the Company	29	-	-	(1,406,000,000)		(1,406,000,000)
<i>Total distributions to owners of the Company</i>		-	-	(1,406,000,000)		(1,406,000,000)
<b>Comprehensive income for the year</b>						
Profit		-	-	985,578,100		985,578,100
Other comprehensive income		-	-	-		-
<b>Total comprehensive income for the year</b>		-	-	<b>985,578,100</b>		<b>985,578,100</b>
Transfer to legal reserve	19	-	91,136,357	(91,136,357)		-
<b>Balance at 31 December 2016</b>		<b>7,400,000,000</b>	<b>230,117,100</b>	<b>964,118,567</b>		<b>8,594,235,667</b>

The accompanying notes are an integral part of these financial statements.

# Statement of Changes in Equity

Global Green Chemicals Public Company Limited and its Subsidiary

For year ended 31 December 2017

Balance at 1 January 2017

Transaction with owners, recorded directly in equity

*Contributions by and distributions to owners of the Company*

Issue of ordinary shares

Dividends to owners of the Company

*Total contributions by and distributions to owners of the Company*

Comprehensive income for the year

Profit

Other comprehensive income

**Total comprehensive income for the year**

Transfer to legal reserve

**Balance at 31 December 2017**

	Note	Issued and paid-up share capital	Share premium	Separate financial statements			Total shareholders' equity
				Retained earnings	Legal reserve (in Baht)	Unappropriated	
		7,400,000,000	-	230,117,100	964,118,567		8,594,235,667
	18	2,836,667,000	219,066,911	-	-	-	3,055,733,911
	29	-	-	-	(412,550,005)		(412,550,005)
		<b>2,836,667,000</b>	<b>219,066,911</b>	<b>-</b>	<b>(412,550,005)</b>		<b>2,643,183,906</b>
		-	-	-	310,077,398		310,077,398
		-	-	-	(10,848,206)		(10,848,206)
		<b>-</b>	<b>-</b>	<b>-</b>	<b>299,229,192</b>		<b>299,229,192</b>
	19	-	-	15,503,900	(15,503,900)		-
		<b>10,236,667,000</b>	<b>219,066,911</b>	<b>245,621,000</b>	<b>835,293,854</b>		<b>11,536,648,765</b>

The accompanying notes are an integral part of these financial statements.



## Statement of Cash Flows

Global Green Chemicals Public Company Limited and its Subsidiary

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	For the year ended 31 December		For the year ended 31 December	
	2017	2016	2017	2016
	<i>(in Baht)</i>			
<b><i>Cash flows from operating activities</i></b>				
Profit for the year	520,939,347	961,106,240	310,077,398	985,578,100
<b><i>Adjustments for</i></b>				
Depreciation	499,224,710	486,002,352	450,229,712	439,676,957
Amortisation	65,691,337	59,319,584	65,674,798	59,319,584
Interest income and dividend income	(29,939,763)	(6,937,619)	(98,448,985)	(74,581,233)
Finance costs	87,271,895	67,252,434	92,014,913	65,244,331
Unrealised (gain) loss on derivative	20,621,937	(2,537,863)	14,739,438	(2,537,863)
Unrealised (gain) loss on exchange rate	(13,036,306)	(1,263,412)	(10,888,558)	(13,473)
Loss from written-off assets	206,373	22,530,137	206,373	22,530,137
Losses on inventories devaluation	2,357,787	-	2,357,787	-
Provision for employee benefit	7,264,009	5,248,305	7,264,009	5,248,305
Share of profit of investments in joint venture	(87,530,849)	(104,460,740)	-	-
Share of loss of investments in associate	795,093	452,762	-	-
Tax expense	1,752,874	29,580,381	2,155,144	29,618,936
	<u>1,075,618,444</u>	<u>1,516,292,561</u>	<u>835,382,029</u>	<u>1,530,083,781</u>
<b><i>Changes in operating assets and liabilities</i></b>				
Trade accounts receivable	(334,427,286)	(278,463,664)	(220,495,069)	(325,348,686)
Other receivables	(3,734,425)	43,948,123	(3,602,482)	23,797,964
Value-added tax receivable	3,833,737	1,580,957	60,405,484	(60,405,484)
Inventories	1,593,924,792	(1,775,099,024)	1,652,743,848	(1,839,073,927)
Other current assets	(44,531,035)	(84,810,550)	(43,897,977)	(83,610,598)
Other non-current assets	(9,000,801)	17,286	(9,000,801)	17,286
Trade accounts payable	(318,870,309)	442,955,499	(330,465,525)	443,033,051
Other payables	162,192,620	21,124,397	160,641,309	12,707,045
Non-current provision for employee benefit	(1,729,332)	(204,266)	(1,729,332)	(204,266)
Net cash generated from (used in) operating	<u>2,123,276,405</u>	<u>(112,658,681)</u>	<u>2,099,981,484</u>	<u>(299,003,834)</u>
Taxes paid	<u>(27,465,058)</u>	<u>(10,751,977)</u>	<u>(27,411,154)</u>	<u>(10,712,687)</u>
<b>Net cash from (used in) operating activities</b>	<u><b>2,095,811,347</b></u>	<u><b>(123,410,658)</b></u>	<u><b>2,072,570,330</b></u>	<u><b>(309,716,521)</b></u>

The accompanying notes are an integral part of these financial statements.

# Statement of Cash Flows

Global Green Chemicals Public Company Limited and its Subsidiary

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
Note	2017	2016	2017	2016
	(in Baht)			
<b><i>Cash flows from investing activities</i></b>				
Interest received	28,355,591	7,180,134	25,540,173	3,862,463
Dividends received	71,400,000	70,875,000	71,400,000	70,875,000
Increase in short-term deposits at financial institutions	(1,700,000,000)	-	(1,700,000,000)	-
Acquisition of plant and equipment	(833,721,463)	(125,633,617)	(813,761,940)	(122,278,730)
Acquisition of intangible assets	(317,400)	-	(141,400)	-
Cash outflow for investments in joint venture	-	(690,500,000)	-	(690,500,000)
Cash outflow for investments in associate	(30,043,215)	(16,650,075)	(30,043,215)	(16,650,075)
<b>Net cash used in investing activities</b>	<b>(2,464,326,487)</b>	<b>(754,728,558)</b>	<b>(2,447,006,382)</b>	<b>(754,691,342)</b>
<b><i>Cash flows from financing activities</i></b>				
Interest paid	(84,956,600)	(65,754,831)	(89,699,620)	(63,746,728)
Dividends paid to owners of the Company	(412,550,005)	(1,406,000,000)	(412,550,005)	(1,406,000,000)
Finance lease payments	(3,825,978)	(2,268,974)	(3,825,978)	(2,268,974)
Increase (decrease) in short-term borrowings from related party	-	-	(310,000,000)	310,000,000
Proceeds from short-term borrowings from financial institutions	425,000,000	60,000,000	425,000,000	60,000,000
Repayment of short-term borrowings from financial institutions	(485,000,000)	-	(485,000,000)	-
Proceeds from long-term borrowings from financial institutions	-	1,860,000,000	-	1,860,000,000
Repayment of long-term borrowings from financial institutions	(230,625,000)	(78,750,000)	(230,625,000)	(78,750,000)
Proceeds from issue of shares	3,177,067,040	-	3,177,067,040	-
Transaction costs from issue of shares	(121,333,129)	-	(121,333,129)	-
<b>Net cash from financing activities</b>	<b>2,263,776,328</b>	<b>367,226,195</b>	<b>1,949,033,308</b>	<b>679,234,298</b>
Net increase (decrease) in cash and cash equivalents, before effect of exchange rates	1,895,261,188	(510,913,021)	1,574,597,256	(385,173,565)
Effect of exchange rate changes on balances held in foreign currencies	(753,921)	223,404	(84,442)	(39,025)
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>1,894,507,267</b>	<b>(510,689,617)</b>	<b>1,574,512,814</b>	<b>(385,212,590)</b>
Cash and cash equivalents at 1 January	527,722,791	1,038,412,408	371,725,675	756,938,265
<b>Cash and cash equivalents at 31 December</b>	<b>5</b> <b>2,422,230,058</b>	<b>527,722,791</b>	<b>1,946,238,489</b>	<b>371,725,675</b>

The accompanying notes are an integral part of these financial statements.

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

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# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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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 authorised for issue by the Board of Directors on 14 February 2018.

## 1 General information

Global Green Chemicals Public Company Limited, the “Company”, is incorporated in Thailand and has its registered offices as follows:

Head Office	: 555/1, Energy Complex, Building A, 4 <sup>th</sup> Floor, Vibhavadi-rangsit Road, Chatuchak, Bangkok, Thailand.
Branch 1	: 8, I-8 Road, Mab Ta Phut Industrial Estate, Tambon Map Ta Phut, Amphur Mueang Rayong, Rayong, Thailand.
Branch 2	: 8, Soi G12, Pakorn Songkhrao-Rat Road, Tambon Map Ta Phut, Amphur Mueang Rayong, Rayong, Thailand.

The Company was listed on the Stock Exchange of Thailand (“SET”) on 2 May 2017.

The immediate and ultimate parent companies during the financial period were PTT Global Chemical Public Company Limited and PTT Public Company Limited, respectively. Both are incorporated in Thailand.

The principal activities of the Company are production and distribution of Oleochemicals products. The Company’s major products are Methyl ester, Fatty alcohol, Fatty acid, Fatty Amine, other Alcohol’s ester, and other by products. Details of the Company’s subsidiary, joint venture and associate as at 31 December were as follows:

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2017	2016
<b><i>Subsidiary</i></b>				
Thai Fatty Alcohols Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
<b><i>Joint venture</i></b>				
Thai Ethoxylate Co., Ltd.	Manufacturing and distributing chemical and ethoxylate product	Thailand	50	50
<b><i>Associate</i></b>				
Thai Eastern Top Seeds Oil Co., Ltd.	Manufacturing and distributing crude palm kernel oil	Thailand	30	30

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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## 2 Basis of preparation of the financial statements

### (a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (TFRS); guidelines promulgated by the Federation of Accounting Professions (“FAP”); and applicable rules and regulations of the Thai Securities and Exchange Commission.

The FAP has issued new and revised TFRS effective for annual accounting periods beginning on or after 1 January 2017. The initial application of these new and revised TFRS has resulted in changes in certain of the Group’s accounting policies. These changes have no material effect on the financial statements.

In addition to the above new and revised TFRS, the FAP has issued a number of other new and revised TFRS which are effective for annual financial periods beginning on or after 1 January 2018 and have not been adopted in the preparation of these financial statements.

The Group has made a preliminary assessment of the potential initial impact on the consolidated and separate financial statements of these new and revised TFRS and expects that there will be no material impact on the financial statements in the period of initial application.

### (b) Basis of measurement

The financial statements have been prepared on the historical cost basis except for the following items, which are measured on an alternative basis on each reporting date.

<i>Items</i>	<i>Measurement bases</i>
Derivative financial instruments	Fair value
Net defined benefit liability	Present value of the defined benefit obligation, limited as explained in Note 3 (m)

### (c) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company’s functional currency. All financial information presented in Thai Baht has been rounded to the nearest million in notes to the financial statements unless otherwise stated.

### (d) Use of judgements and estimates

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

Note 17	Measurement of defined benefit obligations : key actuarial assumptions
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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 (unadjusted) 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 (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset 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 the lowest level input that is significant to the entire measurement.

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

The consolidated financial statements relate to the Company and its subsidiary (together referred to as the “Group”) and the Group’s interests in joint venture and associate.

