



TPI POLENE Public Company Limited



TECHNOLOGY PRODUCTS INNOVATION

We Build The Future
Clean and Green Energy

Annual Registration Statement / Annual Report 2022
56-1 One Report 2022

TPI POLENE Public Company Limited





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Annual Registration Statement/Annual Report 2022
(56-1 One Report)

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Message from the Board of Directors

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**Core Policy for
Sustainable Development
for Achieving Net Zero
Greenhouse Gas
Emissions in TPI Polene
Group by the Year 2043
(B.E. 2586)**

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To: Shareholders

Core Policy for Sustainable Development for Achieving Net Zero Greenhouse Gas Emissions in TPI Polene Group by the Year 2043 (B.E. 2586)

TPIPL aims for sustainable development in order to create a balance in terms of economy, environment, and society under good corporate governance. The terms “Circular Economy,” “Green Economy,” and “Bio Economy” are used interchangeably to refer to the Bio-Circular-Green Economy (BCG), which is used at every stage of the value chain by using waste fuel instead of coal to produce cement and aiming to run a clean renewable energy power plant by completely eliminating the use of coal.

In addition, TPIPL adheres to the principle importance of conducting business operations by emphasizing the balanced consideration of all related parties, to create high returns on investment for shareholders in compliance with the principles of good corporate governance, Codes of Conducts and/or related regulations or any legal issues on the basis of business ethics.

Consistently bright 2022 operating performance

For the year 2022, the Company and its subsidiaries registered earnings before interest, taxes, depreciation and amortization (EBITDA) of Baht 13,371 million, an increase of Baht 730 million or increased by 5.78 % compared with Baht 12,641 million for the year 2021.

As of December 31, 2022, the Company and its subsidiaries' net IBD/ EBITDA ratio equated 4.47 times.

In 2022, the Company and its subsidiary registered normal operating profit for the year of Baht 7,573 million compared with normal operating profit for the year of Baht 7,067 million in 2021, an increase of Baht 506 million or increased by 7.16 %. In 2022, the Company and its subsidiaries registered profit for the year of Baht 7,845 million



compared with profit for the year of Baht 6,918 million in 2021, an increase of Baht 927 million or increased by 13.40%. Profit for the year of Baht 7,845 million in 2022 was comprised of normal operating profit of Baht 7,573 million, net foreign exchange gain of Baht 437 million and tax expense of Baht 166 million.

The Company's credit rating upgraded to "A-" (Single A Minus) while the credit rating outlook was set at "Stable"

The increased profitability has come mainly from TPIPL's strategy to focus on specialty chemicals, significantly boosting the profit margins of its polymer business. In addition, the Company's continuing efforts to streamline costs and to improve production efficiency, have enhanced the performances of the construction material business. This includes coal-fired fuel replacement projects with municipal waste fuels and other cost- streamlining measures, which can generate stable profits and cash flow for the Group continuously. As a result, on February 24, 2023, TRIS Rating upgrades the company rating on TPI Polene Plc (TPIPL) and TPI Polene Power Plc (TPIPP) and the ratings on its senior unsecured debentures to "A-" (Single A Minus) from "BBB+" (Triple B Plus) while the credit rating outlook was set at "Stable"

TPI Polene Group's Target to be Net Zero Greenhouse Gas Emission Producers by 2043

The Board of Directors and the top executives have a policy to conduct business towards a low-carbon society by setting a goal of Net Zero Green House Gas Emission in TPI Polene Group net zero emissions by the year 2043 (or B.E. 2586) in order to comply with the policy of the Greenhouse Gas Management Organization (From waste to be used as alternative fuel in the Company's cement production process and in the power generation process of TPI Polene Power Public Company Limited's power plant). Thailand has announced that it will achieve its carbon neutral goal by 2050 and achieve net zero emissions by 2065.

In 2022, cement plant can use approximately 360,675.09 tons of waste, or approximately 12.29% of total waste fuel (from the target of 25%) due to all 4 cement plants have been gradually replaced by coal instead of coal in 2022. However, the last cement plant started using waste fuel instead of coal in December 2022. Therefore, it is expected that by 2023, the cement plant will be able to use waste fuel to replace coal by up to 25%.

In addition, the power plant has been able to use approximately 2.73 million tons of waste as fuel instead of coal, with the TG7 power plant being able to use waste fuel instead of coal to 100% since December 2022. As for the TG8 power plant, approximately 10% of waste fuel has been replaced by coal in 2022, and will be able to use 100% of waste fuel instead of coal in 2025. This will result in the power plant of TPI Polene Group being a 100% clean energy plant (Coal Free Power Plant).

Restructure the Group of Companies to be in line with Business Operation

TPI Polene Group reorganized its business activities in early 2023 to align with the following product groups:

1. TPI Polene Bio Organics Co., Ltd. TPI Polene Bio-Organic Co., Ltd. sells plant-related products such as bio-organic fertilizers and soil improvers, etc., and sells livestock and fisheries products such as yellow powder, TPI Bio-san, etc.
2. TPI Bio Pharmaceuticals Co., Ltd established a pharmaceutical compounding facility, as part of an initiative to invest in the creation of contemporary medications for people (in the form of powder and tablets). The business will keep submitting applications to the Food and Drug Administration for registration of contemporary medicines for individuals and for a license for GMP certification.

TPI Polene Group employs a team of pharmacists to conduct research and produce their own goods using raw materials that are the active ingredients stated in contemporary drug formulations employing clean, contemporary, and risk-free manufacturing techniques for customers.

3. TPI Healthcare Co., Ltd. sells products for occupational hygiene such as Bio Knox, mouthwash, soap, and grease remover.

Enhance Machine Efficiency for Continuously Reducing Production Costs

TPI Polene Group is working to lessen the environmental effect of its value-chain operations, for instance, the Company's factories carry construction stone raw materials from the mine to the factory using electric trains and conveyor systems rather than fuel-powered vehicles. TPI Polene Group has a policy to switch the vehicles used to carry TPIPL Group's products from combustion systems to electric vehicles, which helps lower both transportation costs and greenhouse gas emissions that contribute to global warming and lessen the impact of PM2.5 dust.

Reduce Risks and Create Opportunities to Maintain Sustainable Growth (Sustainability Risk)

TPI Polene Group is still looking for possibilities to invest in companies with high profit margins and growth rates, while also controlling manufacturing costs and lowering overhead costs to maximize its chances of success. In addition, it continues to focus on developing technology and applying innovation to drive business to reduce risks and create opportunities for sustainable and stable growth (Sustainability Risk). Due to current changes in technology and new innovations to increase the efficiency of various operations, there is a greater influence because every business must use new technologies to increase efficiency in various operations to increase competitiveness. If new investment is not taken into consideration, the Company will lose out on commercial prospects, be unable to provide sustainable income, and possibly even go out of business if it cannot keep up with the Disruptive Industry. In addition, TPI Polene Group continues to manage risks throughout the organization by analyzing risks and responding to risks at an acceptable level.

“

To be a Leader in Specialty Polymer Business

The Company has successfully entered the technology market by converting its polymer business into environmentally friendly specialty polymers with higher added value and higher margins by improving production technology and machinery to be more flexible, the Company can create added value and profit margins that are higher than the general market. The Company must therefore conduct research and develop this knowledge. As the only manufacturer in Asia, the business tests new markets and product samples before creating the technology that will be used in the production line itself in the future. The Company expects to be able to start producing new types of specialty products within 2024.

TPI Polene and Sustainability Management

In 2022, the Board of Directors has approved the adoption of all 3 sustainability issues that are material to business operations covering Environmental, Social, and Economic aspects, including good corporate governance to formulate a sustainability policy. According to its definition, it serves as a tool to motivate the Company to realize its goal of sustainable development in accordance with the goals and plans of TPI Polene Group. The sustainability issues that have been approved by the Board of Directors have been used to prepare the Sustainability Report 2022 in accordance with the standards of the Global Reporting Initiative (GRI).

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Sustainable Development Performance

With the success of the Company adopting sustainable values to continuously drive business operations, resulting in the year 2022, the Company received awards and certifications from recognized organizations in promoting sustainable development, including good corporate governance as follows:-

1. The Company was selected as one of the ESG100 securities companies with outstanding performance in environment, society, and governance (ESG) from the assessment of listed securities in 2022 by Thaipat Institute.
2. The Company was selected to be in the sustainable stock THSI (Thailand Sustainability Investment) for the year 2022 from the Stock Exchange of Thailand.
3. The Company received the Corporate Governance Report of Thai Listed Companies : CGR for the year 2022 by the Thai Institute of Directors (IOD) at a very good level (Very Good).

On behalf of the Company, the Company's Board of Directors would like to take this opportunity to thank all related parties for a well-coordinated effort and their ongoing trust in the Company to create unswerving progress for the organization. It is a major goal of the management team and all levels of the entire staff of the Company's staff to move the business forward to overcome obstacles, to achieve the goal of creating stability for the organization, and to enhance the sustainable strength of the corporation, the community, and the country. This was achieved, by emphasizing the balanced consideration of all related parties and conducting business with fairness for all stakeholders through a policy of reducing emissions to solve global warming, by consistently creating a good surrounding environment by reducing the impact of climate changes caused by natural disasters to further enhance the sustainable growth of the country.

Sincerely Yours,



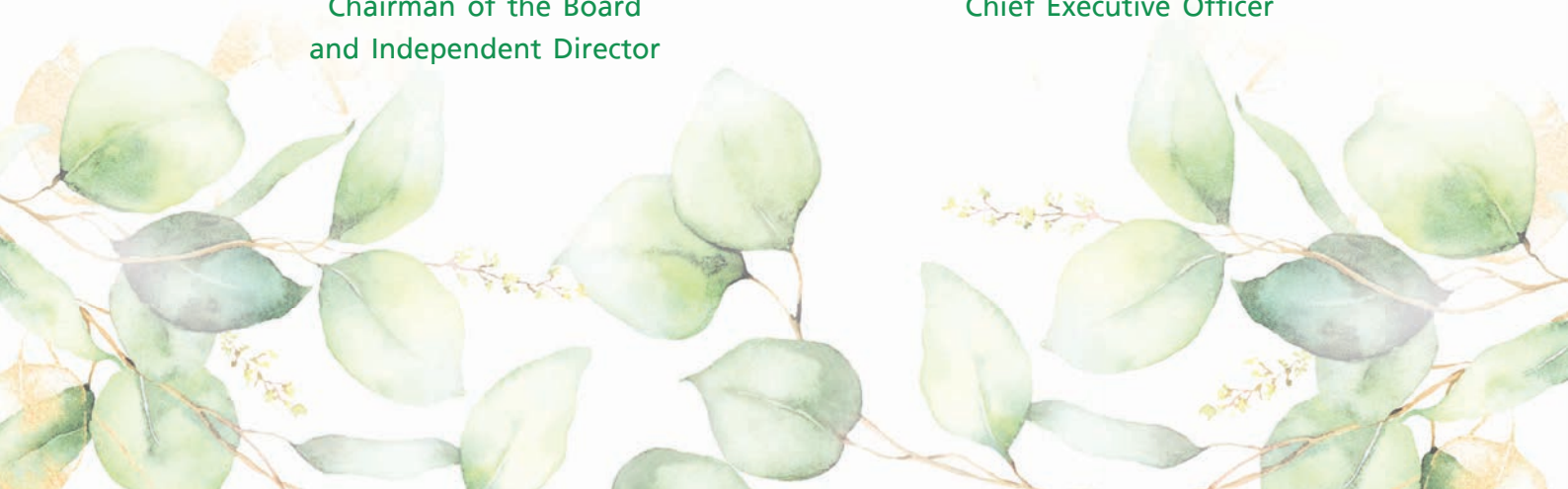
A handwritten signature in black ink, appearing to read 'Khantachai Vichakkana'.

(Mr. Khantachai Vichakkana)
Chairman of the Board
and Independent Director



A handwritten signature in black ink, appearing to read 'Prachai Leophairatana'.

(Mr. Prachai Leophairatana)
Chief Executive Officer



VISION

TPI Polene is a leading manufacturer in construction materials and plastic resins and renewable clean energy power plant businesses, with excellence and international standards. The Company grows with innovation and technology in all aspects of work to enhance competitiveness at the forefront of the industry.

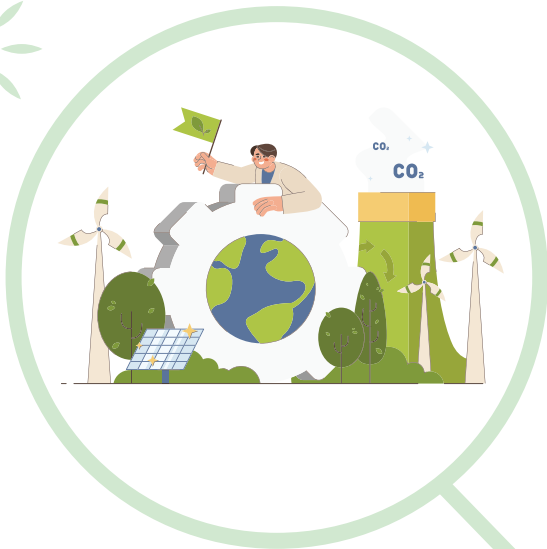


Business Strategies

- Seek investment opportunities that yield good returns with the risk to be at a manageable level, focusing on investing effectively, reducing costs, reviewing investment plans and prioritizing investment projects by aiming to improve the higher returns on investment.
- Have our own research and development team by leveraging technology and innovation to manage business continuity comprehensively and quickly.
- Improve production efficiency to increase competitiveness, which includes using waste to be an alternative fuel for coal and as raw materials to reduce greenhouse gas coupled with efficient waste disposal.
- Seek market opportunities including product development to create added value using international standards to be environmentally-friendly and respond to the needs of customers for product usage and services to achieve maximum efficiency.
- Distribute products to the destination quickly and efficiently, including the addition of online trading models and “new normal” stores in the community to support the launch and expansion of TPI Polene Group’s product market.
- Develop work processes coupled with reducing administration costs for maximum efficiency.
- Reduce financial costs as well as manage liquidity and financial risks to be at manageable levels.
- Manage risks throughout the organization with good corporate governance, create flexibility and adapt to keep pace with business disruption and readiness to continuously increase competitiveness.
- Create value for shareholders and investors with stable profit growth and generate good returns on investment so the business can expand and grow sustainably.
- Operate the business with social responsibly and participate in the development of good quality of life for society and our communities, manage operations throughout the supply chain; manage relationships with partners and customers; continuously support the development of the abilities of our personnel; ensure that the quality of life and the work of our employees is equal to leading companies; and create a bond within the organization.



Towards Sustainable Development under ESG Policies



Environmental

“Committed to developing into a low-carbon society, driving its the Bio-Circular-Green Economy (BCG) strategy , with zero net greenhouse gas emissions targets for sustainable development.”



Social

“Committed to developing knowledge skills, prioritizing occupational health and safety To enhance the sustainable strength of public well-being in surrounding communities and society.”





Governance

“Adherence to good governance principles with a commitment to developing products and services based on technological advancements and delivering value to stakeholders under good corporate social responsibility.”



Net Zero Greenhouse Gas Emission by 2043

Key Action toward Net Zero

Key Sustainable Development Performance of TPI Polene Group in 2022



Economic Dimension

Sale Revenue
Baht 50,963 million

Employee wages and welfare
Baht 6,749 million

Tax expense
Baht 174.92 million

EBITDA
Baht 13,371 million

Net profit
Baht 7,845 million

Dividend per share
Baht 0.10



Environmental Dimension

Aiming to use 25% of waste fuel instead of coal in cement production process by 2023
In 2022, cement plants used waste fuel of 360,675 tons or equal to 12.29% of total waste

Aiming to use waste fuel instead of coal 100% in electricity generation process by 2025 In 2022 TPIPL & TPIPP use 2.73 million tons of waste fuel

Greenhouse gas emissions reduction
TPIPP: 6.34 mil. tons of carbon dioxide equivalent

Implementation of a 6 MW rooftop solar power plant project by TPIPP (COD is expected to commence in 2024)

Implementation of the 61.226 MW solar power plant project (by TPIPP)

Implementation of a 5 MW wind power plant project (COD is expected to commence in 2024)

Reduction of external water consumption (From the base year 2021)
TPIPL 10,737,481. cubic meters or 13.83% decrease
TPIPP 9,464,639 cubic meters or 1.14% increase

Proportion of recycled water (From the base year 2021)
TPIPL 967,395 million cubic meters or 21.00% decrease
TPIPP 396,322 million cubic meters or 11.54 %increase

Support the budget for forestation to plant at least 100 rai of forest per year

Emission reduction (Zero Waste)
TPIPL 99.91% TPIPP 100% in 2022

Hazardous/non-hazardous waste
TPIPL 39%/61% TPIPP 0.12%/99.88%

Reduction of energy use (Compared with the base year 2021)
TPIPP 8,912,561.64 Gigajoule (25.52%)

Investment projects for reducing environmental impact
TPIPL Baht 1,678 million
TPIPP Baht 11,116.50 million

Recycled scrap soil to be reused
775,631 tons, accounting for 100%.



Community and Social Dimension

Community and social contributions
Baht 67.36 million

Injury Frequency Rate (IFR) of Employees and Contractors
TPIPL 0.131 and 0.185
TPIPP 0.352 and 0

Number of working hours without an accident
TPIPL: 22,237,755 hours (increased by 7.82.% over 2021)
TPIPP: 1,665,945.60 hours (increased by 2.55.% over 2021)

Rates of injury and occupational ailments that require all records
TPIPL 0 person/1 million hours
TPIPL 0 person/0.2 million hours

Work-related deaths of employees and contractors
0

Average training hours for employees
TPIPL 23.72 hour/person/year
TPIPP 24.71 hour/person/year

Turnover Rate
TPIPL = 2.93%
TPIPP = 1.49%

Satisfaction in the work and bond of employees to the organization
TPIPL 81.09 %
TPIPP 81.24%

Technology Development Project, Innovation, and Service
7 projects

Product Research and Development Project
14 projects



Corporate Governance Dimension

Low-carbon products sales value
Baht 11,722.60 million

Biological product sales value
Baht 117.46 million

The product has been certified with the label to reduce global warming
Total of 20 products

No complaints of privacy violations ⁽¹⁾

Business partners acknowledge the code of conduct of business partners
TPIPL 92.04%

Violation of human rights (Discrimination, Child Labor, Illegal Labor)
TPIPL = 0

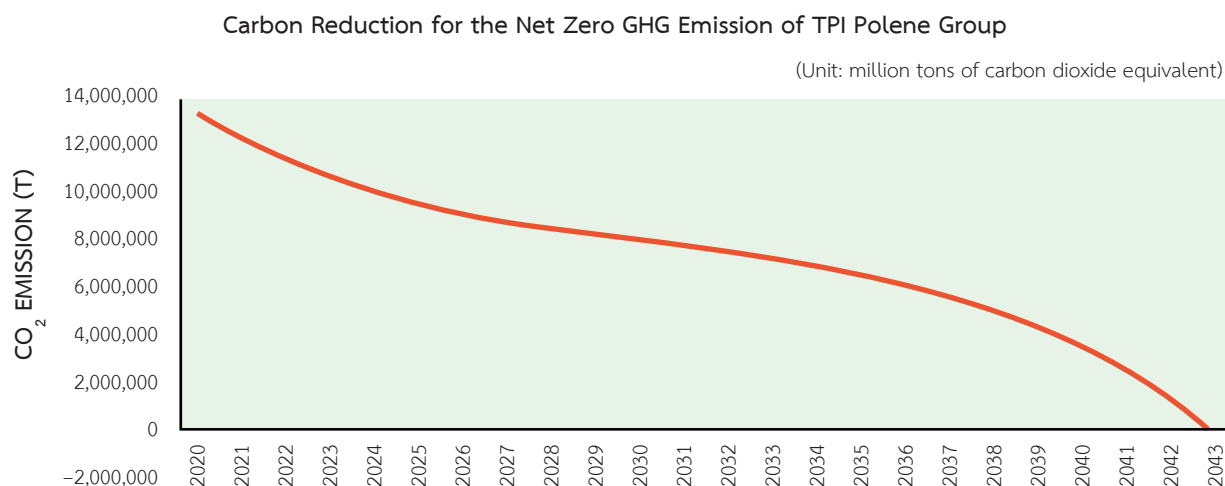
ESG assessed partners
TPIPL 91 %

Overall customer satisfaction/satisfaction with solving problems for customers
TPIPL 86.40% and 95.40%

Set a Goal of Net Zero Emissions in TPI Polene Group by the Year 2043 (B.E. 2586)

Thai government has announced the goal of becoming carbon neutral (Carbon Neutrality) in 2050 (B.E. 2593) and achieving net zero greenhouse gas emissions in 2065. (B.E. 2608)

TPI Polene Group (the Company and TPI Polene Power Plc.) have set targets and action plans for the TPI Polene Group Pathway to reduce net greenhouse gas emissions by 39% from the base year (Year 2019) within 2030 (B.E. 2573) and stepping into net zero by 2043 (B.E. 2586).



TPI Polene Group places importance on reducing greenhouse gas emissions into the atmosphere as an urgent agenda. In the past, TPI Polene Group has released greenhouse gases into the atmosphere in the amount of 13.22 million tons of CO₂ in 2020 (B.E. 2563). With TPI Polene Group's dedication to lowering greenhouse gas emissions into the atmosphere, GHG emissions are projected to decrease in 2021(B.E. 2564) by 0.99 million tons of CO₂, or 7.5%, compared with the base year (2020), which is a lower rate than other businesses in the same sector. In 2022 (B.E. 2565), greenhouse gas emissions can be reduced 1.91 million tons of CO₂ or decreased 14.44% compared with the base year (2020).

TPI Polene Group has laid out a road map towards Net Zero by the year 2043 (B.E. 2586) through various businesses within the group as follows:

1. **Saving in cement & binders** Developing new innovations to reduce the use of clinker, increase the use of substitute materials, promote the use of low carbon cement (Low Carbon Cement) such as the development of hydraulic cement to be used as a replacement for portland cement type 1 etc.
2. **Savings in clinker production** by reducing the use of fossil fuels in burning clinker, increasing the use of biomass fuel from industrial waste or municipal waste. It has been in operation since 2021 and will be completed in 2023.
3. **RE100 – Electricity Energy use Renewable Energy 100%** TPI Polene Group has planned and implemented 100% renewable fuel power generation as follows:
 - a. Using of Waste heat recovery to generate electricity
 - b. Using biomass fuel, fuel from industrial waste or municipal waste instead of using coal fuel (Coal Replacement by Renewable Fuel of Power Plant) with the following projects:
 - I. The 70MW power plant and the 150 MW power plant were converted from coal-fired fuel to municipal waste fuel by using renewable fuel from municipal waste. The 70MW power plant has completed Phase 1 in 2022 and Phase 2 will be completed in April 2023. The 150MW power plant will be gradually completed and will replace 10% of coal with waste fuel by the end of 2022 and will be gradually completed and use waste fuel to fully replace coal by 2025.
 - II. A plan to convert the use of coal to biomass fuel in 6 MW power plants by 2023.

- c. A power plant with solar panels installed on the ground (Solar Farm) is a power plant that uses solar energy without raw material costs as the main energy and uses durable and long-life solar panels to generate electricity. The project will commence in 2023 and will start generating electricity in 2024 (B.E. 2567).
 - d. Solar Roof Installation Project is a solar power generation system installed on the roof using Solar Module installed on the roof of the building in the factory to absorb solar energy to generate moving electric charges in response to the electric field inside the cell and generate direct current before sending it to the Inverter to change from direct current to alternating current and then use the electrical energy to be used further. The project will start in 2023 and start generating electricity in 2024 (B.E. 2567).
 - e. A project to generate electricity from wind energy by utilizing energy from wind which relies on important machinery, namely “wind turbines”, to convert kinetic energy from wind movement into mechanical energy. The wind spins the blades of the wind turbine around a rotor that spins the generator to generate electricity before it can be utilized. More importantly, as long as there is wind, wind energy can be used to generate electricity, and the wind power generation process is clean, no greenhouse gas emissions during production, no harm to the environment. The project will start in 2023 and start generating electricity in 2024 (B.E. 2567).
 - f. The use of electricity from completely renewable clean energy (RE100 – Electricity Energy use Renewable Energy 100%) by producing electricity for use within TPI Polene Group in the production process of cement and the purchase of REC (Renewable Energy Certificate) to enable cement production to use 100% renewable energy.
4. **EV Mining Truck** TPI Polene Group has switched from stone trucks that use gasoline engines and NGV to 31 units of 60-ton EV Mining Trucks in order to transport limestone to the cement factory by 2022.
 5. **Energy efficiency program** Projects to reduce total energy consumption are as follows:
 - a. Regenerative Downhill Conveyor is a project to generate electricity from raw material conveyor belts by changing the transportation method from using trucks to conveying by belt instead, thus saving energy and reducing transportation and maintenance costs. At the same time, the energy from the conveyor belt that transports limestone down from the quarry at the top is characteristic of the Downhill Conveyor to generate electricity back to use. This allows the Company to reduce energy costs from using diesel fuel to transport raw materials and can generate electricity back to the electricity supply at the same time.
 - b. Polytrack Grate is a new aeration technology with reduced pressure that provides consistent aeration with low energy consumption (Reduce at least 1 kWh/ton of clinker). This results in energy savings and can also reduce wear and tear on the machine due to the reduced air velocity through the vents, thus reducing maintenance costs. Currently, the Company can reduce energy costs from using coal and can also save electricity.
 6. **Recycle Raw Materials** The CDE Plant is installed as a washing recycle plant by taking dirt and stone fragments from mining to be washed until it becomes a stone that can be used as a raw material for cement production. This enables the Company to reduce the amount of mining waste and reduce the cost of raw material production. It is a cycle to bring the remaining resources from production to be useful.
 7. **Afforestation** Afforestation to help absorb greenhouse gases released into the atmosphere. TPI Polene Group has been operating continuously since 1992 until now and will continue to do so that the country has more forests to absorb greenhouse gases.
 8. **Carbon capture & utilization/ storage (CCUS)** by studying the technology of capture, utilization, and storage of carbon dioxide by capturing carbon dioxide from high-pitched smokestacks at power plants and storing it underground or under the ocean without releasing CO₂ into the atmosphere. It is a plan to make further investments in the future if existing greenhouse gas emissions reduction processes are insufficient and the technology is worth investing in in the future.

In 2022, TPI Polene Group has implemented a waste fuel production project for the benefit of the public by bringing community waste to be sorted as alternative fuels instead of taking community waste to landfill of more than 2.73 million tons. As a result, the country can reduce greenhouse gas emissions from landfills into the atmosphere by up to 6.34 million tons of CO₂ equivalent.

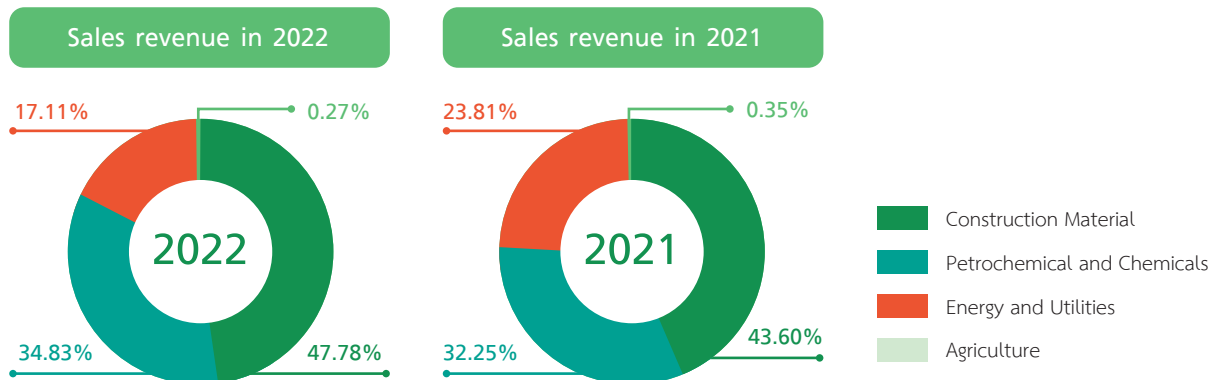
Financial Highlights

	Unit	2020	2021	2022
Operational Performance				
Total Revenue	(Baht Mil.)	36,187	41,279	50,963
Total Sales	(Baht Mil.)	34,276	38,920	48,133
Gross Profit	(Baht Mil.)	9,339	12,529	12,856
Operating Profit (Loss) before interest and income tax	(Baht Mil.)	6,394	9,128	9,508
Operating Profit (Loss) before income tax	(Baht Mil.)	4,379	7,067	7,573
Net Profit (Loss)	(Baht Mil.)	2,839	6,918	7,845
Financial Status				
Total Assets	(Baht Mil.)	123,909	135,714	144,499
Total Current Assets	(Baht Mil.)	27,295	35,032	39,131
Total Liabilities	(Baht Mil.)	71,737	78,152	81,685
Total Interest Bearing Debt	(Baht Mil.)	62,446	68,143	71,372
Net Interest Bearing Debt **	(Baht Mil.)	52,339	56,479	59,747
Total Shareholder's Equity	(Baht Mil.)	52,172	57,562	62,814
Key Financial Ratio				
Gross Profit Margin	(%)	27.25	32.19	26.71
Net Profit Margin	(%)	7.85	16.76	15.39
Paid-up Capital	(Baht Mil.)	19,181	19,127	18,935
Par Value per share	(Baht)	1.00	1.00	1.00
Book Value per share	(Baht)	2.75	3.01	3.32
Earnings per share	(Baht)	0.079	0.297	0.370
Dividend per share	(Baht)	0.06	0.09	0.10
Dividend payout Ratio *	(%)	75.95	30.30	27.03
Debt to Equity Ratio	(times)	1.38	1.36	1.30
Net Debt to Equity Ratio **	(times)	1.18	1.16	1.12
Interest Bearing Debt to Equity Ratio	(times)	1.20	1.18	1.14
Net Interest Bearing Debt to Equity Ratio **	(times)	1.00	0.97	0.95

Remarks: * Dividend payment rate based on Separated Financial Statements

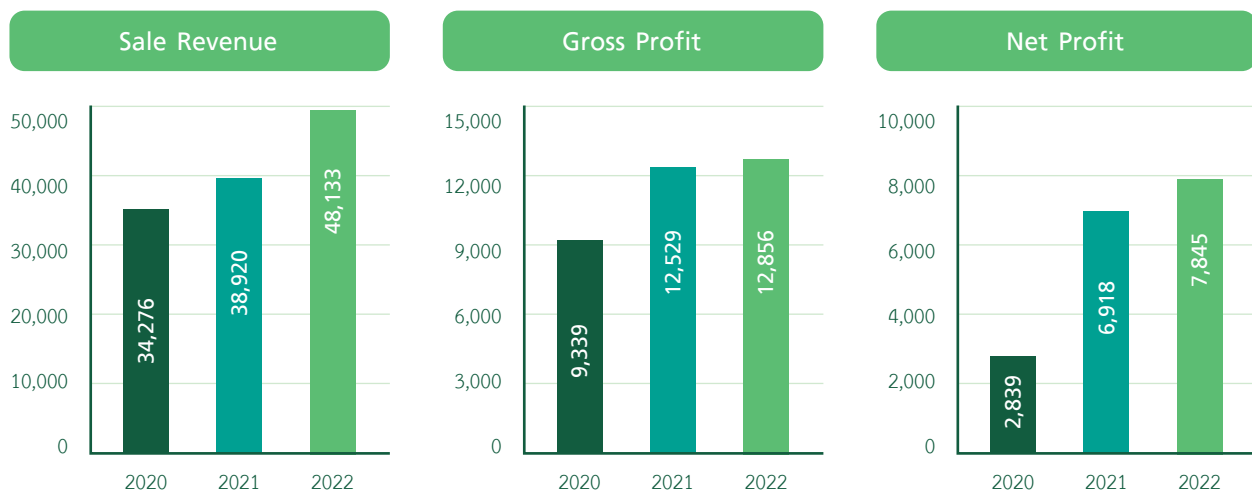
** After deducting Cash and Cash Equivalent and Current Investments

Total Sales Revenue



Total Revenue and Net Profit

Unit: Baht Mil



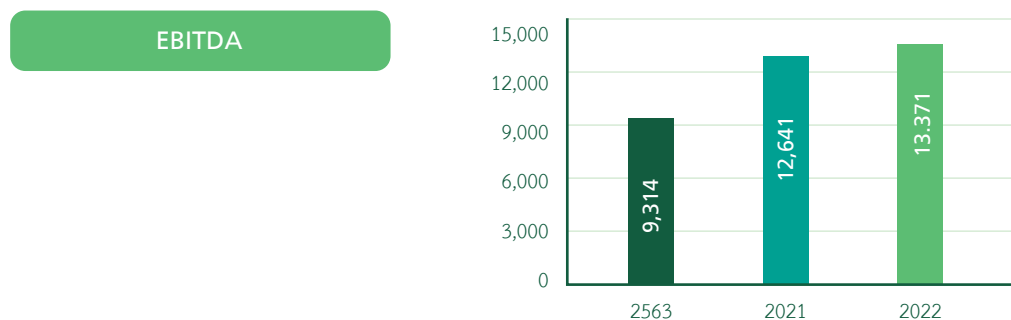
Financial Status

Unit: Baht Mil

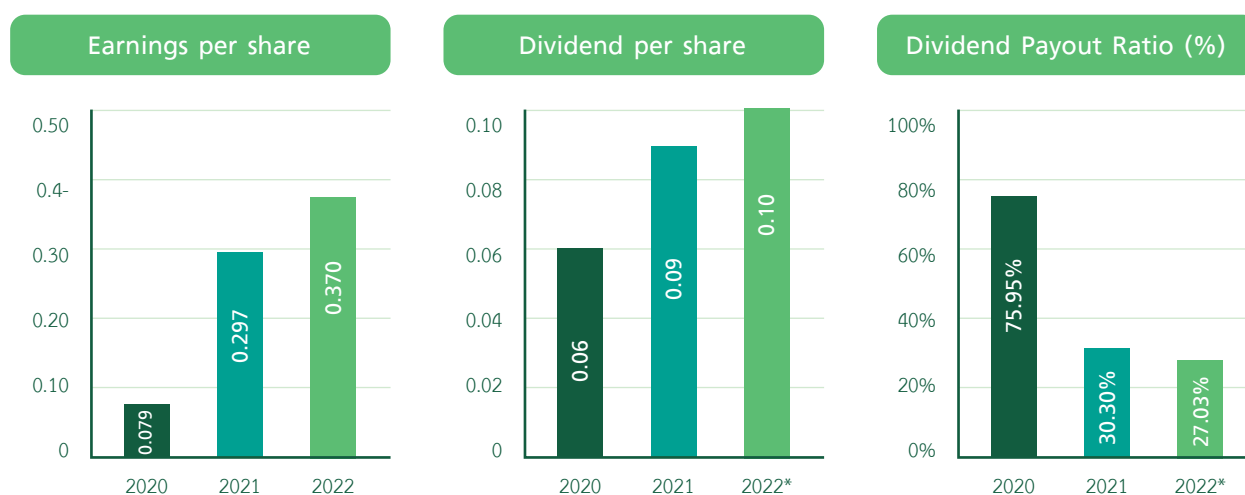


Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA)

Unit: Baht Mil



Profit and Dividend



Remarks : *The dividend payment for the Company's 2022 operating results is divided into an interim dividend payment for the first half of 2022 of Baht 0.03 per share, which was already paid to shareholders, and the dividend payment for the second half of 2022 of Baht 0.07 per share, which was approved at the Company's Board of Directors' meeting no.2/2566, and is also required to be approved in the 2023 Annual General Shareholder's Meeting.

Financial Ratio

	Unit	2020	2021	2022
EBITDA / sales ratio	Times	0.27	0.32	0.28
Interest coverage ratio	Times	4.08	4.96	5.22
Debt to Equity ratio	Times	1.18	1.16	1.12
Return on Equity	%	5.48	12.61	13.03
Return on Assets	%	2.38	5.33	5.60

Our Pride Awards in 2021 - 2022

On February 24, 2023, TRIS Rating upgrades the company rating on TPI Polene Plc (TPIPL) and TPI Polene Power Plc (TPIPP) and the ratings on its senior unsecured debentures to “A-” (Single A Minus) from “BBB+” (Triple B Plus).

TPIPL and TPIPP received CG Score at very good level (Very Good)



On October 27, 2022, TPIPL and TPIPP received the Corporate Governance Report of Thai Listed Companies : CGR 2022 at a very good level (Very Good) from the Thai Institute of Directors Association.

TPIPL and TPIPP were listed in Thailand Sustainability Investment (THSI)



On October 10, 2022, TPIPL and TPIPP were listed in the Thailand Sustainability Investment (THSI) 2022 from the Stock Exchange of Thailand.

TPIPL Top 2022 ESG Emerging Stocks



ESG Emerging
Environmental • Social • Governance **2022**

On July 1, 2022, the Company was selected as a listed company with outstanding environmental, social and governance (Environmental, Social and Governance: ESG) performance in the group of sustainable lifestyle companies that are worth investing or 2022 ESG Emerging List by Thaipat Institute.

TPIPP listed in the ESG100 stock list for the third consecutive year (2018 and 2021-22)



ESG100
Environmental • Social • Governance **2022**

On July 1, 2022, TPIPP was selected as one of the ESG100 securities companies with outstanding performance in environment, society, and good governance (Environmental Social and Governance: ESG) in the resource group from the assessment of listed securities in 2022 by Thaipat Institute.

TPIPL and TPIPP received honorary awards (Sustainability Disclosure Award)



On December 21, 2022, TPIPL and TPIPP received an honorary award (Sustainability Disclosure Award) for the year 2022, which is an award that assesses the status of sustainability disclosure (From Sustainability Report and 56-1 One Report 2021) of members of community organizations, sustainability information disclosure (Sustainability Disclosure Community: SDC) from a total of 133 companies from Thaipat Institute.

TPIPP received Certificate of ESG CREDIT Year 2022



TPIPP received Certificate of ESG CREDIT Year 2022

2022-2023 Asia's Best Brand and Outstanding Leadership Awards



On December 17, 2022, TPIPL and TPIPP received 2022-2023 Asia's Best Brand and Outstanding Leadership Awards from the India-Thai Chamber of Commerce

TPIPL received 6 honorary awards from the 2022 One Million Kla Krue Merit Project by the Thai Society Foundation

Mr. Prachai Leophairatana, Chief Executive Officer of TPI Polene Public Company Limited or TPIPL, received a plaque of honor from the One Million Kla Kdee Goodness Project for the Year 2022 by the Thai Society Foundation which was honored by General Paiboon Koomchaya, Privy Councilor, Director and Deputy Secretary-General of the Phra Dabos Foundation, presided over the plaque presentation ceremony. The Company has received 6 honorary awards, including the "Outstanding Executive" award for the year 2022 in the field of Sustainable Business Development, "Good Deeds in Return to the Land" award for the year 2022 in the field of contributors to society and nation, "2022 Exemplary Person of the Year Award" in field of Management and Organization Development because the executive Mr. Prachai Leophairat is a valuable person, whose work is beneficial to the public, has a vision that is a good role model, has the ability to put knowledge into practice, having excellent practices in education and completing activities, conducting oneself within the framework of virtue and ethics, and repaying the country in various ways. There are also honorary awards given to the TPIPL organization, including the "Outstanding Innovation of the Year" award for the year 2022 in the field of innovation for sustainability, "Outstanding Product of the Year" award for the year 2022 in the field of products promoting the bio economy (Bio Economy) and hygiene care, and "Outstanding Executive Organization" award for the year 2022 in the field of Technology Development and Innovation for Sustainability. These are an honorary award given to individuals and organizations that have sustained success and have created benefits for the public as well as rewarding you in various ways.

CSR-DIW Continuous Award



CSR-DIW Continuous Award

Entrepreneur Responsibility Standards Complied The Standard of Responsibility of Industrial Entrepreneurs to Society from the Department of Industrial Works

Cement plant line 1	Cement plant line 2
Cement plant line 3	Cement plant line 4
Mortar plant line 1-2	Mortar plant line 3
Mortar plant line 4	Lightweight concrete plant



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Outstanding Executive Award of the Year 2022 Business Development for Sustainability from the Foundation for Thai Society



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Exemplary Person of the Year Award 2022 Management and Organization Development from the Foundation for Thai Society



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Award for Good Deeds in Return for the Land of the Year 2022 Contributor to Society and the Nation from the Thai Society Foundation



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Outstanding Innovation Award of the Year 2022 From innovative works for efficient resource utilization and clean technology innovation for sustainability from the Foundation for Thai Society



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Organization Excellence Awards 2022 Development with Technology and Innovation for Sustainability from the Foundation for Thai Society



Thai Awards, Awards of Honor, One Million Seedlings of Good Deeds in Return for the Land Outstanding Product Award 2022 Category of products promoting bio economy (Bio Economy) and hygiene care from the Foundation for Thai Society

GLOBAL Economics Awards



Best Product Innovations for Sustainable Development Top innovative products for sustainable development from The Global Economics, the UK's leading financial magazine for Sustainability from the Foundation for Thai Society

ESG performance is appraised at "Gold Level" by Thaipat Institute.



TPIPL and TPIPP received an ESG performance assessment in 2020 at the Gold Level by Thaipat Institute, with the use of 30 WFE ESG Metrics from the World Federation of Exchanges (WFE).

TPIPL received the symbol of the industrial waste management factory standard, “Gold Medal” Award 2021 from the Department of Industrial Works.



TPIPL received the symbol of the industrial waste management factory standard with a “Gold Medal” Award 2021 from the Department of industrial Works.

TPIPL and TPIPP have been awarded and received certificates under “the Project to promote industrial factories to have social responsibility and sustainable communities” in the CSR-DIW Award and CSR-DIW Continuous Award categories for the year 2021



Awarded and received plaques and honors under the “Project to promote industrial factories to have social responsibility and sustainable communities” in the category of CSR-DIW Award and CSR-DIW continuous award for the year 2021 from the Department of Industrial Works, Ministry of industry, which complies with

the policy of ESG and Bio Circular-Green Economy-BCG. TPI Polene Group adheres to a policy of driving the economy towards sustainable development (ESG and Bio Circular-Green Economy-BCG) criteria and by embracing the Bio Circular Green Economy as a sustainable business model under the standard of good corporate governance. Five of the Company’s establishments have received CSR-DIW awards, namely cement plant line 4, mortar plant 1,2,3,4 and Light Weighted Concrete Plant including cement plant line 1,2 and 3 which were certified three CSR-DIW continuous awards.

The Company received the 2021 Green Industry Level 4 (Green Culture) Award for Cement Plants line 1, 2 and 3 and Waste Disposal Plant.



Green Industry Level 4 from the Ministry of Industry; Green culture award for cement line 1,2,3 and Waste Disposal Plant where green culture is the fact that everyone in the organization cooperates on working in environmentally friendly ways in all aspects of the business to become part of the corporate culture, which drives the green GDP of the country to be at higher value.

The Company received the 2021 Green Industry Level 3 (Green System)



Green Industry Level 3 from the Ministry of industry; Green System award for cement line 4, LDPE/EVA plants, EVA emulsion and EVA powder, certified as Green Industry Level 3 with the green system, which is systematic environmental management, monitored, evaluated and reviewed for continuous development, as well as receiving accepted environmental awards and certification of various environmental standards.

The Company has been certified for the use of the Made in Thailand (MiT)



logo which can be displayed on publications such as labels, brochures, backgrounds or events for cement and construction materials products and agricultural products, healthcare products, livestock and fisheries. This logo is administered by the Federation of Thai Industries.

The Company has been certified for the use of the Made in Thailand (MiT)



TPI Concrete Company Limited is the first Thai ready-mix concrete manufacturer certified as a “Made in Thailand” (MiT) product by the Federation of Thai Industries, which emphasizes the use of raw materials for the production of ready-mixed concrete from domestic sources.

Tha company was listed as one of 10 Thai innovations

TPI Bio Pharmaceuticals Co., Ltd. was listed as one of 10 Thai innovations by the National Science and Technology Development Agency (NSTDA) on October 29, 2021.

Products that were listed on the Thai innovations list are TPI Probiotics, which is a biological enhancer, bacillus subtilize in liquid and powder formula for animals, etc.

Award at the Sustainability Disclosure Awards 2021

The Company and TPI Polene Power Public Company Limited received the “Sustainability Disclosure Acknowledgement” Award at the Sustainability Disclosure Awards 2021, Thaipat Institute, to encourage listed companies and business organizations that are members of the Sustainability Disclosure Community (SDC) to recognize and focus on disseminating operational information, which covers economic operations, and Social, Environmental or ESG (Environmental, Social and Governance).



Awards received in the field of Environmental preservation

	Certificates/ Award	Award-winning categories	Organizers
2020		<ul style="list-style-type: none"> • CSR-DIW Continuous Awards: Standards for Corporate Social Responsibility of industrial entrepreneurs who comply with the standards of corporate social responsibility 	Department of Industrial Works, Ministry of Industry
2019		<ul style="list-style-type: none"> • CSR-DIW Continuous Awards: Standards for Corporate Social Responsibility of industrial entrepreneurs who comply with the standards of corporate social responsibility 	Department of Industrial Works, Ministry of Industry
2018		<ul style="list-style-type: none"> • CSR-DIW Continuous Awards: Standards for Corporate Social Responsibility of industrial entrepreneurs who comply with the standards of corporate social responsibility 	Department of Industrial Works, Ministry of Industry
2013		<ul style="list-style-type: none"> • Certification for the use or production of alternative energy (Gold Label) for recovering waste heat from power plants to be used in the cement production process 	Thailand Business Sustainable Development (TBSD) and Thai Environment Institute
2009		<ul style="list-style-type: none"> • Project "Quarry on the Star" in 2009 	Ministry of Natural Resources and Environment

	Certificates/ Award	Award-winning categories	Organizers
2009		<ul style="list-style-type: none"> • Mining Type 	Department of Fundamental Industry and Mines, Ministry of Industry
2008		<ul style="list-style-type: none"> • Project “Quarry on the Star” 2008 	Department of Pollution Control, Ministry of Natural Resources and Environment
2006		<ul style="list-style-type: none"> • Project “Quarry on the Star” 2006-2007 	Department of Pollution Control, Ministry of Natural Resources and Environment
2002		<ul style="list-style-type: none"> • Provincial Excellence Awards 	Work Safety Organizing Committee



Key developments of TPI Polene Group in 2022

Cement Business

1. During 2021 - 2022, the Company has implemented a project to invest in efficiency improvement of kiln plants to reduce heat consumption and reduce repair costs in total of 4 cement production lines so that waste fuel (partially) can be used instead of coal in cement production process, the Company can reduce energy costs and not rely solely on coal fuel. Coal is a high-priced fuel and fluctuates according to world market conditions compared with waste fuel. In addition, the project also helps reduce greenhouse gas emissions, which cause global warming, by using waste fuel (partially) to replace coal for all 4 production lines in December 2022.
2. The Company has invested in the construction of Long Belt Conveyor, Mobile Crusher Plant and Electric Dump Trucks which can save transportation costs. It also helps reduce greenhouse gas emissions and PM2.5 dust. The project has been completed in 2022.
3. Reached an agreement with a building material manufacturer and distributor in Australia to expand the market for fiber cement and other building materials, which are considered to be the building material market with consistently high growth rates.
4. On January 21, 2022, the Company repurchased shares under the share repurchase project for financial management purposes in the amount of 191,265,000 shares (representing 1.00 percent of the total shares sold) in the total amount of Baht 365.55 million. On July 27, 2022, the company registered a capital reduction of 191,265,000 shares at a par value of Baht 1 each, amounting to Baht 191,265,000, with the Department of Business Development, Ministry of Commerce. This was done along with the elimination of treasury shares and the full amount of the reserve for treasury shares that were previously included in the shareholders' equity.
5. In early 2023, TPI Polene Group has restructured its business operations to be in line with the product groups as follows:
 1. TPI Polene Bio Organics Co., Ltd. sells plant-related products such as bio-organic fertilizers and soil conditioners, etc., and sells livestock and fisheries products such as yellow powder, Biosan, etc.
 2. TPI Bio Pharmaceuticals Co., Ltd. has a project to invest in the construction of a pharmaceutical compounding plant for the production of modern medicines for people (in powder and pill form) intended for use in the treatment of minor ailments that may occur in everyday life. This reduces the importation of expensive medicines from abroad. The Company will proceed to apply for a modern drug registration for people with the Food and Drug Administration and request for a GMP certification license.