Business combinations of entities or businesses under common control are accounted for using a method similar to the pooling of interest method and in accordance with the Guideline issued in 2009 by the FAP. Business combinations arising from transfers of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative period presented or, if later, at the date that common control was established; for this purpose comparatives are revised. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group controlling shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within Group equity. Any cash paid for the acquisition is recognised directly in equity.

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

## *Subsidiary*

Subsidiary 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 subsidiary are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

## *Non-controlling interests*

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

## *Loss of control*

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. 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.

## *Interests in equity - accounted investees*

The Group's interests in equity-accounted investees comprise interests in a joint venture and associate.

Associate 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.

Interests in a joint venture and associate are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's 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.

## *Transactions eliminated on consolidation*

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### **(b) Foreign currencies**

#### *Foreign currency transactions*

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency at the exchange rates at the dates of the transactions.

Foreign currency differences are generally recognized in profit or loss.

### **(c) Derivative financial instruments**

Derivative financial instruments are used to manage exposure to foreign exchange, interest rate arising from operating and financing activities. Derivative financial instruments are not used for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, they are remeasured at fair value. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss.

The fair value of forward exchange contracts is based on their listed market price as the reporting date, if available. If a listed market price is not available, then fair value is estimated by forward contract with the same nature and maturity date at the reporting date.

### **(d) Cash and cash equivalents**

Cash and cash equivalents comprise cash balances, call deposits and highly liquid current investments.

### **(e) Trade and other accounts receivable**

Trade and other accounts receivable are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of overdue aging and future expectations of customer payments. Bad debts are written off when incurred.



## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### **(f) Inventories**

Inventories are measured at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost principle, and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. 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.

### **(g) Investments**

*Investments in subsidiary, joint venture and associate*

Investments in subsidiary, joint venture and associate in the separate financial statements of the Company are accounted for using the cost method less accumulated impairment losses. Investments in associate and joint venture in the consolidated financial statements are accounted for using the equity method.

*Disposal of investments*

On disposal of an investment, the difference between net disposal proceeds and the carrying amount is recognised in profit or loss.

If the Group disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method applied to the carrying value of the total holding of the investment.

### **(h) Plant and equipment**

*Recognition and measurement*

*Owned assets*

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.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

When parts of an item of plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Any gains and losses on disposal of an item of plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of plant and equipment, and are recognised in profit or loss.

### *Leased assets*

Leases in terms of which the Group substantially assumes all the risk and rewards of ownership are classified as finance leases. Plant and equipment acquired by way of finance leases are capitalised at the lower of their fair value and the present value of the minimum lease payments at the inception of the lease, less accumulated depreciation and impairment losses. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly to the profit or loss.

### *Subsequent costs*

The cost of replacing a part of an item of plant and equipment is recognised in the carrying amount of the item if it is probable that 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 plant and equipment are recognised in profit or loss as incurred.

### *Depreciation*

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of plant and equipment. The estimated useful lives are as follows:

Plant, machinery equipment and factory tools and equipment	5-25 years
Buildings and buildings improvement	5-20 years
Land improvement	5-20 years
Furniture, fixtures and office equipment	3-10 years
Vehicles	5 years

No depreciation is provided on assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

### **(i) Intangible assets**

#### *Goodwill*

Goodwill that arises upon the acquisition of businesses is included in intangible assets. Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### *Production licence fees and other intangible assets*

Production licence fees and other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses.

### *Subsequent expenditure*

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, are recognised in profit or loss as incurred.

### *Amortisation*

Amortisation is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives for the current and comparative periods are as follows:

Production licence fees	20 years
Other intangible assets	3-15 years

Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

### **(j) Impairment**

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 if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognised in profit or loss.

### *Calculation of recoverable amount*

The recoverable amount of a non-financial asset 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.

### *Reversals of impairment*

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised in profit or loss.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

An impairment loss in respect of goodwill is not reversed.

Impairment losses recognised in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. 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.

**(k) Interest-bearing liabilities**

Interest-bearing liabilities are recognised initially at fair value less attributable transaction charges. Subsequent to initial recognition, interest-bearing liabilities are stated at amortised cost with any difference between cost and redemption value being recognised in profit or loss over the period of the borrowings on an effective interest basis.

**(l) Trade and other payables**

Trade and other payables are stated at cost.

**(m) Employee benefits**

*Defined contribution plans*

Obligations for contributions to defined contribution plans are expensed as the related service is provided.

*Defined benefit plans*

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount.

The calculation of defined benefit obligations is performed every 3 years by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any application minimum funding requirements.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognized 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 recognized 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.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### *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 recognized in profit or loss in the period in which they arise.

### *Termination benefits*

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

### *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.

### **(n) Provisions**

A provision is recognised if, as a result of a 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 on provisions is recognised as finance cost.

### **(o) Revenue**

Revenue excludes value added taxes and is arrived at after deduction of trade discounts.

#### *Sale of goods*

Revenue is recognised in profit or loss when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there is continuing management involvement with the goods or there are significant uncertainties regarding recovery of the consideration due, associated costs or the probable return of goods.

#### *Dividend income*

Dividend income is recognised in profit or loss on the date the Group's right to receive payments is established.

#### *Interest and other income*

Interest and other income is recognised in profit or loss as it accrues.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### **(p) Finance costs**

Finance costs is recognised using the effective interest method and comprises interest expense on borrowings, unwinding of the discount on provisions and contingent consideration, fair value losses on financial assets at fair value through profit or loss, impairment losses recognised on financial assets (other than trade receivables), and losses on hedging instruments that are recognised in profit or loss.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

### **(q) Lease payments**

Payments made under operating leases are recognised in profit or loss on a straight line basis over the term of the lease.

Contingent lease payments which the lease adjustment is confirmed, are accounted for by revising the minimum lease payments over the remaining term of the lease.

### **(r) 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 the items recognised directly in equity or in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts and taxable value of assets and liabilities, using tax rate enacted or substantively enacted to the temporary differences when they reverse.

Deferred tax is not recognised for the following 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;
- differences relating to investments in subsidiary 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.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

Deferred tax assets and liabilities on different tax entities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they relate to income taxes levied by the same tax authority.

A deferred tax asset is recognised to the extent that it is probable that deferred tax assets can be utilised as future tax benefit. 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.

**(s) Earnings per share**

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the year.

**(t) Segment reporting**

Segment results that are reported to the Group's Management Committee (the chief operating decision maker) include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

### 4 Related parties

A related party is as follows;

- An individual or an entity which has the ability, directly or indirectly, to control or joint control or exercise significant influence over the Group/Company in making financial and operating decisions or;
- An individual or an entity which is subject to common control or common significant influence with the Group/Company or;
- The Group/Company has the ability, directly or indirectly, to control or joint control or exercise significant influence over an individual or an entity in making financial and operating decisions.

Relationships with related parties were as follows:

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTT Plc.	Thailand	Ultimate parent company and the Company's directors as managements
PTT Global Chemical Plc.	Thailand	Parent and the Company's directors as managements
Thai Fatty Alcohols Co., Ltd.	Thailand	Subsidiary, 100% shareholding, some common directors and the Company's management as a director
Thai Ethoxylate Co., Ltd.	Thailand	Joint venture, 50% shareholding and the Company's management as a director
Thai Eastern Top Seeds Oil Co., Ltd.	Thailand	Associate, 30% shareholding and the Company's management as a director

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

<b>Name of entities</b>	<b>Country of incorporation/ nationality</b>	<b>Nature of relationships</b>
TOC Glycol Co., Ltd.	Thailand	Other related party, shareholding by parent company and some common directors
Solution Creation Co., Ltd.	Thailand	Other related party, shareholding by parent company and some common directors
PTT Phenol Co., Ltd.	Thailand	Other related party, shareholding by parent company and some common directors
Global Power Synergy Plc.	Thailand	Other related party, shareholding by parent company and some common directors
PTT Maintenance and Engineering Co., Ltd.	Thailand	Other related party, shareholding by parent company
NPC Safety and Environmental Service Co., Ltd.	Thailand	Other related party, shareholding by parent company
Thai Tank Terminal Limited	Thailand	Other related party, shareholding by parent company
PTT Polymer Logistics Co., Ltd.	Thailand	Other related party, shareholding by parent company
Eastern Fluid Transport Co., Ltd.	Thailand	Other related party, shareholding by parent company
Dhipaya Insurance Plc.	Thailand	Other related party, shareholding by the ultimate parent company
Thai Oil Plc.	Thailand	Other related party, shareholding by the ultimate parent company
IRPC Plc.	Thailand	Other related party, shareholding by the ultimate parent company
Energy Complex Co., Ltd.	Thailand	Other related party, shareholding by the ultimate parent company
Business Services Alliance Co., Ltd	Thailand	Other related party, shareholding by the ultimate parent company and parent company
TOP Solvent (Vietnam) LLC.	Vietnam	Other related party, indirect shareholding by ultimate parent company
Advanced Biochemical (Thailand) Co., Ltd.	Thailand	Other related party, indirect shareholding by parent company
NPC S&E Security Guard Co., Ltd.	Thailand	Other related party, indirect shareholding by parent company



## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

The pricing policies for particular types of transactions are explained further below:

Transactions	Pricing policies
Sale of goods	Contract price / Contract price determined based on reference market price
Rendering of services	Contract price
Purchase of goods/raw materials/services	Contract price / market price
Interest on loan	Average cost of fund/ Contractually agreed rate

Significant transactions for the years ended 31 December with related parties were as follows:

<i>For the year ended 31 December</i>	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Ultimate parent</b>				
Sales of goods	5,245	5,207	5,245	5,158
Purchases of goods or receiving of services	675	275	675	275
Other income	16	16	16	16
Other expense	5	3	5	3
<b>Parent</b>				
Sales of goods	1,230	961	1,230	961
Purchases of goods or receiving of services	188	166	178	159
Other income	13	19	13	19
Other expense	92	84	90	80
<b>Subsidiary</b>				
Sales of goods	-	-	6,253	5,193
Other income	-	-	31	35
Interest expense	-	-	6	-
<b>Joint venture</b>				
Sales of goods	1,669	1,757	-	-
Dividend income	-	-	72	70
Other income	5	1	5	1
<b>Associate</b>				
Purchases of goods or receiving of services	86	-	86	-
<b>Other related parties</b>				
Sales of goods	1,409	1,492	1,409	1,492
Purchases of goods or receiving of services	561	564	451	446
Other income	2	3	2	3
Other expense	38	30	25	19
<b>Key management personnel</b>				
Key management personnel compensation				
Short-term benefits	9	5	9	5

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

Balances as at 31 December with related parties were as follows:

<i>Trade accounts receivable - related parties</i>	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Ultimate parent	356	330	356	330
Parent	52	60	51	60
Subsidiary	-	-	1,227	1,148
Joint venture	394	419	-	-
Other related parties	101	77	101	77
Total	903	886	1,735	1,615
Less allowance for doubtful accounts	-	-	-	-
<b>Net</b>	<b>903</b>	<b>886</b>	<b>1,735</b>	<b>1,615</b>

Bad and doubtful debts expenses for the year	-	-	-	-
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<i>Other receivables - related parties</i>	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Ultimate parent	3	1	3	1
Parent	11	9	11	9
Subsidiary	-	-	20	20
Joint venture	2	1	2	1
Other related parties	12	14	10	12
Total	28	25	46	43
Less allowance for doubtful accounts	-	-	-	-
<b>Net</b>	<b>28</b>	<b>25</b>	<b>46</b>	<b>43</b>