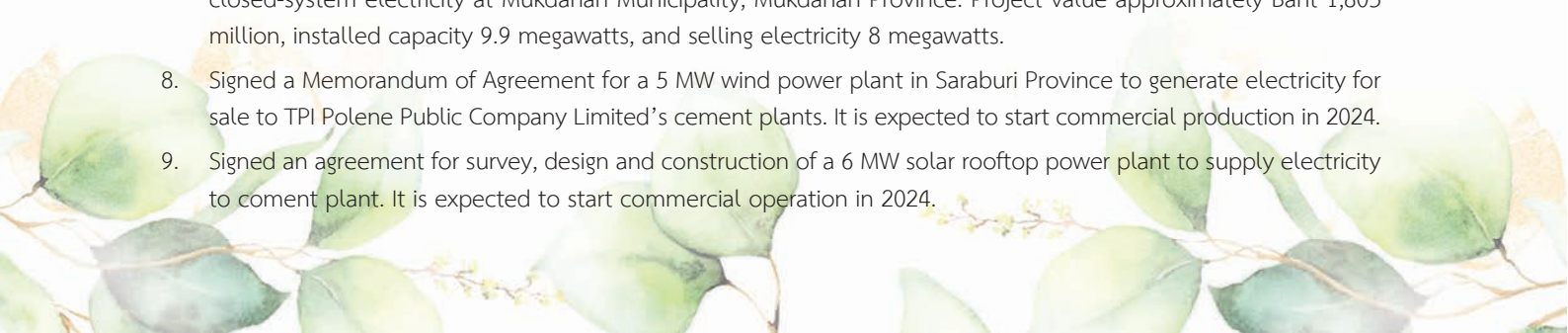
TPI Polene Group employs a team of pharmacists to conduct research and produce their own goods using raw materials that are the active ingredients stated in contemporary drug formulations employing clean, contemporary, and risk-free manufacturing techniques for customers, such as

1. Group of drugs to relieve stomach pain and flatulence
2. Sore throat lozenges
3. Antiseptic mouthwash
4. Muscle relaxants
3. TPI Healthcare Co., Ltd. sells Healthcare products such as Bio Knox, mouthwash, soap and stain remover.
6. In 2022, the Company has invested in electric trains to transport raw materials in the mine which can save transportation costs.

Specialty Polymer Business

1. The specialty polymer plant is undergoing machinery upgrades to increase the efficiency of polymer production (Polymerization Conversion Rate) which will result in an increase in overall EVA production capacity of approximately 10%. It is expected to be completed in 2023.
2. In 2022, the Company was able to develop a new type of value-added product in the group of special liquid hot melt adhesives which is a high-margin value-added product. As a result, the Company now has products covering all types of applications for customers in this product group, which is considered a niche market of EVA plastic resin and the Company is also a market leader in East Asia and Southeast Asia.
3. In 2022, the Company has built and tried to produce Ethylene Acrylate copolymer group with superior properties and price than EVA plastic resin. The Company anticipates being able to use the knowledge acquired to test this novel polymer on the actual production line for a brief period of time before the annual maintenance cycle in 2023 and to start updating the machinery in order to be able to produce this unique polymer for sale by 2025.
4. The Company has imported and installed a new adhesive powder manufacturing plant with a capacity of 5,000 tons per year from Europe in 2022. Currently, it is in the process of testing the machine in production. It is expected to be operational by 2023, which will enable the Company to expand its presence in the growing regional adhesive powder market.
5. There is a project to increase EVA production capacity and expand special grade copolymer products in 2023.

Power Plant Business

1. In 2021, TPI Polene Power Public Company Limited (“TPI Polene Power”) signed a contract to purchase machinery and equipment including the construction and installation of RDF Boiler and Boiler 6 renovation (B6) TG7 Power Plant which has gradually used waste fuel to replace coal since 2022 and has installed additional boilers. It is expected to be completed and able to use 100% of waste fuel to replace coal in the production process in April 2023.
 2. On April 27, 2022, TPI Polene Power signed a contract to purchase machinery and equipment including the construction and installation of 3 sets of RDF Boilers 160TPH to develop the TG 8 power plant by gradually introducing waste fuel to replace coal since 2022 and in the process of installing additional boilers. It is expected to be completed and be able to use waste fuel to replace coal 100% by 2025.
 3. Under construction of a municipal waste fueled power plant that can be auctioned at Songkhla Province, expected to be completed in 2024.
 4. Construction of a municipal waste fueled power plant that can be auctioned at Nakhon Ratchasima Province, expected to be completed in 2024.
 5. Signing a contract for the construction of a solar power plant (Solar Farm) installed on the ground, size 61.226 MW Peak / 52.20 MW AC. The project value is approximately Baht 1,787 million to sell electricity to the Company’s cement plants.
 6. On October 6, 2022, TPI Polene Power and Electricity Generating Public Firm Limited engaged into a joint venture to establish “ E&T Renewable Energy Company Limited” as a joint venture company. It aims to operate power plants like solar power plants and ground-mounted solar power plants with Battery Energy Storage System (BESS), among others. It has a registered capital of Baht 2,000 million and paid-up capital of Baht 500 million.
 7. Tendered for the municipal solid waste management and management project as an environmentally friendly closed-system electricity at Mukdahan Municipality, Mukdahan Province. Project value approximately Baht 1,803 million, installed capacity 9.9 megawatts, and selling electricity 8 megawatts.
 8. Signed a Memorandum of Agreement for a 5 MW wind power plant in Saraburi Province to generate electricity for sale to TPI Polene Public Company Limited’s cement plants. It is expected to start commercial production in 2024.
 9. Signed an agreement for survey, design and construction of a 6 MW solar rooftop power plant to supply electricity to cement plant. It is expected to start commercial operation in 2024.
- 

Business Operations and Operating Results

01

1. Structure and Business Operation of TPI Polene Group

TPI Polene Group can be categorized by 4 types of businesses as follows:

1. Construction business sector: manufacture & sale of cement, mortar, clinker, ready-mixed concrete, CRT/FCB, lightweight concrete and cement paint, etc.
2. Petrochemical and Chemical Products business sector: manufacture & sale of specialty polymer, EVA Emulsion and EVA Powder, EVA Encapsulant / EVA Interlayer / Solar Film), ammonium nitrate and nitric acid etc.
3. Energy and Utilities business sector: Waste-based fuel power plants, a waste heat recovery power plant, a coal-fired power plant, a waste-based fuel power plant, Industrial Waste Disposal Plant, Pyrolysis plants, oil and NGV service stations, etc.
4. Agricultural business and others:
 - 4.1 products such as Bio Knox, Microme Knox Solution, mouthwash, vegetable washing liquid, energy drink Pro-150 and Pro Vita, liquid soap, drinking water, dishwashing liquid, grease remover and Biosan, etc.
 - 4.2 Products for plants such as organic fertilizers and soil conditioners, etc.
 - 4.3 Products for animal such as bio-stimulants for cattle and fishery, etc.
 - 4.4 Other businesses such as life insurance business, etc.

1.1 Policy and Business Overview

TPI Polene Group operates its businesses by focusing on innovation development, applying technology to create added value to its products through its own research and development team, by adhering to policies towards sustainable development. TPI Polene Group focuses on policies that promote sustainable development (ESG & Bio Circular-Green Economy-BCG for Sustainability), aiming to reduce the impact on the climate of low carbon production. TPI Polene Group has a policy to create a balanced consideration of its business growth in parallel with environmental preservation and the strengthening of society, and to be an integral part in moving the Thai economy forward together with Thai society so as to be a part of driving the economy, as well as creating good returns on investment and creating a balance for the shareholders and stakeholders involved through a policy of good corporate governance.



1.1.1 Revenue Structure

TPI Polene Group is principally engaged in the manufacture and supply of products, mainly in its core businesses and reciprocal businesses, which has helped strengthen the revenue and growth of TPI Polene Group, which can be summarized as follows:

Unit: Million Baht

Product / Service	Operated by	% of TPIPL's Shareholding	2022		2021		2020	
			Mil.Baht	%	Mil.Baht	%	Mil.Baht	%
1. Construction Material	TPI Polene Plc. TPI Concrete Co., Ltd.	- 99.99	23,000	47.78	16,969	43.60	17,469	50.97
2. Petrochemical and Chemical Products	TPI Polene Plc. Thai Nitrate Co., Ltd.	- 99.99	16,767	34.83	12,550	32.25	7,616	22.22
3. Energy and Utilities	TPI Polene Power Plc.	70.24	8,234	17.11	9,266	23.81	9,072	26.47
4. Organic Products	TPI Polene Bio Organics Co., Ltd.	99.99	132	0.27	134	0.34	119	0.35
Total			48,133	100.00	38,920	100.00	34,276	100.00

Note : Revenues of the Company and its subsidiaries received from third parties

1.1.2 Major Events and developments

The Company was registered as a limited company in the name of “Polene Company Limited” on September 24, 1987 by the Leophairatana family as the founder and manager of the business until now with an initial registered capital of Baht 100,000. At the outset, it operated as an intermediary in the purchase of PE (Polyethylene) resins from Thai Petrochemical Industry Public Company Limited (“TPI”, which has now changed its name to IRPC Public Company Limited.)

Polene Company Limited changed its name to TPI Polene Company Limited on October 24, 1989 and consequently in March 1990, its LDPE plant, tax benefits, and other privileges under BOI promotional certificates were transferred to TPIPL from TPI. On November 20, 1990, TPIPL shares were listed on the Stock Exchange of Thailand and it was later converted to a public company on February 17, 1994. The Company has expanded into various businesses.

Currently, TPI Polene Group is the largest producer and distributor of cement and construction materials, Specialty Polymer, ready-mixed concrete, and power plants through its subsidiary, TPI Polene Power Public Company Limited, which is also Thailand's largest producer and distributor of electricity generated from waste fuel with an installed capacity of 440 megawatts.

Registered Capital	: Baht 23,560,235,000
Paid-up Capital	: Baht 18,935,235,000
Par value	: Baht 1 per share

1.1.3 Report on the purpose of using the proceeds from the fundraising

1) Use of proceeds from the offering for sale of debentures

In 2022, the Company issued and sold debentures, totaling Baht 16,009 million, which can be summarized as follows:

Proceeds Utilization	Amount (Million Baht)	Period of proceeds utilization	Progress of proceeds utilization
1. Debentures no. 1/2022 To repay debt from issuing debt instruments	3,745.00	August 2022	Fully settled on August 5, 2022
2. Debentures no. 2/2022			
1. To repay debt from issuing debt instruments	7,382.70	January 2023	Settled on January 2023
2. To repay debt from issuing debt instruments	<u>186.30</u>	April 2023	Settled on April 2023
Total	7,569.00		
3. Debentures of TPI Polene Power Public Company Limited No. 1/2022 To repay debt from issuing debt instruments	4,695.00	November 2022	Fully settled on November 9, 2022
Total amount	16,009.00		

In this regard, the Company utilized the proceeds from the issuance and offering for sale of debentures for each tranche for the purpose as specified in the Offering Circular of debentures.

The Company has utilized the proceeds from offering for sale the bill of exchange as working capital for business operations and has fully paid according to the bill of exchange period.

2) Related governing law for enforcement of debt instruments

Debt instruments are enforced and interpreted under related Thai governing law.

1.1.4 The commitments that the Company has made in the Offering Circular and/or the terms and conditions of the approval of the SEC (if any) and/or conditions for listing securities of the SET (if any).

- None -

1.1.5 Name, Head office location, Type of business, Company registration number, Telephone, Facsimile, Company website, Total number and type of shares sold.

Thai Company Name	บริษัท ทีพีโอ โพลีน จำกัด (มหาชน)
English Company Name	TPI Polene Public Company Limited
Abbreviation	TIPL
Registration Number	0107537000564 (formerly Bor. Mor. Jor. 303)
Nature of Business	<p>The Group operates the business of manufacturing and distributing various products as follows:</p> <ol style="list-style-type: none"> 1. Construction business sector: manufacture & sale of cement, mortar, clinker, ready-mixed concrete, CRT/FCB, lightweight concrete and cement paint, etc. 2. Petrochemical and Chemical Products business sector: manufacture & sale of EVA/LDPE plastic resins, EVA Emulsion and EVA Powder, EVA Encapsulant / EVA Interlayer / Solar Film), ammonium nitrate and nitric acid etc. 3. Energy and Utilities business sector: Waste-based fuel power plants, a waste heat recovery power plant, a coal-fired power plant, an Waste-based fuel power plant, Industrial Waste Disposal Plant, Pyrolysis plants, oil and NGV service stations, etc. 4. Agricultural business and others, comprising products for plants products for farminh and healthcare products.
Accounting End Date	December 31 of each year

Head Office

Office Location	26/56 Chan Tat Mai Road, Thungmahamek, Sathorn, Bangkok 10120
Tel. Number	+66 (0) 2213-1039-49, 285-5090-9
Fax Number	+66 (0) 2213-1035, 213-1038
Web Address	http://www.tpipolene.co.th

Cement Plant Power Plant Cement Mortar Plant Lightweight Concrete Plant Pyrolysis and Waste-based fuel Plants

Office Location	299 Moo 5, Mittraparp Road, Tambol Tubkwang, Amphur Kangkhoy, Saraburi 18260
Tel. Number	+66 (0) 3633-9111
Fax Number	+66 (0) 3633-9228-30

LDPE/EVA Plant and EVA powder

Office Location	999 Moo 5 Sukhumvit Road, Tambol Chuengnoen, Amphur Muang, Rayong 21000
Tel. Number	+66 (0) 3880-3090-9
Fax Number	+66 (0) 3880-3086

Concrete Roof Tiles and Fiber Cement Plants

Office Location	77 Moo 7, within CRT Plant sub-road from Sai Ban Kork Street, Banlardkaopoon and Highway no.1014, Tambol Ban Kang, Amphur Chaloem Phrakiat, Saraburi 18260
Tel. Number	+66 (0) 3667-0370-5
Fax Number	+66 (0) 3667-0377

Solar Film Plant

Office Location	49/1 Moo 1, Phichainarong Songkham Road, Tambol Nachong, Amphur Muang Saraburi, Saraburi 18260
Tel. Number	+66 (0) 3673-1724

Ammonium Nitrate and Nitric Acid Plant

Office Location	140/7 Moo 4, Sukhumvit Road, Tambol Tapong, Amphur Muang, Rayong 21000
Tel. Number	+66 (0) 3866-4724-7



Investors Relation Unit

Tel. Number +66 (0) 2213-1039 ext 12983 and 12985

Corporate Secretary

Tel. Number 66 (0) 2213-1039 ext 12220

Reference Person

Share Registrars Thailand Securities Depository Company Limited

Office Location The Stock Exchange of Thailand, Rajadapisek Road, Khwang Dindaeng, Dindaeng, Bangkok 10110

Tel. Number +66 (0) 2009-9000, Call Center +66 (0) 2009-9999

Fax Number +66 (0) 2009-9991

Auditor KPMG Phoomchai Audit Limited

Office Location 1 Empire Tower, Floor 48-50, South Sathorn, Yannawa Subdistrict, Sathorn District, Bangkok 10120

Tel. Number +66 (0) 2677-2000

Fax Number +66 (0) 2677-2222

Legal Advisor SCL Nishimura & Asahi Co., Ltd.

Office Location 34th Floor, Athenee Tower, 63 Wireless Road, Lumpini, Pathumwan, Bangkok 10330

Tel. Number 02-126-9100

Fax Number 02-126-9120

Debenture Registrar**CIMB THAI PUBLIC COMPANY LIMITED**

Location 44 Langsuan Road, Lumpini, Pathumwan, Bangkok 10330

Tel. Number +66 (0) 2626-7507-8, +66 (0) 2626-7591

Fax +66 (0) 2657-3390

BANK OF AYUDHYA PUBLIC COMPANY LIMITED

Location 1222 Rama 3 Road, Bangpongpan, Yannawa, Bangkok 10120

Tel. Number +66 (0) 296-2000, +66 (0) 296-5696

Fax +66 (0) 638-1302

Legal Advisor for Issuing and Offering debentures**Weerawong, Shinwat and Partners Co., Ltd.**

Address 540 Mercury Tower, 22nd Floor, Ploenchit Road, Lumpini, Pathumwan, Bangkok 10330
Tel. Number +66 (0) 2264-8000

Baker & Mackenzie Co., Ltd.

Address 990 Abdulrahim Place Building, 25th Floor, Rama IV Road, Silom, Bangrak, Bangkok 10500
Tel. Number +66 (0) 2636-2000

1.2 Nature of Business

1.2.1 Product Information

Products of TPI Polene Group can be classified according to the type of business as follows:

- I. Construction Material
- II. Petrochemical and Chemical Industry
- III. Power and Utilities Industry
- IV. Agro-industry, health products, etc.

I. Construction Material

TPIPL is the manufacturer and distributor of cement products, clinker, mortar cement, adhesive mortar, grout and ready-mixed concrete, concrete roof tiles, fiber cement, light weighted concrete and cement paint., ect under the logo “TPIPL”, which can be summarized as follows:

1. Product characteristics, production capacity, and strength

Products	Production capacity, strengths, technology development, and innovation
1. Cement and clinker	
Total production capacity	13.5 Million TPA
Market share	The largest manufacturer and distributor of cement 1 in 3 in the country. with a market share that accounts for 25 percent of the domestic market.
Brand name	TPIPL
Strengths	<ul style="list-style-type: none"> - TPIPL has the advantage of low production costs as machinery and equipment are located in the same area, adjacent to the Company’s limestone quarry. - The first cement plant in the country that can use waste-based fuel as an alternative fuel for coal, which reduces the cost of cement production. - TPIPL is the first cement manufacturer in Thailand, awarded ISO 9002 Certification from the International Standard Institute, for surpassing industrial and environmental protection standards. This has enabled the Company to export cement to the state of California, where surrounding communities are highly aware of environmental conservation. - Have our own research and development team which has a competitive advantage over others.



Products	Production capacity, strengths, technology development, and innovation
	<ul style="list-style-type: none"> - TPIPL has a palletless cement packing system to reduce product delivery costs and increase lift time of the products. - A modern factory that focuses on automated operating systems to reduce production costs.. - Developed technology to produce TPI 299 (hydraulic cement) to replace Portland cement to reduce greenhouse gas emissions by 10-15% under TIS standards. - The first cement manufacturer in the country to be certified with ISO 9001:2015 quality standards from international institutions. - The management system has been certified under four international standard systems, namely: Quality Management System Standard (ISO 9001:2015), Environmental Management System Standard (ISO 14001:2015), Occupational Health and Safety Management System Standard. (TIS18001:2011 and OHSAS 18001:2007) and energy management system standards (ISO50001:2011) by industrial standards of Thailand, the United States (ASTM), and the European Federation (EU). - Cement factory laboratories were certified by the Office of Industrial Standards to be in accordance with ISO/IEC 17025:2017 and TIS 17025:2018 standards.
2. Mortar Cement	
Total production capacity	3 Million TPA
Market share	One of the two largest mortar cement producers in the country.
Brand name	TPIPL
Strengths	<ul style="list-style-type: none"> - There are 43 kinds of products to respond the needs of customers. - Certified for quality management system standards (ISO 9001:2015), environmental management system standards (ISO 14001:2015), occupational health and safety management system standards (TIS18001:2011 and OHSAS 18001:2007) - Certified for the International Energy Management System (Energy Management System) ISO 50001: 2011 from the International Institute of AJA Registrars.
3. Ready mixed concrete	
Total production capacity	There are 65 batching plants in operation with a total production capacity of approximately 3.75 million cubic meters per annum.
Market share	<ul style="list-style-type: none"> - TPI Concrete is one of the three largest manufacturers and distributors of ready-mixed concrete in the country. - With a market share of 10% and 18% of ready-mixed concrete demand in the country and in Bangkok and surrounding areas respectively. - Total ready-mixed concrete production capacity accounts for 9% in the country.
Brand name	TPIPL

Products	Production capacity, strengths, technology development, and innovation
Strengths	<ul style="list-style-type: none"> - Develop green ready-mixed concrete that can reduce greenhouse gas emissions by up to 5 – 10%. - Develop ready-mixed concrete by using fly ash, a waste material from power plants, to replace cement by 50%. - Certified for quality management system standards in the scope of production and services (TIS/ISO 9002), occupational health and safety management system standards (TIS 18001:2007), ready-mixed concrete industry standard, TIS 213-2560 and business management standard that affects the environment (ISO 14001:2015) in 2021 - The first Thai ready-mix concrete manufacturer to be certified “Made in Thailand “(MiT) product by the Federation of Thai Industries. which focuses on the use of raw materials in the country.
4. Construction Materials	
Lighted Weight Concrete	<ul style="list-style-type: none"> - Production capacity of 300,000 cubic meters per annum - Certified for quality standards industrial standards TIS 1505-2541
Fiber cement (boards, ceilings, walls, floors and substitutes for wood and digital boards and door products, roof tiles etc.)	<ul style="list-style-type: none"> - A production capacity of 380,000 tons per annum. - Environmentally friendly products: a green industry to reduce energy, consumption and help reduce the destruction of trees. - The first manufacturer in Thailand that uses digital printing technology to print various images on the surface of the products, designed with natural patterns or designs according to customer requirements. - Surpassed test EN12467:2002 and A1:2006 and received CE mark - Certified International quality standard ISO 9001:2015 from British Standards Institution (BSI) and certified by TIS industrial product standard (quality standard). - Has been selected as “White Factory” at the provincial level from the Department of Labor Protection and Welfare Saraburi under the “TO BE NUMBER ONE” project since 2019. - Received a certificate for products manufactured in Thailand MIT (Made in Thailand) from the Federation of Thai Industries.
Concrete roof tiles and cover concrete floor tiles	<ul style="list-style-type: none"> - Production capacity of more than 45 million sheets per annum or more than 4 million square meters of roof area per annum - The product has been certified by TIS Industrial Standards. - Received a certificate for products manufactured in Thailand MIT (Made in Thailand) from the Federation of Thai Industries Thailand
Cement paint and others	<ul style="list-style-type: none"> - A high quality product. There are a variety of products to choose for application purposes.

Details of each product type and its properties are as follows:-

Product types	Application purpose
1. Cement	Consists of cement for structural work, molding work, foundation work, general construction work, construction work that does not require bearing heavy loads, plastering, masonry work that requires high compressive strength, oil well drilling work, anti-sulphate cement, and for decoration work, adhesive cement, etc.
2. Dry Mortar	There are about 43 types to choose according to the application purpose, well suited for plastering, masonry and surface leveling work, plastering work on lightweight blocks, tile work, multipurpose repair work, etc.
3. Clinker	Raw material for the production of many types of cement
4. Ready mixed concrete	Main products in the construction of various buildings
5. Lighted weight concrete	Can be used for both load bearing walls and non-load bearing walls
6. Concrete roof tiles products	Concrete roof tiles and decorative tiles for concrete floors and walls, etc.
7. DIY products and others	A variety of products types according to applications such as cement paint, sealant, etc.

2. Market and Competition and Industry Trends

2.1 Marketing Policy :

2.1.1 Strategic Competition

In 2022, the construction sector faces risks from rising energy costs from the Russo-Ukrainian war, which pushes up oil, transportation costs, and construction materials. Numerous uncontrollable negative factors, such as the current epidemic, interest rate increases, inflation, a weak domestic economy, weaken Baht currency, higher household debt, floods, a lack of skilled labor, rising energy prices, rising minimum wages, a decrease in purchasing power in both the domestic and foreign markets, stricter lending regulations from financial institutions, etc. continue to have an impact on the real estate sector.

The recovery of the Thai economy from tourism is anticipated by 2023. The return of foreign purchasing power from the situation of international travel returning to normalcy will be a key factor for continued economic growth. As a result, there will be an increase in the demand for housing, particularly high-rise buildings, which will drive up the demand for cement and the construction industry. The Company therefore has a competitive strategy as follows:

- **Aiming to develop products for having a complete standard for housing :** Online marketing techniques, fast, accurate, safe delivery of goods, and after-sales management are proactive competitive plans to continually produce the greatest levels of customer satisfaction for changing consumer behavior or an aging society. The Company has a dedicated research and development team that focuses on creating high-value products to satisfy customer needs. This team is also prepared to serve as a role model for the creation of new products and services, including Green Products and complete services, in the future as the Company grows sustainably to support the recovery of the economy and significant public and private sector construction projects.
- **Product quality :** The Company has a policy to develop production process efficiency as well as raw materials to produce quality products with modern technology and expand new product lines with

valuable differentiated designs at competitive prices; and arrange transportation systems to deliver products to customers as needed and with precision.

- **Price and cost :** All four cement lines of the Company are located in the same area and adjacent to the Company's limestone quarry. This gives the Company an advantage in cost competitiveness as the facilities are shared. The Company has applied new technology and production innovations to reduce heat consumption, reduce repair costs, use waste as a substitute for coal, reduce fuel consumption, as well as implement the BCG policy at every step of the value chain. This gives the Company an advantage in cement production costs.

Cement and aggregate (which are from the Company) are the main raw materials of ready-mixed concrete, fiber cement, concrete roof tiles, and lightweight concrete, which is the advantage of low production costs.

- **Quality management system and product quality development :** The Company still adheres to the quality policy with a "commitment to producing and selling quality products", allowing the Company to be the first cement manufacturer to be certified ISO 9002 international quality standards from international institutions. All products are certified to industry standards and surpass the quality standards from the quality control team before introducing the products into the market. All products are certified MIT (Made In Thailand) from the Federation of Thai Industries.

The Company has developed M299: hydraulic cement that is environmentally friendly and reduces greenhouse gas. In addition, fiber cement products such as fiber cement girdle, synthetic wood door and furniture boards are lightweighted and have the same viscosity as natural wood and is environmentally friendly. They are suitable for producing furniture parts.

In 2022, the Company was also the first Thai manufacturer of ready-mixed concrete to receive the Made in Thailand (MIT) product certification by the Federation of Thai Industries and announced to apply to government projects continuously from the year 2021 that was announced. TPI Concrete also has new innovations to be employed in the development of manufacturing methods and design of concrete products in order to continually manufacture a wide range of goods that can satisfy the concrete needs of customers, project owners, and both the public and private sectors.

- **Service :** The Company aims to create and develop a logistic system to deliver products and services to customers quickly and accurately. There are distribution centers for products and raw materials that are distributed in strategic locations throughout the country with a network to link inventory management. There are retail stores to support sales to customers for easier access to our products including roof removal and installation services for projects and general customers with a team of expert technicians under the brand "TPIPL".
- **Reputation :** The Company sells construction material products under the brand "TPIPL", whereby the Company has created a brand loyalty for the products by focusing on higher quality than general standards with good sales service and on-time delivery. A long term relationship with dealers has been established with competitive pricing. As for sales in the international market, the competition is mainly in terms of quality and price.
- **Advertising and product public relations :** Online sales channels are channels that the Company focuses on by developing application forms to reach all target groups through all online channels, including creating advertising media to promote products through social media, print media, website, mobile, Suvarnabhumi digital tv. This includes creating comprehensive awareness for customers, organizing sales promotion campaigns, and seminars with dealers with modern trade groups, using architects and engineers organizations to generate sales, utilizing design services from the architect team, and giving advice to customers in construction design and installation services from a quality installation team.

2.1.2 Characteristics of customers and target customers

(1) Cement products, ready-made mortar, lighted weight concrete, fiber cement concrete tile and cement paint

The Company sells cement and mortar cement, with approximately 70% through dealers and direct sales to construction projects, including contractors, and about 30% to consumers, without relying on sales to any particular customer as the sale of cement is distributed through approximately 1,200 dealers in the country. Approximately 30% of those are through sales representatives who only sell the Company's products (Exclusive Agents). As of December 31, 2022, the first 10 major customers (excluding TPI Concrete Company Limited and raw materials for downstream products) accounted for approximately 31 percent of the total sales volume.

As for concrete roof tiles and fiber cement, the Company sells them through over 400 dealers across the country through modern trade, project owners, contractors, direct users and through online channels without relying on any particular group.

For project customer management, the Company attaches great importance to monitoring progress as well as providing products and delivery of goods in project work closely for effective project management. Major target customers consist of:

1. Distributors for delivery to various construction projects, both private and government sectors.
2. Private and government construction projects.
3. Private and government construction contractors.
4. A manufacturer that uses it as a raw material to produce subsequent products.
5. Modern trade such as Thai Watsadu, Boonthavorn, Homework, Do-Home, Cent Mall Global House, Grand Home Mart and Mecca Home, etc., such as fiber cement products concrete roof tile and DIY products (Do It Yourself) such as TPI high adhesive cement (M501), TPI tile adhesive (M500), TPI multi-purpose repair mortar (M600), TPI super-fast drying cement (M800). As for architects' and decorators' usage, most of which are fiber cement products and concrete tiles.
6. For online customer groups, the Company has developed additional sales platforms in response to the changing market era so that small customers can access the Company's products quickly. This includes the development of retail channels by establishing "new normal" stores in order to distribute products of TPI Polene Group to reach the community thoroughly. This allows retail customers to access products and services faster and more conveniently.
7. Elderly customers are the target group that is expanding more because it is an aging society, and there are more people choosing safe construction materials and this target group also has purchasing power.

(2) Ready-mixed Concrete

TPI Concrete Company Limited ("TPI Concrete") sells ready-mixed concrete through approximately 252 dealers (no exports) without relying on any particular sales agents. As at December 31, 2022, the proportion of ready-mixed concrete sales volume through dealers and direct sales accounted for 48% : 52% of total sales volume in the country.

TPI Concrete continues to focus on sustainability policies in business operations, BCG and ESG, NET ZERO campaign to save the world, reduce carbon production, help reduce greenhouse gases and reduce global warming, such as using hydraulic cement to replace Portland cement. Therefore, ready-mixed concrete is created to lessen global warming by using hydraulic cement as a raw material for the production of ready-mixed concrete or low-heat concrete that aids in reducing heat accumulation in large structural concrete and increasing the durability of concrete to be able to withstand various environments well. In keeping with the aforementioned trend, this product is also used for the construction of green buildings in accordance with LEED and TREES standards.

The principle market for TPI Concrete is in Bangkok and its vicinity, which is the country's largest ready-mix concrete market. ONE BANGKOK and DUSIT CENTRAL PARK are two of TPI Concrete's clients, which total at least two iconic projects in Bangkok. The Company believes that TPI Concrete has a share of 18% in this market. The government sector will speed up its building projects in 2022, notably the big ones like the Thai-Chinese high-speed rail project, Bangkok-Nakhon Ratchasima, with construction along the route, and the third Runway Construction for Suvarnabhumi Airport, etc. The private sector is scattered in all types such as condominium buildings, low-rise villages, factories, department stores, and modern trade department stores.

TPI Concrete has production units located along every major road in Bangkok and its vicinities, as well as in major provinces that are growing throughout the region to support large investment plans of the public and private sectors, resulting in a continuous increase in sales of large projects, which is a factor supporting the growth of TPI Concrete's ready-mixed concrete business. Its key target customers are as follows:

1. Distributors to further deliver to smaller customers
2. Construction projects and contractors
3. Franchisees throughout the country with a production system and the distribution system in the form of business methods in the same standard as TPI Concrete.

2.1.3 Distribution and distribution channels

The Company sells cement and clinker through distribution channels in both domestic and international markets. Proportion of domestic to export is about 71%: 29% of the total sales volume of the Company. For distribution of fiber cement products, proportion of domestic sales to exports is approximately 25%: 75% of the total sales volume. For distribution of concrete tiles, proportion of domestic sales to exports is approximately 90%: 10% of the total sales volume.

- Domestic sales

The Company delivers cement and mortar from the factory to customers through three delivery channels: trucks, rail, and by ships. Cement plants are located at Kaeng Khoi District, Saraburi province, with 13 warehouses strategically located throughout the country, with the delivery of cement both in bulk and packed in bagged cement. This allows the Company to deliver cement to approximately 1,200 dealers countrywide and distribute products to retail customers in different areas in the quantity that the customers require. The Company has used trains to transport cement by rail to warehouses and cement distribution terminals throughout the country. This can reduce transportation costs for TPI Polene Group and develop the Company's cement transportation system to be faster and more efficient.

Fiber cement and concrete roof tiles products and other construction materials are transported by truck.

The Company determines the average collection period with general customers whereby customers must place collateral, which can be summarized as follows:

- 1) A period of 60 days for domestic cement sales,
- 2) For the sale of cement to export borders, it will be sold only in cash.
- 3) A period of 60 days for selling fiber cement and concrete roof tiles products
- 4) A period of 60 days for the sale of ready-mixed concrete

- Overseas Export

The Company mainly exports in clinker form and there is some cement and mortar. The largest export markets are Bangladesh, China and ASEAN countries.

The Company also exports fiber cement and concrete roof tile products to Australia, New Zealand, the Middle East, Asia Pacific Islands and Europe. In 2022, the volume of construction materials exports has shrunk in parallel to a slowdown in the domestic real estate sector in the CLMV region (ASEAN Group in the Mekong Region). The Company has expanded its exports to new markets such as America, Australia, New Zealand, South Africa, India, Brunei and Europe, etc

For export sales transported by ship, the Company sells at FOB price or Ex-Factory price by accepting payment for goods through issuance of letters of credit and telegraphic transfers.

2.2 Market conditions and competition and industry trends

Market conditions and domestic competition

Company	Production capacity as of December 31, 2022 (mil.tons)	Market share (%)
1. Siam Cement Group Public Company Limited	23.0	38.2
2. Siam City Cement Public Company Limited	14.7	24.4
3. TPI Polene Public Company Limited	13.5	22.4
4. Asia Cement Public Company Limited	5.0	8.3
5. Jaraprathan Cement Public Company Limited	2.3	3.8
6. Thai Pride Cement Co.,Ltd.	0.9	1.5
7. Cemex (Thailand) Co., Ltd.	0.8	1.4
Total	60.2	100.0

Source : Estimated from the Company based on information from the cement industry group, the Federation of Thai Industries (CTMA).

Note : (1) A licensed or registered production capacity, which may differ from actual production capacity depending with machine maintenance and machine efficiency.

Estimated production capacity of cement manufacturers in Thailand ⁽¹⁾

As for the supply of cement in Thailand, the rated capacity of all cement manufacturers is approximately 60.2 million tons per annum, but practically, there are some manufacturers whose factories have a long-term, useful life and there are some machines that are no longer working. In addition, the above mentioned capacity figure is calculated based on the assumption that the production line does not stop for repairs or maintenance or for other reasons, or through production line stoppages when the machinery is obsolete or having higher production costs per unit. This does not benefit from the cost savings from the economies of scale, resulting in the actual production capacity not being equal to the rated capacity. The Company anticipates that the actual cement production capacity in the country is only 40 - 45 million tons per annum, with approximately 45 million tons of domestic demand, and the remaining 12 million tons of cement (or about 36% of the current Domestic Cement Demand) or equivalent to 10 million tons of clinker being exported for distribution in international markets.

Cement Industry

- Domestic Market

In 2022, cement demand consumption in Thailand was approximately 32 million tons, from about 32 million tons in 2021 as the country's overall economy continued to stagnate due to the spread of the COVID-19 pandemic. The situation began to improve in the fourth quarter as COVID-19 was declared a local disease and the severity of the disease began to decrease. In addition, the price of agricultural products, especially rice and fruit, tends to be better than last year, resulting in cement consumption

starting to improve and tend to be better in 2023.

In 2023, the Company expects the demand for cement in the country to grow accordingly, supported by investment in the construction of utilities, mass transit systems, and transportation networks in the central and regional areas of the public and private sectors to support the growth of GDP in the country. In addition, the entry into the ASEAN Economic Community (AEC) will result in increased investment in facilities for special economic areas announced by the government which will increase demand for cement for both the public and private sectors.

- International Markets

Cement and clinker exports in the first half of 2022 improved compared with 2021 as the COVID-19 epidemic situation subsided. Many countries began to import more construction materials due to the expansion in the construction industry. However, due to the Russo-Ukrainian war, the price of coal and oil has increased, leading to global inflation, which affects production costs, and China continues to shut down the country and China's policy of not importing clinker has hindered export sales in the second half of 2022.

The Company's main cement export markets are China, Bangladesh, and ASEAN countries where the demand consumption for cement continues to depend on the rate of expansion and infrastructure development of these countries.

Ready - Mixed Concrete Industry

Major competitors are Construction Products & Materials Co., Ltd. (CPAC), Siam City Concrete Co.,Ltd., Asia Concrete Co.,Ltd. and TPI Concrete Co., Ltd.

In the year 2022, during the first quarter, the situation of the COVID-19 virus outbreak began to be relaxed by the government, causing the public spending to increase. The war between Russia and Ukraine resulted in high fuel prices and continually rising coal prices, affecting the cost of raw materials used to produce concrete. As a result, concrete producers have increased their selling prices in line with rising production costs. High-rise construction projects, which had slowed down, began to launch projects from large real estate developers. Low-rise housing projects are still more accepted by the market, especially townhomes and single detached houses priced at Baht 3-5 million. However, the high rate of inflation and the tendency of interest rates to rise have helped to increase the selling prices of projects from the previous year, and this is the reason why consumers are concerned about buying real estate projects because the purchase cost of consumers is higher, along with the high level of household debt, which reduces the potential to buy housing.

For the year 2023, it is expected that the economy and the real estate market will recover more clearly and the situation of the ready mixed concrete market will begin to improve and tend to improve. The policy to open the country to tourists, the launch of several major real estate developers' condominium projects in late 2022, including policies that are directly beneficial to real estate developers, such as policies to stimulate domestic demand to recover. The acceleration of various government projects has been gradually launched since mid-2022, including the Purple Line Project under Tao Pun - Rat Burana, the Ekachai - Ban Phaeo Expressway Project Phase 2, a double-track railway, high-speed trains, and EEC (Eastern Special Development Zone Project), etc. This will help promote the use of ready-mixed concrete in 2023 to grow higher.

Lightweight Concrete Business

There are about 6 major manufacturers with key trademarks, such as Siam Cement Plc., (Q-CON Brand), TPI Polene Plc. (TPI Block) Thai Light Block & Panel Plc. (Thai Con Brand), Diamond Building Products Plc. (Diamond Block Brand), Siam City Cement Plc. (Insee Super Block) and Smart Concrete Plc (Smart Block Brand). The Company's Lightweight Concrete business is in line with the overall construction materials market.

Fiber Cement/Concrete Roof Tile Businesses

There are approximately 6 main manufacturers, such as, Siam Cement Plc., (SCG Brand) and (CPAC) Diamond Building Products Plc. (Diamond Brand), TPI Polene Plc. (TPI Brand), Siam City Cement Plc. (Conwood Brand), Mahaphan Fiber Cement Co., Ltd. (Mahaphan Brand) Co., Ltd. and Oran Tiles Co., Ltd. (Oran Brand). Major manufacturers with their own cement plants will have the competitive advantage of controlling production costs.

- Domestic Markets

In 2022, the conflict between Russia and Ukraine resulted in delays in construction work and increased energy and construction costs. Skilled labor shortages, inflation, and rising interest rates are the factors that pressure the slowdown in the construction sector among large operators. There is a paucity of liquidity for small and medium-sized businesses. New construction work, both horizontal and vertical, stopped to wait and see the situation. In this part, it has a direct impact because it is the main customer base, affecting both in terms of distribution of products and services throughout the supply chain. Demand is less than supply, resulting in high price and service competition in the fiber cement and concrete tiles businesses. Every manufacturer focuses more on service or media to reach customers.

The construction industry in 2023 is expected to gradually recover from the continued work of government mega projects. Private sector projects in the category of high-rise buildings expand in urban areas along the electric train lines and horizontal lines in the perimeter according to the needs of target groups. The room service real estate model is expanding.

- International Markets

The main export market for fiber cement is Australia, New Zealand, Middle East countries, Asia and Europe. The export market of fiber cement and concrete tiles is Myanmar. In 2022, export of fiber cement and concrete tiles to the Myanmar market is likely to be slowed due to political uncertainty, but the Company maintains its existing customer base in China, Bangladesh, and in ASEAN countries and aims to expand exports to Australia, New Zealand, Middle East countries and Asia and Europe.

Factors affecting opportunities or constraints of business operations

As for competition from new entrepreneurs, the Company believes that barriers to entry are quite high since cement producers in Thailand must obtain a cement production license with a certain production volume. In addition, the cement business is Capital Intensive. Concurrently, limestone, main raw materials from limestone mining in Thailand for cement production is quite limited. Entrepreneurs should therefore receive concessions for business competition, making it difficult for new competitors to enter the business.

As for the ready-mixed concrete, fiber cement, concrete roof tiles and light weighted concrete businesses, the main raw materials are cement. Therefore, most operators have cement plants themselves. This is an advantage in controlling the production costs. In addition, the construction of the batching plants must have permission from the relevant government agencies, in terms of machine types, unit sizes, and environmental protection that must meet standards. These plants must be licensed to store cement, and have utility consumption, both electricity and water supply, which all constitutes the limitations and obstacles of new manufacturers entering this business.

3. Sourcing of products or services

3.1 Production Facilities

TPI Polene Group operate plants as follows:

(1) Four cement production lines, with total capacity of 13.5 million tons per annum are located in Kaeng Khoi, Saraburi province, which uses a “dry production process” using rotary kilns and heating towers, cement storage silos, office filling lines, and joint production control tools for most machinery in cement plants. The Company bought this equipment from Krupp Polysius AG of the Republic of Germany, a company renowned for its mortar machinery. As for machine maintenance, the Company shuts down production plants to repair equipment and machinery every 11 months (mainly kiln maintenance), which takes about 20 days to close and repair.

(2) Three mortar cement plants with a total capacity of 3,000,000 tons per annum are located in Kaeng Khoi, Saraburi Province. The Company purchased mortar machinery from Krupp Polysius AG and PFT Putz–Und Fordertechnik GmbH. of the Republic of Germany, which is also renowned for mortar machinery.

(3) Lighted Weight Concrete plant with a production capacity of 300,000 cubic meters per annum, located in Kaeng Khoi, Saraburi province, with modern machinery from abroad. The plant can use more than 90 percent of the raw materials produced by the Company itself, including the use of electricity and steam surplus from existing power plants for use in the lighted weight concrete production processes, leading to a competitive advantage in terms of low production costs.

(4) Concrete roof tile plant and fiber cement plant are located in Chaloem Phra Kiat, Saraburi province, which consists of:

(4.1) Concrete roof tile plants: manufacturing of concrete roof tiles and covers, including concrete slabs, with a production capacity of approximately 45 million sheets per annum.

(4.2) The Company has four production lines of fiber cement. The production capacity is approximately 380,000 tons per annum, which consists of:

- Board products and wood replacement materials with Autoclave System
- Product group wooden and digital board replacement materials with Autoclave System includes air-cured tiles and Air-cure covers.

(5) Ready mixed concrete: 67 batching plants with a total production capacity of approximately 3.88 million cubic meters per annum.

3.2 Procurement of main raw materials

The main raw materials used in the production process of clinker are limestone and Alumina Shale. The calculation of the components of raw materials in the production of cement depends on the quality and use of each type of cement.

The Company operates its own mining business and its own trucks, including equipment and conveyor systems, and limestone crushers used in mining operations. The Company has its own limestone and shale quarry in the area adjacent to the Company’s cement plant for providing main raw materials from third parties used to produce cement and other construction materials as follows:

Raw material	Sources	No. of suppliers	Proportion of raw material purchases (%)	
			Domestic	International
Cement Production				
limestone	Limestone from the quarry under limestone concession	-	-	-
shale	Shale from the quarry under shale concession	-	-	-
Iron Ore (copper slag)	Imported from Japan	1	-	100
Gypsum	Purchased under 1 year contract	1	100	0
Bituminous	own processing plant / Purchase under contracts from time to time	2	100	0
Coal	Mostly imported from Indonesia under long-term contracts and spot price.	6	70	30
Waste-based fuel	Purchased from TPIPP.	1	100	0
Ready-mixed concrete production				
Cement	TPI Polene Plc	1	100	0
Aggregate	TPI Polene and 10 aggregate crusher companies	11	100	0
Sand	Tha SaiContractor, Kanchanaburi Province, Chonburi, Rayong, Nakorn Ratchasima, Udon Thani, Ubon Ratchathani, Lamphun, Chiang Mai and Ang Thong Province	22	100	0
Water	Water Metropolitan Waterworks Commission	1	100	0
Catalyste	Local suppliers	2	100	0
Fiber Cement Group				
Cement	TPI Polene Plc	1	100	0
Sand	Tha Sai Contractor, Kanchanaburi, Chonburi and Ang Thong Province	11	100	0
Cellulose fibers	Imported from New Zealand Chile, Sweden and the United States of America	6	0	100
Synthetic Fiber (PVA)	Imported from China and Japan	3	0	100
Micro silica	Local suppliers	2	100	0
Watercolor	TPI Polene Plc/ overseas suppliers	2	30	70
Concrete Roof Tile				
Cement	TPI Polene Plc	1	100	0
Crushed Stone	TPI Polene Plc	1	100	0
Sand	Local suppliers	6	100	0
Coated Paint	Local/ overseas suppliers	4	30	70

In addition, the cement business operation requires a reserve of limestone and shale and long-term concessions must be permitted by governmental authorities. Details of the Company's concession are as follows:

Location	Types of mineral substance	Number of limestone concession (issue)	Remaining lifetime of concession	Expiry date
Saraburi province	Limestone, shale and cement soil	28	1-30 years	2023 - 2057

Note: The Company's all concession certificates have already been renewed

3.3 Raw material problems

As the Company has operated its cement business for a long time, we are able to manage raw materials procurement quite well, under short and long-term contracts with many vendors in the local and international markets, and have no policy of relying mainly on any particular supplier to ensure adequate raw material procurement.

II. Petrochemical and Chemical Industry

1. Product characteristics, production capacity and strengths

Products	Production Capacity, Strength, Technology development and innovation
(1) Specialty polymer	
Production capacity	158,000 TPA
Market share	Market share of LDPE and EVA plastic resins account for approximately 10% and 60% of the total domestic consumption, respectively.
Proportion of domestic sales	Proportion of LDPE and EVA plastic resin sales in the domestic market to overseas sales are 100 : 0 and 15 : 85 respectively
Brand	Polene®
Strengths	<ol style="list-style-type: none"> 1. One of the top leading manufacturer of high quality LDPE (Low Density Polyethylene) resin in the domestic market. 2. The only manufacturer in the country that can develop EVA (Ethylene Vinyl Acetate) resin production technology for all types of applications. 3. Use tubular production technology, a continuous process that is twice as efficient as the autoclave system of its competitors, resulting in lower production costs per ton. 4. Consistently developing machine efficiency and production technology until high-cost special grade EVA can be produced and sold in the Niche Market continuously. 5. Efficient production system and flexibility, which can quickly adjust production plan according to market situation. 6. Has continuous research and development of products and production technology and is the only manufacturer in Asia that has research and development capabilities to produce new product samples and actually test the product.

Products	Production Capacity, Strength, Technology development and innovation
	<p>7. Certified to all three industry standards: Quality Management System (ISO 9001:2015), Occupational Health and Safety Management System Standard (ISO45001:2018) and Environmental Management System Standard (ISO 14001:2015)</p> <p>8. Participated in the Green Industry Project of the Department of Industrial Works, Ministry of Industry to be the 3rd level green system factory with systematic environmental management with a follow-up and review for continuous development.</p> <p>9. The product received MiT certificate (Made in Thailand) from the Federation of Thai Industries.</p>
(2) EVA Solar Sheets Business	
Production capacity	20,100 TPA
Brand	Polene Solar® , Vistasolar® , VistaSafeTM
Strenghts	<ul style="list-style-type: none"> - Manufactured and distributed by TPI All Seasons Co.,Ltd. (99.99% owned-subsiary Company) - Certified quality management system in accordance with ISO 9001:2015, ISO14001:2015 and ISO 45001:2018 - The main product is EVA Encapsulate film used in the production of solar panels. - New products have been developed into the safety glass market to replace the traditional plastic used in the aforementioned industry, which has a high price.
(3) EVA Emulsion and EVA Powder	
Production capacity	20,000 TPA
Market share	Market share of EVA Emulsion and EVA Powder account for approximately 40% and 30% of the total domestic consumption, respectively.
Proportion of domestic sales	Proportion of EVA Emulsion and EVA Powder sales in the domestic market to export sales are approximately 30 : 70, respectively.
Brand	Polene®
Strengths	<ul style="list-style-type: none"> - The first and only company in the country to have the propriately technology to produce and sell EVA Emulsion and EVA Powder to market. - Utilize the infrastructure and core raw materials of the plastic resins plant, reduce construction costs, management and higher quantity of raw materials, also increase the negotiating power of imported raw materials from importers. - Ethylene gas and Vinyl Acetate must be disposed of from the process of producing plastic resins to be used as raw materials, enable to reduce production costs and reducing emissions to communities and the environment. - It has been transferred from Japan on water-based glue production technology and has continued research and development with the development of water-based glue and pilot spray dry to produce samples of new grades of glue powder. - Certified quality management system (ISO 9001:2015), occupational health and safety management system standard (ISO45001:2018) and Environmental Management System Standard (ISO 14001:2015) - The product received MiT certificate (Made in Thailand) from the Federation of Thai Industries.