Bad and doubtful debts expenses for the year	-	-	-	-
--	---	---	---	---

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Investments in subsidiary (Note 9)</b>	<b>-</b>	<b>-</b>	<b>1,685</b>	<b>1,685</b>
<b>Investments in joint venture (Note 10)</b>	<b>709</b>	<b>696</b>	<b>691</b>	<b>691</b>
<b>Investments in associate (Note 10)</b>	<b>45</b>	<b>16</b>	<b>47</b>	<b>17</b>

<i>Trade accounts payable - related parties</i>	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Ultimate parent	37	31	37	31
Parent	9	8	9	8
Associate	2	-	2	-
Other related parties	89	41	70	33
<b>Total</b>	<b>137</b>	<b>80</b>	<b>118</b>	<b>72</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### *Other payables - related parties*

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Ultimate parent	3	1	2	1
Parent	43	36	42	34
Other related parties	21	13	19	12
<b>Total</b>	<b>67</b>	<b>50</b>	<b>63</b>	<b>47</b>

### *Payables to contractor - related party*

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Other related party	7	4	7	4
<b>Total</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>4</b>

### *Short-term borrowing from related party*

	<b>Interest rate</b>		<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016	2017	2016
	<i>(% per annum)</i>		<i>(in million Baht)</i>			
Subsidiary	-	BIBOR plus margin	-	-	-	310
<b>Total borrowing from related party</b>			<b>-</b>	<b>-</b>	<b>-</b>	<b>310</b>

Movements during the years ended 31 December of loans from related parties were as follows:

### *Short-term borrowing from related party*

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Subsidiary</b>				
At 1 January	-	-	310	-
Increase	-	-	-	310
Decrease	-	-	(310)	-
<b>At 31 December</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>310</b>

### *Significant agreements with related parties*

At 31 December 2017, the Company has significant agreements with related parties as follow:

#### *Methyl Ester Purchase and Sales Agreements*

The Company has 4 Methyl Ester Purchase and Sales Agreements with ultimate parent company, parent company and 1 related party. Selling prices are determined based on B100 price announced by government and the adjustment as specified in each agreement. These agreements are for the periods from 3 months to 1 year, commencing from the effective date as specified in each agreement and expiring in March 2018 and December 2018. These agreements are renewable until either party terminates the agreement.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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### ***Methanol Sales Agreements***

The Company has Methanol Sales Agreement with ultimate parent company. Selling prices is determined based on average Methanol price prevailing in the South East Asia region. This agreement is for the period of 1 year, commencing from the effective date as specified in the agreement and expiring in December 2018.

### ***Utilities Purchase and Sales Agreements and Other Services Agreements***

The Company has Hydrogen Purchase and Sale Agreement with parent company. Selling price is determined based on Natural Gas price for the industry. This agreement is for the period of 15 years, commencing from the effective date as specified in the agreement and expiring in March 2024.

The Group has 3 Utilities Purchase Agreements covering steam, electricity and water with a related party at the agreed quantities and prices as stipulated in the agreement. These agreements are for the period 15 years, commencing from the effective date as specified in each agreement and expiring in July 2023.

The Company has Tank Farm Storage and Service Agreement with a related party covering tank storage, utilities for product warehouse and transportation of Methanol. This agreement is for the period of 15 years, commencing from the effective date as specified in each agreement and expiring in September 2022, with the service charge as stipulated in the agreement.

The Company has Methyl Ester Tank Storage and Service Agreement with ultimate parent company and a related company. This agreement is for the period of 1 year and 1 year 5 months, commencing from the effective date as specified in the agreement and expiring in December 2018 and March 2019, respectively with the service charge as stipulated in the agreement.

The Company has Pipe rack Maintenance Agreement with a related party. The agreement is for the period of 15 years, commencing from the effective date as specified in agreement and expiring in August 2022, with the service charge as stipulated in the agreement.

The Company has Right to use pipe rack Agreements with ultimate parent company and parent company. These agreements are for the periods of 15 years, commencing from the effective date as specified in each agreement and expiring in April 2022 and August 2022, respectively with the service charge as stipulated in each agreements.

### ***Service Agreements***

The Group has Share Service Agreements with parent company for the provision of administration office, lab and quality service and general services. This agreement is for the period 1 year, commencing from the effective date as specified in the agreement and expiring in December 2018, with the service charge as stipulated in the agreement.

The Group has Design, Construction and Installation for Engineering Request Agreements, Plant Management and Maintenance, Engineering and Mechanical Equipment Inspection and Machinery Inspection Agreements with a related party. These agreements are for the periods 1 year and 3 years, commencing from the effective date as specified in each agreement and expiring in February 2018 and December 2019, respectively with the service charge as stipulated in each agreements.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

The Company has Security and Fire Protection Agreement with a related party for receiving security and fire protection service to assets, employees, and visitors in the Company location. The agreement is for the period of 2 years, commencing from the effective date as specified in the agreement and expiring in December 2018, with the service charge as stipulated in the agreement.

The Company has Safety Inspector Agreement with a related party. The agreement is to inspect during working and in the Company location. The agreement is for the period 4 years, commencing from the effective date as specified in the agreement and expiring in December 2018, with the service charge as stipulated in the agreement.

The Company has Emergency Control and Management Agreement with a related party for consulting and safety training, occupational health & safety and environment, and set up emergency control centre. The agreement is for the period of 3 years, commencing from the effective date as specified in the agreement and expiring in December 2020, with the service charge as stipulated in the agreement.

The Company has Design, Construction and Installation Agreement for Methyl Ester II project with a related party. This agreement is for a period of 2 years, commencing from the effective date as specified in the agreement and expiring in August 2018, with the service charge as stipulated in the agreement.

The Company has Inventory Management Agreement for Incremental Methyl Ester with ultimate parent company. This agreement is for a period of 5 years, commencing from the effective date as specified in the agreement and expiring in March 2022, with the service charge as stipulated in the agreement.

### ***Rental Agreements***

The Group has Land Lease Agreements with parent company, for the periods of 30 years, commencing from the effective date as specified in each agreement and expiring in July 2036 with rental rate as stipulated in the agreements. The agreements can be extendable for another 20 years by providing not less than 1 year prior written notice to the lessor.

The Company has Office Rental and Service agreement with a related company. The agreement is for the period of 1 year and 9 months and will expire in September 2018 with rental and service rate and conditions as stipulated in the agreement.

The Company has Office Rental and Service agreement with parent company. The agreement is for the period of 1 year and 9 months and will expire in September 2018 with rental and service rate and conditions as stipulated in the agreement.

The Company has Office Rental and Service agreement with parent company. The agreement is for the period of 1 year and will expire in October 2018 with rental and service rate and conditions as stipulated in the agreement.

### ***Loan Agreements***

The Company has an uncommitted and unsecured short-term borrowing and lending agreement with a subsidiary with the borrowing and lending credit facility of Baht 500 million and Baht 200 million, respectively. The agreement is for the period of 1 year and will expire in December 2018. This facility bears interest based on market rate referenced to BIBOR plus margin.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 5 Cash and cash equivalents

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Cash at banks - savings accounts	2,189	138	1,938	66
Cash at banks - foreign currency accounts	233	90	8	6
Highly liquid current investments	-	300	-	300
<b>Total</b>	<b>2,422</b>	<b>528</b>	<b>1,946</b>	<b>372</b>

### 6 Trade accounts receivable

		<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	Note	2017	2016	2017	2016
		<i>(in million Baht)</i>			
Related parties	4	903	886	1,735	1,615
Other parties		939	624	248	148
<b>Total</b>		<b>1,842</b>	<b>1,510</b>	<b>1,983</b>	<b>1,763</b>
Less allowance for doubtful accounts		-	-	-	-
<b>Net</b>		<b>1,842</b>	<b>1,510</b>	<b>1,983</b>	<b>1,763</b>
Bad and doubtful debts expenses for the year		-	-	-	-

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

Aging analyses for trade accounts receivable were as follows:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Related parties</b>				
Within credit terms	903	886	1,735	1,615
Less allowance for doubtful accounts	-	-	-	-
<b>Net</b>	<b>903</b>	<b>886</b>	<b>1,735</b>	<b>1,615</b>
<b>Other parties</b>				
Within credit terms	893	587	227	140
Overdue:				
Less than 3 months	46	37	21	8
	<b>939</b>	<b>624</b>	<b>248</b>	<b>148</b>
Less allowance for doubtful accounts	-	-	-	-
<b>Net</b>	<b>939</b>	<b>624</b>	<b>248</b>	<b>148</b>
<b>Total</b>	<b>1,842</b>	<b>1,510</b>	<b>1,983</b>	<b>1,763</b>

The normal credit term granted by the Group ranges from 15 days to 60 days.

### 7 Other receivables

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Prepaid expenses	32	25	29	22
Accrued income	5	4	4	4
Other account receivables	9	5	29	25
Others	4	9	4	9
<b>Total</b>	<b>50</b>	<b>43</b>	<b>66</b>	<b>60</b>
Less allowance for doubtful accounts	-	-	-	-
<b>Net</b>	<b>50</b>	<b>43</b>	<b>66</b>	<b>60</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 8 Inventories

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Finished goods	1,142	2,004	817	1,682
Work in progress	70	267	70	267
Raw materials	1,121	1,324	1,121	1,324
Spare parts and factory supplies	389	346	367	325
Goods in transit	58	433	3	434
Total	2,780	4,374	2,378	4,032
Less allowance for decline in value	(2)	-	(2)	-
<b>Net</b>	<b>2,778</b>	<b>4,374</b>	<b>2,376</b>	<b>4,032</b>
Inventories recognised as an expense in 'cost of sales of goods':				
- Cost	18,217	15,716	18,052	15,375
- Write-down to net realisable value	2	-	2	-
<b>Net</b>	<b>18,219</b>	<b>15,716</b>	<b>18,054</b>	<b>15,375</b>

### 9 Investments in subsidiary

	<b>Separate financial statements</b>	
	2017	2016
	<i>(in million Baht)</i>	
At 1 January	1,685	1,685
<b>At 31 December</b>	<b>1,685</b>	<b>1,685</b>



Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

	Separate financial statements											
	Ownership interest		Paid-up capital		Cost		Impairment		At cost - net		Dividend income	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
		(%)										
100	100		1,060	1,060	1,685	1,685	-	-	1,685	1,685	-	-
<b>Subsidiary</b> Thai Fatty Alcohols Co., Ltd.												

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 10 Investments in joint venture and associate

	Consolidated financial statements		Separate financial statements	
<i>For the year ended 31 December</i>	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Joint venture</b>				
At 1 January	696	662	691	-
Acquisition	-	-	-	691
Share of profit of investments in joint venture	88	104	-	-
Share of other comprehensive loss of investment in joint venture	(3)	-	-	-
Dividend income	(72)	(70)	-	-
<b>At 31 December</b>	<b>709</b>	<b>696</b>	<b>691</b>	<b>691</b>
<b>Associate</b>				
At 1 January	16	-	17	-
Acquisition	30	17	30	17
Share of loss of investments in associate	(1)	(1)	-	-
<b>At 31 December</b>	<b>45</b>	<b>16</b>	<b>47</b>	<b>17</b>
<b>Total</b>				
At 1 January	712	662	708	-
Acquisition	30	17	30	708
Share of net profit of investments in joint venture and associate	84	103	-	-
Dividends income	(72)	(70)	-	-
<b>At 31 December</b>	<b>754</b>	<b>712</b>	<b>738</b>	<b>708</b>

#### *Acquisitions of joint venture*

On 31 March 2016, the Company made a new investment in 50% of the issued and paid up capital of Thai Ethoxylate Co., Ltd. incorporated in Thailand, for a consideration of Baht 690.50 million. This transaction is acquisition from company which is under common control with the Group.