Products	Production Capacity, Strength, Technology development and innovation
(4) Ammonium nitrate and nitric acid	
Production capacity	Annual production capacity of 95,000 tons of ammonium nitrate and 24,500 tons of nitric acid.
Strengths	<ul style="list-style-type: none"> - Operated by Nitrate Thai Co., Ltd. (99.99% owned subsidiary Company) - A manufacturer of ammonium nitrate. Largest in Thailand - Received industry standard (TIS) and international standards for quality management systems including ISO9001:2015, ISO14001:2015, ISO45001:2018, ISO5001:2018, ISO17025-2017 and HALAL. - Received MiT certificate (Made in Thailand) from the Federation of Thai Industries. - Certified as Green Industrial Level 3 Green System from Department of Industrial Works, Ministry of Industry

Details of each product type and properties of the products are as follows:

Products	Properties of the products
(1) Specialty Polymer	
(1.1) LDPE (Low Density Polyethylene)	<p>(1) Film work such as plastic bags containing general merchandise, market bags. Clothing Bags Industrial Bags Food bags, films used to make shock-proof materials, shrinking films, pond foundation films, nursery films, etc.</p> <p>(2) Blowing work such as blowing, making salt water bottles, drinking water bottles, foam tubes, face washes, etc.</p> <p>(3) Injection molding such as water stopper spray, vegetable oil bottle, canned cap, snack cans, and home appliances such as baskets and food containers, as well as toys that need soft workpiece characteristics.</p> <p>(4) Coating or splicing, such as film coating on paper sheets. Snack bags, coffee sachets and aluminum foil surfaces such as dry food packs, shampoo packets, etc.</p>
(1.2) EVA (Ethylene Vinyl Acetate)	<p>(1) Foam and tread of shoes such as foam, soles, healthcare slippers, foam for children's toys, etc.</p> <p>(2) Film coating, paper or splicing, such as multi-layer flexible packaging, plastic coated paper bag, plastic coated paper, etc.</p> <p>(3) Electrical and communication cable cladding to prevent electromagnetic waves from interfering and not releasing toxins when combustion occurs, such as medium-voltage power lines, subway power lines or in enclosed tunnels. Fiber Optics, Coaxial Cables, etc.</p> <p>(4) Hot melt is used to connect materials such as hot glue to book ridges, edge glue and furniture surfaces. Hot Glue To Product Box Labeling waterproof products, etc.</p> <p>(5) Glass films such as EVA Encapsulate are used in the production industry of solar panels, safety glass lamination films, etc.</p> <p>(6) Printing inks such as Gravure Ink Binder, silkscreen ink on shirts and sports equipment, etc.</p>

Products	Properties of the products
(2) EVA Solar Sheets	
(2.1) Polene Solar® and Vistasolar®	<p>It is a component in the production of photovoltaic modules, which act as adhesives to attach all components of solar panels. It has significant properties to protect the lifespan of solar panels in accordance with IEC61215 standards, consisting of 2 brands as follows:-</p> <p>(1) Polene Solar® Film</p> <p>(2) Vistasolar® Film, the most famous and oldest plastic film in Europe, was established in 1982. TPI All Seasons Co., Ltd. acquired Vistasolar® Films in 1984 and relocated to Thailand.</p>
(2.2) EVA Interlayer under the brand VistaSafe™	For laminated and tempered glass, as well as building and automotive glass.
(2.3) Blown Film	It is a plastic film that uses the technology to blow the film in forming, divided into wrap film, top sheet and masking film.
(2.4) EVA solar sheets	It is a versatile plastic film and anti-slip pad for use in preventing slippage or scratch-out in the house, such as in the kitchen, in the living room or in the bathroom.
(3) EVA Emulsion and EVA powder	
(3.1) EVA Emulsion	<p>(1) Packaging adhesives, especially for smooth surface materials or glossy paper, such as waterproof coated box adhesives, premium box adhesives, waterproof labeling adhesives, etc.</p> <p>(2) Wood, furniture and carpet adhesives such as PVC lamination, plywood adhesive, carpet floor adhesive, etc.</p> <p>(3) Mixed-site construction to increase adhesion and flexibility, such as smooth surface adhesive mortar. Thin skin plastering road preparation work to reduce dust, etc.</p> <p>(4) Non-woven fabric work</p> <p>(5) Building coatings free of volatile organics and odors such as indoor paints, etc.</p>
(3.2) EVA Powder	<p>EVA Powder is a soluble product that has adhesive properties using water glue, commonly used to mix in finished mortar products and construction materials in the form of powder.</p> <p>(1) Adhesion enhancement work such as adhesive mortar and high adhesion cement to help adhere to oily concrete surfaces and original tiles that do not absorb water well.</p> <p>(2) Flexible and waterproof work such as Plastering and Skim Coat for finish coat plaster on ultra-smooth and oily surfaces and protect against water.</p>
(4) Ammonium nitrate and Nitric acid	
(4.1) Ammonium nitrate	<p>Used in cement manufacturing industry, coal mine, construction industry and production of Nitrous</p> <p>Oxides used in the medical field</p>
(4.2) Nitric acid	It is used to clean metal surfaces in industries such as stainless steel, electronic industry, automobile industry, rubber glove industry, solar panel manufacturing industry, and used in the production of nitrocellulose for coating applications.

2. Marketing & Competition and Trends of the Industry

2.1 Marketing Policy

2.1.1 Competitive strategy

The Company has advanced production technology and machines that can support multi-grade production for all customers' purposes, so the Company has the advantage of producing products in grades that suit market demand situations and competitive prices. Furthermore, the Company also focuses on product quality to consistently have high qualified and stable properties. The Company has a skilled technical team to serve customers before and after the sale, monitoring product quality, as well as providing advice on the variety of plastic resin products. In addition, the Company has modified the machinery and thoroughly developed the customer's formulations, which helps to increase confidence and reliance. As a result, the Company can consistently and sustainably price products above the market price but also satisfy the demand of customers in the domestic market and international markets.

- **Price and cost :** The Company has developed production efficiency with its own R&D team, focusing on developing grade production that requires advanced technology. There are few competitors and a high proportion of profits, and with the use of high-efficiency production technologies as well as regular development and improvement of machinery. The Company can increase productivity, enabling the Company to have the advantage of the cost of raw materials per ton in these special grades. This reduces routine expenses and increases the profit margins of goods, thus gaining an advantage in terms of production costs.

In addition, the Company continues to improve machine efficiency by developing in-house technologies and its personnel with more than 40 years of manufacturing experience, together with the use of ERP: Enterprise Resources Planning technology and artificial intelligence data analysis. The Company plans to increase production rates without the need for a substantial investment to purchase all new machines, and has adopted an Enterprise Asset Management (EAM) system to increase efficiency and reduce the cost of systematic maintenance of machinery, as well as reduce the risk of stopping production due to damaged equipment. This contributes significantly to the Company's overall plastic resin production rate.

- **Product Quality and Quality Management System :** The Company has the policy to focus on producing quality products as the market situation is dynamic. The Company has adopted information management software and quality assurance systems to help plan, control, and operate to facilitate the organization's operations to be functioning efficiently. This ensures that the quality needs are met according to the Company's goals and with a management system that focuses on product quality and the quality of work safety of the organization. As a result, the Company has achieved various important ISO standards such as ISO 9001, quality system standards, which govern both the design and development of production, installation, and service; ISO 14001, environmental management system standards, focusing on the organization's continuous improvement of the environment; ISO 45001:2018, occupational health and safety system standards; and CSR-DIW, social responsibility standards.
- **To develop into a market that is more technology-driven :** with the transformation of the surrounding technology, the Company has increased production efficiency by using advanced production technology, being able to produce special grade products that cater to a more promising and environmentally-friendly market, such as solar panel production. The Company does not focus solely on the quantity in normal grade production but on technology, which is used in various processes with the linkage from starting to finishing process to increase growth and profitability. The Company also aims to create a green society for the future and research for the methods to reduce waste emissions, such as reusing ethylene released from EVA plastic resin production processes to benefit the production of EVA emulsion. This reduces costs and reduces pollution to the surrounding communities and the

environment. The Company also improved machines that can reduce the use of various types of energy, including some waste from production that occurs, such as waste from the production of water glue. The Company has also improved and delivered waste from production to be used as fuel for power generation in our Saraburi plant, and the Company continues to monitor and look for ways to deploy technologies to support the technology market that will change in the future.

- **Service** : The Company attaches importance to continuously managing good long-term relationships with customers. The Company can increase its production potential for high-value special grades that is already a trend of continued future growth. The Company continues to produce regular grades or produce some premium products to maintain existing customers who have long-standing relationships. The Company has also introduced customer relationship management (CRM) software to help manage intercompany relationships with customers to help create processes and develop new products according to customer needs systematically, and to collect complaints, ensuring that all issues are tracked and revised to respond to customer needs quickly, as well as increase the performance of the Company's agencies in another way.
- **Reputation** : The Company sells products under the trademark "Polene" with the policy of producing high-quality products and providing good sales service, including on-time and accurate delivery, creating good relationships with dealers and setting competitive prices. The Company strongly believes in the reputation of its products, its continuous treatment and improvement of product quality, improved production machinery to keep up with advanced technology and high production efficiency, to entrust customers that we have good quality products, and to create sustainable satisfaction for customers.

In terms of short- and medium-term competitive strategies, the business has kept up with increasing production capacity for high-value goods, whose output is constrained by the complexity of the manufacturing process, product features, and technical constraints of the machines. The Company expects to increase the production capacity of these special grades back to the maximum production rate of the machine (Nameplate Capacity), which will increase the overall production capacity by at least 10% within 2 years including developing other special grade EVA products that are available in the market and there are fewer manufacturers to complete in order to reduce dependence on Commodity Products in highly volatile markets.

For the long-term competitive strategy, the Company has a policy to change its products to Specialty Polymers in addition to LDPE and EVA. It is a plastic resin with more complex composition and chemical structure by improving production technology and machinery to be more flexible. Such products have better features, higher prices, and limited production in Europe and America. None of these production methods are able to be sold by any business like other fundamental petrochemical goods. Due to this, the business must first conduct research and develop such know-how using a specialized pilot reactor it has already built that can react at pressures of up to 3,000 bar in order to produce samples for testing and test new markets before developing the technology to be used in the actual production line in the future. The Company expects to start producing new specialty products by 2024.

2.1.2 Types of Customers and Target Group

(1) Specialty Polymer

LDPE plastic resin is sold only in the domestic market for customers who particularly need high premium products from the Company – these are all customers who have a long-standing relationship with the Company. The remaining 90% of EVA plastic resin products sold in both domestic and international markets is approximately 15:85, respectively, exported through Polene Plastic Co., Ltd. to various countries such as China, India, South Asian countries, and Southeast Asian countries. Target customers are divided by business, covering a wide range of industries, such as solar, foam business, construction businesses, packaging businesses, printing materials business, consumer goods, and group industrial materials.

(2) EVA Solar Sheets

TPI All Seasons Co., Ltd. manufactures and sells various types of EVA products, mainly producing solar films for sale to solar panel manufacturers. It also produces and sells EVA Interlayer films to laminated glass manufacturers, tempered glass and decoration glass, as well as producing and selling multi-purpose films to general users.

This constitutes 92% of solar film products sales and 8% of other EVA products, with approximately domestic solar film products sales to export sales at approximately 7: 93 percent, with most customers being customers in European countries.

(3) EVA Emulsion and EVA Powder

Customers of EVA Emulsion and EVA Powder are mainly manufacturers in the packaging box industry, furniture industry, the printing industry, and the construction industry, which needs a combination of added adhesion to materials, especially smooth surface materials, where there are no models that general adhesives cannot be attached to and require flexible adhesives that can be used in a variety of temperatures. EVA Emulsion and EVA Powder account for about 30:70 percent of domestic and export sales respectively, with most international customers being customers in China, India, Southeast Asia, and Middle East Asia.

(4) Ammonium Nitrate and Nitric Acid

Thai Nitrate Co., Ltd. sells products to customers in the cement business, mining, construction industry, medical industry, and customers in stainless steel, electronics businesses, automobiles, rubber gloves, and solar panel manufacturing industries.

The Company sells ammonium nitrate, representing 70% in domestic market and 30% to international markets, and sells nitric acid in the domestic market, representing 90% and 10% to international market customers, exporting to Myanmar, Laos, Cambodia, Vietnam, Malaysia, Pakistan and Singapore.

2.1.3 Sales and distribution channels**(1) Specialty Polymer**

The Company sells plastic resin products both in domestic and international markets, mostly through agents to dispatch plastic resin products to both large and retail customers. These agents, in addition to servicing existing customers and finding new customers, also help coordinate sales and customer service through the Company's technical team, enabling thorough and efficient customer service. The number of agents depends on the suitability of the country and the customers' market conditions. The proportion of direct sales per agents accounts for 10%: 90% respectively.

(2) EVA Film Group Products

TPI All Seasons Co., Ltd. sells products to manufacturers that use them directly with a direct-to-sale ratio of 90%:10% respectively.

(3) EVA Emulsion and EVA Powder

TPI All Seasons Co., Ltd. sells EVA Emulsion and EVA Powder both domestically and exports to international markets. Most of them are sold through agents based in different regions of these target countries and they are responsible for coordinating sales and customer service, with a direct-to-dealer sales ratio of 40%:60% respectively.

(4) Ammonium nitrate and nitric acid products

Thai Nitrate Co., Ltd. sells such products through 14 distributors with a direct sales ratio of 40% : 60% respectively.

2.2 Market and competition conditions and trends of the industry

2.2.1 Market conditions and domestic competition

(1) LDPE and EVA plastic resins business

Market Conditions and Competition

Although in the past year 2022, the overall economic situation of Thailand and Asia continued to fluctuate with positive factors from the opening of the country and the situation of COVID-19 that began to improve causing the domestic and regional economies to recover. However, the recovery was also pressured by the zero COVID-19 policy and China's real estate woes, limiting the manufacturing sector involved in exports to the region. In addition, a major negative factor in the economic recovery is the energy crisis caused by the protracted war between Russia and Ukraine, causing the cost of utilities, electricity and other energy to skyrocket, resulting in inflation. This was followed by an increase in interest rates from policies in many countries in the hope of reducing inflation, which in turn negatively affected overall economic growth and investment. In addition, increasing interest rates in different countries also results in exchange rate volatility, resulting in a significant depreciation of Baht currency, which affects both negatively and positively to importers and exporters as well.

Overall domestic demand for EVA resins has decreased as a result of the aforementioned volatility, while international demand has surged significantly as a result of a sharp rise in the demand for solar panel installation. This is because the price of electricity from solar panels is cost-effective compared with electricity from natural gas or fossil fuels, which are continuously increasing, awareness of global warming (Climate Change), and a policy to reduce the emission of carbon dioxide and various greenhouse gases (Green House Gases). An analysis of the media in China has projected an increasing demand for solar panels of up to 500 GWatt per year by 2023, growing by more than 30% in China and more than 25% globally. As a result, regional demand and supply circumstances for EVA are consistently quite balanced. Demand for EVA resin is growing as a result, but supply has been slowing due to pressure from new producers from 2020-2021.

Additionally, since the Company's primary raw material imports and export product sales are the lifeblood of the business based on the US dollar, the Specialty Polymer Business, which includes EVA resins, water-based adhesives, powder adhesives, and solar films, was not impacted by Baht fluctuations. As a result, the Company keeps up its complete resin production operations and keeps its attention on producing special grade EVA resins, which are highly valuable and in high demand.

Future trends

The Company forecasts that the demand for EVA plastic resin in the next 1-2 years will continue to increase, mainly due to the increasing demand for solar panels. The main factors are from the high energy and fuel prices or from the higher demand for electric power from the popularity of Electric Vehicle or from the policy to promote renewable energy to reduce carbon dioxide and global warming (Climate Change) coupled with the price of solar panels being significantly cheaper, resulting in the cost-effectiveness of electricity generation. In addition, the demand for EVA plastic resin in wire and signal cables has continued to be demanded from the demand for cars that started to expand after the COVID-19 situation began to subside and the demand for electric cars is growing exponentially. Additionally, the shift in customer behavior toward online purchasing necessitates the use of strong, waterproof packaging and quicker production processes. It is also influencing the continual increase in demand for EVA resins used in hot melt adhesive applications on substrates that are challenging to adhere to.

Regarding the new producers, despite the fact that one new EVA resin factory in the area is scheduled to start operations in early 2023, the volume growth is still a tiny percentage of the new plants added in the years 2020–2021. The completion time for the approximately ten new construction projects and the two to three new projects under study is two years. The Company expects that the EVA resin market will remain relatively less volatile and have a high product-to-feed margin. However, these basic plastic resin prices should be under pressure to remain low and fluctuate significantly in the future compared with other types of basic plastic resins that will have many new manufacturers commencing their operations in late 2022 to 2023.

Factors affecting opportunities or limitations of business operations

In the LDPE and EVA resin business, most manufacturers opt for base technology or industry-specific grades due to the high technology investment costs and manufacturing complexity. In addition, newly built plants tend to use large machines with high capacity. Although these plants have the benefit of Economy of Scale, they lack the adaptability to easily modify different grades in response to the fast changing environment, and producing plastic resins for a niche market is not economically feasible. Despite the good price, the quantity is usually not large and requires the specific expertise of the personnel in the Company to customize the product and reach these customers, including the need to develop machinery and technology to be appropriate and consistent with these specific products as well.

For these reasons, LDPE and EVA plants are therefore divided into two groups: general manufacturers, usually large and new manufacturers, and specialized manufacturers, often small or medium-sized plants that have been in the business for a long time and have consistently developed technology. The Company is aware of the limitations in production capacity, machine advantages, technology and manufacturing experience. Therefore, the Company will try to turn into a success as specialized manufacturers and continuously develop and improve machines in products that require higher technology as an alternative. To the Company, there is also the opportunity to continue to make profits in the long term.

(2) Solar Film Business

Market Conditions and Competition

Given the global awareness of the Paris Agreement's greenhouse gas emissions reduction targets, which has a positive impact on clean energy businesses, especially solar power generation, the demand for solar panels in the global market continues to increase drastically. With the global market's demand for solar panels, which are currently greater than solar film capacity, solar film prices have risen and are expected to increase consistently. Solar film is a business with few manufacturers, as production requires specific technologies, and products must be tested in accordance with IEC61215 standards.

In 2022, TPI All Seasons Co., Ltd. increased the production and distribution of solar film products for the domestic market as the government has a policy to support the solar panel manufacturing business. International markets are also trending upward with increased demand for solar panels. Many solar panel manufacturers in European countries, East Asia, and Southeast Asia are increasingly interested in the Company's products. In 2022, the Company was able to sell solar film products to new customers in the United States and new retail customers in Europe.

Future trends

In 2023, it is anticipated that demand consumption for solar panels in the global market will continue to expand. TPI All Seasons Co., Ltd. expects to expand the solar film market to major customers in Germany, U.S.A, Canada, and South Korea, as well as increased sales of EVA Interlayer products in international markets.

However, TPI All Seasons Co., Ltd. has a project to develop solar films for producing quality solar cells as recognized by leading solar cell manufacturers in the international market, which are used to generate solar electricity to reduce CO₂. The Company also has plans for film development projects for tempered glass, a product that requires advanced technology to produce and takes long-term development time, but yields high contribution margins, with very few manufacturers in the industry.

However, the Company assigns an average collection period of 30 days to general clients, where the client must provide collateral. Foreign export sales will accept payment via letters of credit issuance and telegraph transfers.

Factors affecting opportunities or limitations of business operations

Solar energy is a naturally existing clean energy, which is a new alternative energy that many countries are supporting and increasingly interested in investing in, helping reduce oil and coal consumption in electricity generation and reducing greenhouse gas emissions that affect Climate Change. Therefore, the solar panel manufacturing industry is a good alternative to solving the world's energy problems. However, other factors affecting opportunities include state and foreign policies to promote renewable energy, fuel oil and coal price direction and technology that makes solar energy consumption more efficient to reduce production costs.

(3) EVA Emulsion and EVA Powder

In 2022, the EVA Emulsion and EVA Powder business in Thailand has limited growth due to the volatile global economic situation caused by the energy crisis and the protracted war between Russia and Ukraine causing the domestic manufacturing sector to slow down and reduce the overall demand for water-based adhesives in the package bonding industry in the country. However, in the past year 2022, the Company as the sole manufacturer of EVA emulsion in Thailand still has advantages in terms of access to domestic customers. Therefore, in this volatile situation, the Company was able to increase its share in the domestic EVA emulsion market to 50% of the total domestic demand from previously only 35%. Additionally, the domestic tourism industry has begun to rebound as a result of the COVID-19 situation's easing measures, which has led to an improvement in the construction sector and better growth of the EVA powder used in the sector, which can partially offset the decline in demand for EVA emulsion.

In terms of overseas markets, the Company has been able to maintain its customer base in Southeast Asia, East Asia, South Asia, and the Middle East. However, there is a factor of increasing price competition. The company has therefore reduced the proportion of exports to countries with lower gross profit margins and increased sales in the domestic market with better prices as mentioned. However, the market for products made with EVA emulsion and EVA powder has generally become more stable, and the number of manufacturers has not significantly increased. This should lead to an improvement in profit margins from the current position. In addition, the Company has installed a new EVA powder production machine with a production capacity of 6,000 tons per year, which is a higher profit margin than EVA emulsion. This will be a different approach to sell in order to release some of the pressure on the market price of EVA emulsion by altering the amount of EVA powder and EVA emulsion.

(4) Ammonium nitrate and nitric acid business

In 2022, the export of ammonium nitrate abroad increased due to the shortage and high prices caused by the Russo-Ukrainian War. As for the ammonium nitrate market in Thailand, there was an increase in sales from the Bulk Emulsion industry for export. The market for nitric acid used in the rubber glove industry and the electronics sector declined as China resumed full economic recovery after the COVID-19 pandemic. This causes the market to have quite high price competition with products from China. The prognosis for the ammonium nitrate market in the nation and abroad is anticipated to improve in 2023 as quarry companies, cement manufacturers, and mills that make construction stone increase their production capacity to aid in the recovery of the economy.

3. Sourcing of products or services

3.1 Production Facilities

(1) LDPE/ EVA Plants

The Company has two LDPE plastic resins manufacturing plants located on an area of 42.5 rai in the IRPC petrochemical work center area in Rayong province. LDPE plant 1 has a production capacity of 78,000 tons per annum and the second plant has a capacity of 80,000 tons per annum, totaling approximately 158,000 tons of plastic resins per annum, with the Company planning to stop production for annual inspections and maintenance for about 2 weeks, and a special maintenance plan of approximately 20 days every 5 years to enable the machines to work at full capacity, maintaining the quality level of the goods and ensuring safety.

(2) EVA Solar Sheets Plant

TPI All Seasons Co., Ltd. has a manufacturing plant located in Saraburi province with a total of 11 production lines with a total production capacity of approximately 20,100 tons per annum.

(3) EVA Emulsion and EVA Powder plants

The Company has a water and powder adhesive factory located in IRPC's petrochemical work center area in Rayong with a total production capacity of 20,000 tons per annum. The Company is the only manufacturer in Thailand and one of only two in the world capable of producing EVA in both powder and emulsion.

(4) Ammonium nitrate and nitric acid Plants

Ammonium nitrate and nitric acid plants are located in Rayong province with an ammonium nitrate capacity of 95,000 tons per annum and 24,500 tons of nitric acid per annum.

3.2 Main Raw Material Procurement

The main raw materials used in the production of LDPE and EVA plastic resin, including EVA emulsion and EVA powder, are as follows:

- (1) Ethylene is purchased primarily from IRPC Public Company Limited ("IRPC") with a long-term contract based on market prices in the region. In addition, the Company can purchase ethylene from other manufacturers, with the Company having pipes to receive raw materials from deep seaports in industrial zones.
- (2) VAM (Vinyl Acetate Monomer) is purchased from several overseas vendors and the Company is Thailand's largest importer of VAM and the largest in the region, giving the Company high bargaining power compared with other buyers.

Raw materials for EVA film products are EVA plastic resins from all the Company's factories, and the main raw materials used in the production of ammonium nitrate and nitric acid are ammonia. The Company purchases ammonia from overseas, such as Malaysia, Indonesia, Saudi Arabia, and Australia.

3.3 Raw material problems

The Company has been in the LDPE and EVA plastic resins business since 1995, purchasing raw materials from manufacturers or distributors for a long period of time and having an established long term relationship with manufacturers or distributors. The Company also has systematic management, so there are no management problems with raw materials.

For the business of producing ammonium nitrate and nitric acid, there is currently a shortage of raw materials in the world, but the Company has contracted partners to supply raw materials. As a result, the Company does not suffer from any shortages of raw materials.

III. Energy & Utilities Industry

1. Product Characteristics, Production Capacity and Strengths

TPI Polene Power Public Company Limited, a power plant operator, (a 70.24% owned-subsiidiary of the Company), has eight power plants in operation, with total installed power generation capacity of 440 MW, divided into quality-improved waste - fuel power plants with a total installed capacity of 180 MW, with the remaining installed capacity of 260 MW, under the process of switching from coal fuel to waste fuel can be concluded as follows:

Products	Production Capacity, Strength, Technology development and Innovation
<p>1. Waste-Fuel power plants consists of:</p> <ul style="list-style-type: none"> - Waste Fuel Power Plant - 20MW (TG3) - Waste Fuel Power Plant - 60MW (TG5) - Waste Fuel Power Plant - 70MW (TG6) and Waste Heat Recovery Power Plant-30 MW (TG4) total 100 MW 	<ol style="list-style-type: none"> 1. The largest operator of waste-fuel power plants in Thailand and the only manufacturer that sells waste energy in SPP. 2. Total waste-fuel plant capacity is 180MW with a total contract to sell electricity to the EGAT totaling 163MW (non-firm contract) (49.5% market share). TPI Polene Power receives monthly tariffs as follows:- <ol style="list-style-type: none"> (1) Energy Payment (2) Receive adder from the EGAT at the rate of Baht 3.50 per kilowatt-hour for a period of 7 years from the start of power plant power trading. After that, the electricity bill will be charged at the Energy Payment. 3. Have the advantage of being a pioneer with knowledge, expertise and being able to effectively meet the challenges of the waste power industry. 4. The management team has long experience in the waste power plant business and has a tangible successful performance. Therefore, it has the advantage of other competitors, including capital, experience, technology, reliability, and the ability to achieve the project.
2. Waste Heat Recovery Power Plant TG1&TG 2-40MW	<ol style="list-style-type: none"> 1. With installation capacity of 40MW 2. Waste Heat Recovery from the Company's cement plant to generate electricity and sell it back to the Company. 3. A contract to sell electricity to the Company (undefined) by charging the same rate as electricity trading purchased directly from the provincial electricity authority without Demand Charge.
3. Coal-fired Power Plant TG7 - 70MW (Under renovation to be a waste fuel power plant)	<ol style="list-style-type: none"> 1. Total installed capacity of 70MW with approved capacity of 40MW 2. A contract to sell electricity to the Company (with no quantity defined) by charging the same rate as electricity trading that the Company buys directly from the provincial electricity authority without the maximum energy bill (Demand Charge).
4. Coal-fired Power Plant TG8 - 150MW (Under renovation to be a waste fuel power plant)	<ol style="list-style-type: none"> 1. Total installed capacity of 150MW 2. A contract to sell electricity to the Company (determining the amount of electricity sold at least 30% of the amount of electricity generated) by charging electricity at the same rate as the electricity trade that the Company buys directly from the provincial electricity authority without the maximum energy bill (Demand Charge).

Products	Production Capacity, Strength, Technology development and Innovation
5. Quality-Improved Waste-Fuel power plant	<ol style="list-style-type: none"> 1. Classified as a community waste disposal plant or municipal waste, located in the largest same area in the world. 2. An installed capacity to receive 15,000 tons of community waste into the production process per day to produce 7,200 tons of quality-improved waste per day. 3. There is a storage warehouse for storing up to 100,000 tons of renewable waste fuel, which is sufficient for the operation of the waste-based fuel power plant.
6. Petro & NGV Service Station Business	TPIPP also operates 12 oil service stations and NGV gas stations in Bangkok and metropolitan areas, under the logo "TPIPP".
7. Industrial wastes disposal Business	The Company operates industrial waste disposal services from various factories within the country, under the factory license to operate the quality of total waste and has been granted permission from the Department of Industrial Works. In addition to helping to get rid of industrial waste, it also reduces the use of raw materials and fuel. This can save the use of natural resources and help maintain environmental quality.

In addition, TPI Polene Power won the bidding for two community power plant projects, which are under construction as follows:

- (1) Community Waste Power Plant Project, Songkhla Provincial Administrative Organization, has a project period of 20 years and receives a return in the form of solid waste disposal fee of Baht 400 per ton (increased by 10% every 3 years) and receive income from electricity sales from waste disposal according to the power purchase agreement of 7.92 MW for a period of 20 years at the rate of Baht 5.78/unit for the first 8 years and Baht 5.08/unit for the next 12 years.
- (2) Community Waste Power Plant Project, Nakhon Ratchasima Municipality, has a project duration of 20 years and receives a return in the form of solid waste disposal fees of about Baht 400 per ton (increased by 3% every 3 years) and receive income from the sale of electricity from waste disposal according to the power purchase agreement of 9.9 MW for a period of 20 years at the rate of Baht 5.78/unit for the first 8 years and Baht 5.08/unit for the next 12 years.

2. Marketing and competition and industry trends

2.1 Power Plant business

The current power plant business is a business in which the purchaser of electricity is specified in the power purchase agreement, which specifies both the quantity and the fixed price structure. Business operations therefore compete with their own performance in that they are able to produce electricity for sale according to the contract and manage the cost of electricity generation as low as possible. Competition in the market will lead to an increase in the availability of power purchase agreements, which can take the form of contracts for direct sales of electricity to private customers near power plants that can distribute electricity without relying on the transmission line of the Electricity Generating Authority or contracts for announcements of government purchases of electricity by the Energy Regulatory Commission.

Competition in procuring government power plant contracts will be based on criteria for considering readiness in terms of prices, qualifications, and techniques, with the following consideration framework:

1. **Price considerations:** The Ministry of Energy will determine the purchase rate of electricity suitable for the future power generation technology of each type of fuel and at a price that will not create a burden on the country's long-term electricity production costs. All bidders must accept and comply with the specified electricity tariffs.
2. **Qualification:** Qualifications will be evaluated in accordance with the requirements, which include that the tenderer be a legally recognized person in Thailand, be exempt from government control or ownership, have a minimum registered capital, and provide a guarantee for the proposed sale of electricity at the required price. The government will take into account calculating the value of each project under the condition that it is a brand-new project and does not have any prohibited characteristics, such as a project that has received support in other forms, a project that has a legally binding contract with the government, a project that has a person submitting a proposal that the government agency considers to have issues, or any other such circumstance. If the previous rounds of power purchases were found that the project was still unable to complete the project development, it would not be considered, only those who met the minimum qualifications would be subject to further technical consideration.
3. **Technical:** Readiness will be reviewed and graded in areas such as space readiness, technology readiness, fuel readiness, financial readiness, appropriateness of the operational plan, etc.

If there is a bidding process for a waste disposal project or a waste incinerator for the purpose of producing electricity, it will go to the local government that owns the project. When determining waste disposal, qualifications, and methodologies, the same criteria are applied to take pricing into account as well as offering other compensation to the government agency that owns the project, including the experience and performance of the bidding companies.

The quantity and type of power plants for the government's purchase of electricity will be in accordance with Thailand's Power Development Plan 2018-2037, the first revision (PDP2018 Rev.1), or a new version of Thailand's Power Development Plan in the future.

In the case of direct sales of electricity to current customers, it is electricity produced for direct distribution to customers without going through the transmission line of the Electricity Generating Authority of Thailand. The majority of them will involve the production and sale of power in one location or in an industrial region. The government will permit electricity trading in the future through the transmission network of the Electricity Generating Authority of Thailand, which will give power plant operators more opportunities to produce and distribute electricity to customers by forcing them to compete on price with the EGAT. Customers can choose to buy electricity from electricity producers that produce renewable energy in order to reduce the Company's greenhouse gas emissions.

PI Polene Power operates the country's highest capacity waste-to-energy power plant and is the only producer that sells waste-to-energy electricity in the form of EGAT under the total power purchase agreement of 163 megawatts (Non -firm). In addition, the Company sells electricity generated from coal-fired power plants to TPI Polene Public Company Limited with a total capacity of 260 megawatts. It is currently in the process of converting from coal fuel to waste fuel.

TPI Polene Power is regarded as a big operator, a pioneer, and a market leader in the waste fuel power plant business. It has extensive experience running waste fuel power plants and has had demonstrable success. As a result, it has an edge over rivals in all areas, including finances, expertise, technology, and credibility, as well as the capacity to finish the project from beginning to end.

In addition, TPI Polene Power has expanded its electricity generation business in the form of various types of renewable energy, including wind power, ground-mounted solar power, and ground-mounted solar energy combined with energy storage systems. TPI Polene Power is a potential entrepreneur with all aspects. The ability to compete with other operators in the power industry is a strength of TPI Polene Power due to its operational experience and receipt of numerous awards linked to business operations both locally and abroad.

Industry Trends

As the National Energy Board chaired by the Prime Minister has approved Thailand's Power Development Plan (PDP2018 Revision1) 2018-2037, the plan has been adjusted to focus on clean energy from renewable energy power plants to fulfill the objectives set by Thailand to reduce the impact of climate change in line with COP26 guidelines. The aforementioned power development plan has determined the amount of electricity that will be available for additional purchase from 2021-2030, which can be summarized as follows:

Solar Energy	4,455	megawatts
Wind Energy	1,500	megawatts
Biogas	355	megawatts
Biomass	485	megawatts
Municipal Waste	400	megawatts
Industrial Waste	200	megawatts
Purchase Electricity from Overseas (Water)	2,569	megawatts
Small Hydropower	52	megawatts



Implementation Plan to increase electricity generation from clean energy under PDP 2018 Rev.1 during 2021-2030 as approved by Energy policy Management committee (KorBorGor)

SCOD	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	total
Solar energy	45	10	34	300	400	666	600	700	800	900	4,455
Wind Energy					250	250	250	250	250	250	1,500
Municipal Waste					200	200					400
Industrial Waste						100	100				200
Other		10.81	4.14	1.27	9.84	699.25	230.25	856.51	143.45	1,486.18	3,441
Total	45	21	38	301	860	1,915	1,180	1,807	1,193	2,635	9,996

Electricity Purchase market for renewable energy is increasing in volume and has a clear purchase schedule, this affects the direction of the renewable energy market to be more competitive from the existing business operators and new electricity business. The direction of the new power development plan of Thailand is likely to increase the production capacity and purchase of electricity from renewable energy to a higher proportion, which is a positive direction for renewable energy business operators.

In 2022, the Energy Policy and Planning Office is in the process of preparing the new PDP 2022 power development plan, which is expected to be announced in 2023 under the following key principles:

- Focus on stability.
- The power generation system is flexible enough to accommodate the energy transition that converts fossil fuels to renewable energy.
- Reasonable cost of electricity.
- Take into account the environmental impact by limiting carbon emissions in line with the Carbon Neutrality and Net Zero plan goals.
- Increasing efficiency in the electricity system both in terms of production and electricity consumption by introducing smart grid technology and Green Tariff to support the purchase of renewable energy directly from buyers and sellers.

The business strategy of TPI Polene Power, which aims to produce green energy from renewable sources, as well as plans for business expansion and growth of TPI Polene Power, are planned in compliance with the guidelines outlined in the Electric Power Development Plan. Both the opportunity to increase the volume of electricity trading with the government and the opportunity to buy electricity from renewable energy directly with other power buyers through the transmission network of the Electricity Generating Authority of Thailand in the future.

Oil Service Stations and NGV Gas Stations

TPI Polene Power operates a total of twelve oil service stations and NGV gas station stations in Bangkok and provincial areas. Most of the customers are customers who transport cement to companies and general retail customers of TPI.

Trends of the Industry

In 2022, the domestic NGV sales volume increased by 6% compared with the previous year 2021 due to the government fixing the NGV selling price and the COVID-19 epidemic began to subside, resulting in the gas sales volume NGV in 2022 slightly increased compared with the previous year 2021. As for the overall gas station in 2022, the domestic oil price market situation has continued to rise, resulting in a slight decrease in the Company's fuel and NGV sales volume in 2022 compared with the year 2021.

However, if the country's overall economy in 2023 has a better direction, TPI Polene Power's oil and NGV sales volumes will also improve respectively. TPI Polene Group regularly promotes its products by holding sales events where consumers can bring discount slips for gas or NGV to exchange for goods at the marts located at TPI Polene Power service stations.

Currently, TPI Polene Power is in the process of studying to change the model of the oil and natural gas service business into an electric charging station for EV vehicles. In addition to providing battery charging services for general electric vehicles, the Company aims to develop land within the group to support the charging stations for trucks and buses because the construction of such a charging station requires a large amount of space and power. The area must be on the route that is the main route for transportation. The Company has the area in the location that has the potential to develop such projects in the future.

3. Sourcing of products or services

3.1 Production Facilities

(1) Power plants

TPIPP has eight power plants in operation, with a total installed capacity of 440 MW, and are located in the Company's cement plant in Saraburi province. These are divided into four waste fuel power plants with a total installed capacity of 180 MW. TPI Polene Power sells a contracted power generation capacity of 163 MW to The Electricity Generation Authority of Thailand (EGAT). Two waste heat recovery power plants, a total installed capacity of 40 MW and two coal-fired power plants with a total installed capacity of 220 MW, all sold electricity to the Company.

(2) Petro Service Stations and NGV Gas Stations

TPIPP operates a total of eight petro service stations, one NGV gas station, and three petro and NGV service stations under the logo "TPIPP" in Bangkok and provincial areas, including six service stations in Saraburi province, one service station in Ubon Ratchathani province, one service station in Nakhon Sawan province, and one service station in Samut Prakan province.

3.2 Raw Material Procurement

(1) Power plants

Waste-fuel power plants rely on the supply of landfill waste and community waste. In addition, the heating value of RDF quality-improved waste produced by the quality-improved waste-fuel power plant affects the efficiency of electricity generation, with quality-improved waste having a high fuel heating value, allowing TPIPP to generate a lot of electricity.

TPIPP purchased both community waste (and municipal waste), landfill waste, and waste sorted from operators who are partners around the plant and operators in neighboring provinces. It does not rely mainly on a source of purchase from a particular person.

TPIPP has also diversified the risk of supplying waste by investing in setting up Waste-fuel plants in areas where old waste accumulates and community waste with high daily waste content ensure the supply of raw materials and reduce production costs by purchasing RDF fuel (sorted waste must have a heating value of at least 2,500 KCAL/ton) from private companies. In the case of waste heat recovery power plants, TPIPP purchases waste heat recovery from the cement production process from TPIPL at a fair price as agreed.

TPIPP purchases coal from TPIPL at a market price to be used in coal-fired power plant. However, TPIPP can buy coal from third parties.

(2) Petro and NGV gas stations

TPIPP supplies fuel for fuel stations from oil companies such as Bangchak Corporation Public Company Limited, Esso (Thailand) Public Company Limited, IRPC Public Company Limited and Shell of Thailand Limited at the market price at that time (spot basis).

In addition, TPI Polene Power supplies natural gas (NGV) for natural gas (NGV) stations from PTT Public Company Limited ("PTT") under a long-term natural gas trading contract (NGV).

3.3 Maintenance

TPIPP has designed steam pipes in power plants, where the material has been changed to ensure physical and chemical wear resistance with the design of new steam pipe sorting characteristics, as well as the installation of a steam pipe cleaning system, which has been suspended for approximately 90 days per machine.

In addition, the fuel feed system has been improved to solve the problem of fuel feeding accuracy.

IV. Agricultural industry, healthcare products and others

1. Product properties, capacity and strength

Products	Production Capacity, Strength, Technology development and Innovation
1. Healthcare products	<ol style="list-style-type: none"> 1. Operated by TPI Healthcare Co., Ltd. (99.99% owned- subsidiary company) 2. Manufacture and sale of consumer products using natural substances and environmentally friendly. 3. Research from Mahidol University (Siriraj Hospital) and Chulalongkorn Hospital that some products such as Bio Knox, mouthwash can combat the virus. 4. Have their own research and development team with clean, modern and safe production procedures for consumers. 5. Certified probiotic microbial strains according to the announcement of the Ministry of Public Health 2011 by the research team of TPI Company together with Thailand Institute of Scientific and Technological Research (TISTR).
2. Organic fertilizer and Organic Matter for Plants *	<ol style="list-style-type: none"> 6. Operated by TPI Polene Bio Organics Co., Ltd. (99.99% owned- subsidiary company)* 7. Obtained quality products in compliance with the standards of IFOAM for liquid fertilizer 8. Certified quality management system (ISO 9001:2015) for organic fertilizer plants. 9. Halal certified with an emphasis on non-toxic organic farming that is not harmful to humans and the environment, allowing vegetables to be grown without pesticides. 10. Certified as Made in Thailand (MiT)
3. Probiotic Products for Livestock,/Fishery *	<ol style="list-style-type: none"> 11. Operated by TPI Bio Pharmaceuticals Co., Ltd (99.99% owned- subsidiary company) * 12. Bio-enhancing products have been registered for innovation. 13. GMP certified for animal feed products 14. Livestock, fishery and pets products using prophylactic natural substances (non antibiotics) to keep meat consumers free of harmful substances. 15. Certified as Made in Thailand (MiT)

Note : * In 2023, TPI Polene Group has restructured its business by allowing TPI Bio Organic Co., Ltd. to be a manufacturer and distributor of both plant and animal products. As for TPI Bio Pharmaceuticals Co., Ltd., has a project to invest in the construction of a pharmaceutical compounding plant for the production of modern medicines for people (in the form of powder and tablets) with the purpose of treating minor ailments that may occur in everyday life, thus reducing the importation of expensive medicines from abroad. TPI Bio Pharmaceuticals Co., Ltd. will proceed to apply for a modern drug registration for people with the Food and Drug Administration and request for a GMP certification license.



Details of each product type and properties of the products are as follows:

Products	Properties of the products
1. Healthcare Products	
1.1 Bio Knox *	High-quality natural calcium and vitamin C supplements to reduce the amount of bacterial and viral pathogens (*See note to financial statements as below).
1.2 Mouthwash Alcohol Light *	Alkaline mouthwash with anti-bacterial agents reduces the accumulation of plaque. Prevents bad breath, doesn't burn your mouth after using, contains natural extracts (*See note to financial statements as below).
1.3 Microme Knox Solution *	Spraying on residential areas to reduce the amount of pathogens from bacteria and viruses in office buildings or general households (*See note to financial statements as below).
1.4 Pro Vita	Probiotic drink mixed with vitamin C, B3, B5 and B6 to refresh and boost immunity. It has great benefits and can help with the digestive system (Certified for probiotic microbial strains according to the announcement of the Ministry of Public Health 2011 by the research team of TPI Company in collaboration with the Thailand Institute of Scientific and Technological Research (TISTR)).
1.5 Bio-San	It is a microorganism in wastewater treatment with a high content of organic matter, fat, and oil. It has been tested by the Chulalongkorn University Academic Service Center and found that Bio San can help reduce organic matter in the form of COD and BOD of wastewater. It can be used both within the household and within the various farms for the household and can also be used to reduce unpleasant odors and reduce clogged water pipes.
1.6 Bath Liquid Soap	It is used in baths, contains body moisturizing ingredients and has premium fragrances, which are currently divided into 2 collections: the Blossom Collection, which is fragrant with different types of floral scents and scents that give freshness, which are available choose from all 5 scents and the Gold Collection, which consists of premium perfumes that are available only at TPI.
1.7 Hand wash liquid soap	Used to wash hands, contains moisturizing agents, hand care and premium perfumes. Currently, it is divided into 2 collections: the Blossom Collection, which is fragrant with various types of flowers and refreshing scents, which are available in 5 different scents, and the Gold Collection, which consists of premium fragrances that are available only at TPI . In addition, products are selected to provide a long-lasting scent on the skin of the hands.
1.8 Eesy clean grease Remover	The product removes oily stains from cooking, oil stains and grease, dirt on the floor or walls.
1.9 Eesy Clean Natural Dishwashing Liquid	Dishwashing Products, used to clean, remove oily stains, clean, residue-free. There are two formulations available right now: Natural and Standard. Natural essential oils are included in the Natural recipe, which contributes to user relaxation. The natural aroma of mandarin and lemon also improves the dishwashing experience.

Products	Properties of the products
1.10 Green Alkaline Vegetable Cleaning Liquid *	Thailand's first alkaline fruit and vegetable cleaning product helps to clean contaminants, preserves fruits and vegetables freshness, and reduces the accumulation of microorganisms present on the surface of fruits and vegetables (*See note to financial statements as below).
1.11 Gel and Alcohol Spray	Reduces the accumulation of pathogens, viruses and bacteria, contains aloe vera and moisturizing agents, keeping hands from drying out even when used continuously. Water-based alcohol mixed with fabulous fragrance to add freshness while using.
1.12 TPI drinking water	Certified ISO9001:2015 GMP, HACCP, and Halal
1.13 Energy Drink Pro-150	An energy drink containing vitamins B3, B6, and B12
2. Fertilizer and plant nutrients, natural products, TPI, free from residues under the Global Warming reduction program	
2.1 Organic purple fertilizer	An organic fertilizer in liquid form. Plants can be absorbed through the leaves
2.2 Organic green fertilizers	Organic green fertilizers are suitable for improving soil or preparing soil, balancing the soil, helping to restore loamy soil, carrying water.
2.3 Organic bat cave fertilizers	Made from high quality organic objects, contains highly effective microorganisms, soil rehabilitation makes plants grow stronger with high crop yields, certified by the Department of Agriculture (Organic Fertilizer Registration No. 98/2012)
2.4 Wood Venigar	Used to prevent and eliminate pests without residues or hazardous chemical mixtures
2.5 BIO-HYDROPONICS	Concentrated plant supplements, contain nutrients necessary for plants in ways that plants absorb immediately.
2.6 PH 11 Plus (Soil conditioner)	Soil conditioning to adjust the acidity – alkalinity of the soil to suit the crop, reduces toxicity, accumulates in the soil, helps to disinfect fungi and prevent soil diseases, reduces and prevents rot.
2.7 Bio-organic humics	Organics increase productivity, improve soil, improve acid-alkali balance, and reduce the amount of water in the mixture by 4 times from the original formula without causing the leaves to burn. Increased productivity formula help increase nutrients, improve natural soils and reduce global warming.
3. Livestock/ Fisheries Products	
TPI-Probiotics and Synbiotic supplement.	A biomass, useful and safe for animals, consisting of microorganisms and it can be used for poultry, animals and all aquatic animals, including pigs, shrimps, fish, chickens, ducks and it help in the process of digestion and absorption of animal food and increase immunity to healthy animals to grow well, gain good weight and help reduce the use of antibiotics.

Remark : *The above products have been tested and certified by the Faculty of Medicine, Siriraj Hospital and the Academic Service Center, Chulalongkorn University and are effective in the destruction of viruses including SARS-CoV2, PRRS, PDCoV, PCV2 and RVA, etc.

2. Marketing and competition and trends of the industry

2.1 Healthcare products

Consumer behavior is changing to include hand hygiene or touch points as more and more health care trends become popular and consumers start to pay attention to hygiene around the body because of the Covid-19 outbreak. As a result, in the past, the price of goods connected to hygiene and cleaning kept rising.

During the past several years, the Company has promoted more products through online and offline channels. In terms of online marketing, new contents have been prepared to create wide awareness, as well as advertising through various websites to reach new generation customers including creating more short video content in line with changing consumer behavior. In the offline part, the Company has presented its products through booths at various events, advertising stickers on the Company's transportation vehicles, advertising through Suvarnabhumi TV and other channels. From both online and offline advertising, new groups of customers come to buy more products from the Company's health care products, and there are quite a lot of customers who return to buy again and again in the health care products category.

The Company has consistently enhanced and developed its goods. Since last year, the Company has improved its Provita products to increase their Shelf Life from two to four months without refrigeration (other products on the market have a shelf life of less than a month), or even improved its Blossom Collection shower liquid soap products to add even more moisture to the body after use.

The Company uses online media in various applications as well as buying TV ads to reach consumers effectively, and the Company has added channels to modern trades such as Food Land, Villa Market, Tops Super Market, Rimping, TangHuoseng, Healthy Valley, Gourmet Market (The Mall Group), Homepro, Mega Home, Thai Watsadu, Global House, DoHome, and TPI Polene Power's NGV gas stations. TPI Polene Group expects the healthcare market in 2023 to continue to gain a good reputation from consumers if the COVID-19 pandemic stabilizes and no one can predict whether the pandemic will diminish. As a result, the public will change the way they live more vigilantly, especially in healthcare product group.



The average collection period is 30-60 days for general customers and customers have to provide collateral.

2.2 Fertilizers and nutrients for plants

The agricultural economy in the crop sector in 2022 is expected to expand in the range of 3.2-4.2 percent compared with 2021. All sectors of production are likely to expand due to continuous rain that increases the amount of water in reservoirs and natural sources more than last year. In addition, due to

the situation of the Russian-Ukrainian war, the demand for food in the world market has increased, resulting in the price of agricultural products rising. Furthermore, the price of chemical fertilizers in 2022 has increased by more than 150 percent, resulting in increased domestic demand for organic fertilizers in order to reduce farmers' costs, together with government agencies promoting the development of technology and innovation centers to raise the quality of agricultural products, create added value and increase the level of competitiveness by promoting sustainable agriculture such as New Theory Agriculture and organic farming. Therefore, these are positive factors for the Company's products.

The market for organic fertilizer products is anticipated to grow further in 2023 as a result of the high cost of imported chemical fertilizers, which will encourage farmers to utilize more organic fertilizers to save expenses of production. Government organizations also place a strong emphasis on empowering and motivating farmers to cut expenses by promoting the use of organic fertilizers to lower production costs for farmers and promoting the quality of agricultural products to be of higher value by producing safe agricultural products to organic farming goals in order to be able to compete in exports on the global market. The Company has set up plant cultivation plots in the research center of the Company and is open to visitors to learn about the cultivation process in the TPI system that does not use chemicals, pesticides and is safe from pests.



There are also factors that promote the growth of the organic fertilizer market from the promotion of agricultural products to create added value for farmers from government agencies by pushing organic agriculture, which will be a positive force for the Company's products.

The average collection period are 120 days for general customers, with customers having to provide collateral.

2.3 Probiotic Products for Animal Farming/Fishery

The agricultural economy in livestock and fisheries in 2022 is expected to grow in the range of 0.7-1.7 and 0.2-1.2 percent from 2021, respectively, due to the epidemic situation and higher feed costs causing farmers to delay farm expansion. In this regard, the epidemic problems in animals began to have a study of the use of animal supplementary substances in order to help reduce the risk of disease in the farm instead of the use of the drug, which is dangerous to consumers. As a result, the demand for the Company's products for disease prevention on farms tends to improve.



In 2023, the Company expects that the bioenhancement market for livestock and fisheries will have a higher opportunity due to the Company's research results and groups of farmers who use the bioenhancement of the Company to help accelerate growth of animals, reducing costs, and reducing the risk of disease on the farm.

The average collection period are 120 days for general customers, with customers having to provide collateral.

2.4 TPIPL Drinking Water Business

TPIPL has operated a drinking water business under the brand name "TPIPL" since 2011. It has good quality products and it is safe for consumers as it uses high quality reverse osmosis technology filtration systems (RO). This process requires that high pressure be exerted on the high concentration side of the membrane and by applying ultra violet treatment to eliminate biological contamination and the ozone treatment process in the water-bottling stage of the production of drinking water. These major benefits have made TPIPL drinking water possess quality characteristics of water; thus, we obtained a certificate approved from the Food and Drug Administration (FDA) in compliance with the standards from natural resources. TPIPL drinking water is consumed at the plants and head office and is also distributed to consumers. The drinking water production process is certified ISO9001:2015 GMP and Halal.



The average collection period for general customers is 30 days and customers have to provide collateral.

3. Sourcing of products or services

As for the organic fertilizer product, the Company has a process of fermenting vegetables and fruits from the community using a modern, safe sorting process, allowing organic matter that can be used as raw material for the production of organic fertilizers.

In addition, the Company has invested in other businesses through its subsidiaries, associated companies, covering the entire life insurance business, real estate development, retail products of the group, and manufacturing and selling of bags.

4. Assets used in business operations include:

4.1 Fixed assets of the Company and its subsidiaries

The total assets of the Company and its subsidiaries can be classified according to the main business groups as follows:

	31 December 2022 (Baht Million)	31 December 2021 (Baht Million)
1. Construction Materials	84,542.43	76,935.28
2. Petrochemical & Chemicals	10,452.90	15,297.13
3. Energy & Utilities	46,571.29	43,031.70
4. Agriculture	2,108.93	2,117.25
5. Others	587.75	584.71
Total	144,263.30	137,966.05
Unallocated assets	4,286.80	9,059.37
Total	148,550.10	147,025.42
Elimination of inter-company assets	(4,050.67)	(11,311.82)
Total assets	144,499.43	135,713.60

Fixed assets of the Company and its subsidiaries can be summarized as follows:

(Unit : Million Baht)

Asset category/characteristics	Proprietary Characteristics	Net Asset Value		Encumbrance value* 2022
		2022	2021	
1. Land and land improvement	Ownership	15,475	14,635	0.89
2. Buildings and components	Ownership	10,599	10,900	1,219.34
3. Machinery and equipment in production	Ownership	59,312	58,447	4,519.68
4. Tools, appliances and factory equipment and furnishings and office equipment	Ownership	3,283	3,295	-
5. Vehicles and key sparepart	Ownership	784	791	-
6. Assets under construction	Ownership	11,020	8,298	-
Total (net)		100,473	96,366	5,739.91

Remark : *The Company's land and buildings, including cement machinery production line 3, were pledged with financial institutions to finance revolving loans for business operations.

4.2 Intangible assets of the Company and its subsidiaries

(Unit : Million Baht)

Intangible assets	2022	2021
1. Raw material sourcing cost and concessions cost	559	331
2. Intellectual property	7	9
3. Assets development cost	109	61
4. Others	39	260
Total	714	660

4.3 The Board of Investment privilege from the Office of the Board of Investment

Obtained investment promotion certificates from the Board of Investment (BOI) by receiving privileges and tax benefits for businesses as follows:

1. Construction Business

Exemption of import duties for machinery and equipment imported from abroad and juristic person income tax exemption for net profit for 8 years, 100% of the investment is excluded from the start of income, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Transportation railway business	12 March 2014	1 March 2024

2. Petrochemical and Chemical Industry

Exemption of import duties for machinery and equipment imported from abroad and the exemption of corporate income tax for net profit for 8 years, representing 100% of the investment value, excluding land and working capital, from commercial operation date. After that, the corporate income tax deduction will be deducted at 50% for another 5 years, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
EVA Liquid and EVA Resin	26 Oct 2009	2 Jul 2030
Blow Film	6 Feb 2008	30 Jun 2023
Master batch, Compound Plastic and Compound Rubber	25 Jan 2012	25 Jan 2026



In the case of exemption of import duties for half machinery imported from abroad and exemption of corporate income tax for net profit for 8 years from commercial operation date. After that, the corporate income tax deduction will be deducted at 50% for another 5 years, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Manufacturing of Ethylene Vinyl Acetate Emulsion and Ethylene Vinyl Acetate Powder	3 June 2016	Not yet exercise corporate income tax exemption

In the case of exemption of import duties for half machinery imported from abroad and exemption of corporate income tax for net profit for 6 years, representing 100% of the investment, excluding land and working capital from commercial operation date, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Manufacturing of High Performance Ethylene Vinyl Acetate Copolymer (High Performance EVA)	12 Feb 2019	Not yet exercise corporate income tax exemption

3. Energy & Utilities Industry

Exemption of import duties for machinery and equipment imported from abroad and the exemption of corporate income tax for net profit for 8 years, representing 100% of the investment value, excluding land and working capital, from commercial operation date, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Waste-to-energy power plant operations with capacity of 30 MW	16 Jul 2013	30 Jan 2024
Waste-based fired power generation capacity of 70 MW	3 Mar 2015	4 Apr 2026
A coal-fired power plant with an installed power generation capacity of 150 MW	21 Dec 2016	Not yet exercise corporate income tax exemption

In the case of exemption of import duties for half machinery imported from abroad and exemption of corporate income tax for net profit for 8 years from commercial operation date. After that, the corporate income tax deduction will be deducted at 50% for another 5 years, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Waste- based fired power generation	13 Sep 2010	30 Jun 2024
Waste-to-energy power plant operations with capacity of 60 MW	14 Jun 2013	13 Sep 2023

Exemption of import duties for half machinery imported from abroad and exemption of corporate income tax for net profit for 8 years from commercial operation date. After that, the corporate income tax deduction will be deducted at 50% for another 5 years, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Manufacturing of pyrolysis oil	2 Mar 2010	2 Jan 2027

4. Agriculture Business

Exemption of import duties for machinery and equipment imported from abroad and the exemption of corporate income tax for net profit for 8 years, representing 100% of the investment value, excluding land and working capital, from commercial operation date. After that, the corporate income tax deduction will be deducted at 50% for another 5 years, with the following details:

Project	The date on which the BOI privilege was received	Expiry date of income tax benefits
Manufacturing of organic fertilizers or soil enhancer	12 Apr 2011	30 Jun 2024

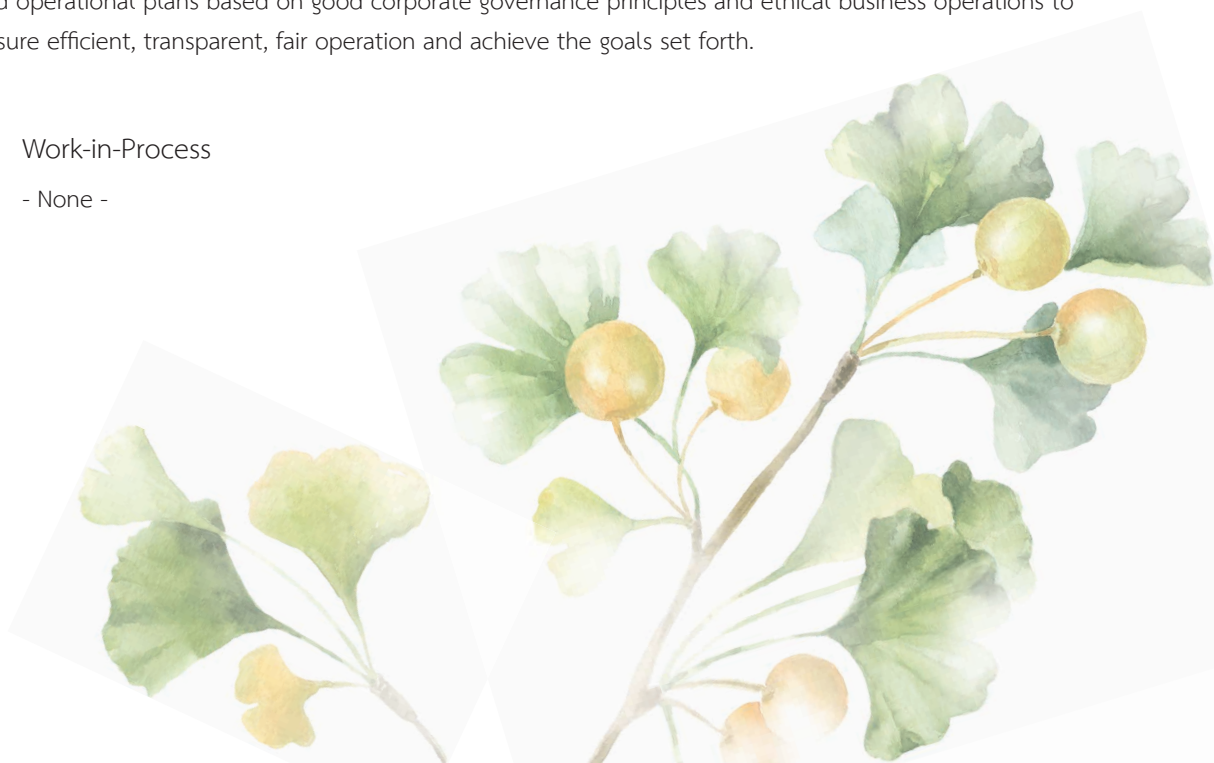
4.4 Investment policy in subsidiaries and associated companies

The Company has an investment policy in subsidiaries and/or associated companies to be in line with the Group's vision and growth plan, which will enable the Group to increase its performance or profitability to support the Company's core business operations, to create practicality, mobility, and efficiency in business operations and increased competitiveness based on factors such as legal regulation, financial structure, taxation and risk management.

However, the Company has a policy of managing TPI Polene Group by requiring the subsidiary to conduct its business in accordance with the Company's core policy in order to have systematic management and supervision in the same direction. As for management of associated companies and other subsidiaries, the Company has assigned the representatives to join the Executive Committee to make decisions about policies and operational plans based on good corporate governance principles and ethical business operations to ensure efficient, transparent, fair operation and achieve the goals set forth.

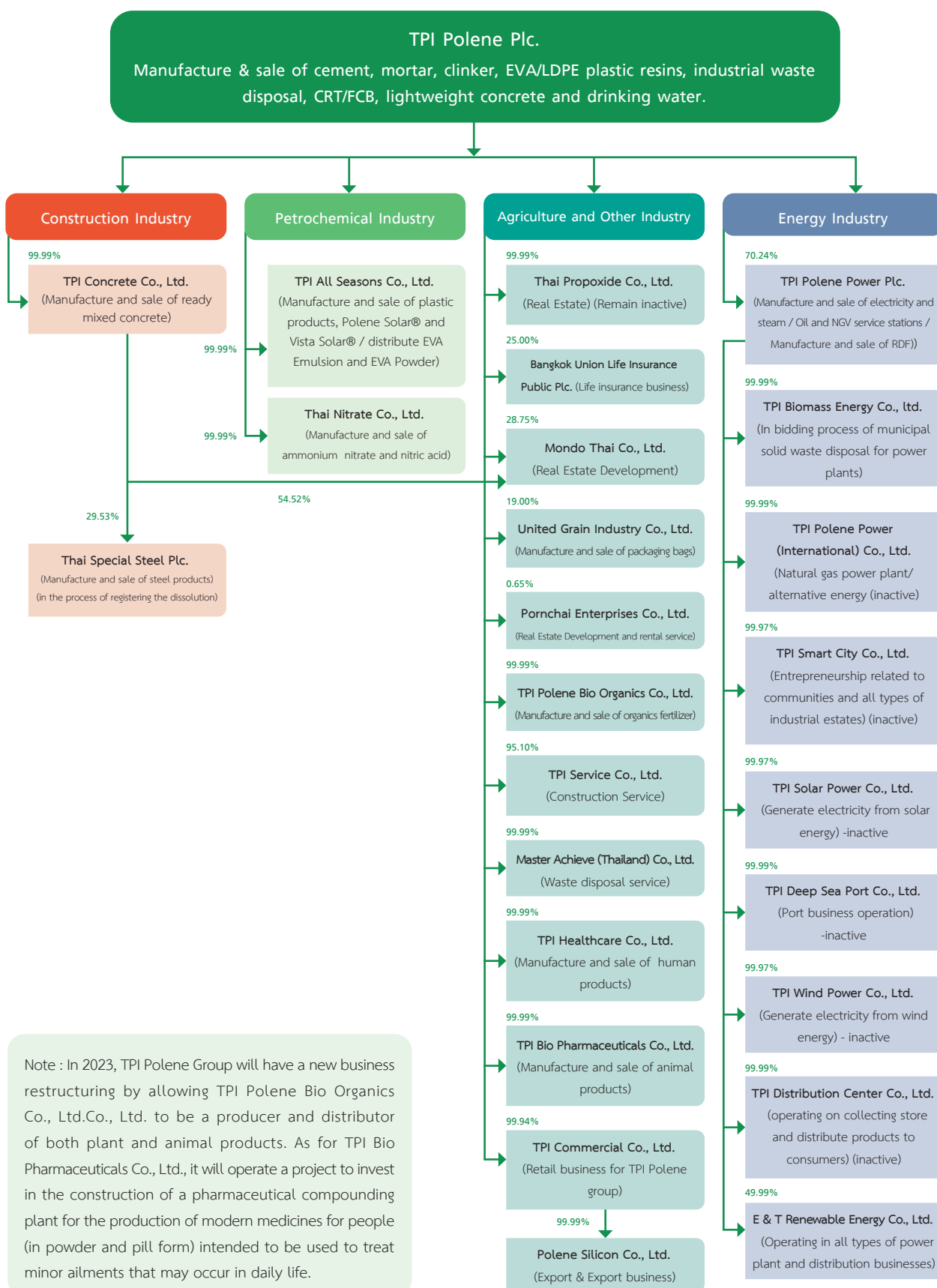
5. Work-in-Process

- None -



1.3 Business Structure

1.3.1 Structure of the Group. As of 31 December 2022



Subsidiaries and Affiliated Companies as of 31 December 2022

Company's name	Head Office Address	Business	Registered Capital (Baht)	Paid-up Capital (Baht)	Shareholding (%)
Subsidiaries					
1. TPI Concrete Co., Ltd.	26/56, 5th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5350-74 Fax: (02) 678-5375-6	Manufacture and sale of ready-mixed concrete	3,700,000,000	3,700,000,000	99.99
2. TPI Polene Power Plc.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Manufacture and sale of electricity and stream, RDF, exploration and manufacture petroleum, including oil and NGV service stations	8,400,000,000	8,400,000,000	70.24
3. Thai Nitrate Co., Ltd.	26/56, 21st Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5450-2 Fax: (02) 678-5484	Manufacture and sale of ammonium nitrate and nitric acid	468,750,000	468,750,000	99.99
4. TPI All Seasons Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Manufacture and sale of plastic product, Polene Solar®, Vista Solar® / distribute EVA Emulsion and EVA Powder	450,000,000	450,000,000	99.99
5. Thai Propoxide Co., Ltd.	26/56, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5000, 678-5050 Fax: (02) 678-5001-5	Real Estate (Remain inactive)	1,000,000	250,000	99.99
6. Mondo Thai Co., Ltd.	26/56, 19th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5470 Fax: (02) 678-6511	Property Developing	36,000,000	36,000,000	83.27*
7. TPI Commercial Co., Ltd.	26/56, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5470 Fax: (02) 678-6511	Retailing business for TPI Polene Group	1,000,000	100,000	99.94
8. Polene Silicon Co., Ltd	26/56, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Exporting and Importing business	10,000,000	10,000,000	99.93**
9. TPI Polene Bio Organics Co., Ltd.	26/56, G Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Manufacture and sale of organic fertilizer	3,300,000,000	3,300,000,000	99.99

Company's name	Head Office Address	Business	Registered Capital (Baht)	Paid-up Capital (Baht)	Shareholding (%)
10. TPI Service Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Construction service	10,000,000	4,600,000	95.10
11. TPI Healthcare Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Manufacture and sale of human products	10,000,000	5,050,000	99.99

Remarks : * Held by TPI Polene Plc. and TPI Concrete Co., Ltd., which accounted for 28.75% and 54.52% respectively, totaling 83.27%

** Held by TPI Commercial Co., Ltd. 99.99%.

12. TPI Bio Pharmaceuticals Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Manufacture and sale of animal products	10,000,000	5,500,000	99.99
13. Master Achieve (Thailand) Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Waste disposal service	100,000,000	100,000,000	99.99
14. TPI Biomass Energy Co., Ltd.	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	In bidding process of municipal solid waste disposal for power plants (inactive)	750,000,000	187,500,000	70.23**
15. TPI Polene Power (International) Company Limited	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Natural gas power plant/ alternative energy (inactive)	100,000,000	100,000,000	70.23**
16. TPI Deep Sea Port Public Company Limited	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Port business operation (inactive)	100,000,000	25,000,000	70.23**
17. TPI Smart City Company Limited	26/56, 8th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Generate electricity from refuse derived fuel and biomass (inactive)	1,000,000	1,000,000	70.22*
18. TPI Solar Company Limited	26/56 TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Generate electricity from solar energy (inactive)	1,000,000	1,000,000	70.22*

Company's name	Head Office Address	Business	Registered Capital (Baht)	Paid-up Capital (Baht)	Shareholding (%)
19. TPI Wind Power Co., Ltd.	26/56, G Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Operates electricity generation from wind energy (Inactive)	1,000,000	1,000,000	70.22*
20. TPI Distribution Center Company Limited	26/56, G Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Operates business related to collecting, storing and distributing products to consumers (Inactive)	2,000,000	2,500,000	35.12*
Joint Venture Company					
1. E&T Renewable Energy Co., Ltd.	26/56, G Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 285-5090-9 Fax: (02) 213-1035	Operating a power plant and selling all types of electric power	2,000,000,000	250,000,000	35.12***

Remarks : *, **, *** Held by TPI Polene Power Plc., which accounted for 99.97% , 99.99% and 49.99% respectively.

Associated Companies

1. Thai Special Steel Industry Plc.	26/56, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-5350-74 Fax: (02) 678-5375-6	Manufacture and sale of Steel (in the process of registering the dissolution)	11,200,000,000	4,220,000,000	29.53
2. Bangkok Union Life Insurance Plc.	175-177, 8th Floor, Bangkok Insurance Tower, Surawongse, Bangrak, Bangkok 10500 Tel: (02) 634-7323-30 Fax: (02) 634-7331	Life Insurance	500,000,000	500,000,000	25.00
3. United Grain Industry Co., Ltd.	26/56, 27th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-6988-97 Fax: (02) 678-698899	Manufacture and sale of Packaging bags	550,000,000	550,000,000	19.00

Other

1. Pornchai Enterprise Co., Ltd.	26/56, 22th Floor, TPI Tower, Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120 Tel: (02) 678-54903 Fax: (02) 678-5494	Real estate business and rental service	4,599,919,600	4,599,919,600	0.65
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1.3.2 Persons who may have conflicts of interest

- None -

1.3.3 Shareholders

Top 10 major shareholders as at 30 December 2022 (latest closing date):

Shareholders	Number of Shares	Shareholding (%)
1. Leophairatana Enterprises Co., Ltd	4,794,734,490	25.322
2. Thai Petrochemical Industry Co., Ltd.	4,779,396,070	25.241
3. Mrs. Orapin Leophairatana	975,646,240	5.153
4. Mr. Nares Ngamapichon	864,000,000	4.563
5. Mr. Prayad Liewphaitana	603,122,740	3.185
6. Mr. Prateep Leopairut	596,651,800	3.151
7. Mr. Pramuan Leophairatana	544,900,000	2.878
8. Thai NVDR Co., Ltd	461,369,573	2.437
9. SOUTH EAST ASIA UK (TYPE C) NOMINEE LIMITED	267,738,903	1.414
10. Mr. Prateep Tangmatitham	248,713,900	1.313

Remarks : 1/ Majority shares held by the Leophairatana family

- (1) Major shareholders of TPI Polene Public Company Limited are Leophairatana Enterprise Co., Ltd. and Thai Petrochemical Industry Co., Ltd.
- (2) As of January 4, 2023, a group of major shareholders who, by circumstance, materially influenced the determination of the Company's management or operational policies are Leophairatana Enterprise Co., Ltd. and Thai Petrochemical Industry Co., Ltd. holding 25.322% and 25.241% shares in the Company respectively.
- (3) The number of minority shareholders (Free Float) is 20,097 persons, representing 23.51% as of January 4, 2023.

1.4 The registered capital and paid-up capital

1.4.1 Ordinary Share

As of 31 December 2022, the registered capital of the Company is Baht 23,560.235 million consisting of 23,560,235,000 ordinary shares, at the par value of Baht 1 each. Paid-up capital is Baht 18,935.235 million consisting of 18,935,235,000 ordinary shares, at the par value of Baht 1 each.

1.4.2 Other types of shares with different rights or conditions differ from ordinary shares

- None -

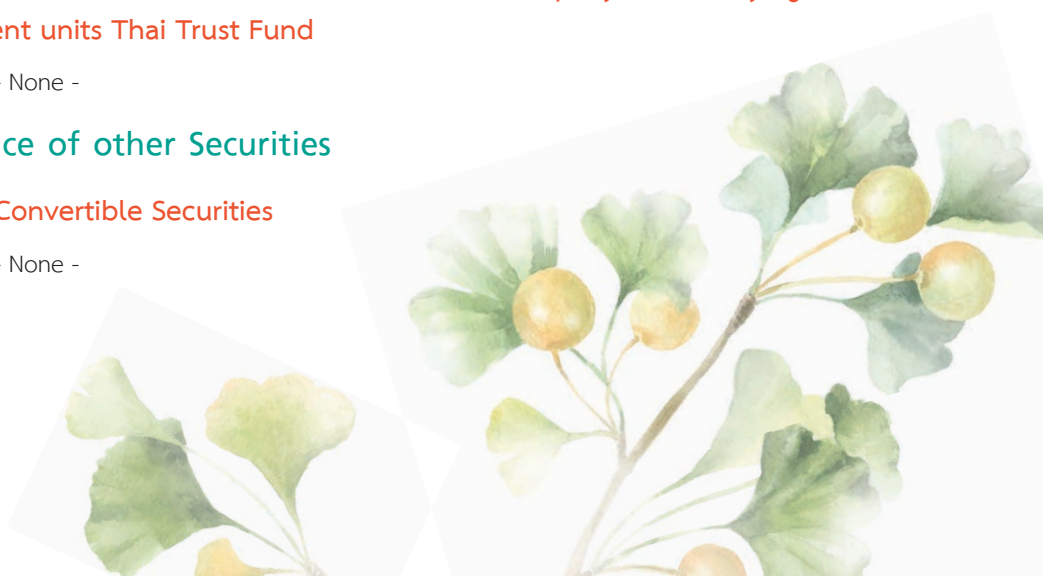
1.4.3 Shares or convertible securities of the Company to underlying securities in issuing investment units Thai Trust Fund

- None -

1.5 Issuance of other Securities

1.5.1 Convertible Securities

- None -



1.5.2 Debt Securities

(A) Debentures

As of 28 February 2023, the Company issued unsubordinated/unsecured onshore debentures, in registered form with debenture holders' representatives. Details of debentures are summarized as follows:

Debenture Series	Amount (Baht)	Interest Rate (p.a.)	Term	Credit Rating	Outlook
TPIPL234A	2,640,500,000	4.80 %	7 Years due A.D.2023	A-	Stable
TPIPL231A	2,820,000,000	3.90 %	3 Years 6 Months due A.D.2023	A-	Stable
TPIPL251A	2,888,000,000	4.90 %	5 Years 6 Months due A.D.2025	A-	Stable
TPIPL231B	4,382,700,000	3.50 %	3 Years due A.D.2023	A-	Stable
TPIPL244A	4,127,000,000	4.25 %	3 Years 9 Months due A.D.2024	A-	Stable
TPIPL24NA	3,515,300,000	4.25 %	4 Years due A.D.2024	A-	Stable
TPIPL25NA	3,410,700,000	4.50 %	5 Years due A.D.2025	A-	Stable
TPIPL241A	4,000,000,000	3.50 %	2 Years 9 Months due A.D.2024	A-	Stable
TPIPL256A	4,000,000,000	4.15 %	4 Years 3 Months due A.D.2024	A-	Stable
TPIPL264A	3,581,200,000	3.55 %	4 Years 6 Months due A.D.2026	A-	Stable
TPIPL269A	4,000,000,000	3.70 %	4 Years 11 Months due A.D.2026	A-	Stable
TPIPL276A	3,745,000,000	4.10 %	5 Years due A.D.2027	A-	Stable
TPIPL26NA	2,532,800,000	4.25 %	4 Years due A.D.2026	A-	Stable
TPIPL272A	2,042,200,000	4.32 %	4 Years 3 Months due A.D.2027	A-	Stable
TPIPL27NA	2,994,000,000	4.50 %	5 Years due A.D.2027	A-	Stable
Total	50,679,400,000				
TPIPP247A	3,789,600,000	3.90%	3 Years 11 Months due A.D.2024	A-	Stable
TPIPP23DA	3,000,000,000	3.00%	2 Years 6 Months due A.D.2023	A-	Stable
TPIPP262A	4,523,600,000	3.55%	4 Years 3 Months due A.D.2026	A-	Stable
TPIPP278A	4,695,000,000	4.10%	5 Years due A.D.2027	A-	Stable
TPIPP267A	3,000,000,000	4.15%	3 Years 6 Months due A.D.2026	A-	Stable
TPIPP281A	3,000,000,000	4.60%	5 Years due A.D.2028	A-	Stable
Total	22,008,200,000				
Grand Total	72,687,600,000				



Debenture Registrar and debenture holders' representatives to be issued and offered

Debenture Series	Debenture Registrar	Debenture Holders' Representatives
TPIPL228A ,TPIPL224A, TPIPL234A	CIMB Thai Public Company Limited 44 Langsuan Road, Lumpini, Pathumwan, Bangkok 10330 Phone +66 (0) 2626-7507-8, +66 (0) 2626-7591 Fax +66 (0) 2657-3390	CIMB Thai Public Company Limited 44 Langsuan Road, Lumpini, Pathumwan, Bangkok 10330 Phone +66 (0) 2626-7507-8, +66 (0) 2626-7591 Fax +66 (0) 2657-3390
TPIPP23DA, TPIPL256A, TPIPL241A, TPIPL264A, TPIPL269A, TPIPP262A TPIPP267A,TPIPP281A	Bank of Ayudhya Public Company Limited 1222 Rama 3 Road, Bangpongpan, Yannawa, Bangkok 10120 Phone +66 (0) 2296-2000, +66 (0) 2296-5696 Fax +66 (0) 2683-1302	Bank of Ayudhya Public Company Limited 1222 Rama 3 Road, Bangpongpan, Yannawa, Bangkok 10120 Phone +66 (0) 2296-2000, +66 (0) 2296-5696 Fax +66 (0) 2683-1302
TPIPL231A,TPIPL251A, TPIPL231B, TPIPL244A, TPIPP22NA, TPIPP247A TPIPL276A,TPIPL26NA, TPIPL272A TPIPL27NA, TPIPP278A	CIMB Thai Public Company Limited 44 Langsuan Road, Lumpini, Pathumwan, Bangkok 10330 Phone +66 (0) 2626-7507-8, +66 (0) 2626-7591 Fax +66 (0) 2657-3390	Bank of Ayudhya Public Company Limited 1222 Rama 3 Road, Bangpongpan, Yannawa, Bangkok 10120 Phone +66 (0) 2296-2000, +66 (0) 2296-5696 Fax +66 (0) 2683-1302
TPIPL24NA, TPIPL25NA	CIMB Thai Public Company Limited 44 Langsuan Road, Lumpini, Pathumwan, Bangkok 10330 Phone +66 (0) 2626-7507-8, +66 (0) 2626-7591 Fax +66 (0) 2657-3390	Asia Plus Securities Co., Ltd. 175, 11th Floor, Sathorn City Tower, South Sathorn Road, Tungmahamek, Sathorn, Bangkok 10120 Phone +66 (0) 2680-1362 Fax +66 (0) 2285-1900-1

Legal Advisor for Issuing and Offering for sale of debentures

Baker & Mackenzie Co., Ltd.

990 Abdulrahim Place Building, 25th Floor, Rama IV Road, Silom, Bangrak, Bangkok 10500

Weerawong, Shinnawat and Partners Co., Ltd.

22nd Floor, Mercury Tower, 540 Ploenchit Road, Lumpini, Pathumwan, Bangkok 10330

(B) Short term loans in form of Bill of Exchange

As 31 December 2022, the Company's outstanding debt in the form of bill of exchange was Baht 4,355 million.



1.6 Dividend Payment Policy

1.6.1 Dividend Payment Policy of the Company

The Company's dividend payment policy will be considered from the operational results of single financial statements of the Company. Dividend payments will be paid to shareholders by also taking into consideration other factors such as liquidity, cash flow, and the financial status of the Company. The annual dividend payments shall be subject to the annual shareholders meeting's approval.

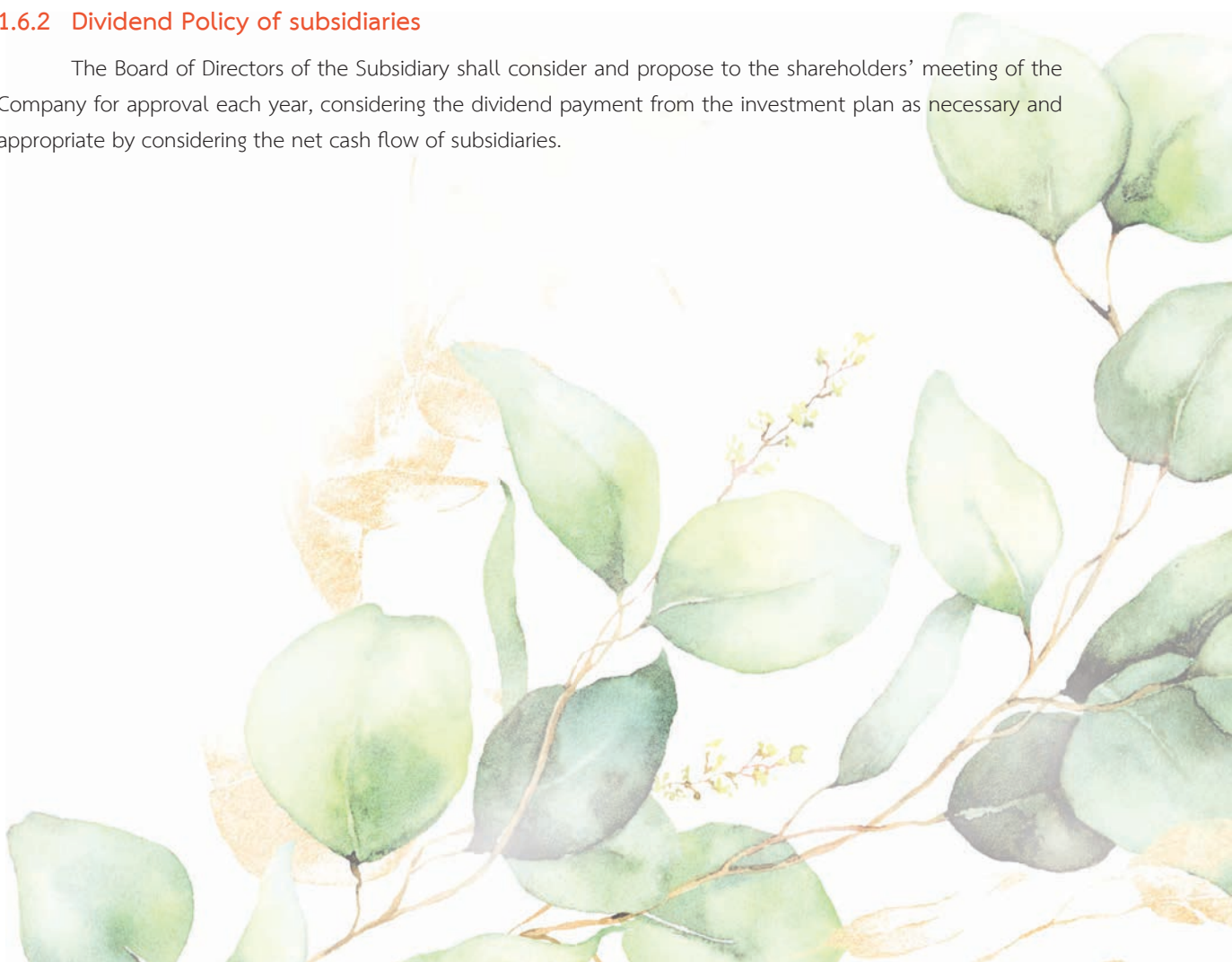
In addition, the Board of Directors of the Company may from time to time approve the payment of interim dividends to shareholders, where it is justified by the profits of the Company. After the payment of such interim dividends, the transaction shall be reported to shareholders at the next meeting.

Separate Financial Statement	2022	2021	2020
Net Profit per share (Baht)	0.370	0.297	0.079
Dividend per share (Baht)	0.10*	0.09	0.06
Par Value per Share (Baht)	1.00	1.00	1.00
Dividend Payout Ratio (%)	27.03	30.30	75.95

Remarks: * The dividend payment for the Company's 2022 operating results was divided into an interim dividend payment for the first half of 2022 at the rate of Baht 0.03 per share, which was already paid to shareholders, and the payment for the second half of 2022 at Baht 0.07 per share, which has been approved by the Board of Directors in the Company's Board of Directors' meeting no.2/2566 and is required to be approved in the 2023 Annual General Shareholder's Meeting.

1.6.2 Dividend Policy of subsidiaries

The Board of Directors of the Subsidiary shall consider and propose to the shareholders' meeting of the Company for approval each year, considering the dividend payment from the investment plan as necessary and appropriate by considering the net cash flow of subsidiaries.



2. Risk Management

2.1 Risk Management Policies and Plans

TPI Polene Group has implemented a systematic risk management policy across the organization in compliance with international standards in order to effectively identify hazards or business opportunities promptly and be able to manage the risk to an acceptable level.

TPI Polene Group is convinced that effective risk management across the whole business and a robust risk management system are crucial to the Company's ability to meet its objectives. Additionally, it helps to show that risk management standards are developed and refined in an integrated, systematic, and ongoing manner across the Company, enabling the firm to effectively handle issues amid significant impacts on the economy, society, and environment. Furthermore, it lessens the likelihood and harm that risks could cause, which boosts competition and produces long-term economic value.

The responsibilities of the Risk Management Committee in 2022 can be summarized as follows:

1. Supervise risk management in all aspects to ensure that risk management is in accordance with the plan as follows:
 - 1.1 A Feasibility Study is required to prepare to be used as a tool for screening new investments before considering investment and business expansion.
 - 1.2 Financial projections must be prepared in advance in order to manage net cash flow and assess financial liquidity for both short-term and long-term financial planning.
 - 1.3 Apply MIS information system as a tool to manage production, raw materials, sales, transportation, inventory levels, accounts receivable, EBITDA, profit/loss, cash and investment status, etc.
 - 1.4 TPI Polene Group has set a policy of net zero greenhouse gas emissions (Net Zero Greenhouse Gas Emission) by the year 2043 (or B.E. 2586) in line with the policy of the Greenhouse Gas Management Organization (Thailand has announced that it will reach its carbon neutral goal by 2050 and achieve net zero emissions by 2065). TPI Polene Group aims to use waste fuel to replace coal in all four cement plants by 2022 and can replace coal by up to 25% of coal consumption by 2023 and in power plants to reach 100% by 2025. It establishes a practical business practice that can lower the risk of conducting business from the fluctuation of coal prices in comparison to the generally stable cost of waste, as well as from climate change issues that are prioritized globally to the objective of reducing greenhouse gas emissions. This might lead to regulations on greenhouse gas emissions in the future, which could increase the cost of doing business for businesses that can't adjust to such risks.
 - 1.5 Reduce the risk of lack of main production factors to prevent business interruption by applying for concession cards in the limestone and shale mining business, as well as making both short-term and long-term coal and raw material purchase agreements without relying on any one person.
 - 1.6 Manage foreign currencies using Natural Hedging. In the excess of foreign currency (because the Company is a Net exporter) manages foreign currencies in line with the exchange rate trend in the foreign exchange market.
 - 1.7 Utilize innovation and technology to create items with a better added value. Additionally, it can save energy expenditures by promoting the creation of waste fuel.
 - 1.8 Develop Platform Online, an online sales channel, and New Normal stores in the community to support changes in consumer behavior and respond to the lifestyles of the new generation.
 - 1.9 Emphasis is placed on continuous product research and development, such as the development of 43 different types of mortar, Bio Knox anti-virus products, Microme Knox Solution, etc.
 - 1.10 Focus on cyber security with a team responsible for overseeing, conducting system tests, and practicing various plans to be able to prevent threats to cyber security.
 - 1.11 Strictly comply with relevant rules and regulations.

2. As long-term, TPI Polene Group will continue to look for investment opportunities in companies with high profit margins and growth rates, concentrating on controlling production costs, substituting waste fuels for coal, and boosting production efficiency, such as by introducing a conveyor system for raw materials in factories and using electric trains to transport raw materials in mines, etc.
3. Consider reviewing risk management information, which consists of an organizational risk management framework that has been accepted as a guideline for promoting risk management and is a practice that is internationally accepted by categorizing risks into 6 categories as follows:
 - 3.1 Strategic Risk is the risk associated with the inability to run the Company as planned while taking into account internal and external factors. Thus, it is necessary to manage the risks associated with the business plan, for instance: (1) Risk management associated with the use of waste fuel energy to replace coal in order to lower production costs, which necessitates management of the quantity and cost of waste procurement, including moisture properties of waste, etc. (2) Making investments in environmentally friendly projects, and (3) Making investments in ventures and businesses with strong future growth prospects. Such projects must conduct a feasibility study and analyze the sensitivity of key factors before investing as well as follow up on investment progress so as not to face the risk of unsatisfactory returns on investment goals, the risk of project implementation being delayed beyond the specified plan, and the investment cost is higher than the budget set, etc.
 - 3.2 Operational Risk is operational risk caused by internal operational processes or external factors that affect revenue and operating costs such as cost control, raw material procurement is sufficient and within the budget limit, short-term and long-term contracts to buy coal to be sufficient for business operations and without interruption in operations, etc.
 - 3.3 Financial Risk is the careful use of financial policies within the specified budget in order to obtain appropriate returns and sufficient cash flow for business operations in order to ensure that the Company has maintained good risk management and internal control system suitable for the changing environment to reduce financial risks such as risks from exchange rate fluctuations, interest rates, liquidity adequacy, revolving credit limits, credit long-term, and issuing debentures managed in line with the changing trends in the exchange rate market, money market, and capital market, etc.
 - 3.4 The risk of complying with applicable laws and regulations (Compliance Risk) is the risk of being unable to do so in the face of rules, regulations, applicable regulations, or existing regulations that are inapplicable, out-of-date, impeding, and potentially punishable by law. The Company must establish a unit that strictly controls compliance with government regulations and policies including corruption and operations in accordance with the regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand, etc.
 - 3.5 Environmental Risk is the risk from emissions from the production process affecting the environment. Therefore, the Company's production process must be managed so that the Company's production process does not cause dust, chemical residues, and wastewater affecting the environment of the community, etc.
 - 3.6 Social Risk is the risk of human resource management, safety, occupational health and working environment, including human rights violations, etc. The Company therefore has a policy to enhance knowledge and skills, as well as provide appropriate compensation to employees, respect human rights with regard to benefits and equality, and provide safety operating manuals in accordance with industry standards. In addition, complaints channels and a welfare committee are established to take care of the safety and occupational health of employees, etc.
 - 3.7 Sustainability Risk: If the investment is not taken into consideration, it will lose the chance and make it impossible to maintain a sustainable income condition or may finally lead to the Company going out of business if it is unable to keep up with the disruptive industry.

There is risk management throughout the organization by analyzing risks and responding to risks at an acceptable level.

4. Promote a risk management culture by setting a policy from the management and organizing a training course on “Risk Management in the Organization (Risk Management)” to educate employees on risk management. There will be training every year at least twice a year for employees at all levels to create knowledge, participation, and risk management systematically.

The Risk Management Committee has carried out its responsibilities independently in overseeing TPI Polene Group’s risk management with caution and complete competence to ensure effective risk management, achieving the organization’s objectives, and maximizing the benefits of TPI Polene, shareholders, and all groups of stakeholders fairly and sustainably over the long term.

Risk Management Structure

The Company has established a risk management committee chaired by the Chief Executive Officer and committees from related departments responsible for considering structure, policy, risk management framework, risk management plan, risk review, and risk management monitoring. The Risk Management Department is responsible for preparing risk management reports, implementing, and supporting risk management throughout the organization. The Company has continuously monitored the changing environment through the Risk Management Committee and all organizational departments, and has taken into account significant risks that could have an impact on the Company’s operations by taking measures to respond to risks that are determined at an acceptable level from the executive meeting and are detailed in the annual work plan.

The Risk Management Committee has the scope of duties and responsibilities as follows:

1. Review and propose the policy and risk management framework to the Board of Directors for approval.
2. Review and approve the risk appetite and present to the Board of Directors for acknowledgment.
3. Overseeing the development and implementation of policies and frameworks for continuous risk management in order for the Group to have an effective risk management system throughout the organization and continuous compliance.
4. Review risk management reports to monitor material risks and take action to ensure that the organization has adequate and appropriate risk management.
5. Coordinate with the audit committee on key risks. There is also an internal audit unit to review to ensure that the Company has an appropriate internal control system for risk management, including the appropriate implementation of the risk management system and compliance throughout the organization.
6. Regularly report to the Board of Directors on key risks and risk management.
7. Provide advice and consultation to the Sub-Risk-Management Committee (SRM) and/or the departments and/or working groups related to risk management, including considering appropriate ways to correct various information about developing a risk management system.
8. Consider appointing subcommittees and/or additional or replacement personnel in the risk management subcommittee and/or work units and/or working groups related to risk management as appropriate as well as define roles and responsibilities for the benefit of carrying out the objectives.
9. Any other operations related to risk management assigned by the Board of Directors.

Corporate Culture in Risk Management

TPI Polene Group focuses on promoting a risk management culture throughout the organization, aiming to establish the foundation for short-term and long-term systematic risk management, cultivate awareness of risk management for all employees, as well as create an atmosphere and culture in risk management, assuming risk management as an important component of every business process and having to be connected at all levels. This is done by integrating into key work processes to promote effective risk management.

In 2022, TPI Polene Group has set a policy from the management and has organized a training course “Risk Management in the Organization (Risk Management)” to educate employees on risk management. Employees at all levels will participate in training at least twice a year to systematically build knowledge, participation, and risk management.

2.2 Risk factors towards the Company’s business operations

Overview of the key risk factors affecting the operation of TPI Polene Group can be summarized as follows:

2.2.1 Risk in the Group’s business operations

Strategic risks in business operations

(1) Risk associated with investment and business expansion

TPI Polene Group aims to expand its business growth in waste energy and alternative fuel, as well as to bring technology and innovation to drive the current business to sustainable growth. For example, the Company has replaced coal in the cement production process to reduce production costs, and create business growth potential in parallel with reducing greenhouse gas emissions that cause global warming. As part of the new business expansion, TPI Polene Group will consider joint ventures with partners who specialize in targeted businesses, the expansion of which might confront with the risk that the return on investment may not achieve the target as well as project implementation is delayed and investments are higher than the budget.

Executive committees and top executives of TPI Polene Group have responsibilities to scrutinize investment decisions before presenting to the Board of Directors for opinions on investment decisions. The results of the project will be followed up to ensure the most effective investments and report to the Board of Directors and senior management to ensure that investments are in the best interests of the Company. Investment projects are regularly monitored and analyzed to improve performance and review investment plans to reduce the risk level of the project to a manageable level by completing the project under the budget and in accordance with applicable laws and regulations.