#### *Acquisitions of associate*

On 6 October 2016, the Company had signed the Joint Venture Agreement with Eastern Palm Oil Company Limited for the joint investment of Palm Kernel Oil Extraction Plant in order to increase the security of the Company access to crude palm kernel oil feedstock and enhance the profitability of the fatty alcohols. The Company made a new investment in Thai Eastern Top Seeds Oil Company Limited, incorporated in Thailand, for a consideration of Baht 100 (divided into 1 shares at Baht 100 par value).

On 1 November 2016, the Company made an investment in 30% of the issued and paid up capital of Thai Eastern Top Seeds Oil Company Limited, an associated company of the Company, for a consideration of Baht 16.65 million (divided into 0.66 million shares at Baht 100 par value), of which fully paid in November 2016.

#### *Change in investment in associate*

During the year ended 31 December 2017, Thai Eastern Top Seeds Oil Company Limited has called for paid-up capital from the capital increase by the Board of Directors' Meeting held on 16 December 2016 for the purpose of the Company's working capital at Baht 45.11 per share, 665,999 shares, totalling Baht 30.04 million, of which fully received in April 2017.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

Investment in joint venture and associate as at 31 December and dividend income from the investment for the year then ended were as follows:

<b>Consolidated financial statements</b>										
	Ownership interest (%)		Paid-up capital		Cost		Equity		Impairment	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
	<i>(in million Baht)</i>									
<b>Joint venture</b>										
Thai Ethoxylate Co., Ltd.	50	50	420	420	691	691	709	696	-	-
					<u>691</u>	<u>691</u>	<u>709</u>	<u>696</u>	<u>-</u>	<u>-</u>
									72	70
									<u>72</u>	<u>70</u>
<b>Associate</b>										
Thai Eastern Topseed Oil Co., Ltd.	30	30	156	56	47	17	45	16	-	-
					<u>47</u>	<u>17</u>	<u>45</u>	<u>16</u>	<u>-</u>	<u>-</u>
									-	-
					<u>738</u>	<u>708</u>	<u>754</u>	<u>712</u>	<u>-</u>	<u>72</u>
<b>Total</b>									<u>754</u>	<u>712</u>
									<u>72</u>	<u>70</u>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

	Separate financial statements							
	Ownership interest		Paid-up capital		Cost		Impairment	
	2017	2016	2017	2016	2017	2016	2017	2016
	(%)						(in million Baht)	
<b>Joint venture</b>								
Thai Ethoxylate Co., Ltd.	50	50	420	420	691	691	-	-
					<b>691</b>	<b>691</b>	<b>691</b>	<b>70</b>
							72	70
							<b>72</b>	<b>70</b>
<b>Associate</b>								
Thai Eastern Top Seed Oil Co., Ltd.	30	30	156	56	47	17	-	-
					<b>47</b>	<b>17</b>	<b>47</b>	<b>17</b>
							-	-
<b>Total</b>					<b>738</b>	<b>708</b>	<b>738</b>	<b>708</b>
							<b>72</b>	<b>70</b>

None of the Group's joint venture and associate are publicly listed and consequently do not have published price quotations.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### Joint venture and Associate

The following table summarises the financial information of the joint venture and associate as included in their own financial statements, adjusted for differences in accounting policies.

<b>For the year ended 31 December</b>	Thai Ethoxylate Co., Ltd.		Thai Eastern Top Seed Oil Co., Ltd.	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Statement of income</b>				
Revenue	4,814	3,982	106	-
Profit (loss)	183	204	(3)	(1)
Other comprehensive income	(6)	-	-	-
<b>Total comprehensive income (100%)</b>	<b>177</b>	<b>204</b>	<b>(3)</b>	<b>(1)</b>
<b>Total comprehensive income of the Group's interest</b>	<b>89</b>	<b>102</b>	<b>(1)</b>	<b>(1)</b>
Elimination of unrealised profit	(4)	2	-	-
<b>Group's share of total comprehensive income</b>	<b>85</b>	<b>104</b>	<b>(1)</b>	<b>(1)</b>
<b>As at 31 December</b>	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
	<i>(in million Baht)</i>			
<b>Statement of financial position</b>				
Current assets	1,830	2,071	83	33
Non-current assets	422	366	300	23
Current liabilities	(811)	(1,036)	(76)	(1)
Non-current liabilities	(20)	(14)	(155)	-
<b>Net assets (100%)</b>	<b>1,421</b>	<b>1,387</b>	<b>152</b>	<b>55</b>
<b>Group's share of net assets</b>	<b>711</b>	<b>694</b>	<b>45</b>	<b>16</b>
Elimination of unrealised profit	(2)	2	-	-
<b>Carrying amount of investments in joint venture and associate</b>	<b>709</b>	<b>696</b>	<b>45</b>	<b>16</b>

Thai Ethoxylate  
Co., Ltd.  
2017      2016  
*(in million Baht)*

Remark:

a. Includes:		
– depreciation and amortisation	41	45
– interest expense	1	-
– income tax expense	20	23
b. Includes cash and cash equivalents	298	382
c. Includes current financial liabilities (excluding trade and other payables and provisions)	4	2
d. Includes non-current financial liabilities (excluding trade and other payables and provisions)	20	14

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

## 11 Plant and equipment

		Consolidated financial statements					
		Plant, machinery, Factory tools and equipment	Buildings and buildings improvement	Land improvement	Furniture, fixtures and office equipment	Vehicles	Assets under construction
		<i>(in million Baht)</i>					
<b>Cost</b>							Total
At 1 January 2016		7,238.58	718.27	41.85	9.76	10.16	8,036.69
Additions		15.11	0.40	0.23	3.60	13.19	154.65
Transfers		38.73	-	5.87	-	-	-
Disposals		(2.69)	(29.07)	(4.75)	(0.37)	-	(36.88)
<b>At 31 December 2016 and 1 January 2017</b>		<b>7,289.73</b>	<b>689.60</b>	<b>43.20</b>	<b>12.99</b>	<b>23.35</b>	<b>8,154.46</b>
Additions		30.12	0.78	0.58	2.65	2.00	1,003.00
Transfers		61.20	1.60	-	-	-	(62.80)
Disposals		(0.66)	-	-	(1.45)	-	(3.78)
<b>At 31 December 2017</b>		<b>7,380.39</b>	<b>691.98</b>	<b>43.78</b>	<b>14.19</b>	<b>25.35</b>	<b>9,189.81</b>
<b>Depreciation</b>							
At 1 January 2016		(3,200.74)	(274.37)	(22.73)	(8.40)	(10.08)	(3,516.32)
Depreciation charge for the year		(444.98)	(35.85)	(2.14)	(1.07)	(1.96)	(486.00)
Disposals		0.89	11.56	1.53	0.37	-	14.35
<b>At 31 December 2016 and 1 January 2017</b>		<b>(3,644.83)</b>	<b>(298.66)</b>	<b>(23.34)</b>	<b>(9.10)</b>	<b>(12.04)</b>	<b>(3,987.97)</b>
Depreciation charge for the year		(457.49)	(34.74)	(2.12)	(1.81)	(3.06)	(499.22)
Disposals		0.45	-	-	1.45	-	1.90
<b>At 31 December 2017</b>		<b>(4,101.87)</b>	<b>(333.40)</b>	<b>(25.46)</b>	<b>(9.46)</b>	<b>(15.10)</b>	<b>(4,485.29)</b>

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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Consolidated financial statements						
	Plant, machinery, Factory tools and equipment	Buildings and buildings improvement	Land improvement	Furniture, fixtures and office equipment	Vehicles	Assets under construction
	<i>(in million Baht)</i>					
						Total
<b>Net book value</b>						
<b>At 1 January 2016</b>						
Owned assets	4,037.84	443.90	19.12	0.81	0.08	4,519.82
Assets under finance leases	-	-	-	0.55	-	0.55
	<b>4,037.84</b>	<b>443.90</b>	<b>19.12</b>	<b>1.36</b>	<b>0.08</b>	<b>4,520.37</b>
<b>At 31 December 2016 and 1 January 2017</b>						
Owned assets	3,644.90	390.94	19.86	1.23	-	4,152.52
Assets under finance leases	-	-	-	2.66	11.31	13.97
	<b>3,644.90</b>	<b>390.94</b>	<b>19.86</b>	<b>3.89</b>	<b>11.31</b>	<b>4,166.49</b>
<b>At 31 December 2017</b>						
Owned assets	3,278.52	358.58	18.32	1.59	0.38	4,691.51
Assets under finance leases	-	-	-	3.14	9.87	13.01
	<b>3,278.52</b>	<b>358.58</b>	<b>18.32</b>	<b>4.73</b>	<b>10.25</b>	<b>4,704.52</b>

The gross amount of the Group's fully depreciated plant and equipment that was still in use as at 31 December 2017 amounted to Baht 74.33 million (2016: Baht 70.48 million).

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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## Separate financial statements

	Plant, machinery, Factory tools and equipment	Buildings and buildings improvement	Land improvement	Furniture, fixtures and office equipment	Vehicles	Assets under construction	Total
	<i>(in million Baht)</i>						
<b>Cost</b>							
At 1 January 2016	6,531.50	627.18	40.83	9.65	10.16	18.07	7,237.39
Additions	15.09	0.40	0.23	3.60	13.19	115.47	147.98
Transfers	32.76	-	5.87	-	-	(38.63)	-
Disposals	(2.69)	(29.07)	(4.75)	(0.37)	-	-	(36.88)
<b>At 31 December 2016 and 1 January 2017</b>	<b>6,576.66</b>	<b>598.51</b>	<b>42.18</b>	<b>12.88</b>	<b>23.35</b>	<b>94.91</b>	<b>7,348.49</b>
Additions	30.12	0.78	0.58	2.59	2.00	986.41	1,022.48
Transfers	56.19	1.60	-	-	-	(57.79)	-
Disposals	(0.66)	-	-	(1.45)	-	(1.67)	(3.78)
<b>At 31 December 2017</b>	<b>6,662.31</b>	<b>600.89</b>	<b>42.76</b>	<b>14.02</b>	<b>25.35</b>	<b>1,021.86</b>	<b>8,367.19</b>
<b>Depreciation</b>							
At 1 January 2016	(2,906.25)	(240.97)	(22.28)	(8.29)	(10.08)	-	(3,187.87)
Depreciation charge for the year	(403.24)	(31.30)	(2.11)	(1.07)	(1.96)	-	(439.68)
Disposals	0.89	11.56	1.53	0.37	-	-	14.35
<b>At 31 December 2016 and 1 January 2017</b>	<b>(3,308.60)</b>	<b>(260.71)</b>	<b>(22.86)</b>	<b>(8.99)</b>	<b>(12.04)</b>	<b>-</b>	<b>(3,613.20)</b>
Depreciation charge for the year	(413.10)	(30.19)	(2.08)	(1.79)	(3.06)	-	(450.22)
Disposals	0.45	-	-	1.45	-	-	1.90
<b>At 31 December 2017</b>	<b>(3,721.25)</b>	<b>(290.90)</b>	<b>(24.94)</b>	<b>(9.33)</b>	<b>(15.10)</b>	<b>-</b>	<b>(4,061.52)</b>



## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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Separate financial statements						
	Plant, machinery, Factory tools and equipment	Buildings and buildings improvement	Land improvement	Furniture, fixtures and office equipment (in million Baht)	Vehicles	Assets under construction
						Total
<b>Net book value</b>						
<b>At 1 January 2016</b>						
Owned assets	3,625.25	386.21	18.55	0.81	0.08	4,048.97
Assets under finance leases	-	-	-	0.55	-	0.55
	<b>3,625.25</b>	<b>386.21</b>	<b>18.55</b>	<b>1.36</b>	<b>0.08</b>	<b>4,049.52</b>
<b>At 31 December 2016 and 1 January 2017</b>						
Owned assets	3,268.06	337.80	19.32	1.23	-	3,721.32
Assets under finance leases	-	-	-	2.66	11.31	13.97
	<b>3,268.06</b>	<b>337.80</b>	<b>19.32</b>	<b>3.89</b>	<b>11.31</b>	<b>3,735.29</b>
<b>At 31 December 2017</b>						
Owned assets	2,941.06	309.99	17.82	1.55	0.38	4,292.66
Assets under finance leases	-	-	-	3.14	9.87	13.01
	<b>2,941.06</b>	<b>309.99</b>	<b>17.82</b>	<b>4.69</b>	<b>10.25</b>	<b>4,305.67</b>

The gross amount of the Company's fully depreciated plant and equipment that was still in use as at 31 December 2017 amounted to Baht 64.81 million (2016: Baht 60.96 million).