(2) Risks associated with changes of rules and legal regulations

The provisions of the government’s rules, legal regulations and policies are an important factor in the strategy of business operations and the expenses of TPI Polene Group and TPI Polene Group has functioned as follows:

- There is a team to monitor and report changes in government policies, rules and legal regulations for TPI Polene group’s business operation to ensure compliance with the rules and legal regulations.
- A team of legal advisors and tax advisors to give advice to TPI Polene Group to comply with relevant regulations.
- There is a procedure to support legal risks in advance by monitoring new legal issues and new regulations, to analyze the issue and problems, and prepare discussions on the clarity of the guidelines in order for the ongoing business operation of TPI Polene Group to comply with legal regulations and new rules that will be enforced in the future, as well as to be factored in the consideration of investment in projects.
- There is a regulatory process to comply with rules and legal regulations to comply with good corporate governance guidelines, in accordance with good governance principles and adequate internal affairs control and all-round risk considerations are considered to reduce the risk of operations that do not comply with applicable rules and legal regulations.
- Embed values for employees to comply with the Group’s business ethics and Employee Manual in accordance with TPI Polene Group’s commitment to be a responsible manufacturer for the community, environmental surroundings, as well as stakeholders in all sectors.

(3) Risks associated with personnel development to support business growth

According to TPI Polene Group's business growth plan, the personnel and organizational structure must be organized. TPI Polene Group attaches importance to the development of personnel at all levels to support business growth. It coordinates with relevant educational institutions to support the growth of TPI Polene Group's business under proper management. TPI Polene Group has recruited personnel to meet the needs of business units appropriately. There is a manpower plan to ensure that TPI Polene Group has quality executives and employees that are sufficient and able to effectively support future business growth.

In addition, the impact of the digital disruption, where there is acceleration of changing behaviors of manufacturers and consumers in the future, especially the effects on business models and distribution channels. TPI Polene Group must prepare employees for knowledge development in depth- skills along with internships to top up the concept to be applied, in line with strategies, organizational direction and risks from external factors. TPI Polene Group has a policy to develop the potential of employees to gain knowledge and understanding of Digital Trend technology, and innovative developments, so that employees are ready for them and can become leaders in various dynamic circumstances.

(4) Competitiveness Risk

In a volatile social economy, there are severe changes such as new competitors, intense competition, changes in consumer behavior, the emergence of a New Normal Trend, Disruptive Industry. Therefore, TPI Polene Group must enhance competitiveness, strengthen business operations, and be flexible, including creating competitive advantages to be able to operate business under challenges and volatility of situations from external factors in order to achieve sustainable growth.

TPI Polene Group lowers the risk of missing out on the chance to maintain sustainable growth (Sustainability Risk) by taking into account investment in order to not miss out on chances and be able to retain sustainable revenue by updating innovations including new technologies. The Group also modernizes the factory (Modernization and Innovation) and transforms the manufacturing process into a Smart Plant in order to improve productivity and save costs.

(5) Product Liability Risk

TPI Polene Group plans to develop products into the market requiring standards and product certification with higher expectations of product quality from customers. Companies therefore need to manage legal, regulatory, and product-standard risks along with market and product development.

TPI Polene Group attaches importance to product development in accordance with standards, regulations, and market expectations with risk management measures by monitoring the market and customers, setting product inspection procedures. There is a Quality Assurance, Quality Control process to obtain product certification quickly, including setting clear and concise quality according to the specified standards.

(6) Risk of Sustainable Water Management

Being able to manage water sustainably in terms of quantity and cost is essential to business operations in order to prevent production disruptions, maintain competitiveness, and increase confidence in future investment plans. The Company has to establish sustainable water management measures at the national level, provide alternative water sources, and consider the use of water reduction technologies to ensure that there is enough water for current and future production processes.

TPI Polene Group has established a business continuity plan in case of drought. There is an increase in the efficiency of water use in the production process, reuse of water (Renewable Water), improving the production process, providing a reserve water source, studying new water production technology, and integrated water management.

(7) The risk associated with climate change

From the globally focused climate change issue, it has led to the goal of reducing greenhouse gas emissions, which may direct future greenhouse gas emissions guidelines, which are the risk of catastrophic climate change and severe natural disasters caused by greenhouse gas emissions.

TPI Polene Group, a major cement manufacturer in Thailand, is committed the policies and visions to become an environmentally friendly cement producer, using Net Zero GHG Emission policy and find ways to reduce greenhouse gases that cause global warming to be in line with other public and private sectors that are aware of the problem. Thailand is clearly one of the countries affected by climate change. It is important that all sectors work together to set up preventive and remediate solutions to reduce greenhouse gas emissions that are the leading cause of the problem to be in line with government policies that have pledged internationally that Thailand will fully enhance its climate solutions so that Thailand can meet its net zero emissions target by 2050 (B.E. 2593).

TPI Polene Group is aware of the risk from such changes by taking concrete steps in a business model that is seriously viable by using waste as fuel instead of coal in cement plants and power plants and other related activities.

(8) Risks associated with the drought situation

As a result of sudden climate change, the rain does not fall seasonally while there is an increase in demand for water. The Group has a water management policy to reduce water use by undertaking the following relevant actions:

1. Construction of rainwater ponds to replace the use of water from natural sources.
2. Recycle the waste water
3. r from the cooling tower to improve the quality for recycled water instead of discharge.
4. Conduct social and environmental activities to restore related areas.

Operational Risks**(9) Risk associated with potential coal price fluctuations**

Coal is a principle source of fuel in the manufacture of cement. Coal price fluctuation depends on a supply from major exporters in Australia and Indonesia. In case demand for coal from major importers of coal in China increases, coal prices will be adjusted upward. Therefore, the Company's fundamental approach to managing coal price fluctuation risk is to identify extensive supply sources for coal, and establish import sales contracts throughout the entire year, with an appropriate allocation of short-term and long-term contracts, in order to efficiently manage cement production costs.

Coal price (including shipping cost to the plant) in the last 3 years:

	Unit	2022	2021	2020
Coal price	Baht/ton	3,257	1,952	1,710

In addition, the Group has a policy of using renewable waste to replace coal fuels in both cement plants and coal-fired power plants, which can mitigate risks associated with fluctuations in coal prices. In particular, production costs will be reduced while also decreasing carbon dioxide emissions which cause global warming. It is a sustainable integrated solution.

(10) Risk associated with Product Price fluctuation

The Company's plastic resin price fluctuation has a direct impact on the business profitability of the Group. However, fluctuation depends on the sale price of products on the market. Production costs of plastic resin, which are ethylene price based on the sale price as well. The Company has a policy to maintain the difference in sales price and production costs (spread) to a level that the Company is satisfied with. With a wide range of business operations of the Group, revenue from the cement business, classified as a basic commodity, may fluctuate slightly in line with the nation's economy. In the event that global commodity prices rise and result in higher coal prices, the price of coal will increase. This will cause the cost of cement production to be adjusted upward. Nonetheless, all these factors will also impact a plastic resin price hike, leading to an increase in plastic resins prices and higher revenues. These measures will partly protect the Company against price fluctuations, by balancing revenue structure and net revenue generated by TPIPL Group.

Products	Unit	2022	2021	2020
Cement	Baht/ton	1,441 – 2,011	1,072-1,474	1,011-1,553
LDPE /EVA Plastic resins	Baht/ton	59,986 – 132,478	44,158-110,793	29,988-62,613
Ready-mixed concrete	Baht/cubic meter	1,424 – 1,637	1,333-1,398	1,407-1,470

(11) Risk associated with safety, occupational health and environment

It is the control of safety, occupational health, and environmental risks that may lead to loss of life, injury, illness due to the work of employees and contractors that cause disruption and continuity in business operations and may affect communities, society, and the environment.

Therefore, TPI Polene group has a policy of guidelines for compliance with quality policy frameworks, Quality, Security, Safety, and Health and Environmental Policy to create safe attitudes for all parties involved. Each plant has appointed an Occupational Safety and Health and Working Environment Committee to drive safety and environmental work in accordance with occupational health policy as well as developing, improving and promoting occupational health and safety work for employees, contractors and stakeholders entering the factory area to work safely. The Company has guidelines for promoting the operational safety of employees and contractors as follows:

- Establish occupational health, safety and environmental policies by operating in accordance with the Occupational Health and Safety Management System (ISO45001:2018) standard.
- Risk assessment and guidelines for occupational health and safety risk management work environment, including risk assessment and risk management guidelines that may affect surrounding communities and environment.
- Establish operational safety manuals and supervising operations in accordance with safety manuals and procedures.
- Accident and incident reporting and investigation, including setting solutions and precautions to prevent repetition of accidents.
- Supervision of performance under safety laws, and occupational health and work environment and other related regulations .
- Supervision of workers, third parties, and stakeholders in the workplace to strictly comply with safety regulations and regulations.

- Supervision of the working environment and providing personal safety protective equipment for employees to use in operations and providing other safety protective equipment in accordance with the required legal regulations to prevent injuries and accidents from work.
- Prepare for work response by providing personal safety protective equipment for employees to use in operations and providing other safety protective equipment in accordance with the required laws to prevent injuries and accidents from work.
- Prepare for emergency responses, including business continuity management.
- Communication of safety, occupational health and work environment policies, cultivating consciousness and creating a safe work culture, developing knowledge skills and continuously organizing activities in the areas of promoting health, safety, occupational health and the work environment.
- Annual health check-up of employees to assess and monitor the impact of operations.
- Regular discussion meetings to monitor security operations, occupational health, and working environments.

(12) Risk associated with COVID-19 pandemic

Throughout the COVID-19 pandemic, the Company has taken measures to prevent potential risks, focusing on the safety of its employees. TPI Polene Group provides RT-PCR Swab tests and COVID-19 testing kits to give all employees chances to get COVID-19 testing. The Company also provided vaccines to all employees, and provided TPI Polene healthcare products to both employees and their families to keep employees and families healthy and immune to COVID-19. In addition, all employees are required to pass temperature measurements and spray alcohol gel at the exits and entrances, wearing masks at all times, and use online contacts instead in the workplace etc.

(13) Risk associated with threat to cybersecurity

Amidst today's high competition, TPI Polene increase production efficiency by relying more on the use of digital technology in both production systems and support lines, where connecting to the internet, which could lead to TPI Polene Group facing potential cybersecurity threats.

In order to prepare the Group for the cybersecurity of the computer systems used in business operations (Information Technology) and in operation technology, the Group has implemented as follows:

- The task force is responsible for overseeing and developing such matters in the short and long term.
- Conduct system tests and practice plans to prevent potential cybersecurity threats.
- Educate employees about potential threat patterns to prevent and deal with information technology threats.

Emerging Risk

(14) Risk associated with abrupt change in consumer demand due to trends in environmental preservation and climate

Nowadays, society pays attention to the environment and climate change which is increasing in intensity both nationally and internationally. Plastic bag bans and the usage of recycled materials are supported by people all around the world as ways to lessen our environmental effect. Entrepreneurs are now concentrating on the effects on the environment, the expectations of stakeholders on the Company's contribution to sustainable environmental management, and modifications to business operations for sustainability as a result of changing consumer behavior.

TPI Polene Group attaches importance to changing consumer behavior. The Group has increased efficiency in every production process to reduce the use of resources and energy by implementing new

innovations and technologies, such as installing a Solar Rooftop system in the factory, concentrating on producing products with higher added value, emphasizing the production of low-carbon products in various forms, including the production of biological products, as well as concentrating on the Zero Waste production process, etc.

(15) Risk associated with rapid changes and use of advanced technology

These days, technology and digital technology are developing quickly and continuously, impacting market changes, product development, business models, business opportunities and challenges, and the exponential growth of Automatic Machinery, artificial intelligence and robotics that improve business efficiency. At the same time, it poses a challenge to develop infrastructure and develop human resources in line with the advancement of new technologies, as well as rapid Big Data analytics, which may pose human rights and ethical risks, for example.

TPI Polene Group has increased the level of innovation work because it is aware of the changes in advanced technology. This includes bringing in new technologies to modernize the factory, transforming the factory into a Smart Plant to boost competitiveness by concentrating on business operations that do both, as well as increasing cyber threat management and educating people to be consistent with new technologies.

TPI Polene Group has also taken steps to develop the Company in order to maintain its competitiveness. These steps include revising business plans to create online and offline sales channels so that customers can access goods and services through a variety of channels to fit the lifestyles of the new generation as well as preparing employees to meet the changing needs of customers. Additionally, the product has been enhanced to be effective and meet customer needs by utilizing technology and innovation in product development, including fiber cement and mortar products, which are available in a variety of 43 types according to the purpose of use, as well as health products like Bio Knox, Microme Knox Solution, and mouthwash, in line with the changing way of life, good hygiene, energy saving, cost-effective and diverse, and environmentally friendly.

(16) Risk associated with adaptation to cope with the crisis of natural disasters

Natural disasters resulting from climate change tend to become more severe, such as floods and droughts. If the Company does not adapt adequately, there may be serious damage to the organization.

TPI Polene Group is aware of the threat of natural disasters and has prepared to handle such situations by conducting emergency drills to manage business continuity in various fictitious situations. This is done so that executives and other related staff are aware of their roles, duties, and operational shortcomings so they can prepare various backup measures and improve them before the actual incident.

Financial Risks

(17) Risk associated with funding and interest rates

TPI Polene Group needed funds to improve productivity and working capital for business operations. Therefore, sources of financial support that are difficult to obtain can cause problems for investment projects. The Company has resolved the issue by obtaining approval of long-term credit lines from commercial banks and financial institutions to support the expansion of investments in projects of the Group. In addition, TPI Polene Group has sufficient revolving credit limits from financial institutions to serve as working capital in business operations.

In addition, the Company has offered for sale of unsecured-subordinated fixed-rate debentures and bills of exchange offered, which were well received by the investors in the market. As a result, TPI Polene Group has the right funding options with lower financial costs to expand its investment in its core business and utilize the proceeds to pay off debts that have higher exchange rate risks and/or higher financial costs, as well as using it as working capital to operate the business.

As the debt is mostly in form of fixed-rate debentures, the Company is less exposed to interest rates that may fluctuate in the future. Currently, the Company does not use financial derivatives to hedge such risks because the current policies to mitigate such risk are considered appropriate.

(18) Risks associated with foreign exchange rate

As at 31 December 2022, the Company's major long-term loans are mainly denominated in Baht currencies, representing 100%. Therefore, the Company has impact from risks associated with the exchange rate fluctuation to some extent.

TPIPL Group also has debt liability in the form of working capital, a significant amount of which is denominated in USD currency while part of it is denominated in Euro currency. However, most of the Company's income is generated in US dollars, which is higher than the payment of expenses in foreign currencies (in both US dollars and Euro based). The Company has a policy to mitigate foreign exchange risk through natural hedging by balancing its foreign currency revenues and expenses. These measures will partly protect the Company against currency fluctuations, by balancing its cash flow in foreign currencies, revenue and expenses structure. The Company can use a number of financial mechanisms against risk caused by fluctuations in currency exchange rates by exporting products for payment in US dollars and maintaining a US dollar deposit account for repayment of the principal and interest to creditors, to mitigate foreign exchange risk through natural hedging.

In addition, the Company has also applied a policy to mitigate risk associated with foreign exchange to use financial instruments, which is apt for hedging to enter into a Forward Contract and/or Cross Currency Swap, as considered appropriate; to hedge its foreign exchange exposure, the Company will closely monitor potential adverse currency movements, by balancing the income generated in US dollars and the payment of expenses in foreign currencies.

However, as of 31 December 2022, the Company and its subsidiaries did not have a balancing amount regarding a forward exchange contract and /or cross currency swap as above.

(Unit : Baht mil.)

The group of company	31 December 2022			31 December 2021			31 December 2020		
	Baht currency	Foreign currency equivalent of Baht	Total	Baht currency	Foreign currency equivalent of Baht	Total	Baht currency	Foreign currency equivalent of Baht	Total
Debt Liabilities	71,372	0	71,372	68,143	0	68,143	52,424	805	53,229
Sales Revenue	29,079	19,054	48,133	27,090	11,830	38,920	26,293	10,747	37,041

(Unit : Baht mil.)

	31 December 2022	31 December 2021	31 December 2020
Exchange Rate Gain/ (Loss)	437.17	390.71	(11.94)

(19) Risk associated with credit provision

To mitigate credit risk stemming from debtors' potential failure to comply with their contracts, the Company has a policy to conduct business transactions with reliable trade partners by selling cement products based on cash and credit terms. Usually, customers are required to provide collateral in the form of a letter of guarantee or Bank Guarantee in return for customer credit lines. A Credit Committee has been appointed to consider proper criteria for offering credit lines to customers and to develop a monitoring process for cash collection from customers.

As at 31 December 2022 and 31 December 2021, allowance for doubtful debt percentage to total account receivable of the Company was 0.61% and 0.82%, respectively.

(20) Risk associated with maintaining financial ratios

TPI Polene Group has issued debentures and must comply with debenture rights requirements to main debt-to-equity ratios. During the period of time, the Company strictly adheres to the conditions for maintaining the Debt to Equity Ratio.

According to the financial statements of the Company and its subsidiaries, ratio of loans from financial institutions to total liabilities in 2022 and 2021 were 0 and 0.01:1 respectively, with the ratio decreasing as the Group has a policy of selecting channels through offering for sale of unsecured debentures debt with lower financial costs than loans offered from financial institutions

In addition, TPI Polene Power Public Company Limited, as a subsidiary, is a capital intensive and upfront investment business; TPI Polene Group will closely monitor and manage to minimize the use of clear investments from the defined plan with an appropriate return on investment at manageable levels of risks to create stable future growth in the long run. The Group will be cautious and take into account the funding source and ability to pay the debt in advance, with the policy of properly structuring the finances in order for the financial ratio to be at a manageable level and comparable to companies in the same industry. Close monitoring will give the Group confidence in managing risks in maintaining financial ratios and financial costs appropriately.

(21) Investment Risk

Investing in competitiveness for long-term business growth may pose investment risks. The ability of the Company to obtain investment funds to support growth, along with maintaining the Credit Rating at the level of Investment Grade, must be closely monitored and managed. Additionally, the Company must follow up on progress investing in accordance with the specified time without increasing the investment budget.

The Company has made arrangements to assess, analyze, and prioritize investment projects in line with economic trends and look for investment possibilities that offer reasonable returns with manageable risks. Additionally, there is a careful and concise investment consideration process, risk assessment and risk management measures, adequate funding, liquidity maintenance, financial restraint to maintain Credit Rating, and there is a follow-up to ensure that the project does not delay, and the investment budget is within the investment framework.

Risk associated with investments of securities holders (instrument risks)**(22) Credit Risk**

Bondholders are vulnerable that they may not receive interest or principal payments in the event that the business and performance of the issuer are not as expected or the assets of the issuer are insufficient to pay the debt; therefore, before making an investment decision, investors should consider the financial position and ability to repay of the issuer from the information specified in the Offering Circular and draft prospectus for assessing the credit risk of debentures. If the credit rating of the issuer is low, it

indicates that the credit risk of the issuer is high. The returns that investors receive should also be high to compensate for the high risk of such debentures. However, credit ratings do not provide advice to buy, sell or hold debentures offered, and credit ratings may be cancelled or changed over the life of debentures. In addition to determining the credit rating of debentures, investors should follow the information of the issuer as well as update the credit rating from the SEC website, credit rating institution, or Thai Bond Market Association.

(23) Risk associated with event of default

History of default on principal or interest of debt instruments or default on loans from commercial banks, capital firms or financial institutions with specific laws established.

- None -

History of breach of conditions for compliance with rights requirements during 2019-22

- None -

(24) Risk associated with investing in foreign securities (in case the issuer is a foreign company)

- None -

2.2.2 Risk associated with legal disputes

As at 31 December 2022, the Company had the major lawsuits as follows:

- 1) Due to on 20 February 2017, Tham Phra Phothisat Temple (the “Plaintiff”) filed a complaint with the Central Administrative Court (the “Court”) being the Black Case No. Sor. 3/2560, and claimed that Plaintiff is authorized by the Fine Arts Department to be the caretaker of the Phothisat cave (Tham Phra Phothisat), but did not have a written power of attorney, and alleged that the Company’s mining activity caused damage to the engraved images in Phothisat cave. Later, on 2 June 2017, the Court called the Company to be a party (as an interpleader) in the case where the Plaintiff filed a lawsuit against the Minister of the Ministry of Industry, 1st Defendant, the Director-General of Department of Primary Industries and Mines, 2nd Defendant, Department of Mineral Resources, 3rd Defendant and Saraburi Provincial Industry Office, 4th Defendant (collectively “Defendants”); claiming that the Defendants’ issuance of Prathanabat to the Company is done in contradiction to regulation of Ministry of Interior on the Conditions and Means of Prathanabat Issuance, under Section 9 of the Land Code B.E. 2497, which such regulation of Ministry of Interior was issued in B.E. 2535; thus, the Plaintiff requested that such Prathanabat issued by the Defendants to “Petrochemical Industry Company Limited” which such Prathanabat was later assigned to the Company, be revoked. Further, the Plaintiff filed a request for an emergency interim measure demanding that the Court orders the Company to stop the blasting of rocks for mining activity, until the decision of this case is reached

On 3 August 2017, the Court, together with the parties of this case went to examine the location at Phothisat cave and found the Bas-relief art images of Buddha, Shiva god, Narai god, Hermit, etc. located at the front area of the cave; and during the examination at the location, the officer of Fine Arts Department informed that according to the evidences which are the photographed pictures of the art images which were taken in B.E. 2507, B.E. 2508, B.E. 2534, B.E. 2535, B.E. 2559 and B.E. 2560, there is no traces of any changes to the art images based on comparison with those pictures. Further, the Court, together with the parties of this case, examined the area of the Company (interpleader) which was granted with Prathanabat by witnessing the rock blasting activity of the interpleader around 15.30 o’clock, standing approximately 300-400 metres from the area of blasting activity; which at the time of blasting, it made a slightly loud sound, but no vibration was detected. Later, on 8 September 2017, Court denied the Plaintiff’s request for an emergency interim measure for the Company to comply with the order of the 4th Defendant.

The 1st Defendant submitted a written statement dated 8 May 2017 to the Court, which stated that the 1st Defendant is authorized with the power to issue Prathanabat to each applicant in accordance with the Minerals Act, B.E. 2510. The 2nd Defendant submitted a written statement dated 4 May 2017 to the Court, which stated that the 2nd Defendant was assigned with the administration power from Department of Mineral Resources according to the Reorganization of Ministry, Sub-Ministry, and Department Act, B.E. 2545 and is authorized with the duty to consider the application for Prathanabat which have been submitted to the officials at the local Industry Office, and the 2nd Defendant is authorized with the power to grant Prathanabat in accordance with Section 54 of the Minerals Act, B.E. 2510; and after Prathanabat is granted, the 2nd Defendant has the duty to control, monitor and inspect that the person whom has been granted with Prathanabat, shall comply with the Minerals Act, B.E. 2510 and the conditions set forth in the annex of Prathanabat. The 3rd Defendant submitted a written statement dated 28 March 2017 to the Court, which stated that the presently, the 3rd Defendant is not authorized by the laws related to the issuance of Prathanabat, which is due to the Royal Decree on transfer of administration duty and power of the administrative agencies issued according to the Reorganization of Ministry, Sub-Ministry, and Department Act, B.E. 2545, Section 151 which transferred the said duty, power and asset to Department of Primary Industries and Mines (2nd Defendant). The Fine Arts Department also submitted a written statement dated

5 April 2017 to the Court, which stated that the Phothisat cave is deemed as ancient monument under Section 4 of Act on ancient monuments, antiques, objects of art and national museum, B.E. 2504 and the Fine Arts Department had already announced the registration of Phothisat cave as ancient monuments in the government gazette since 6 April 1965; and the Fine Arts Department authorized the director of Regional Office of the Arts Department, No.3, Ayutthaya, with the authority to file any complaint to the inquiry officer who has authority in the area, against any wrongdoer. The statement further clarified that on 14 December 2016, the Fine Arts Department had inspected the Phothisat cave and there appeared to be no traces of any damage, nor any damage to the Bas-relief art images from Dvaravati era, e.g. images of Buddha, Narai god, Shiva god or other persons; which are in good order and it was found that the conditions of the other areas within the cave are normal without traces of any damage being caused by the mining activity of the Company.

The fact-finding procedure of the case had ended and the Court had set the first trial date to be 9 September 2020 together with submission of summary of facts from the Judge who presided over this case dated 11 August 2020 and scheduled the date of rendering the Court's decision to be on 30 September 2020.

The Court ruled that the Defendants lawfully issued Prathanabat to "Petrochemical Industry Company Limited" and in accordance with the Land Code and Minerals Act, B.E. 2510, which such Prathanabat was later transferred to the Company, which were done lawfully and legitimately; the mining activity of the Company which is the blasting of rocks according to Prathanabat and using the explosives not exceeding the rate of 130 kilograms, further, the result of vibration or compression level inspection are according to the safety standard, when compared with the standard set forth by the Ministry of Natural Resources and Environment. Additional, the Fine Arts Department also stated that according to the inspection result, there is no additional damage, the Bas-relief art images are in good condition and there is no damage to the area within the cave; thus, the Court has no reason nor cause to issue the order according to the Plaintiff's request and the Court has ruled that the case is dismissed and the Court's order relating to the emergency interim measure dated 8 September 2017 shall be revoked starting from the first day of which the appeal submission period has expired (in case there is no appeal submission) or starting from the date on which the Court has ordered its decision to accept or not accept the appeal (in case there is submission of an appeal), as the case maybe.

The Plaintiff submitted the appeal to the Court on 27 October 2020 and the Court accepted the appeal of the Plaintiff. Therefore, the Court's order dated 8 September 2017 relating to the emergency interim measure ceased to be in effect. The Court allowed the date to submit the answer to the appeal to be within 21 February 2021. The interpleader submitted the answer to the appeal on 5 February 2021. The case is pending the considering of the Supreme Court.

- 2) This case is due to the Company received permit to dig the water-well, from Mittraphap Subdistrict Administration Organization and the Company dig the water-well in the Company's own land, in order to preserve the environment and to be used for prevention of fire (the Black Case No. SorWor.2/2561). Later, on 21 June 2018, the Department of Primary Industry and Mines, Ministry of Industry, by representation of the district attorney, the Office of Attorney General (the "Plaintiff"), filed a lawsuit against the Company (the "Defendant") at the Civil Court (the "Court"), claiming the violation in mining activity with the principal amount of claim of Baht 71,566,889.42. The Plaintiff claimed that the Company conducted its shale mining unlawfully in the area in which Prathanabat for such area has not been granted, totaling 2 locations; thus, requesting that the Court to order the Company to return the shale totaling of 249,159.96 metric tons back to the original area and restore the area into its previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount of Baht 66,650,289.31 together with interest.

The Company plead in its defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence, the Plaintiff claimed that the Company conducted unlawful mining activity, however, the claim is fault, the Company did not commit any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim. The hearing was finished and the Court ordered the date to render the Court's decision to be on 24 March 2020.

On 24 March 2020, the Court ordered the Company to return the shale totaling 249,159.96 metric tons back to the original area and restore the area to its previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount of Baht 66,650,289.31 together with interest at the rate of 7.5 percent per annum on the said amount, starting from the date of the violation (28 June 2017) until the date of the complaint filing (359 days) making the interest to be Baht 4,916,600.11. Total amount of combined principal and interest is Baht 71,566,889.31. The Court also ordered that the interest on the principal amount of Baht 66,650,289.31, in the rate of 7.5 percent per annum would be paid calculating from the next day after the date of filing of the complaint until the payment is received in full together with the court fees in behalf of the Plaintiff and attorney fee of Baht 80,000.

The Company filed the appeal together with the request for delay of judgement execution on 19 August 2020.

On 20 October 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per year pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per year but not exceeding the rate of 7.5 percent per year as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 18 February 2022. The case is pending consideration of the Supreme Court.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines' filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 3) On 20 June 2019, Tham Phra Phothisat Temple (the "Plaintiff") filed a lawsuit against the Ministry of Industry, as 1st defendant and other related persons as co-defendants, totaling 31 persons, in a Black Case No. Sor. 17/2562, which the Company is the 30th Defendant in the lawsuit and the Plaintiff also filed request for the Court to order an emergency interim measure, until the decision of this case is reached. Later on, the Court also ordered the Committee of Professional on Environmental Impact Assessment Report (the "Committee"), as the 32nd Defendant. The Court has considered and issued the order dated 17 September 2019, to accept the complaint against some of the respondents and denied to accept the complaint against some respondents and some claims (the Court only accept the followings as defendants: Ministry of Industry, as 1st Defendant, Minister of Ministry of Industry, as 2nd Defendant, Department of Primary Industry and Mines, as 3rd Defendant, Director-General of Department of Primary Industry and Mines, as 4th Defendant, the Company, as the 30th Defendant and the Committee, as the 32nd Defendant, respectively). The Court also issued order dated 17 September 2019 which denied the Plaintiff's request for an emergency interim measure. The Plaintiff claimed to be the authorized person from the Fine Arts Department as caretaker of the Phothisat Cave, but did not have a written power of attorney, but requested to the Court to order that the application for Prathanabat of the Company is unlawful, the Plaintiff also claimed that the resolution of the 32nd Defendant which approved the Company's Environmental Impact Assessment Report for the Company's mining activity, concealed the facts, thus, unlawful. The Plaintiff requested the Court to order the revocation of the Company's application for Prathanabat of limestone mining, in which the Company has submitted for approval.

The Defendant submitted written statement of defense which informed the Court that the Plaintiff has no authority to file the complaint and this complaint repeated the complaint filed in Black Case No. Sor.3/2560, and the Company's application for Prathanabat of limestone mining is lawful and in accordance with the rules, procedures and methods as prescribed by the laws, further, the applied area for Prathanabat is not the restricted area under the laws in respect of Mineral and Forest; and there is an Environmental Impact Assessment Report which have been prepared correctly and completely in accordance with the law in relation to Enhancement and Conservation of National Environmental Quality and law related to Mineral, for application for Prathanabat which have been submitted for approval from the authority. The application for Prathanabat is pending the consideration for approval of the authority and the Company's application for Prathanabat did not cause any damage or grievance to the Plaintiff, thus, the Defendant requested the Court to dismiss the complaint.

The Company have made and submitted the additional statement of defense to the Court on 14 January 2021, the case is under the process of the Court's fact finding procedure.

- 4) On 8 July 2015, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the "Plaintiff") filed a civil lawsuit (the Black Case No. SorWor.4/2559) against the Company (the "Defendant") with the principle amount of claim in total of

Baht 4,066,535,823. The Plaintiff later amended the complaint to increase the amount of claim to be the total of Baht 4,338,558,231.54; claiming that the Company engaged its limestone mining activity in the area outside the designated area under the Prathanabat and requested that the Company returned the limestone ore in total of 31,522,374.64 metric tons and restore the area to be in its previous condition or pay the compensation together with the 7.5 per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

The case was requested to be transferred to the Environmental Law Division of the Civil Court to be jointly considered with other related cases and the Court granted the said request.

On 13 December 2019, the Civil Court ordered the Company to return the limestone ore in total of 31,522,374.26 metric tons back to the area where the mining activity was done and to restore such area to the previous condition or pay the compensation of Baht 4,047,472,854.98 together with the 7.5 percent per annum interest on the said principle amount, calculating from the discovery date of the unlawful mining activity (24 July 2014) until the date of the filing of complaint (350 days) totaling Baht 291,085,376.56 making it Baht 4,338,558,231.54 in total. The Court also ordered the Defendant to pay 7.5 percent per annum interest on the principal of Baht 4,047,472,854.98 counting from the day after the complaint filing date until the payment is made in full.

The Company filed an appeal with the request for a delay of judgement execution on 8 May 2020.

On 17 November 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per year pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per year but not exceeding the rate of 7.5 percent per year as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

The Company would further seek a permission for an appeal to the Supreme Court in order to object the judgement of the Court of Appeal until 17 March 2022.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines's filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 5) On 24 March 2016, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the “Plaintiff”) filed a civil lawsuit (the Black Case No. SorWor.6/2559) against the Company (the “Defendant”) claiming that the Company engaged its limestone mining activity in the area outside the designated area under the Prathanabat. The complaint requested the Company to return the limestone ore of 2,447,906.76 metric tons and restore the area into the previous condition or pay the compensation of Baht 327,680,219.25 together with 7.5 percent per annum interest.

The Company plead in its defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

The case was requested to be jointly considered with other related cases and the Court granted the said request.

On 13 December 2019, the Civil Court ordered the Company to return the limestone ore for cement industry, in total of 2,477,906.76 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation of Baht 314,311,227.98 together with the 7.5 percent per annum interest, calculating from the discovery date of the unlawful mining activity (31 August 2015) until the date of the filing of complaint (207 days) totaling Baht 13,368,991.27 making it Baht 327,680,219.25 in total. The Court also ordered the Defendant to pay 7.5 percent per annum interest on the principal of Baht 314,311,227.98 counting from the day after the complaint filing date until the payment is made in full and ordered that the Defendant pay the court fees on the Plaintiff’s behalf (court fee shall be calculated from the amount of claim ordered in favour of the Plaintiff) and to pay the attorney fee of Baht 100,000.

The Company filed an appeal with the request for a delay of judgement execution on 8 May 2020.

On 17 November 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per year pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per year but not exceeding the rate of 7.5 percent per year as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

The Company would further seek a permission for an appeal to the Supreme Court in order to object the judgement of the Court of Appeal until 17 March 2022.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines’ filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company

for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 6) On 24 March 2016, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the “Plaintiff”) filed a civil lawsuit (the Black Case No. SorWor.5/2559) against the Company (the “Defendant”) in the civil case claiming for compensation totaling Baht 1,671,128,829.14 stating that the Company engaged its limestone mining activity unlawfully (engaged in the mining restricted area) demanding that the ore totaling 12,484,023.50 metric tons be returned and the area be restored into its previous condition or pay the compensation together with the 7.5 percent per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

On 2 August 2019, the Court ordered the Company to return the limestone for cement industry totaling 12,484,023.50 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation of Baht 1,602,948,617.40 together with the interest of 7.5 percent per annum of such amount calculating from the date of being notified of the land survey result (31 August 2015) until the date of the filing of complaint (207 days) making the interest to be Baht 68,180,211.74, making it Baht 1,671,128,829.14 in total, together with payment of 7.5 percent per annum interest on the principle amount of Baht 1,602,948,617.40 counting from the day after the complaint filing date until the payment is made in full and ordered that the Defendant pay the court fees on the Plaintiff’s behalf (court fee shall be calculated from the amount of claim ordered in favour of the Plaintiff) and to pay the attorney fee of Baht 200,000.

The Company does not agree with the decision of the Court of the First Instance and filed the appeal together with the request for a delay of judgement execution on 3 December 2019. The case is pending the consideration of the Court of Appeal and the date of hearing the Court of Appeal’s judgement or order was set to be on 22 September 2020, however, the said date of hearing of judgement had been postponed, due to the case is under mediation during the appeal.

- 7) On 2 March 2017, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the district attorney of the Office of the Attorney General (the “Plaintiff”), filed a complaint against the Company (the “Defendant”) at the Civil Court, Environmental Law Department (the Black Case No. SorWor.1/2560) with the lawsuit amount of Baht 344,882,135.15 claiming that the Company partially engaged its mining activity in the area designated in the Prathanabat unlawfully requesting that the shale totaling 1,220,559.82 metric tons be returned to the area and the area be restored into its previous condition or to pay compensation together with the 7.5 percent per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

On 13 December 2019, the Civil Court ordered the Company to return the shale for cement production industry totaling 1,220,559.82 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount totaling Baht 326,499,751.86 together with 7.5 percent per annum interest calculating from the date of the violation (2 June 2016) until the date of the complaint filing (274 days) making the interest to be Baht 18,382,383.29. The total amount from combining the principal and interest, is the amount of Baht 344,882,135.15. The Court also ordered that the interest on the principal amount of Baht 326,499,751.86 in the rate of 7.5 percent per annum be paid counting from the day after the complaint filing date until the payment is made in full together with the court fees in behalf of the Plaintiff and attorney fee of Baht 200,000.

The Company filed the appeal with the request for delay of judgement execution to Court on 5 June 2020. On 24 June 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per year pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per year but not exceeding the rate of 7.5 percent per year as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 9 November 2021. The case is pending consideration of the Supreme Court.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines' filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

Incidentally, the information regarding cases 1) - 7) above are under the consideration of the court, the above cases are not final. The Company and the legal advisors hereby opines that based on the evidence and information the Company possesses, the Company did not commit any wrongful acts against the plaintiff as detailed in the complaints; the plaintiff claimed that the defendant committed wrongful action against the plaintiff, therefore, the plaintiff has the burden of proof to prove that the

defendant had committed such act as the plaintiff claimed and since the plaintiff had not presented the evidences which show that in fact, the defendant had committed wrongful act against the plaintiff, the, the court could consider to dismiss the case. However, the judgment depends on the consideration and discretion of the court. As at 31 December 2021, the outcome of lawsuit is not yet final, the Company has not recorded a provision for liability of lawsuit in the financial statements.

- 8) On 16 December 2019, individuals in total of 222 people sued Energy Regulatory Commission (ERC) et al to the Central Administrative Court which a subsidiary was listed as the 5th Defendant. The Plaintiffs requested that the approval of Environmental and Health Impact Assessment (EHIA) report for the project of 150 megawatts thermal power plant, the license to operate electricity generating business and the construction approval of the subsidiary be revoked. The Plaintiffs also requested that the Court take evidence out of Court and issued an interim measure and ordering that the electricity generating system be temporarily stopped until the final decision is reached.

On 25 December 2019, the Court inquired both Parties in considering the request for interim measure and rendered its decision on 28 January 2020 denied the request for interim measure due to the lack of reason to believe that the license to operate electricity generating business of the subsidiary is unlawful.

On 31 January 2020, the Court issued an order accepting the complaint and requesting the subsidiary to file the answer. The lawyer submitted the answer to Court on 1 July 2020. The case is under the Court consideration.

On 7 December 2020, the Court sent the objection to the answer of the 5th Defendant and requested the subsidiary to submit additional answer to the Court within the prescribed period. The subsidiary submitted the additional answer to the Court on 12 March 2021, the case is under process of preparation of the additional answer.

The subsidiary's legal consultant considered the complaint and its appendixes and hereby opines that the subsidiary lawfully and transparently received the license to operate the electricity generating business and the construction approval from the competent authorities, in accordance with the applicable laws and that the relevant public official have lawfully and honestly performed their duties without any conflict of interest in issuing the said license. The complaint of the Plaintiffs is untrue. As the case is in the preparation for answer, the subsidiary has causes to relieve itself of any liability generated from the complaint depending on the Central Administrative Court Decision. Moreover, the subsidiary has pressed charges against the 222 Plaintiffs to the Muak Lek police station, Saraburi, for taking the false information to charge the person in the Court. The case is under the investigation of the police.

For all above lawsuit, the Group's legal consultant opines that, based on the Company's evidences and information, the Company has a chance to defend itself in the court trial depending on the consideration of each courts.



3. Driving the business towards sustainable growth

Key Sustainable Development Performance of TPI Polene Group in 2022



Economic Dimension

Total Revenue
Baht 50,963 million

Employee wages and welfare
Baht 6,749 million

Tax paid
Baht 174.92 million

EBITDA
13,371 million

Net profit
Baht 7,845 million

Dividend per share
Baht 0.10



Environmental Dimension

Aiming to use 25% of waste fuel instead of coal in cement production by 2023

In 2022, cement plants use waste fuel in the amount 360,675 tons instead of all fuels

Recycled 775,631 tons (or 100%) of scrap soil

Use of water from outside
10,737,481 million cubic meters
13.83% decrease compared to 2021

Proportion of recycled water
967,395 million cubic meters
21% decrease compared to 2021

Emission Reduction
(Zero Waste) 99.91% in 2022

Hazardous/non-hazardous waste
TPIPL 39% / 61%

Investment projects for reducing environmental impact
TPIPL Baht 1,678 million

Replacing the existing diesel-powered truck with 60-ton EV mining trucks in an effort of reduce greenhouse and PM2.5 dust.

Prepol-SC Project helps reduce energy consumption upto 25% as waste is used as fuel to replace coal



Community and Social Dimension

Community and social contributions
Baht 67.36 million

Injury Frequency Rate (IFR) of Employees and Contractors
0.131/0.185

Number of working hours without accidents
TPIPL 22,237,755 hours
(increase 7.82% compared to 2021)

Rates of morbidity and occupational diseases that require all records
TPIPL 0 case/ 1 million hours

Work-related deaths of employees and contractors
0 case

Average training hours for employees
TPIPL 23.72 hours/person/year

Turnover rate
TPIPL = 2.93%

Employee satisfaction and engagement with the organization
81.09%

Technology, innovation, and service development projects
7 projects

Product Research and Development Project
14 projects



Corporate Governance Dimension

Selling low-carbon products value
11,722.60 million baht

Biological product sales value
117.46 million baht

The product has been certified with the label to reduce global warming Total 20 products

No complaints of privacy violations⁽¹⁾

Business suppliers acknowledge the code of conduct of business suppliers
92.04%

Violation of human rights (Discrimination, Child Labor, Illegal Labor)
TPIPL =0

ESG assessed suppliers
91%

Overall customer satisfaction/satisfaction with solving problems for customers
TPIPL 86.40% and 95.40%

3.1 Sustainability Management Policies and Goals

The Board of Directors and the top management of TPI Polene have established sustainability policies with a focus on being instrumental in driving the organization to achieve its sustainability vision in line with the direction and strategy of business operations by supporting the Sustainable Development Goals (SDGs) of the United Nations to create a balance in economic, environmental, and social aspects under good corporate governance with a policy framework and sustainability management as follows:

1. **Economic Dimension:** With an emphasis on the adoption of technology and innovation in the production process of quality products and services with effective management at every stage with R&D results to further constantly develop business models and create added value for products and services as well as seeking investment opportunities that offer big returns on investment. Strategies for short-term and long-term business growth with flexibility in adaptability, taking into account all internal and external risk factors, system readiness and production efficiency.
2. **Environmental Dimension:** Aiming to develop towards a low-carbon society by setting Net Zero GHG Emission goals to achieve net zero greenhouse gas emissions through the BCG Model. Focus on the green economy policy (Green Economy), use clean energy, produce environmentally friendly products, reduce the use of fossil fuels, increase energy efficiency, increase the ability to use renewable energy together with solve solid waste and waste problems, focus on the bio-economy policy (Bio Economy). Promote organic farming, promote the use of biotechnology, reduce the use of chemicals in agriculture and livestock for better health and quality of life, and promote Circular Economy policies, maximize resource utilization, reduce waste, and take advantage of waste. Take care of biodiversity and soil degradation and use water appropriately, reduce impacts from operations along the value chain, and respond to all stakeholders in a balanced way.
3. **Social Dimension:** Conduct business with responsibility, give importance to all stakeholders in a balanced manner, create good returns for shareholders, occupational health and safety, and create a good working environment. Continuously manage and develop the capabilities and skills of personnel and pay attention to the health and safety of customers. A social partner assessment, clear product label information, respect for personal information, youth education promotion, improvement of community and societal quality of life for sustainable growth, protection of labor rights, avoidance of child labor and illegal labor, observance of human rights, diversity and equality, and non-discrimination are all included.
4. **Corporate Governance Dimension:** A framework based on good corporate governance principles, transparent information and performance disclosure, comprehensive risk management, flexibility in management, anti-corruption, transparent and fair procurement system, not using insider information for gain, and having information and system security information, adhere to the principles of accuracy and compliance with applicable laws and regulations under the Code of Conduct and Business Ethics.

Details and policies and sustainability management goals can be downloaded at: <https://www.tpipolene.co.th/th/investment/sustainability>



3.2 Managing the impact on stakeholders in the business value chain

3.2.1 Value Chain



Inbound Logistics	Operations	Outbound Logistics
<ul style="list-style-type: none"> • Cement production from <ul style="list-style-type: none"> - Natural raw materials such as limestone - Alternative raw materials, such as copper slag waste from mines through washing recycle plants or inferior materials to produce construction stone • Production of specialty polymers • Hygiene products • Fiber Cement Production of roof tiles and fiber cement boards 	<ul style="list-style-type: none"> • Transforming with a production process that uses modern machinery and technology, including using spare part recycle and TPM systems to take care of the machines • Standard production quality control in every step • Control fuel consumption to reduce pollution and protect the environment <ul style="list-style-type: none"> - Pyrolysis oil as a replacement for fuel oil - Use RDF and Pyrolysis Ash instead of coal - Use steam from producers using the Combine cycle system - Community waste fuel • Use Regenerative Downhill Conveyor • Load the rock from the quarry using an electric heavy truck • Polytrack Grate Cooler reduces heat and electrical energy consumption 	<ul style="list-style-type: none"> • Safe transportation system, fast, within the specified time and the product is not damaged • Distribution centers located in strategic locations across the country • Locomotives are used to transport cement by rail transport which has lower transport costs than car transport and helps reduce CO₂ • Modern and safe ship transportation and CO₂ reduction • Selling products through sales agents, modern trade stores, and various stores • Online Media distribution channels such as Facebook/ Shopee/ Lazada/ Market-place • The Company has used digital technology to manage delivery for maximum efficiency, which allows customers to receive products within a fast time as scheduled.



Marketing & Sales	Services
<ul style="list-style-type: none"> • Variety of products and eco-friendly • Quality products certified by international standards • Comprehensive building materials products • Satisfaction Survey • Promotional activities • Prepare public relations and advertising media for all channels such as Online Media and TV 	<ul style="list-style-type: none"> • After-sales service such as providing advice and knowledge and solving problems about various products • Fast and convenient claiming of problematic products • Online and Call Center ordering • Receive complaints to improve product and service quality

Key Activities

1. Management of inbound logistics

TPI Polene Group manages a sustainable supply chain with a focus on transparency for the utmost benefit of the company. There is a management based on transparency, equality, and fairness from the process of partner selection, procurement, and supplier evaluation with transparency as well as encouraging suppliers to comply with sustainable business practices of TPI Polene Group by preparing a supplier code of conduct for joint business operations covering ethical issues, non-child labor, and human rights, environment, health and safety, and anti-corruption etc. This reduces the risk of business operations and is the value that the Company provides to its partners who are business partners and stakeholders in the business value chain.

2. Production

TPI Polene cement plants use the most advanced machinery and production technologies. In the process of transporting raw materials for use in production, the Company uses Process Automation using a transportation belt system resulting in reducing energy consumption in transporting limestone raw materials. In addition, the production process of which starts with the explosion of limestone from the mountains and then is transported into the Crusher to digest it to a smaller size, delivered to mixing bed and transport to the RM Feed Bin to send each raw material into a raw mill at a specified ratio. It is ground into raw meal which is then delivered to raw meal Silo, then sent to the Preheater before being transported into the Kiln until it becomes clinker and is then delivered to the clinker silo for further distribution. The Company's cement products have been certified by the management system in accordance with all four international standards: quality management system (ISO 9001:2015), environmental management system standard (ISO 14001:2015), occupational health and safety management system standard (TIS18001:2011 and OHSAS 18001:2007), and energy management system standard (ISO50001:2011), the United States (ASTM) and the European Federation (EU). With these standards, it's clear that quality manufactured goods which are reliable, can more easily meet the expectations and respond to the demand of customers.

The Company has a cement packing system using an automatic palletized sorting robot or Robotic Palletizer, reducing the time it takes to place the product into the pallet. The system is agile, flexible, and is able to support heavy goods in high quantities quickly and precisely, thus improving productivity and safety, with consistent quality. The process helps save employees from performing monotonous and heavy lifting tasks by turning material handling work into automated work using mechanical arms. The automation system helps cope with the higher cost of packaging and shorter product life.

3. Outbound Logistics

The Company realizes the continuous availability of goods to customers with efficient freight system deliveries, which are managed at low cost and can meet the needs of customers quickly in due course. Distribution terminals are located in key strategic locations across the country, and are well coordinated to manage inventory effectively, minimize impact on communities and the environment. In addition, the Company has imported locomotives from abroad to transport cement to develop rail transport systems, which have lower transportation costs than trucks. In addition, the Company has adopted digital technology to optimize delivery management and this enables customers to receive goods in a timely manner.

4. Marketing and Sales

The Company focuses on marketing and sales communication channels by visiting customers, holding partner seminars, and organizing marketing activities, to explore perspectives to meet customer needs and collaborate in the value chain, create trust and good relationships to develop the potential and efficiency of long-term joint business operations, as well as create innovations and trade patterns in line with the changing era.

The COVID-19 pandemic has brought change on a global scale. The business environment has changed, with the Company developing an online platform to sell products on the Company's website in a way that presents information as two-way communication, where digital technology advances are rapid. It affects business models, consumer behavior, market conditions, and higher competition. TPI Polene Group is preparing to develop the organization so as not to lose its competitiveness and it can meet the lives of the younger generation as well as prepare employees to meet the needs of customers.

5. Customer Services after Sales

Customer relations is a priority for TPI Polene Group to enhance long-term customer satisfaction and engagement. It has developed a more efficient approach to customer relationship management through processes including complaint channels and communications between the Group and customers, such as websites, email, telephones, and letters. Customer relationship activities are held to maintain and form strong relationships with customers on an ongoing basis, as well as annual customer satisfaction surveys to analyze and find ways to manage the issues that customers value, as well as educate customers about business and sustainability management.

Support Activities

In addition to the construction materials group, which is the main business, TPI Polene Group has a petrochemical business, power plant business, and others such as bio-organic fertilizers and bio-pesticides, which are harmless to humans, allowing them to grow crops, vegetables and fruits without the use of chemical pesticides, and which are innovative, environmentally friendly and benefit consumers at affordable prices. TPI Polene Group has supported farmers and communities that produce consumer products such as crops, vegetables, and fruit to use bio-organic fertilizers that are safe and chemical-free for the quality of life of both consumers and farmers themselves. In addition, bio-organic fertilizers do not destroy the soil, which will have long-term benefits to the Thai agricultural sector.

TPI Polene Group has also further expanded its innovations with chemical-free biological hygiene products such as Bio Knox, micromnock solution, and mouthwash to combat bacteria and viruses. These products have been tested and approved by the Faculty of Medicine, Siriraj Hospital and the Academic Service Center of Chulalongkorn University as being effective in destroying viruses including SARS-CoV2, PRRS, PDCoV, PCV2 and RVA, etc. These products are environmentally friendly and in line with the new normal era, where consumers are all paying attention to healthcare products.

3.2.2 Analysis of stakeholders in the value chain

TPI Polene Group has adhered to the principle of value creation together between companies and stakeholders, as well as continuously improving channels and sending stakeholder feedback to responsible departments. TPI Polene Group divides stakeholders into internal and external dimensions as follows:

- 1) Shareholders / Investors
- 2) Employees
- 3) Suppliers and contractors
- 4) Customers and Agents
- 5) Creditors
- 6) Government agencies
- 7) Community and society
- 8) Business competitors
- 9) Mass media



The communication and engagement patterns of stakeholders are different, which can be summarized as follows:

Stakeholder Groups	Guidelines for engaging with stakeholders	Stakeholder needs/ expectations	The Company's response guidelines
1. Shareholders/ Investors	<ul style="list-style-type: none"> - Annual General Meeting of Shareholders - Giving shareholders the opportunity to have equal rights to attend the shareholders' meeting, such as questioning and voting. - Presentation of investment information through investor relations activities at least 4 times per year - 56-1 One Report - Open channels for communication through media including websites, letters, emails, phones or otherwise. - Annual Sustainability Report - Financial report 4 times per year 	<ul style="list-style-type: none"> - Good Performance The share price and dividends are at the right level. - Continuous business expansion - Disclose important information of the Company in a timely, timely, transparent, reliable way through channels that are easily accessible to shareholders. - Give shareholders equal rights to attend annual shareholders' meetings. - Organize building and healing activities Good relationship with shareholders - Conduct business with environmental considerations Corporate Governance Society or ESG - Financial stability - Transparency - Risk management system 	<ul style="list-style-type: none"> - Sustainability Report - Proper risk management - All shareholders are entitled and treated equally. - Manage the organization in accordance with the Company's vision and corporate governance principles with integrity, caution, free from personal conflicts of interest. - Clarify details about the shareholders' meeting as well as all information related to matters that require shareholders to make decisions at the meeting in advance. - Business Ethics - Innovation and technology management - Research and development to further business - Have a strong policy of maintaining liquidity and financial stability.
2. Employee	<ul style="list-style-type: none"> - Collect information from all channels, including complaints - In-house communication through channels such as Line Group, allowing top executives to communicate with all employees. Line groups specific to related management Documents to inform employees in each party Documents closed by establishment banners - Welfare Committee in The Establishment - Committee on Safety, Occupational Health, and Working Environment - Sustainability Report/Annual Report - Executives meet employees at the factory once a week. 	<ul style="list-style-type: none"> - Compensation Industry-aligned welfare - The organization has stability and progress in its work. - Developed potential - The organization has a good image. - Fair Evaluation System - Safety and quality of life at work - Allow comment - Equal Practice - Respect personal information - Respect human rights 	<ul style="list-style-type: none"> - Strict employment regulations and strict practices, including career progress without limiting gender, age, social sources class Ethnicity, religion, educational institutions, by policy on employment and working conditions are standard. - There is a fair evaluation system. - Provide feedback and feedback channels - Provide returns and benefits comparable to other companies in the same industry. - Occupational health and safety system - Whether hiring immigrant workers covers contractors and subcontractors

Stakeholder Groups	Guidelines for engaging with stakeholders	Stakeholder needs/ expectations	The Company's response guidelines
	<ul style="list-style-type: none"> - Provide clear in-house communications through various channels such as notices to various agencies within the Company and Application Line. - Website comment box, e-mail, Facebook - Performance appraisal 3 times a year 		<ul style="list-style-type: none"> - Comply with human rights requirements and respect personal information - Provide opportunities and support the further education of employees. - Provide training to develop potential and prosperity in the job - There is a savings cooperative. - Respect human rights and personal information
3. Suppliers and Contractors	<ul style="list-style-type: none"> - Channels for receiving complaints and various communication channels such as website, e-mail, telephone, letter, etc. - Various relationship activities with partners to create participation at least 2 times a year to exchange ideas and listen to suggestions. - Contact via Phone : 02-285-5090 Website : www.tpipolene.co.th 	<ul style="list-style-type: none"> - Transparent, fair, non-discriminatory, corruption-free purchasing system - Building relationships to grow together - Comply with the established agreements and do not exploit customers, pay on time. - Safe to work - Respect human rights - Respect personal information - Scheduled payment - Occupational health and safety system 	<ul style="list-style-type: none"> - Follow supplier code of conduct in procurement, procurement, hiring (Supplier Code of Conduct) - The Company does not do business with partners who are illegally behaving. - Support ESG knowledge to enhance partner operations to reduce maturity in operation and reputation. - Establish measures to operate partners, including the use of digital and online technologies for safety under the COVID-19 pandemic crisis. - Have a transparent procurement system, verifiable, follow trade conditions, and strictly follow contracts with partners - Take into account the mutual benefits of partners and business equity. - Affiliated group employees must not claim the benefits of supply, must be neutralized.
4. Customer/ Distributor	<ul style="list-style-type: none"> - Complaints and communication channels such as websites, e-mails, phones, letters, etc. - Meeting customers/sales representatives at the customer's office at least 12 times a year - Customers participate in suggesting the use of the product. 	<ul style="list-style-type: none"> - Quality and safe products and services - Fair price. - Easy to buy convenient - There are campaigns. - Choose from a wide range of products - In case of problems which are not caused by the customer's fault, the damage can be claimed immediately. 	<ul style="list-style-type: none"> - Explore and create maximum customer satisfaction - Must not act in any way that is deceptive or oblivious to the quality of goods and services by producing safe products and services. Does not harm the health of consumers. - Build loyalty to products (Brand Loyalty) - Contains product information and how to use it.

Stakeholder Groups	Guidelines for engaging with stakeholders	Stakeholder needs/ expectations	The Company's response guidelines
		<ul style="list-style-type: none"> - Providing good pre- and after-sales service - Delivered on time - Respect personal information - Respect human rights 	<ul style="list-style-type: none"> - Systematic and secure storage of customer data. Do not misuse data - Set prices for products and services fairly - Establish a unit responsible for providing suggestions, knowledge and understanding about products and services, as well as solving problems, and accepting complaints from customers both before and after sales. - Hold customer seminars to educate products regularly - Respect human rights and personal information - Organize stucco art contests and social service events - Bring information that customers suggest to send to relevant departments to develop the Company's products further.
5. Creditor/ Bondholder Analyst/ Credit Rating Institute/ Insurance Institute	<ul style="list-style-type: none"> - Submit a quarterly financial statement report. - Annual Report/Standing Report - Recommendations and complaints 	<ul style="list-style-type: none"> - Good Corporate Governance - Manage with transparency - Carefully manage risk - Full and on-time payment - Good performance Have the potential to pay off debts - Comply with the lending conditions 	<ul style="list-style-type: none"> - Conduct business with transparency Check it out. Under good corporate governance - Fully comply with the borrowing conditions - Complete payment on time - Provide complete financial information - Effective management, maximum confidence and return
6. Government Agencies	<ul style="list-style-type: none"> - Report business performance and performance to government agencies according to the period specified by the government, such as: <ol style="list-style-type: none"> 1. Report on the performance of professional work safety officers every 3 months 2. Report on compliance with the Company's EIA measures every 6 months - Being a place to visit and study business in 2021, 3 times due to covid-19 prevention measures. 	<ul style="list-style-type: none"> - Compliance Laws and Policies of Supervisory Units - Social and environmental responsibility - Sustainable Coexistence - Having a good environmental management and safety system - Providing support and cooperation to government agencies - Action to reduce climate change - Payment of taxes, related fees - Enhance operational measures to achieve the Sustainable Development Goals (SDGs). 	<ul style="list-style-type: none"> - The use of waste as a renewable fuel for coal in the cement production process to reduce greenhouse gases in accordance with the government's environmental policy. - Conduct transparent business - Preparation of sustainability reports - Social and environmental responsibility - Sustainable community coexistence - Compliance and cooperation, supporting projects of government agencies

Stakeholder Groups	Guidelines for engaging with stakeholders	Stakeholder needs/ expectations	The Company's response guidelines
	<ul style="list-style-type: none"> - Monitoring of policies, regulations, government requirements at least once a month - Supporting activities and responding to government policies according to the government's period of time, such as providing vaccines and vaccinations to employees and contractors within the Company, as well as complying with COVID-19 CONTROL measures including VUCA and Thai Win. 		
7. Community & Society	<ul style="list-style-type: none"> - Complaints and communication channels such as websites, e-mails, phones, letters, etc. - At least 28 community relations per month - Mass relations at least 2 times a month 	<ul style="list-style-type: none"> - Develop surrounding communities - Preserving the community environment - Create a task Strengthen the economy for the community. - Operation of the establishment to ensure environmental safety and livelihoods - Support for community activities and ongoing participation - Educational Assistance - Take on the importance of community echoes 	<ul style="list-style-type: none"> - Community Visit Create acceptance - Support public interest activities for the community - Educate and train employees at all levels as appropriate to make employees aware of the environment and communities. - Explore community needs and opinions - Organize mobile medical units to serve the community continuously for better quality of life. - Prepare a replacement forest plantation and rehabilitation project after mining - Promoting community traditions - Develop communities to be employed The economy in the community has improved. - Budget for community development, including education, job creation, career building Make money for the community
8. Business competitors	<ul style="list-style-type: none"> - Collect information from all channels such as websites, mail, phones, etc. - Become a member of the Thai Cement Producers Association (TCMA) and attend at least 4 meetings per year. 	<ul style="list-style-type: none"> - Create fair competition conditions together - Maintain market share 	<ul style="list-style-type: none"> - Conduct business within the rules of free and fair competition. - Do not slander to damage the reputation of commercial competitors. - Do not infringe intellectual property and copyrighted work of the competitors.

Stakeholder Groups	Guidelines for engaging with stakeholders	Stakeholder needs/ expectations	The Company's response guidelines
			<ul style="list-style-type: none"> - Do not violate competitor confidentiality - Behave in accordance with a good trade framework - Innovation and Technology Management
9. Mass Media	<ul style="list-style-type: none"> - Occasional visits to enterprises and activities for social communities - Support media activities that are in line with the Company's policies that are beneficial to the community and society. - Regularly disseminate information and news that benefits the Company. - Annual registration statement/ annual report (Form 56-1 One Report) - Sustainability Report - Regularly disseminate business news and information through a variety of channels, such as the Company's earnings announcement once a quarter, business press conferences, etc. - Participating in the Opportunity Day of the Stock Exchange of Thailand 	<ul style="list-style-type: none"> - To be a company that operates business with a focus on sustainable ESG. 	<ul style="list-style-type: none"> - Conduct business with a focus on community, society, and environment by appropriately and consistently disclosing and disseminating information that is beneficial to society.

The Company has prioritized stakeholders (Prioritize Stakeholders) by measuring how stakeholders are affected by the Company's business operations in terms of economy, society, environment/the impact of stakeholders. Impact on the Company's business operations in terms of economy, society, environment/ stakeholders will affect the Company in the future. and stakeholders are at risk of human rights violations in the Company's value chain. The top 3 key stakeholders of the Company are:

1. Community and society
2. Staff
3. government agency

3.3 Sustainability management in the environmental dimension

3.3.1 Environmental policies and practices

To embrace a Bio-Circular-Green Economy (BCG) policy

TPI Polene Group is committed to playing a role in solving environmental problems under the Circular Economy principle to complete all stages of business operations, from research planning, development, production processes and products delivered to consumers, to maximize the benefits of resource utilization, renewable

fuel consumption, create value added for the rest of the production process and waste management for reuse to maximize the benefits of resource utilization that leads to sustainable development in the supply chain, the business sector, society and the community. It is also linked to the Green Economy with the goal of reducing environmental impact in terms of resource use, product production, as well as product disposal management to Low Carbon Production. The initial goal is to reduce greenhouse gas emissions by using renewable energy such as waste and waste heat recovery into the production system, as well as developing TPI Polene group products by applying biotechnology to add value or apply them together with TPI Polene Group products to create added value and support the country's agricultural sector to become a bio-economy. These three sections are jointly executed towards Sustainable Development, called **Bio-Circular-Green Economy (BCG)**, an important strategy to drive TPI Polene Group to grow with globally competitive innovation and contribute to the distribution of income to the community by preserving the environment with sustainable development.

Strictly comply with environmental regulations

The Company strictly complies with environmental law with the preparation of the Environmental Impact Assessment (EIA) and Environmental Health Impact Assessment (EHIA) for the comprehensive implementation of the Company's projects. Environmental measurements and assessments are carried out in accordance with the EIA and EHIA reports to government agencies and communities, as well as delivering complete environmental compliance reports to government agencies and communities on timely basis.

3.3.2 Environmental Performance

(1) Raw materials management

The Company aims to replace 25% of coal with waste fuel by 2024, by utilizing 100% of the crushed stone waste from the construction stone production process and using 2,300,000 tons of recycled and renewable materials. Per year in 2022, the Company can bring the remaining aggregate from the construction stone production process through the reconditioning process and recycle 775,631 tons, representing 100% of the total amount of residual aggregate and can use waste fuel to replace coal in the cement production process, which is waste fuel in the amount of 360,675.09 tons, accounting for 12.29 percent of total volume of wastes.

More details can be found in the Sustainability Report under the topic of Raw Materials Management on the Company's website at <https://tpipolene.co.th/th/investment/sustainability>

(2) Energy Management

The Company has a policy to concentrate on product design, production resource procurement, design and control of production processes, and high-efficiency production machines to reduce energy consumption, including waste of wasted energy. The Company also promotes the use of Renewable Energy sources, such as fuel made from waste and oil made from tires, in order to control and manage business processes in accordance with the policy of TPI Polene Group, which calls for the use of affordable and efficient methods.

The Company aims to set energy consumption of all kinds per ton of cement and specialty polymer production, which in 2022 will reduce the amount of energy per unit of specialty polymer production. The use of waste fuel to partially replace coal in order to reduce greenhouse gas emissions has increased the cement component compared with the previous year, although waste fuel quality is worse than coal, increasing overall energy.

More details can be found in the Sustainability Report under the topic of Energy Management on the Company's website at <https://tpipolene.co.th/th/investment/sustainability>

(3) Effluents and Waste Water Management

The Company aims to reduce the use of water resources by reusing surface water and used water and controlling the use of river water to not exceed 12,000,000 cubic meters/year, as well as controlling the quality of waste water.

In 2022, 5,291,742 cubic meters of water from the Pa Sak River were brought in, and the total volume of water reused was 967,395 cubic meters, a decrease of 21% over 2021.

More details can be found in the Sustainability Report under the topic of Water and Waste Water Management on the Company's website at <https://tpipolene.co.th/th/investment/sustainability>

(4) Air Pollution Management

The Company is committed to conducting business by focusing on reducing emissions of greenhouse gases which are a major cause of global warming. The Company has a policy and vision to be an environmentally friendly cement producer, focusing on using energy and renewable fuels to replace fossil fuels, using energy and resources in production efficiently, throughout until research and development of the Company's products to reduce greenhouse gas emissions, which is in line with government policies that want to deal with the problems of climate change, including adapting to cope with environmental measures climate change.

TPI Polene Group have set targets and action plans for the TPI Group Pathway to reduce net greenhouse gas emissions by 39% from the base year (Year 2020) within 2030 (B.E 2573) and stepping into Net Zero by 2043 (B.E. 2586).

TPI Polene Group set a goal to reduce greenhouse gas emissions to zero (Net Zero GHG Emission) by using waste as fuel instead of coal at cement plants by 25% by 2023 and replacing coal in power plants by 100% in 2025, which reducing landfill waste can reduce greenhouse gases.

In 2022, cement plants can replace 12.29% of coal with waste fuel (non-full-year coal consumption). The power plant can use 2.73 million tons of waste. Instead of coal In the process of electricity generation (including waste fuel delivered to the cement plant)

More details can be found in the Sustainability Report under the topic of Air Pollution Management on the Company's website at <https://tpipolene.co.th/th/investment/sustainability>

(5) Garbage and Waste Management

More than 95% of the annual industrial waste created is something the Company hopes to use. The Company complies with the "Zero Waste to Landfill" guideline by burning waste and waste that doesn't harm the environment alongside the main fuel in a cement kiln at a temperature above 1,800 degrees celsius. It is a modern technology that does not affect the community and is environmentally friendly.

In 2022, the total amount of industrial waste used was 10,033.92 tons, accounting for 99.91% of the amount of industrial waste generated in 2022, with zero landfill waste.

More details can be found in the Sustainability Report under the topic of Garbage and Waste Management on the Company's website at <https://tpipolene.co.th/th/investment/sustainability>

(6) Biodiversity

The Company places importance on business operations with sustainable environmental and social responsibility and is well aware of the Company's business operations in order not to cause an impact on the ecosystem and biodiversity. Therefore, the management of biodiversity is a concern that the Company prioritizes in terms of both the ecosystem as a habitat for different species of living things and the integration of values in the complete and effective preservation of biodiversity.

More details can be found on the Company's website at <https://www.tpipolene.co.th/th/investment/biodiversity-th>

Biodiversity as defined by the The International Union for Conservation of Nature and Natural Resources (IUCN) refers to the diversity and diversity of life in terrestrial, marine, and ecosystem habitats. This organism includes diversity between species, between species and between ecosystems.

3.4 Sustainability management in social dimensions

3.4.1 Social Policies and Practices

TPI Polene recognizes the activities and business operations of TPI Polene Group as sensitive, so that they pay attention to the policies and practices of TPI Polene Group in accordance with the rules and legal regulations associated with social management, including respect for human rights throughout the value chain, including the fair treatment of labor, responsible for production and service, participation in community and social development by integrating social responsibility in all processes to connect the value chain within TPI Polene Group.

3.4.2 Social Performance

Human Resource Management

1. **Employment** The Company has a manpower plan and procedures for recruiting and attracting high potential employees from both internal and external personnel with qualifications that are in line with the Company's culture to be a part of driving the Company. Sufficient manpower is planned for operations, employee turnover is at an appropriate level, welfare arrangements are in line with current cost of living, proactive recruitment, use of technology to reach target group, support equal employment, have a fixed rate of employment in the area, provide employment opportunities for people with disabilities to create sustainability for society. In addition, a competency assessment test for key positions is organized to select potential employees. There is compliance with Thai labor standards and labor laws, giving importance to human rights, there is a policy of ethics of TPI Polene which covers treating each other with respect to human rights as well as establishing a system for auditing, monitoring, evaluating, and reviewing for all employees to adhere to and comply with. Child labor under the age of 18 and informal workers without legal protections are not encouraged. The rules apply to businesses, contractors, and subcontractors, and they prohibit or never encourage the use of children for dangerous employment, in hazardous environments for health and safety, or for jobs that are illegal under the law. In this regard, top executives have visited the area to visit executives and employees every month.
2. **Labor Management and Labor Relations** The Company places a strong emphasis on treating workers equally and fairly to all employees in terms of pay, training, safety and occupational health, and career progression, including allowing workers to voice their ideas and participate in events. In addition to providing procedures for handling complaints, the Company has also conducted inspections, taken corrective steps, monitored those activities, and determined best practices. It has also surveyed employees to learn about their happiness with and dedication to the Company. An independent and fair investigation committee has been set up and employee relations activities have been held during festivals to build a better relationship between management and employees. Establishment of a welfare committee consisting of employer and employee representatives (Elected by employees) as required by law. Prepare and increase the potential of employees to be able to immediately replace employees at the supervisor level and above who have retired.
3. **Training and Education** The Company focuses on building skills for employees, which is an important strategy for improving the quality of the organization by aiming for personnel to have knowledge, experience, and be able to work efficiently. With a commitment to organizational development to be a learning organization, build culture and working climate, and promote teamwork, the Company will undertake an annual training necessity survey, an annual training plan, as well as a satisfaction survey to evaluate the training outcomes.

TPI Polene Group is able to maintain the manpower rate in 2022 by keeping the Turnover rate at a suitable level of not more than 3.5% and by employing more than 50% of its workforce in the plant area annually. The survey found that employee satisfaction at work was 78.50 %. Employee engagement to the Company was 81.09 % reflecting Employee satisfaction at work and employee engagement with the organization are high. In addition, the average number of training hours for all courses was 23.72 hours/person/year. The satisfaction of the training evaluation was equal to 90%.

Safety, Occupational Health, and Working Environment

The occupational health and safety management system is a crucial component of how the Company conducts business. It is dedicated to reducing and eliminating all current risks to the health and safety of all parties involved in its operations, including all partners, contractors, and staff members, in order to prevent and minimize potential losses in human life and property, as well as potential negative effects on surrounding communities. The Company aims to be an organization without accidents and injuries (Zero Accident).

Corporate Social Responsibility

Corporate Social Responsibility operations are divided into two main areas: Community Relations and Corporate CSR. In the year 2022, TPI Polene Group has supported the budget for construction materials and health-saving products in TPI Polene Group for communities and society in all aspects by working on both sides which can be summarized as follows:

Community Relations

The Company, which operates manufacturing facilities in a number of different neighborhoods, has a proactive strategy requiring each production facility to help the community without waiting for a request, support cleanliness efforts, and lessen the impact of the pandemic. The Company supports surrounding communities and important societies as follows:



- (1) Organized mobile medical units in healthy programs with TPI Polene to monitor illnesses, health check-up services, provide health education of lung examination at surrounding communities in Kaeng Khoi District, Muak Lek District, Saraburi Province
- (2) Co-sponsored the housing renovation project in collaboration with the Kaeng District Quality of Life Development Fund to help 5 people repair and build houses for the underprivileged, the disabled, the chronically ill who lack housing in the Muak Lek Subdistrict Administrative Organization (1 house), Kaeng Khoi District Office (4 houses), Saraburi Province, etc.
- (3) Co-sponsored TPI health care items (Bionok, hand sanitizer gel, mouthwash, and drinking water) and supplies for the Wat Sab Bon Waiting Center and Tao Poon Subdistrict Administrative Organization in Saraburi Province to assist patients infected with the corona virus 2019 at the level of the district where the number of mild symptoms is rising.

Corporate CSR

Community involvement and development

According to the community satisfaction survey in 2022, it was found that the CSR activities of the Company Group that the community knew and were very satisfied with were the scholarship program. Starting in 2011, TPI Polene Group has been consistently awarding scholarships from kindergarten to undergraduate level to children who learn well, behave well, but lose money in order to reduce the burden on parents. Scholarships are given to students in the Saraburi Province community in the vicinity of the plant, and after they graduate, they are hired by the business, forging a close relationship with the neighborhood as if they were one big family. For the 29th consecutive year, there are also scholarships worth Baht 295,000 per year for 6 schools from kindergarten to junior high school.

Additionally, the Company contributes to the improvement of educational quality by providing 20 schools across the nation with donations of 37.5 cubic meters of TPI dry concrete products, 10.1 tons of TPI cement product, TPI Nano Super Armor paint, TPI tiles, lightweight concrete, wood replacement products, and TPI boards, etc. for the improvement and repair of school buildings, roofs, building paints, floors, roads, and entrances to schools. The Company would like to be a part of helping schools that lack funds to provide students with a better quality of life.

In 2022, TPI Polene Group joined forces to support social and community support as follows:

Social and Community Assistance Activities

TPI Polene Public Company Limited, TPI Polene Power Public Company Limited), and the Environment for Life Foundation donate 2,700 bottles hygienic liquid soap products (Help relieve water biting feet) and 50 boxes of clothing from executives and employees to help flood victims at Ubon Ratchathani City Hall. In addition, liquid soap is provided (Anti-fungus liquid) through Young Mee Rao Foundation (TOPNEWS news station) in the amount of 1,000 bottles and 300 bottles from Nation news station to give to flood victims in various provinces.

- Blanket Donation Winter Program 2022: In the northern region, the Company donated a total of 4,000 blankets to students, teachers, and people under the Border Patrol Police Region 3, Chiang Mai Province, through the Dhamma Practice Center “Thammasilp” to the victims of the winter in Chiang Mai, amounting to 1,000 pieces, and Mae Ai Hospital, Chiang Mai Province, amounting to 235 pieces. For the Northeast region, 3,000 blankets were given to students, teachers, and people under the Border Patrol Police Region 2, Khon Kaen Province, and to the Faculty of Medicine, Khon Kaen University to give 1,000 pieces to patients and victims of cold and 500 pieces to Umphang Hospital, Tak Province. The Company would like to play a part in providing assistance and helping to alleviate suffering from the cold weather.



- Donated 855 tons of TPIPL cement products, 80 cubic feet of TPIPL dry concrete, TPI roof tiles, TPI Super Armor Nano Paint, and other products to help repair, improve building, building check dams for various government agencies Including people who lack funds such as

Support the construction of a 9-storey Ban Phaeo Eye Hospital building, Phase 2, to support the provision of medical services to the public, Support TPI paints both inside and outside the building for Mittraphap Sub-district Health Promoting Hospital, Saraburi Province, Project “Rebuilding houses for the poor and underprivileged in the area of Saraburi Province” fiscal year 2022, follow in the footsteps of the Dhamma Project Volunteer Faith (Making roads for people on the mountain in the name of Ing Boon Foundation) in the area of the Karen hill tribe village, Ban Mae Por, Mae Sariang District, Mae Hong Son Province, Construction of the deity to climb Hong Kong Cho Sue at km. 14, Mittraphap Road, Mueang Khon Kaen District, Improve and develop the building of the Mittraphap Subdistrict Health Promoting Hospital, Saraburi Province, Supporting the poor house repair project” according to the poor house repair project in the northeastern region of the 23rd Infantry Regiment Headquarters and joining the construction of the check dam construction project in Sri Bua Ban Sub-district, Ban Jam Kee Mot, Mueang Lamphun District to continue and lead the royal initiatives of His Majesty King Bhumibol Adulyadej Rama IX Water Management and Sustainable Drought Solution at Sri Bua Ban Subdistrict Municipality Office, Lamphun Province, etc.

- Co-hosted Kathin Ceremony at Sri Don Mun Temple, Chiang Mai Province, Hosted a Kathin ceremony at Ban Hin Lap Temple, Saraburi Province, Tham Sarika Temple, Nakhon Nayok Province, Suwanmat Temple, Phetchaburi Province, and donated 105 tons of TPIPL cement products, Nano Super Armor paint, TPIPL lightweight concrete, and other products to measure 11 temples across the country, for example, to restore and gild the Chedi Phra That Chae Haeng, Phra Aram Luang, Nan Province, Constructed the ubosot “Maha Wiharn Boon Chum Ratana-Pri Sri Thammaracha” and an artificial stone cave on the island in the middle of the water to be a teacher to worship Phra Kruba Boon Chum Yansawaro Aranyawasi Bhikkhu to be the center of Thai Buddhism and foreigners come to practice Dharma and pay respect and travel to Wat Phra That Doi Wiang Kaew, Chiang Rai Province, Construct the Maha Vihara of Reverend Father Thongkam, Phiphat Mongkhon Temple, Sukhothai Province, for the construction of a multi-purpose pavilion at Wat Pa Samakkhi Charoen Tham Temple, Udon Thani Province, to patronize the construction of a dharma practice facility at Aranyik Temple, Chainat Province, etc.

- Supported 32,542 bottles of TPIPL drinking water, 350 and 1500 ml, and 44,610 bottles of Provita drinks to schools, agencies for organizing volunteer activities and useful activities such as



To help people affected by floods in affected provinces through the Thai Industrial Standards Institute, Support the 7 Days Dangerous Day Campaign to Reduce Accidents during the New Year's Festival 2022, organized activities for the National Children's Day 2022, Songkran Festival, and New Year's Day 2023 for the Nakhon Ratchasima Provincial Police, Kaeng Khoi Highway Division, Muak Lek Subdistrict Administrative Organization, Tao Poon Subdistrict, Tha Khlo, Song Khon and Mittraphap Subdistricts, Thap Kwang Highway Patrol Service Unit, Saraburi Province, Activities on the Muak Lek River Conservation Day 2022 at the Muak Lek Arboretum, Muak Lek District, to raise public awareness of the importance of conserving the Muak Lek River., Activity "Walking-running in honor of His Majesty the King on the occasion of His Majesty the King's birthday on July 28, 2022" on the main canal road, Klong Preaw and Sud Banthat Road, Support sports activities, Educational institution personnel development, Organize the Sanam Luang Dharma Examination Course for the year 2022 of Dhamma Studies at every level of Wat Mongkhon School, Saraburi Province, Participating in the opening of the Ruam Suk Center and Elderly Clinic and providing rehabilitation services for the elderly and patients to receive treatment and rehabilitation services until they alleviate and recover from illness at the Mor Khob Kua Clinic, Participated in the forest planting activity in honor of His Majesty the King on the auspicious occasion of the coronation under the name "Together for Thais to Plant Trees for the Land", continuing to 100 million trees of Thap Kwang Municipality Office, Saraburi Province.

- Continuing the art work with TPIPL cement, preserving Thai identity

TPI Polene Public Company Limited has organized a stucco art contest of Thailand in collaboration with the Fine Arts Department, Poh Chang College, Rajamangala University of Technology Rattanakosin. In 2022, it has been organized for the 20th time, divided into 2 levels: the public level is divided into 3 categories: 1. Fresh stucco molding category entitled “Rama Watara”, 2. TPIPL ready-made stucco category entitled “Inheriting, Maintaining, Extending the Thai Way of Life”, and 3. The type of finished work entitled “Phra-Nang in Thai Literature” and youth level Types of prefabricated stucco molding TPIPL entitled “Following in the Footsteps of Ayutthaya Era Master Craftsmen”. The contest was held between 25-29 May 2022 at Poh Chang College, Phra Nakhon District, Bangkok, and there was an exhibition between 1-25 December 2022 at the Poh Chang Chalerm Phrakiat Museum Building. The Company is proud to be a part of preserving Thai arts and culture, continuing, and developing stucco art to be modern and still have a Thai identity.



Product and service development with high responsibility

Researching, developing and improving the Company’s products and services is a critical process. For each time researching, developing and improving products and services, the Company must truly understand consumer needs or satisfaction with products, through surveys of current consumer demand, budgets, durations, and adoption of new technologies or innovations in the product and service development process. In addition, the Company’s production processes of goods and services must be controlled in all processes in accordance with standards such as the Quality Management System Standard (ISO 9001:2015), the Environmental Management System Standard (ISO 14001:2015), the Occupational Health and Safety Management System Standard (ISO 45001:2018), and the Energy Management System Standard (ISO 50001:2011) to ensure that the Company’s products and services are high quality, safe and diverse enough to meet consumers’ needs.

In 2020 - 2022, TPI Polene Group There are a number of development projects in technology, innovation and services. which was successful and able to sell 35 products and there are a number of product research and development projects There are 7 completed projects in total. Overall, customer satisfaction towards the Company in various aspects. (which was organized by the Company’s marketing team) averaged 4.33 points out of a full score of 5 points, or about 86.40 percent. In the past year 2022, there were no complaints from customers on important matters.

For more information on the Company’s website, please visit: <https://www.tpipolene.co.th/th/aboutus/about-tpi/policy>

4. Management Discussion and Analysis : MD &A

4.1 Analysis of Operations and Financial Status

4.1.1 Overall Performance in 2022

Sales Revenue

In 2020, 2021 and 2022, the Company and its subsidiaries had revenue from sales of Baht 34,276 million, Baht 38,920 million, and Baht 48,133 million, respectively. Sales revenue from construction business sector accounted for 51.0 %, 43.6 %, and 47.8 % of total revenue from sales respectively.

Sales revenue from petrochemical and chemical businesses sector accounted for 22.2 %, 32.2 %, and 34.8% of total sales revenue respectively and sales revenue generated from the energy and utilities businesses sector accounted for 26.5%, 23.8%, and 17.1% of total sales revenue respectively.

In 2022, sales revenue generated from the construction materials business sector increased by 35.5 % due to the increase in sales volume and clinker price, together with the increase of average selling price of domestic cement and the average selling price of ready-mixed concrete increased in line with the economic direction recovered after cancellation of measures to control the spread of COVID- 19. When the situation of COVID-19 disease has subsided, demand and prices of construction business sector increased.

In 2022, revenue from sales of the petrochemical and chemical business sector increased by 33.6% as the average selling price of specialty grade increased by 27.3% together with the increase in sales volume and average selling price of ammonium nitrate in 2022.

Sales revenues generated from the energy and utilities businesses sector in 2022 decreased by 11.1% over the year 2021 as the units of power sale in 2022 decreased and the adders for the 18-megawatt and 55-megawatt municipal solid waste fuel (MSW) power plants expired in January 2022 and August 2022, respectively. However, base tariff increased, primarily due to continuous increase in variable electricity tariff (FT Charge) in 2022.

Other income which consists of transportation income, net foreign exchange gain, investment income, and other income in 2020, 2021, and 2022 were Baht 1,911 million, Baht 2,359 million, and Baht 2,830 million respectively. Other income in 2022 consists of transportation revenue, investment income, machinery rental income. In 2022, other income and foreign exchange gain increased compared the same in 2021.

Total consolidated revenue in 2020, 2021 and 2022 were Baht 36,187 million, Baht 41,279 million, and Baht 50,963 million respectively.

Cost of Goods Sold

Consolidated cost of goods sold in 2020, 2021, and 2022 were Baht 24,937 million, Baht 26,391 million, and Baht 35,277 million respectively, representing 72.8% , 67.8%, and 73.3% of sales revenue, respectively. As a result, the Company's gross profit margin were 27.2%, 32.2% and 26.7% of sales revenue, respectively, the Gross profit margin in 2022 decreased compared with the year 2021 mainly due to the decrease of gross profit margin of the energy and utilities businesses sector due to the expiration of the adders for the 18-megawatt and 55-megawatt municipal solid waste fuel (MSW) power plants in January 2022 and August 2022, respectively.

Selling and Administrative Expenses

Consolidated selling and administrative expenses in 2020, 2021, and 2022 were Baht 4,912 million, Baht 5,394 million, and Baht 5,763 million respectively, which accounted for 14.3%, 13.9%, and 12.0% of total revenues from sales respectively. Selling and administrative expenses as a percentage of revenues in 2022 decreased because in 2022 sales revenue increased by Baht 9,213 million or increased by 23.7% from the same in 2021 while selling and administrative expenses increased by Baht 369 million or an increase of 6.8% from the year 2021 whilst selling and administrative expenses increased in a smaller proportion than the increase in sales revenue.

Loss on Impairment of Assets

In 2020, the Company and its subsidiary Group recognized a loss on impairment of petroleum exploration assets of Baht 1,602 million as a result of the cancellation of the petroleum exploration due to the exploratory wells, which have not identified proven reserves or concessions have identified proven reserves but that haven't been found to be commercially viable. Loss on impairment of assets was recognized as expenses in the consolidated financial statements for the year ended 31 December 2020 whereas in 2021 and 2022 no loss on impairment of such assets was recorded.

Interest Expenses (Cost of financial debt)

In 2020, 2021, and 2022, the Company and its subsidiaries recorded interest expenses of Baht 2,015 million, Baht 2,062 million, and Baht 1,935 million respectively. The interest expenses in 2022 was less than that of 2021 as partial interest has been capitalized as costs during the construction period.

Net Profit

In 2020, 2021, and 2022, the Company and its subsidiaries registered normal operating profit for the year(excluding gain (loss) from foreign exchange, loss on impairment of assets, and tax expense) of Baht 4,379 million, Baht 7,067 million, and Baht 7,573 million in 2020, 2021, and 2022, respectively.

In 2020, 2021, and 2022, the Company and its subsidiaries registered profit for the year of Baht 2,839 million, Baht 6,918 million, and Baht 7,845 million, (Profit attributable to owners of the parent of Baht 1,498 million, Baht 5,671 million, and Baht 7,008 million, respectively, or basic earnings per share (owners of the parent) of Baht 0.079, Baht 0.297, and Baht 0.370, respectively. The profit in 2022 increased, driven by the higher profit of the petrochemical and chemical business sector and the construction business sector.

Operational Results classified by Business Sector

• Construction Materials Business Sector

Revenue of the construction materials business sector were Baht 17,468 million, Baht 16,969 million, and Baht 23,000 million in 2020, 2021, and 2022 respectively. The increase in revenue in 2022 was due to an increase in the sale of clinker exports, coupled with an increase in the sale price of cement and ready-mixed concrete in the country increased in line with the economic direction recovered after cancellation of measures to control the spread of COVID-19 when the situation of COVID-19 pandemic disease has subsided. As a result, the operating results of construction materials business sector in 2022 improved.

• Petrochemicals and Chemicals Business Sector

In 2022, sales revenue from petrochemical and chemical businesses sector increased by 33.6% with the average selling price of plastic resin has risen considerably by 27.3%. In addition, in 2022, sales volume and average selling price of ammonium nitrate increased compared with the same in 2021, resulting in an improved performance of petrochemical and chemical business sector. Gross profit margin of specialty grade products slightly decreased from 42.5% in 2021 to 39.5% in 2022 due to a decrease in the spread between plastic resin prices and ethylene prices during the fourth quarter, while gross profit margin of ammonium nitrate and nitric acid products increased from 32.3% in 2021 to 36.0% in 2022.

In 2021, sales volume of plastic resins decreased compared with the same in 2020 whereas average selling price of plastic resins increased considerably. As a result, overall performance of the petrochemical and chemical businesses sector improved. Gross profit margin of plastic resins increased from 24.1% in 2020 to 42.5% in 2021 while gross profit margin of ammonium nitrate and nitric acid products decreased from 44.0% in 2020 to 32.3% in 2021.

- **Energy and utilities businesses sector**

In 2022, revenue from sales decreased by 11.1% compared with the same in 2021, due to the decrease in overall electricity sales due to the expiration of the adder for waste-to-energy power plants 18 MW and 55 MW in January 2022 and August 2022 respectively. The revenue proportion in 2022 consisted of revenue from power plants of 94.3% and revenue from petrol and gas stations of 5.7%.

In 2021, sales revenue increased by 2.1% compared with the same in 2020 due to an increase in electricity sales to the Electricity Generating Authority of Thailand. The revenue proportion in 2021 consists of 95.3% from power plants and 4.7% from petrol and gas stations.

- **Agricultural Group**

In 2022, sales revenue decreased slightly by 1.9% compared with the same in 2021. However, the performance in the agricultural sector improved due to improved profit margins

In 2021, sales revenue increased by 13.1% compared with the same in 2020 as a result of higher sales volume and selling price, resulting in improved revenue and performance in the agricultural business sector.

4.1.2 Financial Position and Financial Ratios for the year 2022

Assets

As at 31 December 2020, 31 December 2021 and 31 December 2022, total consolidated assets were Baht 123,909 million, Baht 135,714 million, and Baht 144,499 million, respectively. In 2022, the increase in assets value was mainly due to additional investments in various projects in the energy and utilities businesses sector and the development of production efficiency to reduce production costs in cement projects and petrochemical plants, as well as increased inventories.

As at 31 December 2020, 31 December 2021 and 31 December 2022, total consolidated current assets were Baht 27,295 million, Baht 35,032 million, and Baht 39,131 million respectively. Current assets increased, mainly due to inventories increased by the proportion of the value of inventories in 2020, 2021, and 2022, which accounted for 40.7%, 44.9%, and 49.5 % of total current assets in 2019, 2020 and 2021, equating to average inventory turnover periods of 183 days, 183 days, and 179 days respectively. Trade accounts receivable (after the provision of doubtful debts) represented 17.1%, 17.0%, and 14.2% of total current assets, which equated to an average collection period of 49 days, 50 days, and 43 days, respectively. The average debt collection period decreased due to the trade receivable turnover ratio increased stemming from increased sales volume.

As at 31 December 2020, 31 December 2021 and 31 December 2022, the property, plant and equipment of the Company and its subsidiaries were Baht 92,925 million, Baht 96,366 million, and Baht 100,474 million, respectively. The increase in the property, plant and equipment in 2022 was mainly due to additional investments in various projects in the energy and utilities, cement and plastic resin businesses sectors.

Liabilities

Total consolidated liabilities were Baht 71,737 million, Baht 78,152 million, and Baht 81,685 million million at the end of 2020, 2021, and 2022 respectively. The debt liabilities increased because the Company and its subsidiaries issued and offered additional debentures to refinance the matured debentures in 2022 and for repayment of long term loans from financial institutions. The remaining portion has been utilized for various investment projects and for working capital of the Group of the Company and its subsidiaries.

Trade account payables at year-end 2020, 2021 and 2022 were Baht 2,878 million, Baht 3,617 million, and Baht 3,792 million, equating to an average payment period of 39 days, 44 days, and 38 days respectively.

As at 31 December 2020, 31 December 2021, and 31 December 2022, the Company and its subsidiaries had short-term loans from financial institutions of Baht 1,315 million, Baht 3,392 million, and Baht 4,355 million respectively; long-term loans from financial institutions of Baht 2,989 million, Baht 1,000 million, and -0- respectively respectively; and debentures of Baht 57,686 million, Baht 63,244 million, and Baht 66,586 million respectively. In 2021, the Company and its subsidiaries issued and offered for sale of addition debentures to refinance the matured debentures in 2022 and for repayment long term loans from financial institutions in 2022; investments in the construction of two community power plants; for development of production efficiency to reduce production costs in cement projects and plastic resin plants and for working capital of the Company and its subsidiaries.

Shareholders' Equity

As at 31 December 2020, 31 December 2021, and 31 December 2022, shareholders' equity was Baht 52,172 million, Baht 57,562 million, and Baht 62,814 million respectively. Value of shareholders' equity increased as the Company and its subsidiaries' net profit from operations increased during the period.

Capital Structure

As at 31 December 2020, 31 December 2021, and 31 December 2022, the debts to equity ratios were at 1.38 times, 1.36 times, and 1.30 times respectively whereas Interest Bearing Debt to Equity ratio equated 1.20 times, 1.18 times, and 1.14 times, respectively and Net Interest Bearing Debt (after deduction of cash, cash equivalents and other current financial assets) to Equity ratio equated 1.00 times, 0.98 times, and 0.95 times, as of 31 December 2022, 31 December 2021, and 31 December 2022 respectively.

In 2022, debt to equity ratio was lower compared with the same in 2021 as, shareholders' equity as at 31 December 2021 increased by Baht 5,252 million as a result of the Company and its subsidiaries' net profit from operations increased during the period.

Financial Liquidity and Sufficiency of Funds

In 2020, 2021, and 2022, consolidated net cash flow from operating activities of the Company and its subsidiaries were Baht 11,876 million, Baht 7,271 million, and Baht 9,992 million respectively. The increase in consolidated net cash flow from operating activities in 2022 was primarily a result of an increase in net cash flow from operating activities of the Company and its subsidiaries in 2022.

In 2020, 2021, and 2022, net cash flow from investing activities of the Company and its subsidiaries were Baht (12,195) million, Baht (9,618) million, and Baht (2,817) million, respectively as the Company consistently invested in plants and machinery and equipment of Power Plants, MSW-Fuel Plant, and Fiber Cement Project, and for the development of production efficiency to reduce production costs in cement and petrochemical plants. In 2022, net cash flow used in investing activities decreased due to the decrease in the Company's other current financial assets compared with the same in 2021.

In 2020, 2021, and 2022, net cash flow from financing activities of the Company and its subsidiaries were Baht 4, 245 million, Baht 1,377 million, and Baht (2, 134) million respectively. The Company received the proceeds from the issuance and sale offering of debentures to refinance the matured debentures and for prepayment of long term loans from financial institutions and investments in various projects as mentioned above. In addition, the Company has issued fewer bills of exchange during the period and made payment for the purchase of capital shares in 2022. As a result, by year-end 2020, 2021 and 2022, consolidated cash and cash equivalent (Before the effect from foreign exchange) were Baht 3,925 million, Baht (971) million, and Baht 5,041 million respectively.

In 2020, 2021, and 2022, liquidity ratio equated 1.02 times, 1.44 times, and 1.54 times, Quick Ratio equated 0.55 times, 0.72 times, 0.68 times and Interest Coverage Ratio equated 4.08 times, 4.96 times, and 5.22 times respectively. That rate has increased because in 2022, the Company has significantly improved its operating performance mainly from petrochemical and chemicals business sectors. In addition, the Debt Service Coverage Ratio equated 2.34 times, 2.67 times, and 3.49 times, respectively whereas the Company and its subsidiaries' Interest Bearing Debt to Equity ratio equated 1.2 times, 1.18 times and 1.14 times while Net Interest Bearing Debt (after deduction of cash, cash equivalents and other current financial assets) to Equity Ratio equated 1.00 times, 0.98 times, and 0.95 times respectively.

This can be clearly seen that net cash flow from financing activities, Interest Coverage Ratio, Quick Ratio, and Interest Bearing Debt to Equity ratio of the Company and its subsidiaries are at manageable levels. This ensures that the Group has sufficient liquidity for its operations and has the ability to pay off debts, be able to comply with terms and conditions in major loan agreements, and have the ability to seek additional sources of funding, with a revolving credit facility credit limit supported by financial institutions that are sufficient to operate the business.

Maintaining an appropriate financial ratio

The Company and its subsidiaries had sufficient funds for various project investments while the source of funds were from the issuance and sale offering of debentures and Bill of Exchange, loans from financial institutions from both domestic and international institutions, as well as cash flow from business operations of the Company and its subsidiaries and the loans from financial institutions to be used as working capital of the Company.

As at December 31, 2022, financial debts of the Company and its subsidiaries in the amount of Baht 70,940.94 million can be summarized as follows:

1. Outstanding debt of subordinated unsecured debentures of the Company and its subsidiaries were Baht 66,585.6 million. The terms and conditions for debentures agreement are as follows:
 - 1.1 TPIPL's debentures amount of Baht 8,348.5 million, issued under medium term note program B.E 2562 of TPIPL under the condition that it has to maintain Debt to Equity Ratio (Debt means interest bearing debt) at the end of the quarterly accounting period or the end of the fiscal year not exceeding 1.5:1 (for the Company and its subsidiaries) throughout the term of the debentures.
 - 1.2 TPIPL's debentures of Baht 42,330.90 million, issued under the condition that it has to maintain Debts to Equity Ratio (Debt means interest bearing debt) at the end of the quarterly accounting period or at the end of the fiscal year not exceeding 2:1 (for TPIPL and its subsidiaries) throughout the term of the debentures.
 - 1.3 TPIPP's debentures of Baht 3,789.6 million, issued under medium term note program B.E 2561 of TPIPP under the condition that it has to maintain Debts to Equity Ratio (Debt means interest bearing debt) at the end of the quarterly accounting period or at the end of the fiscal year not exceeding 1.75:1 (for TPIPP and its subsidiaries) throughout the term of the debentures.
 - 1.4 TPIPP's debentures of Baht 12,116.60 million, issued under medium term note program B.E

2564 of TPIPP under the condition that it has to maintain Debts to Equity Ratio at (Debt means interest bearing debt, less cash, deposits and short-term investments in excess of Baht 1,500 million, and less lease liabilities and financial debt for investment in power plants with official contracts) at the end of the quarterly accounting period or the end of the fiscal year over the life of the debentures at a ratio not exceeding 3.0:1

As of December 31, 2022, the Company and its subsidiaries have an interest bearing debt to equity ratio was 1.14:1 which does not exceed the maintenance ratio of 1.5:1 (which is in accordance with the conditions specified in the terms and conditions for debentures, item 1.1) and has a net interest-bearing debt to equity ratio of 0.97:1 which does not exceed the rate to be maintained 2:1 (in accordance with the conditions specified in the terms and conditions for the debentures, clause 1.2) as above.