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

## 12 Intangible assets

<b>Consolidated financial statements</b>				
	Production license fees	Goodwill (in million Baht)	Other intangible assets	Total
<b>Cost</b>				
At 1 January 2016	87.82	33.53	8.20	129.55
<b>At 31 December 2016 and 1 January 2017</b>	<b>87.82</b>	<b>33.53</b>	<b>8.20</b>	<b>129.55</b>
Additions	-	-	0.31	0.31
<b>At 31 December 2017</b>	<b>87.82</b>	<b>33.53</b>	<b>8.51</b>	<b>129.86</b>
<b>Amortisation</b>				
At 1 January 2016	(38.77)	-	(5.47)	(44.24)
Amortisation charge for the year	(4.39)	-	(0.52)	(4.91)
<b>At 31 December 2016 and 1 January 2017</b>	<b>(43.16)</b>	<b>-</b>	<b>(5.99)</b>	<b>(49.15)</b>
Amortisation charge for the year	(4.39)	-	(0.54)	(4.93)
<b>At 31 December 2017</b>	<b>(47.55)</b>	<b>-</b>	<b>(6.53)</b>	<b>(54.08)</b>
<b>Net book value</b>				
At 1 January 2016	49.05	33.53	2.73	85.31
<b>At 31 December 2016 and 1 January 2017</b>	<b>44.66</b>	<b>33.53</b>	<b>2.21</b>	<b>80.40</b>
<b>At 31 December 2017</b>	<b>40.27</b>	<b>33.53</b>	<b>1.98</b>	<b>75.78</b>
<b>Separate financial statements</b>				
	Production license fees		Other intangible assets	Total
			(in million Baht)	
<b>Cost</b>				
At 1 January 2016	87.82		8.20	96.02
<b>At 31 December 2016 and 1 January 2017</b>	<b>87.82</b>		<b>8.20</b>	<b>96.02</b>
Additions	-		0.13	0.13
<b>At 31 December 2017</b>	<b>87.82</b>		<b>8.33</b>	<b>96.15</b>
<b>Amortisation</b>				
At 1 January 2016	(38.77)		(5.47)	(44.24)
Amortisation charge for the year	(4.39)		(0.52)	(4.91)
<b>At 31 December 2016 and 1 January 2017</b>	<b>(43.16)</b>		<b>(5.99)</b>	<b>(49.15)</b>
Amortisation charge for the year	(4.39)		(0.52)	(4.91)
<b>At 31 December 2017</b>	<b>(47.55)</b>		<b>(6.51)</b>	<b>(54.06)</b>
<b>Net book value</b>				
At 1 January 2016	49.05		2.73	51.78
<b>At 31 December 2016 and 1 January 2017</b>	<b>44.66</b>		<b>2.21</b>	<b>46.87</b>
<b>At 31 December 2017</b>	<b>40.27</b>		<b>1.82</b>	<b>42.09</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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### 13 Deferred tax

Deferred tax assets and liabilities as at 31 December were as follows:

	Consolidated financial statements			
	Assets		Liabilities	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Total	29.13	22.92	(8.76)	(5.78)
Set off of tax	(7.23)	(3.85)	7.23	3.85
<b>Net deferred tax assets (liabilities)</b>	<b>21.90</b>	<b>19.07</b>	<b>(1.53)</b>	<b>(1.93)</b>

	Separate financial statements			
	Assets		Liabilities	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Total	29.13	22.92	(7.23)	(3.85)
Set off of tax	(7.23)	(3.85)	7.23	3.85
<b>Net deferred tax assets (liabilities)</b>	<b>21.90</b>	<b>19.07</b>	<b>-</b>	<b>-</b>

Movements in total deferred tax assets and liabilities during the year were as follows:

	Consolidated financial statements		
	<i>(Charged) / credited to:</i>		
	At 1 January 2017	Profit or loss (note 26) <i>(in million Baht)</i>	Other comprehensive income
			At 31 December 2017
<b>Deferred tax assets</b>			
Provision for employee benefit	7.12	1.77	2.23
Plant and equipment	15.80	2.21	-
<b>Total</b>	<b>22.92</b>	<b>3.98</b>	<b>2.23</b>
<b>Deferred tax liabilities</b>			
Plant and equipment	(5.78)	(0.08)	-
Inventory	-	(2.90)	-
<b>Total</b>	<b>(5.78)</b>	<b>(2.98)</b>	<b>-</b>
<b>Net</b>	<b>17.14</b>	<b>1.00</b>	<b>2.23</b>

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	Consolidated financial statements		
	(Charged) / credited to:		
	At 1 January 2016	Profit or loss (note 26) (in million Baht)	Other comprehensive income
			At 31 December 2016
<b>Deferred tax assets</b>			
Provision for employee benefit	5.87	1.25	-
Plant and equipment	14.06	1.74	-
<b>Total</b>	<b>19.93</b>	<b>2.99</b>	<b>-</b>
<b>Deferred tax liabilities</b>			
Plant and equipment	(5.04)	(0.74)	-
<b>Total</b>	<b>(5.04)</b>	<b>(0.74)</b>	<b>-</b>
<b>Net</b>	<b>14.89</b>	<b>2.25</b>	<b>-</b>
	Separate financial statements		
	(Charged) / credited to:		
	At 1 January 2017	Profit or loss (note 26) (in million Baht)	Other comprehensive income
			At 31 December 2017
<b>Deferred tax assets</b>			
Provision for employee benefit	7.12	1.77	2.23
Plant and equipment	15.80	2.21	-
<b>Total</b>	<b>22.92</b>	<b>3.98</b>	<b>2.23</b>
<b>Deferred tax liabilities</b>			
Plant and equipment	(3.85)	(0.46)	-
Inventory	-	(2.92)	-
<b>Total</b>	<b>(3.85)</b>	<b>(3.38)</b>	<b>-</b>
<b>Net</b>	<b>19.07</b>	<b>0.60</b>	<b>2.23</b>
	Separate financial statements		
	(Charged) / credited to:		
	At 1 January 2016	Profit or loss (note 26) (in million Baht)	Other comprehensive income
			At 31 December 2016
<b>Deferred tax assets</b>			
Provision for employee benefit	5.87	1.25	-
Plant and equipment	14.06	1.74	-
<b>Total</b>	<b>19.93</b>	<b>2.99</b>	<b>-</b>
<b>Deferred tax liabilities</b>			
Plant and equipment	(3.07)	(0.78)	-
<b>Total</b>	<b>(3.07)</b>	<b>(0.78)</b>	<b>-</b>
<b>Net</b>	<b>16.86</b>	<b>2.21</b>	<b>-</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 14 Interest-bearing liabilities

Interest bearing liabilities are defined as borrowings and finance lease liabilities which are as follows:

		Consolidated financial statements		Separate financial statements	
	Note	2017	2016	2017	2016
		<i>(in million Baht)</i>			
<b>Current</b>					
Short-term borrowings from financial institutions					
Unsecured		-	60	-	60
<b>Short-term borrowings from financial institutions</b>		<b>-</b>	<b>60</b>	<b>-</b>	<b>60</b>
Current portion of long-term borrowings from financial institutions					
Unsecured		280	231	280	231
<b>Current portion of long-term borrowings</b>		<b>280</b>	<b>231</b>	<b>280</b>	<b>231</b>
Short-term borrowings from related party					
Unsecured	4	-	-	-	310
<b>Short-term borrowings</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>310</b>
<b>Current portion of finance lease liabilities</b>		<b>4</b>	<b>3</b>	<b>4</b>	<b>3</b>
<b>Total current interest-bearing liabilities</b>		<b>284</b>	<b>294</b>	<b>284</b>	<b>604</b>
<b>Non-current</b>					
Long-term borrowings from financial institutions					
Unsecured		2,111	2,391	2,111	2,391
Less Deferred financing service fee		(6)	(7)	(6)	(7)
<b>Long-term borrowings</b>		<b>2,105</b>	<b>2,384</b>	<b>2,105</b>	<b>2,384</b>
<b>Finance lease liabilities</b>		<b>11</b>	<b>12</b>	<b>11</b>	<b>12</b>
<b>Total non-current interest-bearing liabilities</b>		<b>2,116</b>	<b>2,396</b>	<b>2,116</b>	<b>2,396</b>
<b>Total</b>		<b>2,400</b>	<b>2,690</b>	<b>2,400</b>	<b>3,000</b>

The periods to maturity of interest-bearing liabilities, excluding finance lease liabilities, as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Within one year	280	291	280	601
After one year but within five years	2,105	1,620	2,105	1,620
After five years	-	764	-	764
<b>Total</b>	<b>2,385</b>	<b>2,675</b>	<b>2,385</b>	<b>2,985</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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### *Loans from financial institutions*

Details of the Group's loans with 3 financial institutions as at 31 December 2017 were as follows:

Currency	Facilities (in million)	Interest Rates (%) p.a	Repayment Terms
Baht	900	FDR 6 M plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from April 2016.
Baht	900	FDR 6 M plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from May 2016.
Baht	900	FDR 6 M plus margin	Principal is repayable on semi-annual basis, in 12 instalments commencing from May 2017.

As at 31 December 2017 the Group had unutilised credit facilities totalling Baht 100 million (2016: Baht 340 million).

The Company is required to comply with certain covenants pertaining to maintenance of certain financial ratios, percentage of share held by the major shareholder and other conditions as specified in each agreement.

### 15 Trade accounts payable

		Consolidated financial statements		Separate financial statements	
	Note	2017	2016	2017	2016
			(in million Baht)		
Related parties	4	137	80	118	72
Other parties		273	632	269	628
<b>Total</b>		<b>410</b>	<b>712</b>	<b>387</b>	<b>700</b>

### 16 Other payables

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
		(in million Baht)		
Other account payables	142	129	119	108
Accrued operating expenses	137	63	127	58
Advances received for goods	30	24	14	3
Value-added tax payable	49	-	49	-
Others	11	6	11	6
<b>Total</b>	<b>369</b>	<b>222</b>	<b>320</b>	<b>175</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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### 17 Non-current provisions for employee benefits

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>Statement of financial position</b>				
<b>Non-current provisions for:</b>				
Post-employment benefits	43.15	25.95	43.15	25.95
Other long-term employee benefits	10.84	9.43	10.84	9.43
<b>Total</b>	<b>53.99</b>	<b>35.38</b>	<b>53.99</b>	<b>35.38</b>

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b>For the year ended 31 December</b>				
<b>Statement of comprehensive income:</b>				
<b>Recognised in profit or loss:</b>				
Post-employment benefits	4.13	3.82	4.13	3.82
Other long-term employee benefits	3.13	1.42	3.13	1.42
<b>Total</b>	<b>7.26</b>	<b>5.24</b>	<b>7.26</b>	<b>5.24</b>
<b>Recognised in other comprehensive income:</b>				
Actuarial losses recognised in the year	13.07	-	13.07	-
Cumulative actuarial losses recognised	20.59	7.52	20.59	7.52

Movement in the present value of the defined benefit obligations:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
At 1 January	25.95	22.13	25.95	22.13
<b>Include in profit or loss:</b>				
Current service costs	3.04	2.89	3.04	2.89
Interest on obligation	1.09	0.93	1.09	0.93
	<b>4.13</b>	<b>3.82</b>	<b>4.13</b>	<b>3.82</b>
<b>Included in other comprehensive income</b>				
Actuarial losses	13.07	-	13.07	-
	<b>13.07</b>	<b>-</b>	<b>13.07</b>	<b>-</b>
<b>At 31 December</b>	<b>43.15</b>	<b>25.95</b>	<b>43.15</b>	<b>25.95</b>

## Notes to the Financial Statements

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Actuarial losses recognised in other comprehensive income arising from:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Demographic assumptions	8.83	-	8.83	-
Financial assumptions	0.80	-	0.80	-
Experience adjustment	3.44	-	3.44	-
<b>Total</b>	<b>13.07</b>	<b>-</b>	<b>13.07</b>	<b>-</b>

### *Actuarial assumptions*

Principal actuarial assumptions at the reporting date: (expressed as weighted averages).