As at December 31, 2022, TPI Polene Power Public Company Limited' Net Interest Bearing Debts to Equity Ratio equated 0.53:1, which is not exceeding the required maintenance rate of 1.75:1 times, as per the terms and conditions stipulated in the debentures agreements of TPI Polene in item 1.3 as above. Net Interest Bearing Debts to Equity Ratio equated to 0.46:1, not exceeding the rate required to maintain at 3:1 as stated in item 1.4 as above.

2. Bill of Exchange Debt

The Company's Bill of Exchange Debt for total of Baht 4,355 million was utilized for working capital for business operations.

Obligations to unrelated persons or businesses

As at 31 December 2022, the Company and its subsidiaries have obligations as follows:

1. Obligations pursuant to construction of machinery and equipment of Baht 9,041 million, using a source of funds generated from business operations.
2. Obligations under the lease agreement and land lease agreement, divided into obligations within 1 year, amounting to Baht 1.62 million, using a source of funds generated from business operations.
3. Obligations in form of Letter of credit (to import raw materials and spare parts) amounting to Baht 306 million, for raw material purchase contract Baht 99 million and letter of guarantee from the banks of Baht 1,093 million, using a funding source from the working capital facility.

4.1.3 Business operations of the Company under the concept of sustainable business operations (ESG) in 2022

The company has operated its business, setting a goal of Net Zero Green House Gas Emission in net zero greenhouse gas emissions. In the TPI Polene group within the year 2043 (or B.E. 2568) in order to comply with the policy of the Greenhouse Gas Management Organization (From the waste to be used as alternative fuel in the cement production process of the company and in the power generation process of TPI Polene Power Public Company Limited) where Thailand has announced that it will achieve its goal of carbon neutrality by the year 2050 and achieve net greenhouse gas emissions center by the year 2065).

In 2022, cement factories can reuse approximately 360,675.09 tons of waste, replacing about 12.29% of the total fuel with coal from the target of 25% since in 2022, all 4 cement plants have been gradually replaced by coal, respectively. COD replaces coal with waste fuel in December 2022. Therefore, it is expected that by 2023, cement plants will be able to fully replace coal by 25%.

In order to drive key national concerns, such as lowering greenhouse gas emissions, the company has implemented sustainable development, which includes collaboration with TPI Polene Group's supply chain partners as well as with the public, commercial, and nonprofit sectors. This is in response to Thailand's New Normal policy, which seeks to bring solid waste from the community to be recycled into finished products (Circular Economy), as well as dealing with climate change with a commitment to reduce the amount of waste to make our world a better place under the concept of zero waste. The amount of waste is doubling annually due to economic growth and population growth, which has an impact on the environment and ecosystems. The Company understands the significance of reducing and sorting waste by selecting recyclable materials and keeping the amount of waste left to be left to a minimum with sustainable, environmentally friendly procedures. The company supports and becomes a sustainability partner by turning waste into fuels and renewable raw materials as well as developing the capacity of the business for industrial waste disposal by offering industrial waste management services.

The Company focuses on the Zero Waste to Landfill policy, which is the disposal of waste or waste without damaging the environment and waste disposal by burning together with the main fuel at a cement kiln at a temperature higher than 1,800 degrees Celsius in a closed system. It is considered a modern technology and is more environmentally friendly than traditional landfills that cause problems affecting communities and the environment. Therefore, there is no release of carcinogenic substances such as methane, nitrogen oxides (NOx) and sulfur dioxide (SO₂) and Ash floats into the atmosphere. It is an effective and sustainable way to manage waste or industrial waste. In this process, there will be no waste left and therefore has minimal impact on community health and the environment.

Credit Term

The Group has a credit management policy that does not have an impact on financial liquidity and establishes credit criteria and processes for each business unit to be competitive and comparable to those of rivals. This policy takes into account the overall average receipt and payment durations. This also accounts for potential costs and financial risks associated with currency rates.

4.2 Factors that may affect future operations

4.2.1 Trends and potential impacts on environment and society

TPI Polene Group focuses on the impact of climate change, which will be an important factor in future business operations, thus driving the use of waste as a renewable fuel for coal in the cement production process to reduce greenhouse gas emissions, as well as aiming to develop low-carbon products along with environmentally friendly business operations. More details are shown in the Company's Sustainability Report.

4.2.2 The encumbrance of providing financial support to the subsidiary companies

The Company will consider providing financial support to its subsidiary companies, in case of the need and benefit of the Company and the Group of Companies in the long term. The Company believes that such policies and action will strengthen TPI Polene Group's structure. On February 24, 2022, the Company's Board of Directors' meeting no. 2/2565, passed a resolution to approve the extension period to receive and/or provide financial assistance between the Company and TPIPP for another two years (from March 1, 2022 to February 28, 2024) in the amount of Baht 700 million (in case that the Company receives financial assistance) and Baht 1,200 million (in case that the Company provides financial assistance), under revolving short-term loan in form of promissory note, as per details in the reference letter as above. The above transaction is classified as a connected transaction of financial assistance of the listed company.

As at December 31, 2022, the Company's financial support transactions can be summarized as follows:

Borrower	Loan Limit (Million Baht)	Outstanding loan amount
TPI Polene Power Plc.	1,200	-

4.3 Key Financial Information

4.3.1 Summary of consolidated financial statements of TPI Polene Public Company Limited for 2020, 2021 and 2022

1) Statements of Financial Position (Consolidated)

	Accounting Period ended 31 December					
	2020		2021		2022	
	"000" Baht	Percent	"000" Baht	Percent	"000" Baht	Percent
Total current assets	27,294,907	22.03	35,031,528	25.81	39,131,118	27.08
Property, plant and equipment	92,924,990	74.99	96,366,052	71.01	100,473,740	69.53
Other non-current assets *	3,689,005	2.98	4,316,018	3.18	4,894,570	3.39
Total Assets	123,908,902	100.00	135,713,598	100.00	144,499,428	100.00
Total current liabilities	26,718,296	21.56	24,405,864	17.98	25,457,853	17.62
Long-term loans from Financial institutions	1,380,711	1.11	-	-	-	-
Other non-current liabilities **	43,638,158	35.22	53,745,891	36.60	56,227,338	38.91
Total Liabilities	71,737,165	57.90	78,151,755	57.59	81,685,191	56.53
Equity						
Authorized share capital	23,805,500	19.21	23,751,500	17.50	23,560,235	16.3
Issued and paid-up share capital	19,180,500	15.48	19,126,500	14.09	18,935,235	13.1
Treasury shares	(259,637)	(0.21)	-	-	-	-
Shares premium on ordinary shares	60,600	0.05	60,600	0.04	60,600	0.04
Shares premium on Treasury shares	135,058	0.11	220,536	0.16	220,536	0.15
Other surpluses (deficits)	9,840,436	7.94	9,840,436	7.25	9,840,436	6.81
Retained earnings	14,492,616	11.70	19,005,717	14.00	24,244,666	16.78
Other components of equity	104,375	0.08	117,470	0.09	109,668	0.08
Non-controlling interests	8,617,789	6.95	9,190,584	6.77	9,403,096	6.51
Total Equity	52,171,737	42.10	57,561,843	42.41	62,814,237	43.47
Total Liabilities and Equity	123,908,902	100.00	135,713,598	100.00	144,499,428	100.00

Remarks : *Other non-current assets comprise investments in associates and joint venture, long-term investments in related parties, other long-term investments, investment properties, land leasehold rights, intangible assets, deferred tax assets, advances payment for plant and equipment and other non-current assets.

**Other non-current liabilities comprise debentures, financial lease liabilities, deferred tax liabilities, non-current provisions for employee benefit and other non-current liabilities.

2) Statements of Comprehensive Income (Consolidated)

Statement of Comprehensive Income	Accounting Period ended 31 December					
	2020		2021		2022	
	"000" Baht	%	"000" Baht	%	"000" Baht	%
Income						
Revenue from sales of goods	34,275,770	100.00	38,919,785	100.00	48,132,999	100.00
Cost of sales of goods	(24,937,101)	(72.75)	(26,391,000)	(67.81)	(35,276,512)	(73.29)
Gross profit	9,338,669	27.25	12,528,785	32.19	12,856,487	26.71
Transportation income	1,113,565	3.25	1,348,630	3.47	1,453,474	3.02
Net foreign exchange gain	-	-	390,708	1.00	437,171	0.91
Investment income	59,151	0.17	60,416	0.16	70,890	0.15
Other income	738,177	2.15	559,515	1.44	868,466	1.80
Profit before expenses	11,249,562	32.82	14,888,054	38.25	15,686,488	32.59
Cost of distributions and transportations	(3,164,115)	(9.23)	(3,346,691)	(8.60)	(3,749,878)	(7.79)
Administrative expenses	(1,748,261)	(5.10)	(2,047,289)	(5.26)	(2,012,696)	(4.18)
Impairment loss of assets	(1,601,820)	(4.67)	-	-	-	-
Net foreign exchange loss	(11,943)	(0.03)	-	-	-	-
Total expenses	(6,526,139)	(19.04)	(5,393,980)	(13.86)	(5,762,574)	(11.97)
Profit from operating activities	4,723,423	13.78	9,494,074	24.39	9,923,914	20.62
Finance costs	(2,014,903)	(5.88)	(2,061,541)	(5.30)	(1,934,590)	(4.02)
Share of profit of subsidiaries accounted for using equity method	-	-	-	-	-	-
Share of profit (loss) of associates accounted for using equity method	56,321	0.16	24,703	0.06	21,280	0.04
Profit before income tax expense	2,764,841	8.07	7,457,236	19.16	8,010,604	16.64
Tax income	74,325	0.22	(539,277)	(1.39)	(165,828)	(0.34)
Profit for the year	2,839,166	8.28	6,917,959	17.77	7,844,776	16.30
Other comprehensive income (expense)						
Items that will be reclassified subsequently to profit or loss						

Statement of Comprehensive Income	Accounting Period ended 31 December					
	2020		2021		2022	
	"000" Baht	%	"000" Baht	%	"000" Baht	%
Exchange difference on translating financial statements	(18)	(0.00)	353	0.00	(177)	(0.00)
Gain (loss) on measurement of financial statements	6	0.00	2	0.00	3	0.00
Share of other comprehensive income (expense) of subsidiaries accounted for using equity method	-	-	-	-	-	-
Share of other comprehensive income (expense) of associates accounted for using equity method	(3,778)	(0.01)	12,735	0.03	(7,588)	(0.03)
Income tax relating to items that will be reclassified	-	-	-	-	-	-
Total items that will be reclassified subsequently to profit or loss	(3,790)	(0.01)	13,090	0.03	(7,762)	0.03
Items that will not be reclassified to profit or loss						
Gain on investments in equity instruments designated at fair value through other comprehensive income (expense)	3	0.00	7	0.00	(50)	(0.00)
Share of other comprehensive income (expense) of subsidiaries accounted for using equity method	-	-	-	-	-	-
Losses on remeasurements of defined benefit plans	-	-	-	-	136,275	0.28
Income tax relating to items that will not be reclassified	(1)	(0.00)	(2)	(0.00)	(26,479)	(0.06)
Total items that will not be reclassified to profit or loss	2	0.00	5	0.00	109,746	0.23
Other comprehensive income (expense) for the year, net of tax	(3,788)	(0.01)	13,095	0.03	101,984	0.21
Total comprehensive income for the year	2,835,378	8.27	6,931,054	17.81	7,946,760	16.51
Profit (loss) attributable to:						
Owners of the parent	1,498,152	4.37	5,670,534	14.57	7,007,607	14.56
Non-controlling interests	1,341,014	3.91	1,247,425	3.21	837,169	1.74
Profit for the year	2,839,166	8.28	6,917,959	17.77	7,844,776	16.30

Statement of Comprehensive Income	Accounting Period ended 31 December					
	2020		2021		2022	
	"000" Baht	%	"000" Baht	%	"000" Baht	%
Total comprehensive income (expense) attributable to:						
Owners of the parent	1,494,363	4.36	5,683,629	14.60	7,109,591	14.77
Non-controlling interests	1,341,015	3.91	1,247,425	3.21	837,169	3.21
Total comprehensive income for the year	2,835,378	8.27	6,931,054	17.81	7,946,760	16.51
Basic earnings per share (in Baht)	0.079		0.297		0.37	

Revenues from sales - Outside customers

	2020 ("000" Baht)	%	2021 ("000" Baht)	%	2022 ("000" Baht)	%
Construction Materials	17,468,305	50.96	16,968,829	43.60	22,999,991	47.78
Petrochemical and Chemicals	7,616,357	22.22	12,550,440	32.25	16,766,659	34.83
Energy and Utilities	9,072,251	26.47	9,266,087	23.81	8,234,425	17.11
Agriculture	118,857	0.35	134,429	0.35	131,924	0.27
Total	34,275,770	100.00	38,919,785	100.00	48,132,999	100.00

3) Statement of cash flow (Consolidated)

	Accounting Period ended 31 December		
	2020 ("000" Baht)	2021 ("000" Baht)	2022 ("000" Baht)
Net cash from operating activities	11,876,001	7,270,922	9,992,389
Net cash used in investing activities	(12,195,171)	(9,618,405)	(2,817,065)
Net cash from financing activities	4,244,530	1,376,824	(2,133,840)
Net increase (decrease) in cash and cash equivalents, before effect of exchange rates and changes in holding of investments in subsidiary	3,925,360	(970,659)	5,041,484
Effect of exchange rate changes on cash and cash equivalents	(11,801)	(18,612)	(38,900)
Cash and cash equivalents from change in holding of investments in subsidiary	475	-	-
Net increase (decrease) in cash and cash equivalents	3,914,034	(989,271)	5,002,584
Cash and cash equivalents at 1 January	2,743,845	6,657,879	5,668,608
Cash and cash equivalents at 31 December	6,657,879	5,668,608	10,671,192

4) Key Financial Ratio

Financial Ratio	Accounting Period ended 31 December		
	2020	2021	2022
Liquidity Ratio			
1. Current Ratio (times)	1.02	1.44	1.54
2. Quick Ratio (times)	0.55	0.72	0.68
3. Cash Ratio (times)	0.52	0.28	0.40
4. Receivable Turnover (times)	7.38	7.24	8.29
5. Collection Period (days)	48.77	49.75	43.41
6. Inventory Turnover Period (times)	1.97	1.97	2.01
7. Inventory Turnover(days)	182.55	182.98	178.95
8. Account Payable Turnover (times)	9.21	8.13	9.52
9. Payment Period (days)	39.07	44.29	37.80
10. Cash Cycle (days)	192.25	188.43	184.56
Profitability Ratio			
11. Gross Profit Margin (%)	27.25	32.19	26.71
12. Operating Profit Margin (%)	18.32	23.23	19.56
13. Other Profit Margin (%)	(9.86)	(3.90)	(2.80)
14. Cash to Net Profit Ratio (times)	1.89	0.80	1.06
15. Net Margin (%)	7.85	16.76	15.39
16. Return on Equity (%)	5.48	12.61	13.03
Efficiency Ratio			
17. Return of Assets (%)	2.38	5.33	5.60
18. Return on Fixed Assets(%)	6.66	10.58	11.32
19. Assets Turnover (times)	0.30	0.32	0.36
Financial Policy Ratio			
20. Debts to Equity Ratio (times)	1.38	1.36	1.30
21. Net Debts to Equity Ratio (times) ²	1.18	1.15	1.12
22. Interest Bearing Debt to Equity Ratio (times)	1.20	1.18	1.14
23. Net Interest Bearing Debt to Equity Ratio (times) ²	1.00	0.98	0.95
24. Interest Coverage Ratio (times) ³	4.08	4.96	5.22

Financial Ratio	Accounting Period ended 31 December		
	2020	2021	2022
25. Debt Service Coverage Ratio (times) ³	0.46	0.74	0.77
26. Dividend Payout Ratio (%) ¹	75.95	30.30	27.03
27. Net Debt to EBITDA Ratio (times)	5.62	4.47	4.47
28. BE Size to Interest Bearing Debt Ratio (times)	0.02	0.05	0.06
29. Current Interest Bearing Debt to Interest Bearing Debt Ratio (times)	0.32	0.25	0.24
30. Long Term Borrowings from Financial Institutions to Liabilities Ratio (times)	0.04	0.01	0.00
Shares data			
31. Book Value per Share (Baht) ⁴	2.75	3.01	3.32
32. Earnings per Share (Baht)	0.079	0.297	0.370
33. Dividend per Share (Baht)	0.060	0.090	0.090
Growth Ratio			
34. Total Assets (%)	8.34	9.53	6.47
35. Total Liabilities (%)	14.10	8.94	4.52
36. Sales(%)	(7.46)	13.55	23.67
37. Operating Expenses (%)	(20.04)	9.80	6.83
38. Net Profit (%)	2.70	143.66	13.40

Remarks : 1. Calculation based on Separate Financial Statements.

2. After Deducting Cash and Cash Equivalents and Current Investments.

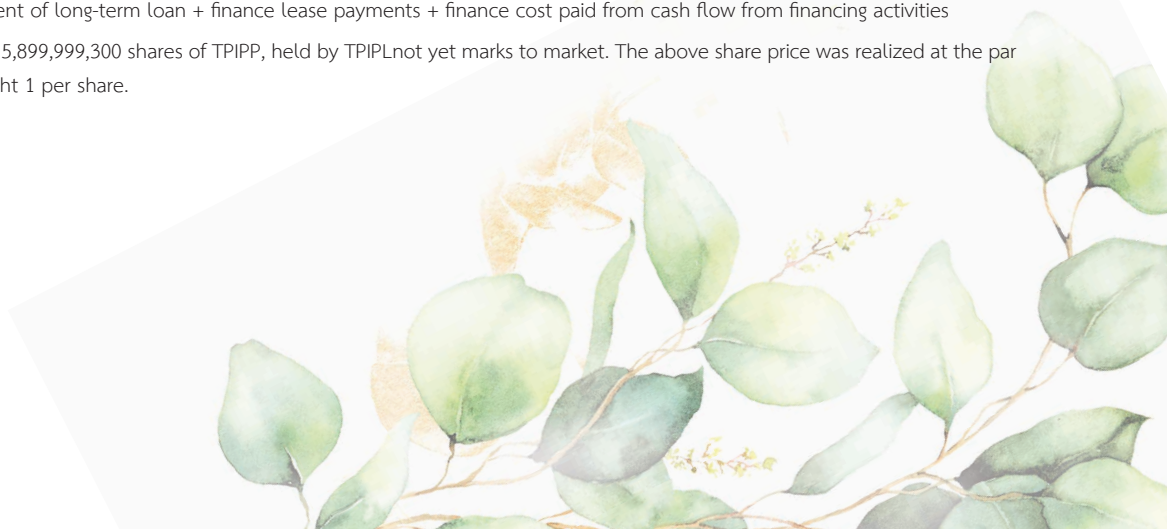
3. Cash basis

Interest coverage ratio = Cash from (used in) operating activities (before change in operating assets and liabilities) divided by finance cost paid from cash flow from financing activities.

Debt service coverage ratio is calculated based on formula of Financial Covenants stipulated in Financial Agreements of the Company with commercial bank creditors, which is as follows:

Debt service coverage ratio = Cash from (used in) operating activities (before change in operating assets and liabilities) divided by repayment of long-term loan + finance lease payments + finance cost paid from cash flow from financing activities

4. Number of 5,899,999,300 shares of TPIPP, held by TPIPL not yet marks to market. The above share price was realized at the par value of Baht 1 per share.



5. General Information Other key information

5.1 General information

Based on Section 1.1.5, name, location, head office, business type, company registration number, telephone, fax, company website Total number and type of securities sold

5.2 Other important information

- No -

5.3 Legal disputes

See details in the notes to financial statements for the year 2022, item 38.

5.4 Secondary market

The Company does not have securities listed on other countries' exchanges.

5.5 Regular Contact Financial Institutions only in case of debt instruments

CIMB Thai Bank Plc.	44, Langsuan Road, Lumpini Subdistrict, Pathumwan District, Bangkok 10330
Bank of Ayudhya Plc.	1222, Rama 3 Road, Bang Phongphang Subdistrict, Yan Nawa District, Bangkok 10120
Asia Plus Securities Co., Ltd.	3/1 Fl., Sathorn City Tower, 175 South Sathorn Road, Thungmahamek, Sathorn, Bangkok 10120



Corporate Governance

02

6. Corporate Governance Policy

6.1 Overview of Corporate Governance Policy and Guidelines

The Board of Directors place great importance and commitment to operate the business to be in compliance with the principles of good corporate governance, based on the Code of Conduct policy of TPI Polene Group, which has been continuously reviewed and updated, and delivered to the Board of Directors. The Group's corporate governance policies and business ethics are presented on the Company's website to guide corporate governance at all levels throughout the organization to create a corporate culture, as well as for investors to understand and to be able to serve as a way to further monitor the group's business direction.

The Group conducts its business according to the ESG framework with responsibility, transparency, and fairness by adhering to the ideals that have been practiced in the past within the framework of the Company's Code of Conduct. The Company believes that corporate governance is a management system that leads to fairness and transparency, can generate returns and increase long-term value for shareholders, as well as foster confidence among all stakeholders and support and promote the competitiveness of the Company for sustainable growth. The Company aims to develop the organization to be a role model in corporate governance. The Corporate Governance Committee is responsible for overseeing the Company's corporate governance, setting policies and guidelines, and monitoring compliance with good corporate governance principles such as the good corporate governance principles for listed companies of the Securities and Exchange Commission and the Stock Exchange of Thailand (SEC) and of the Stock Exchange of Thailand, including the criteria according to the Corporate Governance Report of Thai Listed Companies : CGR project of the Thai Institute of Directors Association (IOD).

In 2022, TPI Polene received the following important corporate governance assessment results:



Received the Corporate Governance Report of Thai Listed Companies (CGR) survey for the year 2022 by the Thai Institute of Directors (IOD) with a very good rating (Very Good).



Selected to be in the Thailand Sustainability Investment (THSI) or the list of "Sustainable Stocks" for the year 2022 from the Stock Exchange of Thailand.



The Company announced a guidelines policy for employees following the way of Four Noble Truths and Four Sublime States of Mind, with details as follows:



More details can be found at the Company website <https://tpipolene.co.th/th/aboutus/employeehandbook>

Brahma-vihara (FOUR SUBLIME STATES OF MIND)	
Metta (Mercy)	Love, desire for others to be happy.
Karuna (Kindness)	Desire to get others out of their sufferings
Mudita (Sympathetic joy)	Pleasure that comes from delighting in other people's well-being, even if one did not contribute to it.
Upekkha (Equanimity)	Even-mindedness and serenity, treating everyone impartially

Iddhipada 4 BASIS FOR SUCCESS 4	
Chanda (Aspiration)	To be content and happy in doing good deeds with enthusiasm and strong intention.
Viriya (Efforts)	Diligence, patience, commitment, endurance, willingness to work hard and to never give up; having the courage to tackle any obstacle and having the courage to make changes.
Citta (Concentration)	Consciousness of the senses, Subconscious mind and Intellect, is of immense power
Vimamsa (R&D)	Involves conducting an investigation or discrimination, a plan, a measure, an invention of a solution.

Iddhipada 4 principles of success that are used in work are:

Chantha means love for work - being satisfied with the work that is being done

Viriya means diligence in one's work

Citta means being attentive and responsible for one's work

Vimamsa means scrutinizing and using intelligence to check work.

(Catvari Aryasatyani)
FOUR NOBLE TRUTHS

Heart of Buddhism (Ariyatham to the Cessation or Extinction of Suffering)

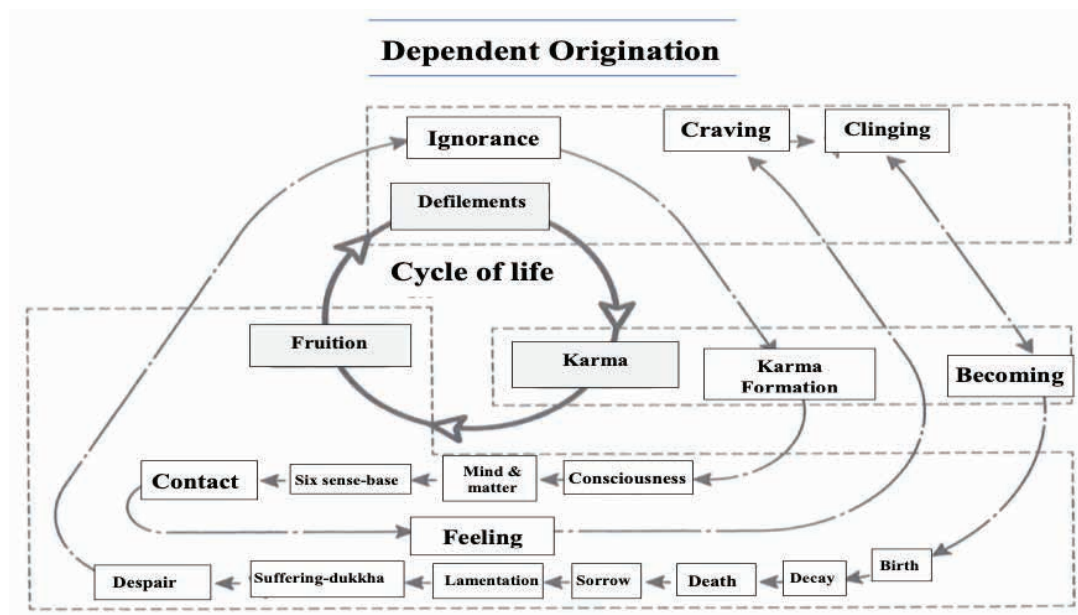
Dukkha	Suffering
Samudaya	The Cause or Origin of Suffering
Nirodha	The Cessation or Extinction of Suffering can be attained by the
Marga	The Path leading to the Cessation or Extinction of Suffering

1. DUKKHA UNSATISFACTION, SUFFERING, PAIN

The word suffering in the heart of Buddhism does not just mean suffering in Thai as it is understood. It also means difficult conditions to endure in the same conditions and clinging to impermanent states and things or stressful conditions.

2. SAMUDAYA THE ORIGIN OR ARISING OF DUKKHA

Consideration of CAUSE OF SUFFERING



Cause of suffering (or suffering) is defilement or ignorance.

3. Nirodha: The Extinction of Suffering (EXTINCTION OF SUFFERING)

is the elimination of defilements, i.e. elimination of defilements with the power to proceed according to the NOBLE EIGHTFOLD PATHS

4. Marga (THE NOBLE EIGHTFOLD PATHS)

The Path leading to the Cessation or Extinction of Suffering

1. Right view
2. Right intention
3. Right speech
4. Right action
5. Right livelihood
6. Right effort
7. Right mindfulness
8. Right concentration



Chants conquering The Evil : Panmare Chino Na Tho

Panmare Chino Natou Patto Sampothimuttaman
Chatur Satjung Pakasti Thammajakang Pawattayi
Etena Sajjavajchena Hotu Me Chayamankalang

Devil 5 (What Kills a Person to Die from Goodness) THE EVIL ONE, THE TEMPER, THE DESTROYER

1. The MARA of Defilement
2. The MARA of Aggregates²
3. The MARA of Karma Formations³
4. The MARA of Deity
5. The MARA of Death

After conquered the five devils, the Buddha enlightened Four Noble Truths

Note

1. MARA (The Destroyer) is something that depletes one from his virtues or noble results or something that consumes virtues or prevents one from attaining good results.

1. MARA of Defilement is love, greed, anger, delusion, evil spirit.
2. MARA of Aggregates is something that destroys one's Aggregates, makes him pain, sick, crippled, depriving one of the opportunity to do good deeds.
3. The MARA of Karma Formations is the thought, emotion, and karma cultivator that prevents one from avoiding the suffering in samsara or rebirth of one in 31 places of existence.
4. The MARA of Death is death that deprives one of the opportunity to do good deeds.
5. The MARA of Deity is an evil deity who is powerful and inspires one not to do the good deeds.

2. Five Khandha (Five Groups of Existence or Five Aggregates) are the five aggregates of form and abstract that make up the collective units which are ordinarily called animals, persons, beings, he, we, etc. The five components incorporated into life.

1. The corporeality group (rupa-kkhandha) is the aggregate of form which is the mixture of earth, water, air and fire elements such as hair, skin, bone, and blood.
2. The feeling group (vedana-kkhandha) is the aggregate of processing feelings such as happiness, suffering, or indifference.
3. The perception group (sañña-kkhandha) is the aggregate that remembers what one received or felt. It is the part that defines or perceives the meaning of what have known (Arrom 6) such as white, green, black, red, etc.

4. The mental-formation group (sankhara-kkhandha) is the aggregate of thought to identify what you feel and remember whether it good or bad or indifference, neither good nor bad. The mind was led by intention to be good or bad or upyakrit (neither good nor bad) such as kaya-sankhara (physical intent), vaje-sankhara (verbal intent), and mano-sakhara (mind intention).
5. The consciousness-group (viññana-kkhandha) is the aggregate of cognition or knowing of things through the six senses including eyes, ears, nose, tongue, body and mind.

The Five Aggregates are abbreviated into two groups, namely the abstract and the form (Rupa Khandha).

3. Apisankhara 3 is the thought, emotion, and karma cultivator, comprising of:

1. Punyaphisangkharā is a thought that enhances good karma (merit).
2. Apunyaphisangkharā is a thought that enhances evil karma (sin).
3. Anenchaphisangkharā is a thought that is calm, unable to be upset or excited.

4. Fetter is the defilement that binds the animals to suffering or defilement that binds the mind to the cycle of defilement, karma, and the result of karma. There are 10 fetters, i.e.

1. Sakkaya-ditthi: One has the view that the five aggregates are self.
 2. Wichikitcha : One has doubts about the virtues of the Three Jewels, namely the Buddha, the Dharma, and the Sangha
 3. Silappatapamas: One adheres to the sacred things or customs by believing in magic which is not Buddhism or adheres to the wrong practices, which is not the aims of Buddhism.
 4. Kamaraka: One has contentment in sensual pleasures or lust.
 5. Vengeance: One adheres with anger. Udhampakiyasayojana or the Five Higher Fetters are:
 6. Rupa-raka: One has greed for material existence or attachment to realms of form.
 7. Arupa-raka: One has greed for immaterial existence or attachment to formless or abstract realms.
 8. Mana: One had conceit or pride with the feeling of being better, worse, or equal with others.
 9. Uttacca: One is distracted or restless.
 10. Avijja One has ignorance of the Four Noble Truths
- Phra Sodaban is the one who puts an end to all first 3 fetters, namely Sakkaya Ditthi, Vicikiccha, and Silabbat Pramas.
- Sakathakami is the one who puts an end to all first 3 fetters, and reduces lust and anger.
- Anakami is the one who puts an end to the 5 lower fetters.
- Arahant is the one who puts an end to all 10 fetters.

5. Sankhara is Body and Mental Formations, together with Volitional Formations and Volitional Activities. Sankhara also means “formations” or “that which has been put together” of all including ingredients, decorations, parts of the body, mind, life, spirit, all things that made up. (Volitional Formation is what our brains think. The more we think, the more formations follows like a shadow following our body. What is in the brain will be expressed through words and actions, which is karma. Since our minds are endlessly concerned or embellished, we commit karma endlessly, resulting in us being reborn indefinitely). In the Trinity (Trilak), sankhara is the thing being formed or improvised, which is all the the mind and forms.

Paticca-samuppada (the Dependent Origination; conditioned arising) Sankhara 3 is

1. Kayasangkhara: bodily formation, bodily volition
2. Vajisangkharā: verbal formation, verbal votition
3. Manosangkharā: mental formation, mental votition

Sankhara has three qualities known as trilak (three marks of existence as follows:-

1. Anicca: Impermanence
2. Dukkha: State of suffering or being oppressed, state which cannot stand it in its original condition, state that will deteriorate because of being oppressed by Anicca.
3. Anatta: No real self, incapable of being in power

The opposite of Sangkhara is Wisangkharā

Wisangkharā is Nirvana, which is eternal. It leads to nicca, sukhā, anatta (dharma).

As a listed company on the Stock Exchange of Thailand, TPI Polene Group recognizes its important mission in the field of good management, transparency and equality for all stakeholders, ensuring investment and creating long-term value for shareholders, building trust with all stakeholders, as well as ensuring the organization has the right management, most effectively promote the competitiveness of the organization to grow sustainably to raise corporate governance standards.

However, having good corporate governance and business ethics will help lead TPI Polene Group to achieve stable, sustainable, and elegant growth goals to build confidence for shareholders and all stakeholders to able to develop international, operational standards. Performance monitoring is followed to ensure effective implementation, which covers investments, which are planned jointly; define a clear roadmap and follow-up report on the progress of operations on a regular basis, as well as formulate long-term strategies and goals for sustainable growth development. The Board recognizes its role as a leader of the organization and understands the benefits of the continuous implementation of good corporate governance principles and business ethics in the organization in order to be internationally recognized.

Good Corporate Governance Policy

TPI Polene Group has reviewed its CG policies and manuals to comply with the law, best practices for business operations, changing socioeconomic and environment and requiring directors, the management, and employees at all levels to be acknowledged and adhered to as part of their work as a commitment and to take concrete action. The Board of Directors has established the following good corporate governance policies for TPI Polene as follows:

1. The Board of Directors, the management and employees are committed to implementing the core principles of good corporate governance in the implementation of the management structure that is related to the Board of Directors, the management and shareholders, including fair practices to the stakeholders.
2. The Board of Directors has to perform duties with dedication and responsibility, to be independent with roles and duties between the Chairman and the Managing Director and the President are clearly separated.
3. The Board of Directors plays an important role in determining the Company's vision, strategy, policies and plans by considering risk factors and laying out management guidelines, manage appropriately, and must take steps to ensure that the accounting system, financial reports and audits are reliable.
4. The Board of Directors must be a leader in ethics as an example of the implementation of regulatory guidelines under good corporate governance and monitor the management of conflict of interest and connected transactions.
5. The Board of Directors may appoint a specific committee as appropriate to help carefully verify important tasks.
6. The Board of Directors must provide an annual self-assessment as a framework for monitoring duties of the Board of Directors.
7. The Board of Directors determines the ethical standards and ethics of the Company in order to provide the Board of Directors with the Board of Directors, The Management, employees, and all employees to be used as a guideline for conduct, along with the Company's rules and regulations.
8. The Board of Directors must provide adequate disclosure of the Company's information both financially and non-financially adequate, reliable and timely to ensure that shareholders and stakeholders of the Company receive information equally, as well as to provide privatization agencies and investor relations agencies to be responsible for providing information to investors and the general public.
9. The Board of Directors Shareholders must be treated equally and have the right access to information to communicate with the Company.
10. The Board of Directors must provide a system for selecting personnel to be responsible for important administrative positions at all levels appropriately under a transparent and fair recruitment process.
11. The Board of Directors must provide a system that supports effective anti-corruption in order to confirm that the administration recognizes and focuses on the importance of as well as following an anti-corruption measurement policy.
12. The Board of Directors encourages education and training of employees on environmental issues by setting policies and disclosing their practices.

6.1.1 Policies and Guidelines relating to the Board of Directors

The Board of Directors intends to promote the Company as an effective organization to conduct its business effectively under the good corporate governance and excellent management. It focuses on creating good benefits for shareholders, employees, customers and taking into account stakeholders and all related parties as a whole under good governance principles in business that make the work processes of the Company's management and employees transparent and auditable, and therefore establish topics related to policies and practices related to the Board of Directors as follows:

1. **The Board of Directors, the Management and all employees adhering to the adoption of six key principles of good corporate governance** with a structure of management that is associated with the board of directors, the Management and shareholders as follows:
 - Accountability responsibility for decisions and their own actions
 - Responsibility for performing the duties with sufficient competence and efficiency
 - Equitable Treatment and fair treatment of stakeholders
 - Transparency Auditable operational transparency and transparent disclosure to those involved
 - Vision to create long term for creating value-added for the organization
 - Integrity and Ethics for Business Operation
2. **The Board of Directors and the Management of the Company play an important role in determining the Company's vision, strategy, policies and plans**, considering risk factors and setting out appropriate management practices, responsible for the performance of duties to shareholders, determining the direction of growth to make important decisions of the Company with caution and integrity, as well as ensuring that the accounting system is implemented, financial reports and audits are reliable and shareholders are treated equally.
 - The Board of Directors must be a leader in ethics of the implementation of regulatory guidelines, take good care of business operations, and monitor conflicts of interest and connected transactions.
 - The Board of Directors is responsible for determining the ethical standards and principles of the Company for the Board of Directors, the Management and all employees, as a guideline for their conduct in conjunction with the Company's rules and regulations.
 - The Board of Directors must provide adequate disclosure of the Company's information, both financially and non-financially adequately, reliably and timely to ensure that shareholders and stakeholders of the Company receive equal information, as well as to provide public relations agencies and investor relations agencies to be responsible for providing information to investors and the general public.
 - The Board of Directors must ensure that shareholders are treated equally, have access to information and have appropriate channels to communicate with the Company.
3. **The Board of Directors and the Management are leaders in ethics**, as a good model to operate in accordance with the Company's good corporate governance guidelines and to monitor the management of conflicts of interest and connected transactions.
4. **The Board of Directors acts with dedication, responsibility and independence** with clearly separate roles between the Chairman of the Board of Directors and the Chief Executive Officer and The President.
5. **Roles of the Chairman**

To ensure the separation of authority in terms of policymaking and management of the Company is clearly separate. Therefore, the Company requires the Chairman of the Board of Directors, the Chairman of the Executive Committee and the President are separate persons, with the Chairman playing a role. (listed on the Company's website <https://www.tpipolene.co.th/th/aboutus/org-tpi/board-roles-th>) The Chairman of the Board of Directors is an independent director in another role, with the freedom to comment, ensuring that the Company's director structure is properly balanced as follows:

1. Call the Board of Directors' Meeting, as a Chairman of the Board of Directors' meeting and the Shareholders' Meeting, as well as play a role in setting the agenda with the Chief Executive.
2. Play a role in controlling meetings effectively in accordance with regulations and the Articles of Association of the Company and allow the directors to express their opinions independently.
3. Support and encourage the Board of Directors to perform duties to the best ability in accordance with the scope of authority, duties, responsibilities and in accordance with good corporate governance principles.
4. Monitor the management of the Board of Directors and other sub-committees to achieve the planned objectives.
5. Be the decisive voter in the event that the Board of Directors' meeting has the same vote and in case votes on both sides are equal.
6. **The Board of Directors provides self-evaluation** and annual evaluation of other directors to serve as a framework for reviewing the duties of the Board of Directors and consider, review, analyze performance for work improvement.
7. **Succession Plan** The Board of Directors and management must take steps to ensure that the Company has a system of personnel selection that will be properly responsible for key management positions at all levels. Personnel preparation is required to plan succession, especially in executive positions, by setting policies, the management policy and development approach, including individual development plans to be ready to take higher positions with vacancies.

Establishment of a specific committee The Board of Directors may appoint specific committees as appropriate to help screen important tasks carefully. The important work consists of directors who have knowledge and expertise suitable to perform the duties of sub-committees in each committee to help screen various tasks as assigned and in accordance with the best practices of sub-committees. The scope of duties and responsibilities are also defined in the charter of sub-committees for clarity and the results of their duties are regularly reported to the Board of Directors' meeting and disclosed in the Annual Report 56-1 One Report.

The Company's sub-committees consist of the Executive Committee, the Audit Committee, the Nomination Committee, the Remuneration Committee, the Corporate Governance Committee, the Sustainability Development Committee, and the Risk Management Committee.

The Executive Directors consists of six directors who have knowledge, competence, ethics and experience in business operations.

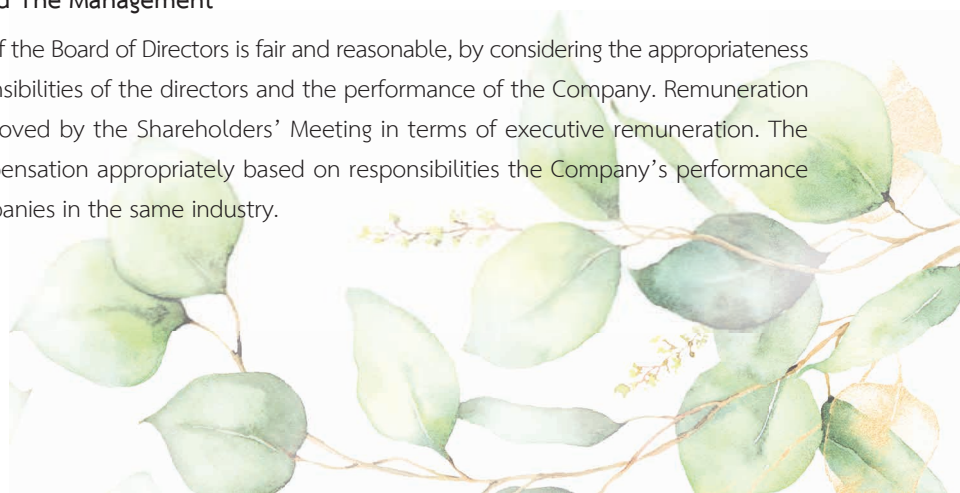
The Audit Committee consists of four independent directors who are fully qualified as announced by the Securities and Exchange Commission, including the Stock Exchange of Thailand to perform the duties of auditing and balancing the management of the Company's business to be accurate, fair and in the best interests of shareholders.

The Nominating Committee, the Remuneration Committee, the Corporate Governance Committee, the Sustainable Development Committee, and the Risk Management Committee, which consist of directors with knowledge and expertise suitable to serve as sub-committees in each committee. The composition of the committees conforms to the relevant rules and regulations to help screen tasks as assigned and in line with the best practices of the committees. The scope of duties and responsibilities are also defined in the charter of sub-committees for clarity and the results of their duties are regularly reported to the Board of Directors for acknowledgment and disclosed in the Annual Report 56-1 One Report.

8. **The Board of Directors and the management have recommended and determined the Company's business ethics** for the Board of Directors, administrator, including all employees used business ethics as a guideline for conducting in conjunction with the Company's rules and regulations as shown on the Company's website <https://www.tpipolene.co.th/th/aboutus/code-of-conduct-th>

9. **The Board of Directors and the management will provide adequate disclosure of the Company's information, financially and non-financially adequately, reliably and timely** to ensure that shareholders and stakeholders of the Company receive equal information, as well as to provide public relations agencies and investor relations agencies to be responsible for providing information to investors and the public.
10. **The Board of Directors and the management provide effective anti-corruption and anti-corruption support** to ensure that management is aware of and focused on anti-corruption, as well as to implement anti-corruption measures, which is shown on the Company's website
<https://www.tpipolene.co.th/th/investment/social-responsibility-th>
<https://www.tpipolene.co.th/th/aboutus/corruption-policy>
11. **Director Development** the Company requires the orientation of new directors and provides a manual of directors, documents and useful information for directors by encouraging directors to continue to consider training with the Thai Institute of Directors and other related institutions throughout the year to promote understanding of the work under the principles of good corporate governance of listed companies, in order to increase knowledge of the roles of directors that will contribute to continuous and modern improvements in operations.
12. **The meetings of the Boards and receipt of information** All board members should attend the board meetings. The Office of the Directors is responsible for preparing the documents, the place and coordinating the meetings. Each director must be informed of the date of the meeting and agenda and meeting information for reasonable study in advance. The Company holds regular board meetings on average at least once a month. Additional meetings may be held as appropriate so that the Board of Directors can continuously supervise the management's operations as detailed on the Company's website <https://www.tpipolene.co.th/th/aboutus/time-table-board-th>. In every meeting, time is allocated appropriately and adequately so that the directors can consider the agenda generally. The Chairman and Chief Executive Officer are the agenda co-ordinators and consider the agenda of the Board of Directors to ensure that all important issues in business operations are considered by the Board of Directors in full. Each director is free to propose topics for consideration at the meeting and has an open and free expression of opinion. It is encouraged to exercise discretion in all issues entering the meeting.
13. **The agendas of the Board of Directors** must be voted on by at least two-thirds of the directors who attended the meeting.
14. **The Board of Directors meetings may be subject to all or part of electronic meetings, and the Company shall properly comply with the Public Limited Companies Act** and related legal regulation regarding the board of directors meetings; minutes of meeting are written and certified minutes of meetings are stored systematically and securely kept by the Board of Directors.
15. **At the Board of Directors' Meeting, the Company properly complies with the Public Limited Companies Act** regarding board meetings. The meeting notes are written and the Board of Directors keeps the minutes of the certified minutes systematically and with good security.
16. **Remuneration of Directors and The Management**

Determination of remuneration of the Board of Directors is fair and reasonable, by considering the appropriateness and compliance with the responsibilities of the directors and the performance of the Company. Remuneration of directors has also been approved by the Shareholders' Meeting in terms of executive remuneration. The Company determines the compensation appropriately based on responsibilities the Company's performance and the practices of listed companies in the same industry.



17. **Corporate Secretary** The Board of Directors appoints a Corporate Secretary to supervise the Board of Directors' meetings and shareholders' meetings in a smooth and transparent manner, in accordance with the rules and legal regulations and to keep track of compliance correctly and regularly. In addition, the Corporate Secretary performs his/her duties to oversee the activities of the Board of Directors, including coordinating compliance with the board's resolutions and complying with the Company's good corporate governance principles.
18. **Principles of other positions of TPI Polene Group's management**
Details shown in Section 8 Important Corporate Governance Performance Report Subsection 8.1.3 Supervision of subsidiary and associate companies.

6.1.2 Policies and Guidelines relating to shareholders and stakeholders

The Company's Directors acknowledged best practice for directors of a listed company as their principle guideline by encouraging the Company to be an organization that operates with transparency, virtue and responsibility to shareholders, customers, employees, society and other stakeholders, it can be concluded as follows:

1. Shareholder Rights

The Company realizes and respects the importance of the rights of all shareholders. The Company has policies to protect shareholders fundamental rights and ensure equitable treatment under the related governing laws as follows:

1. Shareholders' Meeting

The Company schedules an annual general meeting of the shareholders ("AGM") within 4 months of the annual closing date of its accounting books. In case there are emergency issues that might affect the interest of the shareholders and/or related to the terms and regulations or any legal issues, to be proposed for approval in the meeting. The extraordinary shareholders' meeting will be held as the case may be. On December 31, 2021, the Annual General Shareholders' meetings were held on April 22, 2022 at the Conference Room on the 9th floor of TPI Tower, 26/56 Chan Tat Mai Rd, Thungmahamek, Sathorn, Bangkok. Total of 14 directors attended the AGM.

The Audit Committee of the Company and the Legal Advisor acted as the agents for the ballot throughout the meeting and the Chairman allocates sufficient time for each item and facilitates the meeting appropriately according to related governing laws and all respective agenda were proposed and resolved in the meeting.

2. Delivering Meeting Notices

After the Company's Board of Directors approved and resolved the Annual General Shareholders Meeting, the Company will disclose the Invitation to the Annual General Shareholders Meeting with all relevant documents on the Company's website at <http://www.tpipolene.co.th> for shareholders' consideration in advance of the meeting.

The Company assigned Thailand Securities Depository Co., Ltd., its SEC Securities Registrar, to mail meeting notices together with details of the agenda and accompanying documents (both Thai and English) The invitation letter to the shareholders' meeting contains details of the meeting, as well as important and necessary information for the decision of the Board of Directors. The Securities Registrar mails the opinion of the Board, minutes of the previous meeting, the annual report, all meeting documents, and proxy forms designed by the Ministry of Commerce, to shareholders at least seven days ahead of the meeting date. An invitation to the AGM is also announced in newspapers for three consecutive days in advance of the meeting. Foreign shareholders will receive the invitation document of the Annual General Meeting of Shareholders in English.