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(%)</i>			
Discount rate as at 31 December	2.9	4.2	2.9	4.2
Future salary increases	7.0	7.0	7.0	7.0
Resignation rate	0-3.0	0-3.0	0-3.0	0-3.0
Retirement age	60 Years	60 Years	60 Years	60 Years

Assumptions regarding future mortality have been based on published statistics and mortality tables.

At 31 December 2017, the weighted-average duration of the defined benefit obligation was 18 years (2016: 12 years).

### *Sensitivity analysis*

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	Increase	Decrease	Increase	Decrease
	<i>(in million Baht)</i>			
<b>At 31 December 2017</b>				
Discount rate (1% movement)	(8.10)	9.91	(8.10)	9.91
Future salary growth (1% movement)	7.91	(6.60)	7.91	(6.60)
<b>At 31 December 2016</b>				
Discount rate (1% movement)	(4.48)	5.56	(4.48)	5.56
Future salary growth (1% movement)	5.94	(4.81)	5.94	(4.81)

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.



## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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### 18 Share capital

	Par value per share <i>(in Baht)</i>	2017		2016	
		Number	Amount	Number	Amount
		<i>(in million shares / million Baht)</i>			
<b>Authorised</b>					
At 1 January					
- ordinary shares	100	-	-	74.0	7,400
- ordinary shares	10	1,048.3	10,483	-	-
Reduction in par value					
from Baht 100 to Baht 10	10	-	-	666.0	-
Issues new shares (net)	10	-	-	308.3	3,083
<b>At 31 December</b>					
- ordinary shares	10	<b>1,048.3</b>	<b>10,483</b>	<b>1,048.3</b>	<b>10,483</b>
<b>Issued and paid-up</b>					
At 1 January					
- ordinary shares	100	-	-	74.0	7,400
- ordinary shares	10	740.0	7,400	-	-
Reduction in par value					
from Baht 100 to Baht 10	10	-	-	666.0	-
Issues new shares	10	283.7	2,837	-	-
<b>At 31 December</b>					
- ordinary shares	10	<b>1,023.7</b>	<b>10,237</b>	<b>740.0</b>	<b>7,400</b>

At the Extraordinary General Meeting of shareholders of the Company held on 17 February 2016, the shareholders approved the following;

- Reduction of par value from Baht 100 par value (divided into 74,000,000 shares at Baht 100 par value) to Baht 10 par value (divided into 740,000,000 shares at Baht 10 par value)
- Increase of registered share capital from Baht 7,400 million (divided into 740,000,000 shares at Baht 10 par value) to Baht 9,805 million (divided into 980,500,000 shares at Baht 10 par value) by issuance of new shares of Baht 2,405 million (divided into 240,500,000 shares at Baht 10 par value).

The Company registered the increase of registered share capital and reduction of par value with the Ministry of Commerce on 18 February 2016.

At the Extraordinary General Meeting of shareholders of the Company held on 28 September 2016, the shareholders approved the following;

- Reduction of registered share capital from Baht 9,805 million (divided into 980,500,000 shares at Baht 10 par value) to Baht 7,400 million (divided into 740,000,000 shares at Baht 10 par value) by reduction of ordinary shares of Baht 2,405 million (divided into 240,500,000 shares at Baht 10 par value).
- Increase of registered share capital from Baht 7,400 million (divided into 740,000,000 shares at Baht 10 par value) to Baht 10,483 million (divided into 1,048,333,300 shares at Baht 10 par value) by issuance of new shares of Baht 3,083 million (divided into 308,333,300 shares at Baht 10 par value).

The Company registered a reduction of registered share capital and an increase of registered share capital with the Ministry of Commerce on 28 and 29 September 2016, respectively.

## Notes to the Financial Statements

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### *Initial Public Offering*

On 2 May 2017, the Company completed its Initial Public Offering (“IPO”) on the Stock Exchange of Thailand by issuing 246.67 million new ordinary shares with an offering price of Baht 11.20 per share (par value of Baht 10 per share and share premium of Baht 1.20 per share) amounting to Baht 2,763 million. Directly attributable expenses of the initial public offering totalling Baht 121 million were deducted from the premium on share capital received from the offering. The Company offered over-allotment no more than 15% of the total number of shares offered for sale or in amount not exceeding 37 million shares, which is a method to stabilizing the price level of securities as allowed by the Securities and Exchange Commission Thailand. Subsequently, on 31 May 2017, the Over-allotment Agent informed the Company of its intention to exercise an over-allotment option in order to purchase 37 million newly issued ordinary shares from the Company with an offering price of Baht 11.20 per share (par value of Baht 10 per share and share premium of Baht 1.20 per share) amounting to Baht 414 million. The Company sell these shares to the Over-allotment Agent on 2 June 2017. Therefore, the Company received proceeds from issuing 283.67 million ordinary shares with price of Baht 11.20 per share, totalling of Baht 3,177 million.

## **19 Additional paid-in capital and reserves**

### *Share premium*

Section 51 of the Public Companies Act B.E. 2535 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 dividend distribution.

### *Difference arising from business combination under common control*

Difference on common control transactions arising within equity represents the difference of the book values of certain entities or businesses under common control under their cost as of the date of their acquisition. The reserve is non-distributable and will be retained until the respective business are sold or otherwise disposed of.

### *Legal reserve*

Section 116 of the Public Companies Act B.E. 2535 requires that a company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward (if any), 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 dividend distribution.

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For the year ended 31 December 2017

### 20 Segment information

The Group has significant business segments which offer different products and services, and are managed separately. For each of the business segments, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The operations in each of the Group's reportable segments have 2 reportable segments as described below.

Segment 1	Methyl ester
Segment 2	Fatty alcohols

Other operations in 2017 and 2016, none of these segments meets the quantitative thresholds for determining additional reportable segments.

Performance information of each reportable segment is measured based on segment profit before interest expense, tax, depreciation and amortisation which as included in the internal management reports that are reviewed by the Group's CODM. Management believes that using profit before interest expense, tax, depreciation and amortisation to measure performance is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

#### Information about reporting segments for the year ended 31 December 2017

	Methyl ester	Fatty alcohols	Elimination	Total
	<i>(in million Baht)</i>			
External revenues	11,659	7,813	-	19,472
Inter-segment revenues	-	-	-	-
<b>Total segment revenues</b>	<b>11,659</b>	<b>7,813</b>	<b>-</b>	<b>19,472</b>
Cost of sales and services	(10,928)	(6,731)	-	(17,659)
Selling and distribution expenses and administrative expenses	(394)	(333)	-	(727)
<b>Profit before interest expense, tax , depreciation and amortisation</b>	<b>383</b>	<b>755</b>	<b>-</b>	<b>1,138</b>
Interest income	17	15	(2)	30
Finance costs	(28)	(61)	2	(87)
Depreciation and amortisation	(212)	(352)	-	(564)
Share of profit of investments in joint venture	-	88	-	88
Share of loss of investments in associate	-	(1)	-	(1)
Others	(25)	(56)	-	(81)
<b>Profit before tax</b>	<b>135</b>	<b>388</b>	<b>-</b>	<b>523</b>
<b>Net profit for reportable segment</b>				
- Attribute to owners of the parent	134	387	-	521

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### Information about reporting segments for the year ended 31 December 2016

	Methyl ester	Fatty alcohols	Elimination	Total
	<i>(in million Baht)</i>			
External revenues	11,111	6,089	-	17,200
Inter-segment revenues	-	-	-	-
<b>Total segment revenues</b>	<b>11,111</b>	<b>6,089</b>	<b>-</b>	<b>17,200</b>
Cost of sales and services	(10,017)	(5,158)	-	(15,175)
Selling and distribution expenses and administrative expenses	(335)	(278)	-	(613)
<b>Profit before interest expense, tax , depreciation and amortisation</b>	<b>802</b>	<b>657</b>	<b>-</b>	<b>1,459</b>
Interest income	2	5	-	7
Finance costs	(31)	(36)	-	(67)
Depreciation and amortisation	(208)	(337)	-	(545)
Share of profit of investments in joint venture	-	104	-	104
Share of loss of investments in associate	-	(1)	-	(1)
Others	4	30	-	34
<b>Profit before tax</b>	<b>569</b>	<b>422</b>	<b>-</b>	<b>991</b>
<b>Net profit for reportable segment</b>				
- Attribute to owners of the parent	545	392	-	937

	Methyl ester	Fatty alcohols	Elimination	Total
	<i>(in million Baht)</i>			
<b>As at 31 December 2017</b>				
Investments in joint venture and associate	-	754	-	754
Capital expenditure	514	525	-	1,039
Segment assets	5,591	10,595	(1,651)	14,535
Segment liabilities	1,905	1,557	-	3,462

<b>As at 31 December 2016</b>				
Investments in joint venture and associate	-	712	-	712
Capital expenditure	92	63	-	155
Segment assets	3,562	9,720	(1,651)	11,631
Segment liabilities	2,048	1,660	-	3,708

### Geographical segments

In presenting information on the basis of geographical segments, segment sales and service revenues are based on the geographical location of customers. Segment non-current assets (exclude derivatives and deferred tax) are based on the geographical location of the assets.

# Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

## Geographical information

	Revenues	
	2017	2016
	<i>(in million Baht)</i>	
Thailand	14,121	13,274
The People's Republic of China	1,480	1,110
India	1,059	601
Korea	555	516
Other countries	2,257	1,699
<b>Total</b>	<b>19,472</b>	<b>17,200</b>

The Group is managed and operates principally in Thailand and no assets located in foreign countries.

## Major customers

The Group's sales and service revenues mainly comprise of revenue from one customer of Methyl ester segment represents Baht 5,242 million (2016: Baht 5,155 million).

## 21 Selling and distribution expenses

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Distribution	360	314	211	173
Promotional	26	16	3	3
<b>Total</b>	<b>386</b>	<b>330</b>	<b>214</b>	<b>176</b>

## 22 Administrative expenses

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Personnel	120	95	120	95
Share service fees	23	24	21	20
Secondment fee	67	59	67	59
Depreciation and amortisation	5	5	5	5
Loss from disposals of assets	-	23	-	23
Litigation claim	-	20	-	-
Others	131	62	119	51
<b>Total</b>	<b>346</b>	<b>288</b>	<b>332</b>	<b>253</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 23 Employee benefit expenses

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Salaries, bonus, wages and other welfares	218	183	218	183
Contribution to provident funds	8	8	8	8
Post-employment benefits	4	4	4	4
Other long-term employee benefits	3	1	3	1
<b>Total</b>	<b>233</b>	<b>196</b>	<b>233</b>	<b>196</b>

#### *Defined benefit plans*

Details of the defined benefit plans are given in note 17.

#### *Defined contribution plans*

The defined contribution plans comprise provident funds established by the Company for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at the minimum rate as required by law not exceeding 15% of their basic salaries and the Company contributes at the minimum rate as required by law not exceeding 15% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by a licensed Fund Manager.

### 24 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:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
Changes in inventories of finished goods and work in progress	(1,005)	295	(1,063)	360
Raw materials and consumables used	17,570	13,813	17,663	13,607
Depreciation	499	486	450	440
Amortisation	65	59	65	59
Employee benefit expenses	233	196	233	196
Distribution	360	314	211	173
Others	1,229	1,171	1,041	969
<b>Total cost of sales of goods, selling and distribution expenses and administrative expenses</b>	<b>18,951</b>	<b>16,334</b>	<b>18,600</b>	<b>15,804</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 25 Finance costs

		<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	<i>Note</i>	2017	2016	2017	2016
		<i>(in million Baht)</i>			
<b>Interest expense:</b>					
Related party	4	-	-	6	-
Bank loans		94	57	94	57
<b>Total interest expense</b>		<b>94</b>	<b>57</b>	<b>100</b>	<b>57</b>
Other finance costs		4	10	3	8
<b>Total</b>		<b>98</b>	<b>67</b>	<b>103</b>	<b>65</b>
Less amounts included in the cost of plant and equipment under construction		(11)	-	(11)	-
<b>Net</b>		<b>87</b>	<b>67</b>	<b>92</b>	<b>65</b>

### 26 Income tax expense

*Income tax recognised in profit or loss*

		<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	<i>Note</i>	2017	2016	2017	2016
		<i>(in million Baht)</i>			
<b>Current tax expense</b>					
Current year		-	31.83	-	31.83
Under provided in prior year		2.75	-	2.75	-
		<b>2.75</b>	<b>31.83</b>	<b>2.75</b>	<b>31.83</b>
<b>Deferred tax expense</b>	13				
Movements in temporary differences		(1.00)	(2.25)	(0.60)	(2.21)
<b>Total</b>		<b>1.75</b>	<b>29.58</b>	<b>2.15</b>	<b>29.62</b>

*Reconciliation of effective tax rate*

	<b>Consolidated financial statements</b>			
	2017		2016	
	<i>Rate (%)</i>	<i>(in million Baht)</i>	<i>Rate (%)</i>	<i>(in million Baht)</i>
Profit before income tax expense		522.69		990.69
Income tax using the Thai corporation tax rate	20.00	104.54	20.00	198.14
Income not subject to tax		(84.70)		(73.30)
Utilisation tax losses		(23.72)		(100.68)
Expenses not deductible for tax purposes		2.88		5.42
Under provided in prior year		2.75		-
<b>Total</b>	<b>0.33</b>	<b>1.75</b>	<b>2.99</b>	<b>29.58</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
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	Separate financial statements			
	2017		2016	
	Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense		312.23		1,015.20
Income tax using the Thai corporation tax rate	20.00	62.45	20.00	203.04
Income not subject to tax		(66.01)		(78.11)
Utilisation tax losses		-		(100.68)
Expenses not deductible for tax purposes		2.96		5.37
Under provided in prior year		2.75		-
<b>Total</b>	<b>0.69</b>	<b>2.15</b>	<b>2.92</b>	<b>29.62</b>

### Income tax reduction

Revenue Code Amendment Act No. 42 B.E. 2559 dated 3 March 2016 grants a reduction of the corporate income tax rate to 20% of net taxable profit for accounting periods which begin on or after 1 January 2016.

## 27 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Company has been granted privileges by the Board of Investment relating to production and distribution of Methyl ester, Fatty alcohols, Glycerin and Potassium sulfate. The privileges granted include:

- (a) Exemption from payment of import duty and tax on machinery approved by the Board;
- (b) exemption from payment of income tax for certain operations for a period of eight years from the date on which the income is first derived from such operations; (1 January 2008) and
- (c) a 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of five years, commencing from the expiry date in (b) above.

As promoted companies, the Company must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenues from promoted and non-promoted businesses:

	Separate financial statements					
	2017			2016		
	Promoted businesses	Non- promoted businesses	Total	Promoted businesses	Non- promoted businesses	Total
	(in million Baht)					
Export sales	-	523	523	-	320	320
Local sales	-	18,358	18,358	-	16,394	16,394
<b>Total revenue</b>	<b>-</b>	<b>18,881</b>	<b>18,881</b>	<b>-</b>	<b>16,714</b>	<b>16,714</b>

The subsidiary has been granted promotional privileges as same as the Company.



## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 28 Basic earnings per share

The calculations of basic earnings per share for the years ended 31 December 2017 and 2016 were based on the profit for the years attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the years as follows:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht / million shares)</i>			
Profit attributable to ordinary shareholders of the Company (basic)	<u>520.94</u>	<u>936.90</u>	<u>310.08</u>	<u>985.58</u>
Number of ordinary shares outstanding at 1 January	740.00	740.00	740.00	740.00
Effect of shares issued	<u>189.87</u>	<u>-</u>	<u>189.87</u>	<u>-</u>
Weighted average number of ordinary shares outstanding (basic)	<u>929.87</u>	<u>740.00</u>	<u>929.87</u>	<u>740.00</u>
<b>Basic earnings per share (in Baht)</b>	<b><u>0.56</u></b>	<b><u>1.27</u></b>	<b><u>0.33</u></b>	<b><u>1.33</u></b>

### 29 Dividends

At the Board of Meeting of the Company held on 9 August 2017, the Board approved the appropriation of dividends of Baht 0.15 per share amounting to Baht 154 million. The dividend was paid to the shareholders in September 2017.

At the Annual General Meeting of the shareholders of the Company held on 21 March 2017, the shareholders approved the appropriation of annual dividend for year 2016 at Baht 1.70 per share, amounting to Baht 1,258 million. The Company had paid an interim dividend at Baht 1.35 per share, amounting to Baht 999 million. The remaining dividend was paid at Baht 0.35 per share, amounting to Baht 259 million to the shareholders entitled to receive dividends. The dividend was paid to the shareholders in April 2017.

At the Board of Meeting of the Company held on 14 September 2016, the Board approved the appropriation of dividends of Baht 1.35 per share amounting to Baht 999 million. The dividend was paid to the shareholders in October 2016.

At the Annual General Meeting of the shareholders of the Company held on 15 March 2016, the shareholders approved the appropriation of annual dividend for year 2015 of Baht 0.55 per share amounting to Baht 407 million. The dividend was paid to the shareholders in April 2016.

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### 30 Financial instruments

#### *Financial risk management policies*

The Group is exposed to normal business risks from changes in market interest rates and currency exchange 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 management continually monitors the Group's risk management process to ensure that an appropriate balance between risk and control is achieved.

#### *Capital management*

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor, partners and other stakeholders. In addition, the Board monitors the return on capital, and the level of dividends to ensure business sustainability.

#### *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 because the Group's loan interest rates for their operations. The Group has managed this risk to ensure the appropriateness to the business operation.

The interest rates of interest-bearing liabilities at 31 December 2017 and 2016 and the periods in which those liabilities mature or re-price were disclosed in note 14.

#### *Foreign currency risk*

The Group is exposed to foreign currency risk relating to purchases and sales which are denominated in foreign currencies. The Group primarily utilizes forward exchange contracts to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
<b>USD</b>				
		<i>(in million Baht)</i>		
Cash and cash equivalents	233	90	8	6
Trade accounts receivable	624	392	43	14
Other receivables	-	6	-	6
Trade accounts payable	(2)	(82)	(2)	(82)
Other payables	(49)	(30)	(22)	(4)
<b>Gross statement of financial position exposure</b>	<b>806</b>	<b>376</b>	<b>27</b>	<b>(60)</b>
<b>Currency forwards</b>	<b>17</b>	<b>350</b>	<b>17</b>	<b>350</b>

At 31 December 2017, the Company had sell forward contracts of USD 0.52 million equivalent Baht 17 million (2016: USD 9.86 million equivalent Baht 350 million).

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### ***Credit risk***

Credit risk is risk of failure from a customer or a counterparty to settle its obligations to the Group as and when they fall due.

Management has a policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. At the reporting date, there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the statement of financial position. However, the majority of the customers are related parties of the Group which the Group has consistently collected from them. For the customers who do not have the long-term contracted commitments, the Group monitors the risk on an ongoing basis and would do the business only with the credible customers by limiting the credit lines and requesting the guarantee on some cases. For the export, the credit of counterparty will be considered and will demand a payment on a case to case basis and also has commercial credit insurance. Management does not anticipate material losses from its debt collection.

### ***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.

### ***Fair values of financial assets and liabilities***

Fair values of financial assets and liabilities shown in the consolidated and separate statement of financial position at 31 December 2017 is reasonable approximation of carrying amount.

## **31 Commitments with non-related parties**

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
	2017	2016	2017	2016
	<i>(in million Baht)</i>			
<b><i>Capital commitments</i></b>				
<i>Contracted but not provided for</i>				
Plant, machinery and equipment	427	286	426	286
<b>Total</b>	<b>427</b>	<b>286</b>	<b>426</b>	<b>286</b>
<b><i>Non-cancellable operating lease commitments</i></b>				
Within one year	1	-	1	-
After one year but within five years	14	-	14	-
After five years	95	-	95	-
<b>Total</b>	<b>110</b>	<b>-</b>	<b>110</b>	<b>-</b>
<b><i>Other commitments</i></b>				
Bank guarantees	69	159	69	159
Other contracts	6	18	-	18
<b>Total</b>	<b>75</b>	<b>177</b>	<b>69</b>	<b>177</b>

## Notes to the Financial Statements

Global Green Chemicals Public Company Limited and its Subsidiary  
For the year ended 31 December 2017

### **32 Events after the reporting period**

At the Board of Directors' meeting held on 14 February 2018, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2017 dividend payment at the rate of Baht 0.35 per share amounting to Baht 358.3 million, of which Baht 0.15 per share amounting to Baht 153.6 million was paid as an interim dividend in September 2017 as discussed in note 29. Thus, the remaining dividend will be at the rate of Baht 0.20 per share amounting to Baht 204.7 million to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 5 April 2018.

## Audit Fee and Non-Audit Fee

### Audit Fee

GGC and its subsidiaries paid the audit fee to KPMG Phoomchai Audit Ltd., which is the Independent auditor of GGC and its subsidiaries for the fiscal year 2017 amounting to THB 1,350,000 of this amount GGC paid THB 1,100,000 and its subsidiaries paid THB 250,000.

### Non-Audit Fee

GGC and subsidiaries paid The audit fee for Non-Audit fee to KPMG Phoomchai Audit Ltd., for tax compliance and tax consulting service for the preparation of transfer pricing documents as follows:

- KPMG Phoomchai Audit Ltd., which is the Independent auditor for GGC and subsidiaries for year 2017 amounting to THB 400,000.
- Businesses related to KPMG Phoomchai Audit Ltd., for the fiscal year 2017 amounting THB 799,000 of this amount GGC paid THB 399,500 and its subsidiaries paid THB 399,500.







## Appendix



## Company Information

### Name :

Global Green Chemicals Public Company Limited

### Initial : GGC

**Website :** www.ggcplc.com

**Registered Number :** 0107559000044

### Number and Value of Issued Shares :

As of December 31, 2017, the Company registered share capital was THB 10,483,333,000 made of 1,048,333,300 common shares at par value THB 10 per share, Paid-up capital was THB 10,236,667,000

### Registered as Company Limited :

July 28, 2005

### Registered as Public Company Limited :

February 18, 2016

### First Day Trade on the SET :

May 2, 2017

### Core Businesses : Methyl Ester

: Fatty Alcohols

: service and other businesses

**Number of Employees :** 177 as of December 31, 2017

## Contact

### Investor Relation

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Email : ir@ggcplc.com

### Corporate Affairs and Corporate Secretary

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Email: Corporategovernance@ggcplc.com

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Fax : +66 (0) 3897-7444

## References

### Securities Registrar

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Khet Din Daeng, Bangkok 10400

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Call Center : +66 (0) 2009-9999

Fax : +66 (0) 2009-9991

Website : www.set.or.th/tsd

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1. Mr. Nutthaphong Tantijuttanon CPA 8829

2. Ms. Wiphawan Pathawanwiwek CPA 4795

3. Mr. Waiyawat Kosamarnchaiyakij CPA 6333

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### Legal Advisor :

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## Abbreviations and Glossary

Abbreviations	
NEPC	National Energy Policy Council
IEAT	Industrial Estate Authority of Thailand
SET	Stock Exchange of Thailand
BOI	Board of Investment
GGC	Global Green Chemicals Plc
PTT Group, PTT affiliates	PTT and its subsidiaries or associates
PTTGC Group, PTTGC affiliates	PTTGC and its subsidiaries or associates
PTT	PTT Plc
National Environment Board's announcement on air quality standards	National Environment Board's announcement on the determination of atmospheric air quality standards (and its amendment)
Customs Tariff Act	Customs Tariff Act B.E. 2530 (1987) (and its amendment)
Fuel Trade Act	Fuel Trade Act B.E. 2543 (2000) (and its amendment)
Foreign Business Act	Foreign Business Act B.E. 2542 (1999) (and its amendment)
Industrial Estate Authority of Thailand Act	Industrial Estate Authority of Thailand Act B.E. 2522 (1979) (and its amendment)
Export and Import Act	Merchandise Export and Import Act B.E. 2522 (1979) (and its amendment)
Public Company Limited Act	Public Company Limited Act B.E. 2535 (1992) (and its amendment)
Investment Promotion Act	Investment Promotion Act B.E. 2520 (1977) (and its amendment)
Environmental Quality Promotion and Preservation Act	Environmental Quality Promotion and Preservation Act B.E. 2535 (1992) (and its amendment)
Securities and Exchange Act	Securities and Exchange Act B.E. 2535 (1992) (and its amendment)
Industrial Works Act	Industrial Works Act B.E. 2535 (1992)
German Standards Institution	German Standards Institution
MASCI	Management Standard Certification Institute (Thailand)
SEC	Office of the Securities and Exchange Commission
EPPO	Energy Policy and Planning Office, Ministry of Energy, Thailand.
Advanced Biochemical	Advanced Biochemical (Thailand) Co., Ltd.
Agrar Technik	Agrar Technik GmbH & Co. KG
Bangchak Biofuel	Bangchak Biofuel Co., Ltd.
BASF (Thai)	BASF (Thai) Co., Ltd.
BCP	Bangchak Petroleum Pcl (now known as Bangchak Corporation Pcl)

## Abbreviations

BSA	Business Services Alliance Co., Ltd.
Biocomplex	Biochemical Industrial Estate Project
Chevron	Chevron (Thailand) Ltd.
Dhipaya	Dhipaya Insurance Plc
EFT	Eastern Fluid Transport Co., Ltd.
Emery	Emery Oleochemicals (M) Sdn. Bhd. and Emery Specialty Chemicals Sdn. Bhd., both PTTGC's affiliates
EPO	Eastern Palm Oil Co., Ltd.
EPS	Eastern Pipeline Services Co., Ltd.
ESSO	Esso (Thailand) Plc
GPSC	Global Power Synergy Plc, a PTTGC affiliate formed on January 10, 2013, after an amalgamation between PTT Utility Co., Ltd., Independent Power (Thailand) Co., Ltd. This Power Flagship of PTT Group is primarily engaged in the generation and sale of electricity, steam, and industrial water to industrial customers and EGAT
ICIS	Independent Chemical Information Service, a unit of Reed Business Information Ltd., a service provider of intelligence on chemical market prices and analyses, including those of petrochemicals and oleochemicals
IRPC	IRPC Plc
KTIS	Kaset Thai International Sugar Corporation Plc
Linde	Linde (Thailand) Plc
LMC International	LMC International Ltd.
NatureWorks	NatureWorks LLC
NPC S&E	NPC Safety & Environmental Service Co., Ltd.
NPCSG	NPC S&E Security Guard Co., Ltd.
PTTEP	PTT Exploration and Production Plc
PTT Digital	PTT Digital Solutions Co., Ltd.
PTTGC	PTT Global Chemical Plc, formed in October 2011 after an amalgamation between PTT Aromatics and Refining Plc and PTT Chemical Plc
PTTMCC	PTT MCC Biochem Co., Ltd.
PTTME	PTT Maintenance and Engineering Co., Ltd.
PPCL	PTT Phenol Co., Ltd.
PTTPL	PTT Polymer Logistics Co., Ltd.
Shell	Shell Thailand Co., Ltd.
SPRC	Star Petroleum Refining Plc
SUN	Solution Creation Co., Ltd.
TEX	Thai Ethoxylate Co., Ltd.

## Abbreviations

TETSO	Thai Eastern Top Seeds Oil Co., Ltd.
TFA	Thai Fatty Alcohols Co., Ltd.
Thaioil	Thai Oil Plc
TOCGC	TOC Glycol Co., Ltd.
TOP Solvent	TOP Solvent Co., Ltd.
TOP Solvent Vietnam	TOP Solvent (Vietnam) Liability Co., Ltd.
TTT	Thai Tank Terminal Ltd.
Uhde	Uhde GmbH Germany, now known as ThyssenKrupp Industrial Solutions
Unilever	Unilever Thai Holdings Co., Ltd.
VNT	Vinythai Plc

## Glossary

Palm Fatty Acid Distillate (PFAD)	By-product of the RBD palm oil refining process and the Methyl Ester process
Palm Kernel Fatty Acid Distillate	By-product of the Crude Palm Kernel Oil refining process
Free Fatty Acid (FFA)	Fatty Acid that is not a molecular composition of Triglyceride
Hydrogenation	Process of adding Hydrogen to precursors, part of the Fatty Alcohols process
Trans-esterification	Chemical reaction between fat or oil with alcohols to obtain Methyl Ester and Glycerine in the presence of catalysts
Crude Glycerine	By-product of the process for Methyl Ester and Fatty Alcohols
Refined Glycerine	Refined Crude Glycerine that is a precursor of personal care products
Yellow Glycerine	Refined Crude Glycerine with impurities and a low boiling point
Fatty Alcohol Residue	Product derived at the bottom of the Fatty Alcohol distillation tower, with a higher boiling point than those of C <sub>18</sub> Fatty Alcohols
Methyl Ester Residue	Product derived at the bottom of the Methyl Ester distillation tower, consisting of partially reacted oil, Methyl Ester with longer molecules than C <sub>18</sub> , and other impurities
Debottlenecking	Processes designed to solve problems or limitations for a given piece of machinery or equipment or a given procedure, resulting in greater capacity
Base Diesel Fuel or Petroleum Diesel Fuel	Diesel obtained from crude oil (Petroleum) refining
High-Speed Diesel or Retail Diesel or Diesel	Diesel meant for domestic retail sale, a blend between base diesel and Methyl Ester at a proportion announced by the Department of Energy Business for use in high-revolution diesel engines, including passenger cars, trucks, tractors, and heavy machinery with over 1,000 revolutions per minute
Crude Palm Oil (CPO)	Oil obtained from the pressing of fresh fruit bunches, a raw material for Methyl Ester or RBD palm oil
RBD Palm Oil or RBDPO	Oil obtained from CPO refining, a raw material for Methyl Ester
Crude Palm Kernel Oil (CPKO)	Oil obtained from Palm Kernel Extraction, refinable into RBD Palm Kernel Oil

## Glossary

RBD Palm Kernel Oil (RBDPKO)	Oil obtained from CPKO refining. A possible raw material for Fatty Alcohol processes.
Lauric Oil	Oil whose main composition contains lauric acid, a saturated fatty acid with 12 carbon atoms, commonly found in Crude Palm Kernel Oil and coconut oil
Biodiesel	Fuel obtained from natural products like vegetable oil and animal fats, whether used or new, for use in diesel engines. Biodiesel bears similar physical characteristics to petroleum diesel, but is classified as an alternative energy. As a rule, it may include methyl ester (called B100).
Palm stearin	Edible palm fat derived from the separation of grease from the palm oil process, used for consumption
Fatty Acid	Basic Oleochemicals that are Acidic, a precursor for many downstream industries, including food and personal care industries (like soaps and cosmetics) and the rubber industry
Fatty Alcohols	Basic Oleochemicals that are Alcohol, a precursor of surfactants and personal care products
Pre-cut Fatty Alcohols	Fatty Alcohols with short molecule chains, consisting of $C_6$ - $C_{10}$ Fatty Alcohols, that are not yet refined into grades of pure Fatty Alcohols
Main-cut Fatty Alcohols	Fatty Alcohols with $C_{12}$ - $C_{18}$ molecule chains, consisting of $C_{12}$ - $C_{14}$ (medium-long) and $C_{16}$ - $C_{18}$ (long), that are not yet refined into grades of pure Fatty Alcohols
Short-chain Fatty Alcohols	Refined Fatty Alcohols containing short molecule chains. Upon refining, they yield $C_6$ , $C_8$ , and $C_{10}$ Fatty Alcohols
Mid-chain Fatty Alcohols	Refined Fatty Alcohols containing medium-long molecule chains. Upon refining, they yield $C_{12}$ - $C_{14}$ Fatty Alcohols
Long-chain Fatty Alcohols	Refined Fatty Alcohols containing long molecule chains. Upon refining, they yield $C_{16}$ , $C_{18}$ , or $C_{16}$ - $C_{18}$ Fatty Alcohols
Methyl Ester	Also called B100, Methyl Ester can blend with basic diesel into retail diesel as announced by the Department of Energy Business, Ministry of Energy and can be processed into downstream oleochemicals
Main-cut crude Methyl Ester	Medium-long and long-molecule Methyl Ester ( $C_{12}$ - $C_{18}$ ), an intermediate product group derived from Methyl Ester distillation for Fatty Alcohols
Methanol	Chemical used in the Trans-Esterification process
Raw materials	Palm product, including crude palm oil, RBD palm oil, Palm Kernel Oil, Crude Palm Kernel Oil, or RBD Palm Kernel Oil for production processes. Raw materials include chemical precursors, namely Hydrogen and Methanol
Catalyst	Chemical used in the Methyl Ester process, namely Potassium Hydroxide or Sodium Methylate, designed to speed up Trans-Esterification, and used in the Fatty Alcohol process, namely Hydrogenation catalysts to speed up Hydrogenation
Trans-esterification unit	Methyl Ester production unit, where palm oil or palm kernel oil reacts with methanol in the presence of catalysts (Potassium Hydroxide or Sodium Methylate)
Utilization rate	Actual capacity in percentage of the nameplate capacity
Oleochemicals	Chemicals derived from oil or natural fats (plant and animal fats). Oleochemicals, including Methyl Ester and Fatty Alcohols, can be converted into assorted downstream products
RSPO (Roundtable on Sustainable Palm Oil)	Standard for sustainable palm oil production that is environmental friendly and responsible to communities





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