For Institutional Investors, the Company has contacted institutional investor representatives to coordinate and provide institutional investor information to prepare the documents correctly and completely prior to the meeting date.

3. Facilitating Shareholders

The Company treats all shareholders in a fair manner. The Company always allows registration of shareholders at least one hour before each meeting. A barcode system summarizing details of each shareholder is printed on the registration form, or the proxy form, to facilitate registration and save time as well as a suitable reception is also extended to all shareholders.

4. Conduct of Shareholders' Meetings

The Company held a meeting venue at TPI Tower, a place accessed by public transport. Before the meeting starts, the Chairman explains clearly the rules on voting and vote counting for individual agenda items. Once information has been disclosed for each item, the Chairman allocates sufficient time for each item and facilitates the meeting appropriately. During the meeting, the Chairman allows thorough expression of views and queries by shareholders before voting and summarizes the meeting's resolution on each agenda item and minutes of the meeting must be completely and accurately recorded, with a summary of voting results on each item.

5. Action after the Shareholders' Meetings

The Company duly submits the resolution of the Shareholders' meeting to the SET one day after the meeting ends. The Company duly submits the minutes of the Shareholders' meeting to the SET, the Securities Registrar of Public Company, Department of Business Development, the Ministry of Commerce, within 14 days and also discloses the minutes of the Shareholders' meeting on the Company's website at www.tpipolene.co.th.

Meeting Invitations in advance

In 2022, in the Board of Directors No. 2/2021, on February 24, 2022, the Annual General Meeting of Shareholders was held on April 20, 2022, which disclosed the resolutions of the meeting, the meeting date and agenda and informed the announcement on the Website of the Stock Exchange of Thailand to inform shareholders in advance of the date that the Board of Directors passed a resolution prior to the delivery of the invitation. Important and necessary information for the decisions/opinions of the Board of Directors Minutes of past meetings in full detail as well as the Annual Report with meeting documents required to proxy and clearly indicated how to use them and delivered to shareholders at least 14 days prior to the shareholders' meeting date. Invitations to the export meeting on April 5, 2022 and announced in both Thai and English daily newspapers for three consecutive days and not less than 7 consecutive days prior to the meeting date (March 28-30, 2022) to inform the shareholders' meeting in advance enough for preparation before attending the meeting.

At the AGM, the Company has disclosed the information of the invitation to the shareholders' meeting and the supporting documents on the Company's website in advance 33 days of the meeting date (starting from January 18, 2022), the implementation of the shareholders' meeting prior to the start of each shareholder meeting. The chairman of the meeting will recommend the board of directors. The management, the Company's auditors and legal advisors, acting as intermediaries and witnessing the meeting, then clarified all the rules, including how to count the votes of shareholders who must vote on each agenda in accordance with the Company's regulations, including the clear exercise of voting rights in each session and once the agenda is provided.

The Chairman will give all attendees the opportunity to express their opinions and comments for each agenda. In 2022, the AGM was held under the circumstances of controlling the COVID-19 pandemic,

the Company provided a question paper for the attendees to inquire instead of using the microphone, and then the Chairman and the Management answered the questions clearly to the point and focused on every question.

The Chairman shall conduct the meeting in order of each agenda and not add the agenda without prior notice to shareholders unless the meeting has resolved to change the order of the agenda with a vote of at least two-thirds of the number of shareholders attending the meeting, or shareholders holding at least a third of the total number of shares. The issue might be raised in the meeting to consider matters other than those set out in the invitation letter. Once the Meeting has completed the agenda as defined in the Company's Articles of Association, the meeting will be determined. However, at the 2022 Annual General Meeting of Shareholders, no agenda was been changed.

In every meeting, notes are taken and the minutes are accurate and concluded with a vote with the votes counted. At the 2022 Annual General Meeting of Shareholders, the meeting was scheduled at 3:00 p.m., registration started at 2 p.m. At the opening of the meeting, with a total of 69 shareholders attending the meeting, 20 in person, and receiving 49 proxies, totalling 13,226,953,041 shares, representing 69.85 percent, which exceeds one-third of the Company's total registered shares. A total of 19,265,000 shares were attended by participants and clarified information as follows:

Fourteen directors attended the meeting with the Chairman of the Board of Directors presiding over the meeting. The Chairman of the Board of Directors, the Chief Executive Officer and President, along with the Directors, Vice Presidents, Executive Vice Presidents and The Management of TPI Polene Group, were at the front of the forum to clarify and provide information in the event of relevant inquiries. However, Independent directors are also proxies from minor shareholders as follows:

- Auditors from KPMG Phoomchai Audit Limited :
 1. Mr. Bunyarit Thanormcharoen
 2. Mr. Nutthawat Sirichantaradilok
 3. Ms. Hataipat Theppinta
- Legal Advisor from SCL Nishimura & Asahi Limited (acting as a witness to review and test the voting in case there are arguments throughout the meeting).
 1. Mr. Vira Kammee
 2. Mrs. Siriwan Nophaarporn

Practices Guideline for Conflict of interest

Guideline of the Good Corporate Governance of the Executive Directors and all employees to prepare a conflict of interest report in both the annual and new reports during the year in case of change, and in any meeting of stakeholders or have conflicting interests with the Company, it shall be notified in the meeting and not to participate in or abstained in that agenda. At the Shareholders' Meeting, if any directors have any interest in or are involved in any agenda, the director will notify the meeting to request not to attend the meeting and abstain from voting on such agenda.

Review of connected transactions or conflicts of interest

The Company has created the Company's business ethics (Code of Conduct) for company directors, executives, and employees at all levels and everyone to acknowledge and strengthen the organizational culture that gives importance to operations that do not conflict with having an interest and conflicts of interest with the Company in order for the organization to gain the most from transparent and auditable business operations. The Audit Committee reviewed the connected transactions and transactions that may have conflicts of interest from the reports of the relevant directors and found that the transactions were reasonable and did not cause any disadvantage to the Company and properly disclosed to the regulatory authority within the specified timeframe.

Disclosure of the results of the vote in the Shareholders' Meeting

In 2022, TPI Polene Public Company Limited delivered a summary report on the results of the vote at the shareholders' meeting to the SET and the SEC by the evening after the completion of the meeting (April 20, 2022) and delivered the minutes of the shareholders' meeting (the minutes of the meeting, with a clear agenda and specifying the number of directors attending the meeting/ absent from meeting, shareholder inquiries and clarifications of the Board of Directors, voting count and the results of the votes in complete) to the SET and the SEC within 14 days.

2. Equitable Treatment of Shareholders

The Company values and treats all shareholders equally and fairly through the following actions:

1. Conducting the meeting in sequence of agenda items as specified in the invitation and not adding agenda items without notifying shareholders in advance, to ensure they have enough time to investigate before making their decisions.
2. Appointing Proxies to maintain the rights of those shareholders who cannot attend in person: they are able to appoint proxies, or to delegate their votes to any independent director in attendance. Shareholders can appoint proxies to others attending the meeting and votes on behalf of the shareholders and shareholders can also give proxies to the Company's audit committee to vote on their behalf. It can be indicated in the proxy statement (Form B) that the proxy will be provided to vote on whether to agree or disagree at will.

In addition, the Company also discloses the format of the proxies together with all details and procedures on the Company's website at <http://www.tpipolene.co.th> in advance of the meeting.

3. Encouraging shareholders to use ballots for every agenda item, voting tickets are provided for each agenda item separately.
4. All groups of shareholders can access the Company information completely, accurately, transparently, and in a timely manner. The Company has established an Investor Relations Office to take responsibility for providing information in both Thai and English to all shareholders, equally and completely, to ensure that shareholders can make appropriate investment decisions. Corporate information is disclosed on the Company's website, as well as on the websites of the SET and the SEC to facilitate access by shareholders and other interested investors.

3. Ensuring strict supervision of the use of inside information

The Company supervises the use of inside information in accordance with the principles of good corporate governance by explicitly defining in writing the misuse of inside information as part of the Code of Conduct. In addition, in order to prevent any Conflicts of Interest, or misuse of inside information by the Board and Management, the Company has put in place internal information controls to supervise the use of inside information as follows:

- (1) The Directors and the Management will be regularly informed of related laws and regulations pertaining to misuse of inside information, through various communication channels.
- (2) The Company discloses in the TPIPL annual report the shareholdings of Directors, Management (and the holdings of management equivalents in Finance and Accounting Division) in compliance with the regulations of the Office of Securities and Exchange Commission.
- (3) The Directors and the Management of the Company are fully responsible for submitting a report of their shareholdings in the Company, and those of their spouses and minors, in accordance with provisions contained in the Securities and Exchange Act B.E. 2535.
- (4) Any misuse of internal information shall be subject to disciplinary action, The penalty for violations of the rules has been imposed, as announced in the Company's Notice of Discipline and Employee Regulations, with a maximum penalty of dismissal.

4. Stakeholder Roles

The Company is well aware of the roles of all stakeholders. The Company sets precise responsibilities to be prudent, fair, and respect the rights of all stakeholders in operating its business. Hence, the Company has established a Code of Business Conduct emphasizing the balanced consideration of all stakeholders, in which TPIPL has embraced the Code of Conduct as a policy for Directors, Management, and all employees to put the Code into practice and to abide by strict moral guidelines. All management levels have to strictly follow the Code of Conduct as best practice principles, and it is a strict policy to ensure that all employees under each relevant organization line will acknowledge, understand, and follow the Code of Conduct. The Company has a strict policy to treat all stakeholders fairly as follows:

- (1) **Shareholders:** the Company is committed to representing shareholders in transparent business operations, reliable accounting and financial system to ensure maximum satisfaction for shareholders by taking into account the Company's long-term growth and consistently reasonable returns.
- (2) **Customers:** The Company places a great emphasis on customer satisfaction through the quality of its products and services, provided at reasonable prices. For the manufacturing of cement, plastic resin and ready-mixed concrete, the Company and its subsidiaries have also been awarded ISO 9001:2015 certifications from the International Organization for Standardization. In addition, TPI Group has gained recognition for the quality of all cement products from the Thai Industrial Standards Institute and the Office of Customer Protection Board.

In addition, the Company holds seminars for customers to enhance relationships and to educate them about the variety of products offered. We also develop customer interaction via certified agents that welcome all customer suggestions, as these lead to higher efficiency of product development, and maintain customer with brand loyalty.

- (3) **Employees:** The Company realizes the importance of human resources in the organization, regardless of the work, without discrimination, with a policy to continuously improve the potential of the management and employees. It provides training both inside and outside the Company. In addition, the Company has an effective recruitment and hiring process, as well as consideration of equal and appropriate returns and benefits. This can be compared with companies in the same industry. It has also paid attention to the hygiene and safety of employees as workers as can be seen from the cement plant, plastic resins factory and concrete mixing units which are certified to the management system standard. The system focuses on reducing the risk of harm and accidents of employees and stakeholders. Details shown in Section 3: Driving Sustainable Business Sub-topic 3.4.1 Sustainability management in social dimensions and 3.4.2 Social Performance.
- (4) **Trade Partners:** The Company ethically sets its business operation strategies, thus enhancing relationships with all trade partners through transparent and fair practices. The Company has a policy of benefit sharing and equitable treatment for trade partners and strictly adheres to contractual agreements and does not have any business commitments that favor or strong involvement with any trade partners.
- (5) **Creditors / Bondholders:** The Company considers the equality of all parties involved, honesty in business operations, adherence to building trust and treating creditors fairly, conducting business with transparency, auditable under good corporate governance, compliance with all loan conditions, providing complete financial information, managing efficiently, providing confidence and maximum returns. The Company has a policy to strictly abide by the terms and conditions of contracts and financial obligations, including repayment of principal, interest, and collateral treatment under applicable contracts, as well as not using dishonest methods to conceal information or facts that will harm creditors. In the event that one of the conditions cannot be complied with, the creditors must be notified in advance in order to jointly consider a solution.

- (6) **Competitors:** The Company follows fair trade practices with regard to its rivals, doesn't steal their secrets through dishonest means, operates within a framework of fair competition, abides by the rules of fair competition, doesn't harm their rivals' reputations in the marketplace through false accusations, and respects the partners' intellectual property and copyright rights.
- (7) **Community and Society:** The Company, as a company of Thai people, has always been conscious and focused on being responsible for the country, society, and community, and and youth continuously both directly and indirectly through the Environment for Life Foundation. In addition, there are community visits to create acceptance, support public activities for the community, educate and train employees at all levels as appropriate to make employees aware of the environment and community, survey the needs and opinions of the community, organizing a mobile medical unit to continuously provide community services for a better quality of life, organizing a reforestation and rehabilitation project after mining, organizing a budget to support community development, including education, creating jobs, creating careers, creating income for the community, etc.
- (8) **Government Agency:** TPI Polene Group considers good environment, therefore arranges for the use of waste as fuel instead of coal in the cement production process to reduce greenhouse gases according to the government's environmental policy, conducting business with transparency. There is compliance with regulations and cooperation, supporting various projects of government agencies to live with the community sustainably.
- (9) **Mass Media:** TPI Polene Group supports media initiatives that are in accordance with the Company's policies and that benefit the community and society, such as business visits and social events occasionally, participation in the Opportunity Day of the Stock Exchange of Thailand, and business practices that give consideration to the community, society, and environment through the appropriate and regular disclosure of information that benefits society.

5. Anti-corruption Policy

The Company has an anti-corruption policy and establishes anti-corruption practices, which are set out in the Code of Conduct code of conduct regarding gift giving or receiving, detailed as follows: Details are displayed on the Company's website: <https://www.tpipolene.co.th/th/investment/social-responsibility-th> and <https://www.tpipolene.co.th/th/aboutus/corruption-policy>.

Gift giving or receiving

- (1) Directors, the Management and employees can receive gifts, assets or other benefits for the benefit of the Company's business and avoid it in a way that exceeds or exceeds normal relationships from other parties concerning the Company or will be future partners, and such receipts or giving must be done with transparency. It must be done in an open way.
- (2) Avoid receiving gifts either in monetary or non-monetary terms from partners or those related to the Company's business, except in festivals or traditions.
- (3) The Company does not have a policy of offering money, incentives, gifts or special benefits in any form to customers, partners, external agencies or individuals to obtain business, except for traditional business certification, trade discounts and company promotions.
- (4) Directors, the Management and employees are responsible for reporting the receipt of gifts, assets or other benefits from partners, contractors, customers or stakeholders of the Company's business. In any case, it may affect decisions to perform duties in a biased or embarrassing way, or cause a conflict of interest.
- (5) Directors, the Management and employees are responsible for reporting the receipt of gifts, property or other benefits by the Company to promote to partners, contractors, customers or stakeholders of the Company's business.

- (6) Gifts, property or any other benefit accepted or provided shall not be illegal.
- (7) The Company does not prohibit the preparation of gifts with the Company's emblem, as long as the gifts to the person are reasonable and consistent with the business operation.

(More details can be found on the Company's website <http://www.tpipolenepower.co.th/index.php/th/th-aboutus/code-of-conduct-th>)

Practical measures

Anti-Corruption (Business Dealings with Partners and Third Parties)

Employees must comply with the following anti-corruption policies: To deal with customers, sellers, or third parties with business relevance (hereinafter referred to as "third parties with business relevance").

1. Employees must comply with the law, regulations, business practices and business etiquette for dealing with third parties with business relevance.
2. Staff must not accept or make any direct or indirect claims, which are money, vouchers, checks, stocks, gifts or other bribes, any special compensation or incentives of value from third parties with business relevance.
3. Employees may receive gifts that are not cash or any priced gifts from third parties with business interests. It must be approved by direct supervisors first. However, receiving such gifts must be in accordance with the rules, business traditions or business ethics and must not influence employee business decisions.
4. Employees shall not exploit any of their positions in the Company to receive or call on third parties who are business-related or related to such third parties, including not providing any services that are not related to the Company's business.
5. When an employee refers a person to the Compa, such actions shall not contravene the Company's interests or procurement procedures. It must also not be done for unlawful personal gain.
6. Employees who are supervisors with subordinates in the same unit, there should be no relationship as a spouse or parent/child.
7. Employees must not give bribes to officials or government officials by offering money, vouchers, checks, stocks, gifts or other bribes. Any special compensation or incentives are valued.
8. Employees who violate the terms in the previous paragraph shall be punished in accordance with the relevant regulations of the Company and may be prosecuted according to the law.
9. Employees must obtain the approval of their superiors before offering gifts (for example, company products) or certifying them to third parties with business relevance. It remains to be followed by practical traditions or business etiquette, local laws and related regulations of the Company. If an employee is not approved by their superiors in advance due to urgent grounds, the employee will not be approved by his superiors. Such employees must also be approved by their superiors after giving gifts or accreditation to third parties who are already relevant to the business.
10. Employees should not exploit any of their positions in the Company to have unlawful relationships, perform sexual harassment, discrimination in any form (including discrimination based on race, gender, disability or religion as a criterion), burglary, intimidation, coercion or other unlawful conduct.
11. If the employee has already questioned anti-corruption, employees must seek the opinion of their superiors so that there is no dispute.



Dissemination of anti-corruption policies

In order for everyone in the organization to be aware of the anti-corruption policy, the Company will take the following actions:

1. The Company will post an anti-corruption policy to employees.
2. The Company will publish its anti-corruption policy through its communication channels such as electronic letters, company websites, annual reports, etc.
3. The Company will conduct a regular review of its anti-corruption policy.

Additional practices regarding prevention of corruption

The Group of Company has an anti-corruption policy focused on promoting morality, ethics, transparency in business practices in accordance with the Company's business ethics, as well as conducting business with an effective management system, that is transparent, and verifiable. In addition, the Company encourages its personnel at all levels not to be directly or indirectly involved in corruption, and promotes the participation of employees at all levels in preventing and combating corruption related to the Company's business.

The Group of Company has a policy of giving or receiving gifts, gifts, as well as other benefits from individuals or companies engaged in business with the Company so as not to cause conflicts of interest. Any special compensation or incentives of value from third parties with business relevance to employees of the Company must first be approved by direct supervisors. However, receiving such gifts must be in accordance with the rules, business traditions or business etiquette and must not influence employee business decisions.

In addition, the Group of Company has a policy of not authorizing or encouraging unlawful payments or bribing government agencies, and also clearly determines how to report whistleblowers or complaints in cases where unlawful acts are witnessed. The Company also sets out guidelines for conducting investigations and penalties in the Company's anti-corruption policy.

The Company has released an Anti-Fraud and Corruption Policy through its Chief Executive Officer, which outlines guidelines for employees at all levels of the Company to understand and take part in the prevention and anti-corruption in the organization through both direct and indirect channels, including setting up channels for whistleblowing or complaints about corruption actions related to the Company from both internal complainants and external stakeholders. The Company provides protection to complainants and complaints will be kept confidential both during and after the fact investigation is completed. If the accused has actually committed an offense, the Company has imposed disciplinary action in accordance with the regulations set by the Company and if the offender is an unlawful act, the offender must be prosecuted and legally punished.

6. Disclosure and Transparency

The Company is strictly aware of the securities act's compliance with the SEC's notices and related set requirements as follows:

1. **Disclosure of company information including financial reports** In order to be materially correct, complete, transparent, thorough and timely and in accordance with generally accepted accounting standards prepared by independent auditors, the Company has provided a report on the responsibility of the Board of Directors to The financial report together with the auditor's report in the Annual Registration Statement / Annual Report (Form 56-1 One Report), including various reports, both financial and non-financial, have been conducted in accordance with relevant regulations of the Securities and Exchange Commission, including the Stock Exchange of Thailand.
2. **A plant visit** is provided for interested institutional investors, shareholders and analysts to access information. In addition, the Investor Relations Unit has been established to be responsible for communicating information to institutional investors, shareholders, analysts, and relevant authorities in an equitably and fair manner.

3. **Disclosure of company information** is made through approved communication channels via the SET, the SEC and the Company's Internet website in Thai and in English.
4. **The Company pays close attention to the quality of the financial information it provides**, particularly in its accuracy and adequacy. In addition, all financial information conforms to generally-accepted accounting principles and is audited by independent auditors. Hence, the Company has provided a report of the Board of Director's responsibility for financial statements in this Annual Report.
5. **The Company has disclosed the roles and duties of the Board of Directors and sub-committees**, rules, including the number of meetings held and the number of times each director attended the rules in the annual report.
6. **Disclosure of remuneration to Directors and Management Remuneration:** this is detailed above in the section "Management". Remuneration levels are based on the operating results of the Company during the previous fiscal year; reflect duties and responsibilities fairly and reasonably; and are comparable to general practices in the industry.

7. Investor Relations

The Company held important activities of the Company as follows:

Activities	2021	2022
Analyst Meeting / Zoom	4	-
Via e-mail/ Telephone	12 times/month	20 times/month
News & Broadcast	30	150
Listed companies meet investors by the Stock Exchange of Thailand (Opportunity Day) (You can watch the video on the Company's website https://tpipolene.co.th/en/investment-en/financialinformation-en/op-day https://tpipolene.co.th/th/investment/investmentdocument/opportunity-day)	-	4
Seminar	-	1. Seminar "Turn the ESG Bible, Raise the Flag of Sustainable Business and Investment Trends in the Second Half of the Year" (TPIPL) https://www.youtube.com/watch?v=Wrfv-SwoWuA
Press Release	-	1. Spin the joy to stop cancer No. 5 "Young Mee Rao Foundation" Top News station organizes spin the joy to stop cancer at Tian Talay Phatthana Prueksapirom Park, Bangkok. https://www.topnews.co.th/news/411000 2. TPIPL confirms and supports the project "Street Art King Bhumibol" https://www.topnews.co.th/news/436505

If investors and stakeholders require additional information, please contact Investor Relations at 02-213-1039 ext. 12983.

8. Conflicts of Interest

The Company has clear guidelines for determining transactions that may have conflicts of interest in the interests of the Company and its shareholders. The Company has adhered to the rules and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand. The disclosure process and approval of transactions between them by directors and the Management who have a stake in transactions made with the Company and its subsidiaries do not participate in the decision of such transactions.

The Company is committed to managing the Company in accordance with the principles of good corporate governance with a commitment to operate with transparency, morality, ethics, and responsibility to shareholders, customers, employees, society, and other stakeholders. The Company has prioritized and supported the development of a strong corporate governance culture. The Chairman of the Board of Directors has established a policy to prevent conflicts of interest in the Company's business ethics manual for the Board of Directors, executives, and all employees to acknowledge and compliance with good practices with a conscience that adheres to honesty, morality, and ethics, as well as protecting the interests of the organization as a whole.

A business ethics manual that focuses on the conflict of interest prevention policy was created by TPI Polene Group in 2022 and sent to the Company's directors, executives, and employees at all levels. This manual has been recognised for use as a complete guideline by everyone. Additionally, comprehension has been developed, and the outcomes are assessed using a form that has been approved by the Board of Directors' executives. As a consequence, out of a total of 7,138 test-takers, 100% of them met the test requirements.

The Company has clear guidelines for considering transactions that may have conflicts of interest for the benefit of the Company and its shareholders. In the event that the Company and its subsidiaries have connected transactions with persons who may have conflicts of interest, the Company has complied with the rules and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand on disclosure procedures and approval of related party transactions. The committees and executives who have interests in the transactions made with the Company and its subsidiaries do not participate in the decision making of such transactions.

Disclosure of transactions that may have conflicts of interest or connected transactions shall be in accordance with the criteria set out by the SEC and the SET as disclosed in the 2021 Annual Report (Form 56-1 One Report) or other report form on a case-by-case basis, as well as in accordance with generally accepted accounting standards as per details appeared in "Inter-Company Transaction".

In addition, in accordance with the Company's regulations, directors must notify the Company without delay if there is an interest in the contract with the Company or shareholding or debentures increases or decreases in the Company or its subsidiaries.

9. Internal control and inspection system

The Company has provided a good internal audit and control system that can help prevent possible damage, helps in the discovery of errors, reduces business risks and helps accurately report financial statements and other financial reports.

To help protect the Company's assets and shareholder investments, the Company has an internal audit body to monitor its performance effectively and efficiently under an adequate and appropriate internal control system. Independent units can report audit results honestly in order for management to be able to acknowledge operational problems or deficiencies in a timely manner and be used as information on the determination of measures to protect the Company's assets and shareholder investments, including unlawful exploitation from the Company and its subsidiaries, and to consider, improve and develop the Company's operating system to be more efficient and effective.

The Company also has an Audit Committee to perform its duties in reviewing and evaluating internal control systems as well as review the disclosure of information to investors to be in compliance with relevant laws and other important matters.

However, the Company has provided an internal control system of the Company and its subsidiaries with five elements in relation to the environment, risk management control, management operations control information and communication systems and tracking systems.

In addition, there are appropriate and adequate measures and procedures to operate, covering transactions with major shareholders, the Management or related persons to prevent conflicts of interest, which is to preserve the best interests of the Company and its shareholders and all relevant stakeholders.

6.2 Code of Conduct

The Company has focused on driving a concrete corporate governance culture with the Code of Conduct, it is a common obligation to comply with the scope of responsibility to the Company and its stakeholders within the Company's legal and regulatory framework on the basis of professional ethics and maintaining transparent, honest and fair business practices, taking into account the interests of all relevant stakeholders.

The Company has a policy to be updated according to the changing situation regularly. In addition, the Board of Directors acknowledges and adheres to the good practices of the listed directors. The Board of Directors, the management and employees at all levels have behaved with a conscience that adheres to integrity, morality, ethics and awareness of the Company's reputation as a leading company with credibility, stability and reputation for more than 20 years.

Principles of conducting business with ethics

With the intention of TPI Polene Group to operate the business on the basis of ethics and morality along with responsibility to all stakeholders, the Company has prepared this business ethics manual for the directors, executives, and employees of the Company to acknowledge the established guidelines in this business ethics handbook and operate the business operation to achieve its business goals while also reflecting the values and culture of the or, it is a compilation of the policies for taking care of responsibility and treating stakeholders, as well as the principles of business operations of the Company that are of international standards. At the same time, the Company also hopes that business partners with the Company and all related stakeholders are informed and adhere to the same principles for sustainable growth together.

The Company's Business Code of Conduct has 14 categories as follows:

1. Respect and compliance with the law Related Regulations and Regulations
2. Anti-Corruption Practices
3. Interests and Conflicts of Interest
4. Use of internal information and confidentiality
5. Internal control, internal audit, risk management and financial accounting reports
6. Receiving and giving gifts, property or other benefits
7. Sourcing and treatment of partners
8. Intellectual Property Using Information Technology
9. Political Rights and Impartiality
10. Employee Code of Conduct
11. Universal Respect for Human Rights
12. Incident Reports / Complaints / Suggestions / Whistleblowing Channels Causing Damage to the Company and Protection Whistleblower Rights

13. Responsibility to Stakeholders

- 13.1 Treatment of shareholders
- 13.2 Treatment of customers
- 13.3 Treatment of partners
- 13.4 Treatment of commercial competitors
- 13.5 Treatment of creditors
- 13.6 Treatment of the government
- 13.7 Treatment of employees
- 13.8 Treatment of communities, society, culture and the environment
- 13.9 Priority for quality, safety and occupational health



14. Research and Innovation

Details and guidelines for compliance with the Company's Code of Conduct Publish on the Company's website to keep stakeholders and the public informed at <https://www.tpipolene.co.th/th/aboutus/code-of-conduct-th>

In 2022, TPI Polene Group has prepared a test to review the knowledge of the Company's business ethics (Code of Conduct) with executives and employees at all levels to use as a guideline for work and perform duties with honesty, adhering to the rule of law, being transparent, giving importance to customers, having social responsibility, taking into account all groups of stakeholders.

A test "Company Code of Conduct" via mobile phone using QR Code or PC computer is provides. The results are summarized from the test as follows.

Score level 77.42 percent, employees have a great understanding (score 80-100%)

Score level 22.58 percent, employees have a moderate understanding (score 60-79%).

6.3 Significant changes and developments of policies Best Corporate Governance Practices and Systems in the previous year

6.3.1 Significant changes and developments regarding policy review Guidelines and Good Corporate Governance System or Charter of the Board of Directors in 2021 are as follows:

- 1) Define and review policies and practices in 2022 as follows:
 - Employees' knowledge and understanding of the Company's Code of Conduct are tested and the CG & Code of conduct handbook is published. The results showed that 100 percent of all 7,138 people who took the test passed the test criteria, employees on the Company's website <https://www.tpipolene.co.th/th/aboutus/code-of-conduct-th>
 - Appointed the Corporate Governance Committee according to the resolution of the Board of Directors' Meeting No. 12/2022 on December 29, 2022, including determining roles and responsibilities and preparing performance reports.



- Appointment of the Risk Management Committee (According to the resolution of the Board of Directors Meeting No. 12/2022 on December 29, 2022) with the Chief Executive Officer as the chairman and executives from related departments as committees responsible for considering structure, policy, risk management framework, risk management plan, risk review, and monitor risk management. The Risk Management Department is responsible for preparing risk management reports, implementing and supporting risk management throughout the organization, appointing the Sustainability Development Committee, and the Chairman of the Risk Development Committee according to the resolution of the Board of Directors' meeting No. 12/2022 on December 29, 2022, including the roles and responsibilities
- Consider and approve the policy on fair treatment and accountability to creditors by approving in principle the policy on strictly complying with the terms and conditions of contracts and financial obligations including repayment of principal, interest, and taking care of various collateral under relevant contracts, as well as not using dishonest methods to conceal information or facts that will cause damage to creditors. In the event that one of the conditions cannot be complied with, the creditors must be notified in advance in order to jointly consider a solution.
- Consider and approve the security policy for the information system of the Company and its subsidiaries (IT Security), with the view that cyber threat protection systems should be reviewed regularly including the development and improvement of cyber protection systems to keep up with cyber threats that have continuously developed methods and severity of threats to information systems.
- The Company's rules review risk management information, which consists of an organizational risk management framework that has been accepted as a guideline for promoting risk management and is a practice that is internationally accepted by categorizing risks into 6 categories:
 1. Strategic Risk
 2. Operational Risk
 3. Financial Risk
 4. Compliance Risk
 5. Environment Risk
 6. Social Risk
 7. Sustainability Risk

There is risk management throughout the organization by analyzing risks and responding to risks at an acceptable level.

The Board of Directors promotes risk management culture by setting policies and organizing training courses "Risk Management in the organization (Risk Management)" to educate employees about risk management. Employees at all levels shall participate in training at least twice a year to systematically develop knowledge, participation, and risk management.

- Review of Fraud Investigations

The Company has announced an Anti-Fraud and Corruption Policy through its Chief Executive Officer, which outlines guidelines for employees at all levels of the Company to understand and take part in the prevention and fight against corruption in the organization both directly and indirectly. This includes creating channels for whistleblowers or complaints about corruption actions related to the Company from both internal complainants and external stakeholders. The Company provides protection to complainants and complaints will be kept confidential both during and after the investigation is completed. If the accused has actually committed an offense, the Company has imposed disciplinary action in accordance with the regulations set

by the Company, and if the offender is an unlawful act, the offender must be prosecuted and legally punished.

- Work plans and performance related to the prevention of conflicts of interest

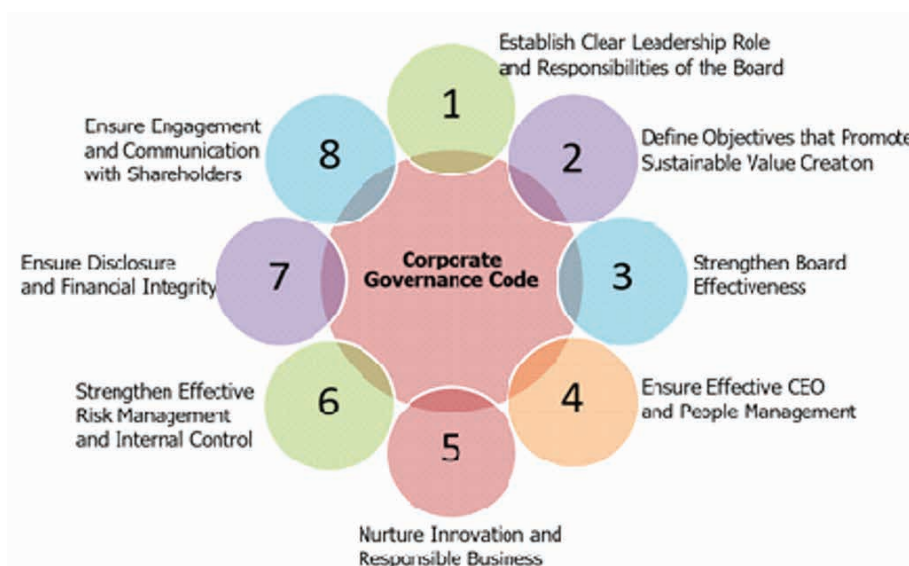
According to the principles of good corporate governance with a commitment to operate with transparency, morality, ethics, and responsibility to shareholders, customers, employees, society, and other stakeholders, the Company has given importance to and promoted the creation of a concrete corporate governance culture. The Company's Code of Conduct was established by the Chairman of the Board of Directors to include a policy to prevent conflicts of interest, requiring the Board of Directors, executives, and employees at all levels to acknowledge and abide by good practices with a conscience that adheres to honesty, morality, and ethics, as well as protecting the interests of the Company.

2) Compliance

- Issue relevant legal and regulatory policies, including fair competition support and antitrust trade policy, by handing out manuals, partner ethics for procurement (details and compliance with the Partner Code of Conduct for procurement, and ethics). The Company has published on its website to inform stakeholders and the public on <https://www.tpipolene.co.th/th/aboutus/supplier-code-of-conduct-th>.
- Privacy Policy to support the enforcement of the Personal Data Protection Act B.E. 2562 (2019) and providing training to the Management and media via email to employees and planning operations with other relevant agencies to manage the Company's personal data, to support fair competition and antitrust trade.
- The Company has published on its website to keep stakeholders and the public informed at <https://www.tpipolene.co.th/th/aboutus/pdpda>.

6.3.2 Adoption of good corporate governance principles for 2017 listed companies (CG Code) of the SEC

The Company reviewed the Corporate Governance Policy based on the 2012 Corporate Governance Policy of the Stock Exchange of Thailand and the Good Corporate Governance Principles for Listed Companies 2017 (CG Code) of the Securities and Exchange Commission, considering and recognizing its role as a leader of the Organization (Governing Board). The environment and corporate governance to create value for sustainable development consists of eight main categories as follows:



Principle 1 Recognize the role and responsibility of the Board of Directors as the leaders of the organization that create value for sustainable affairs (Establish Clear Roles and Responsibilities of the Board)

Principle 1.1

The Board of Directors should understand their roles and recognize their responsibilities as leaders to ensure good management of the organization, which covers:

- (1) Determination of objectives and goals
- (2) Determining strategies, operational policies, as well as allocating important resources to achieve objectives and goals
- (3) Monitoring, evaluating and supervising performance reporting

Principle 1.2

To create value for sustainable business: The Board of Directors should supervise the business leading to the governance outcome at least as follows:

- (1) Competitiveness and performance with long-term perspective
- (2) Conduct business ethically, respect the rights and responsibilities of shareholders and stakeholders
- (3) Benefit society and develop or reduce negative environmental impacts (good corporate citizenship)
- (4) Adaptability under corporate resilience

Principle 1.3

The Board of Directors has a duty to supervise and ensure that all directors and the management perform their duties of care, duty of loyalty and integrity to the organization and ensures compliance with the law, regulations and resolutions of the Shareholders' Meeting.

Principle 1.4

The Board of Directors should understand the scope, duties and responsibilities of the Board of Directors and clearly define the scope of assignment of duties and responsibilities to the president and management as well as monitoring the president and management to perform their duties as assigned.

Principle 2 Define Objectives and Central Ideas

Principle 2.1

The Board of Directors should define or ensure that the objectives are sustainable, with objectives and goals in line with the creation of value for the business, customers, stakeholders and overall society.

Principle 2.2

The Board of Directors should ensure that the objectives and goals, as well as strategies in the medium period and/or annuality of the business, are in line with achieving the main objectives and goals of the business. Thus, innovation and technology are applied appropriately and safely.

Principle 3 Strengthen Effective Committees

Principle 3.1

The Board should be responsible for determining and reviewing the board structure in terms of size, proportion of independent directors which is appropriate and necessary to lead the organization to its intended primary objectives and goals.

Principle 3.2

The Board of Directors should select the appropriate person as chairman of the Board of Directors and ensure that the composition and operation of the Board of Directors is conducive to the exercise of discretion in independent decision making.

Principle 3.3

The Board should supervise the nomination and selection of directors with a transparent and clear process to obtain qualified members of the Board in accordance with the defined elements.

Principle 3.4

In proposing the board's remuneration for approval, the Board should consider the structure and remuneration rates to be appropriate for responsibility and incentivize the Board to lead the organization to pursue both short-term and long-term goals.

Principle 3.5

The Board of Directors should ensure that all directors are responsible for performing their duties and allocate sufficient time.

Principle 3.6

The Board of Directors should administer a framework and mechanism for significant oversight of the policies and operations of subsidiaries and other entities in which the Company invests to be at the appropriate level for each business operation, including subsidiaries and other businesses that the Company invests in, whereby is a consistent understanding.

Principle 3.7

The Board of Directors should hold an annual assessment of the performance of duties of the board of directors, sub-committees and individual directors. The evaluation should also be used for the development of duties.

Principle 3.8

The Board of Directors should supervise the Board of Directors and each director to have an understanding of its roles as well as supporting all directors to be strengthened with skills and knowledge for regularly performing director duties.

Principle 3.9

The Board of Directors should ensure that the board's operations are carried out, have access to the necessary information, and have a corporate secretary with the necessary knowledge and experience that is appropriate to support the Board's tasks.

Principle 4 Recruitment and Development of Top Executives and Personnel Management**Principle 4.1**

The Board of Directors should ensure that the nomination and development of the president and senior management is to have the knowledge, skills, experience and attributes necessary to drive the organization towards its goals.

Principle 4.2

The Board of Directors should oversee the proper determination of the remuneration and evaluation structure.

Principle 4.3

The Board of Directors should understand the structure and relationship of shareholders that may affect the management and operation of the business.

Principle 4.4

The Board of Directors should monitor the management and development of personnel to the appropriate amount of knowledge, skills, experience and motivation.

Principle 5: Promoting Innovation and Responsible Business Operations**Principle 5.1**

The Board of Directors should focus on and support the creation of innovations that value the business while creating benefits for customers or related parties and having social and environmental responsibilities.

Principle 5.2

The Board of Directors should monitor the management of business with social and environmental responsibility and reflected in the operational plan to ensure that all parties to the organization are aligned with their objectives, key goals and strategies of the business

Principle 5.3

The Board of Directors should monitor management to allocate and manage resources efficiently and efficiently, taking into account the impact and development of resources throughout the value chain so that they can achieve their core objectives and goals sustainably.

Principle 5.4

The Board of Directors should provide a framework for corporate governance and management of information technology in accordance with the needs of the business, as well as ensure that information technology is used to increase business opportunities and develop operations. Risk Management in order for the business to achieve its main objectives and goals.

Principle 6 Strengthen Effective Risk Management and Internal Control**Principle 6.1**

The Board of Directors should ensure that the Company has a risk management system and internal control to achieve its objectives effectively and to comply with applicable laws and standards.

Principle 6.2

The Board of Directors must establish an Audit Committee that can perform its duties effectively and independently.

Principle 6.3

The Board of Directors should monitor and manage potential conflicts of interest between the Company and the management, the Board of Directors or shareholders, including the prevention of dissemination of property, information and opportunities of the Company and transactions with people who have an inappropriate relationship with the Company.

Principle 6.4

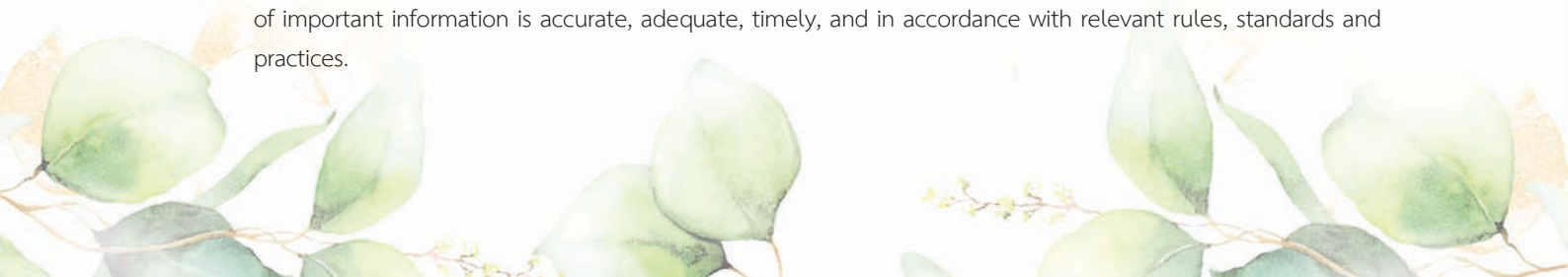
The Board of Directors should manage the preparation of clear anti-corruption policies and practices and communicate at all levels of the organization and to outsiders to achieve practicality.

Principle 6.5

The Board of Directors should supervise the affairs to have mechanisms for receiving complaints and to process the cases with appropriate suggestions.

Principle 7 Ensure Disclosure and Financial Integrity**Principle 7.1**

The Board of Directors is responsible for ensuring that the system of financial reporting and disclosure of important information is accurate, adequate, timely, and in accordance with relevant rules, standards and practices.



Principle 7.2

The Board of Directors should monitor the adequacy of financial liquidity and the ability to pay debts.

Principle 7.3

In the circumstance of financial difficulties or likely to experience problems, the Board of Directors should ensure that the business has a plan to resolve the issue or that there are other mechanisms that will be able to resolve financial issues, under consideration of the rights of stakeholders.

Principle 7.4

The Board should consider preparing a Sustainability Report as appropriate.

Principle 7.5

The Board of Directors should supervise the management to provide an agency or person in charge of investor relations that is responsible for communicating with shareholders and other stakeholders such as investors, analysts appropriately, equally and timely.

Principle 7.6

The Board of Directors should encourage the introduction of information technology to disseminate information.

Principle 8 Supports Engagement and Communication with Shareholders**Principle 8.1**

The Board of Directors should ensure that shareholders are involved in decisions on important matters of the Company.

Principle 8.2

The Board of Directors should ensure that the implementation of the shareholders' meeting date is carried out in order, transparent, efficient and allows shareholders to exercise their rights.

Principle 8.3

The Board of Directors should ensure that the disclosure of the resolutions of the meeting and the preparation of the minutes of the shareholders' meeting is accurate and complete.

In 2022, there is a matter under consideration to determine appropriate replacement measures as follows:

The Board of Directors has not set a policy limiting the number of years in the tenure of independent directors because the Company has considered knowledge, competence and experience. The duties of each independent director that benefits all stakeholders and benefits the Company's business operations, based on the performance of each independent director's position, can be independent and without conflicts of interest, and considering the Company's current business structure, continuing to hold positions should be beneficial to the Company's business operations.

However, the Company acts in accordance with non-legal practices and in accordance with the corporate culture of the Company and the Company has determined that such actions do not affect the qualifications of the director's independence.



6.3.3 Conducting good corporate governance principles in other matters

In August 2022, the Company submitted the assessment information and CGR Checklist 2022 to the Thai Institute of Directors Association (IOD).

The Company's Corporate Governance Survey of the Thai Institute of Directors Association (IOD), based on the 2022 Survey and Supervision of Listed Companies as a whole, the Company was appraised at "good" level and received an overall average score and category of 81% based on a total survey of 750 companies and the survey was based on data disclosed by the Company in 2022. The Company has a good practice in accordance with the criteria for the survey of the Thai Registered Corporate Governance Program for the year 2022.

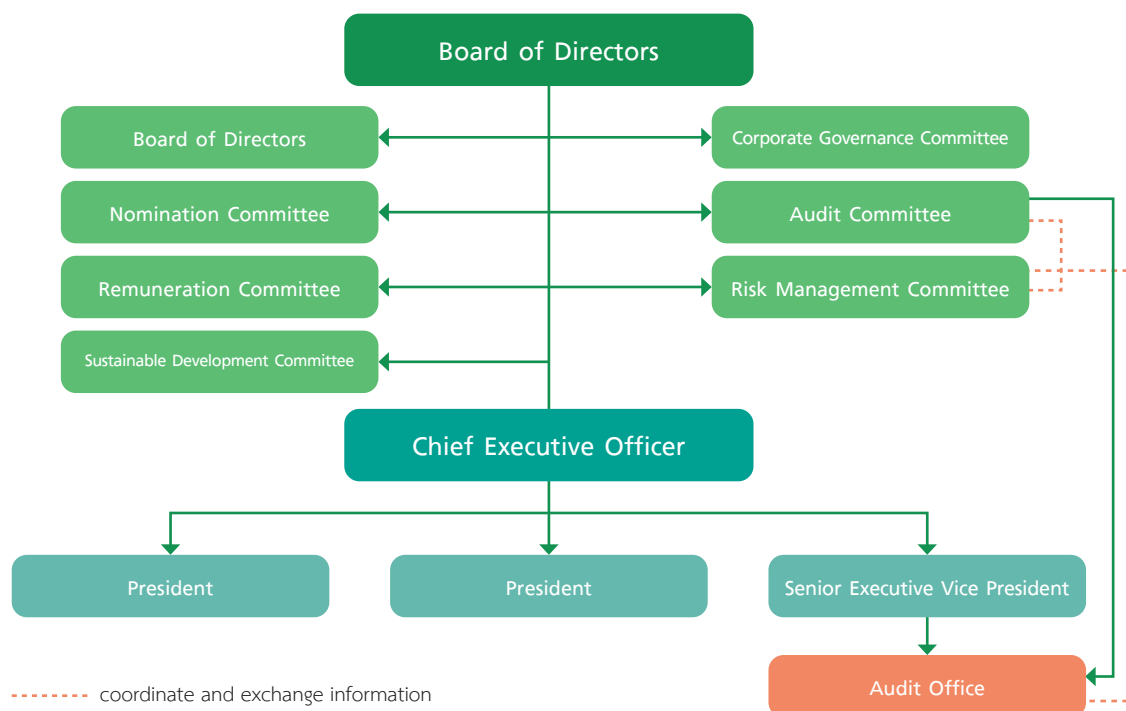
In 2022, the Company was also ranked in the list of sustainable stocks for the year 2022 (Thailand Sustainability Investment - THSI) from the Stock Exchange of Thailand.

The Company was awarded the Sustainability Disclosure Award 2022, which is an award that assesses the status of sustainability disclosure (from the Sustainability Report and Form 56-1 One Report 2021) of members of the Sustainability Disclosure Community (Sustainability Disclosure Community: SDC) from a total of 133 companies.



7. Corporate Governance Structure and key information about the Board of Directors, sub-committees, the management, employees and etc.

7.1 Corporate Governance Structure as of December 31, 2022



As at 31 December 2022, the management structure of the Company consists of the Board of Directors, which comprises seven Committees: the Executive Management, the Audit Committee, Nomination Committee, Remuneration Committee, Corporate Governance Committee, Sustainability Development Committee, and Risk Management Committee.

The Board of Directors of the Company consisting 15 directors, which comprises five independent directors, which exceeds one third of the total number of directors.

7.2 Information of the Board of Directors

7.2.1 Composition of the Board of Directors

As at December 31, 2022, the Board of Directors of the Company comprises 15 persons as follows:

- Ten Non-executive directors, representing 66.67% of total directors
- Five Independent Directors, representing 33.33% of total directors
- Five Executive Directors, representing 33.33% of total directors
- Three Female Directors, representing 20.00% of total directors
- Twelve male Directors, representing 80.00% of total directors

The Board of Directors consists of directors who have a wide range of qualifications in terms of experience skills, each with morality, ethics, and independence, specialized capabilities that benefit the Company and can take care of the overall interests of shareholders. In addition, all directors have an understanding of the Company's responsibilities and business characteristics and act with integrity and careful care whereas knowledge is constantly updated and sufficient time has been devoted to fulfilling their full responsibilities.

The Board of Directors has established the qualifications of independent directors in accordance with the rules and regulation imposed by the SEC and the SET.

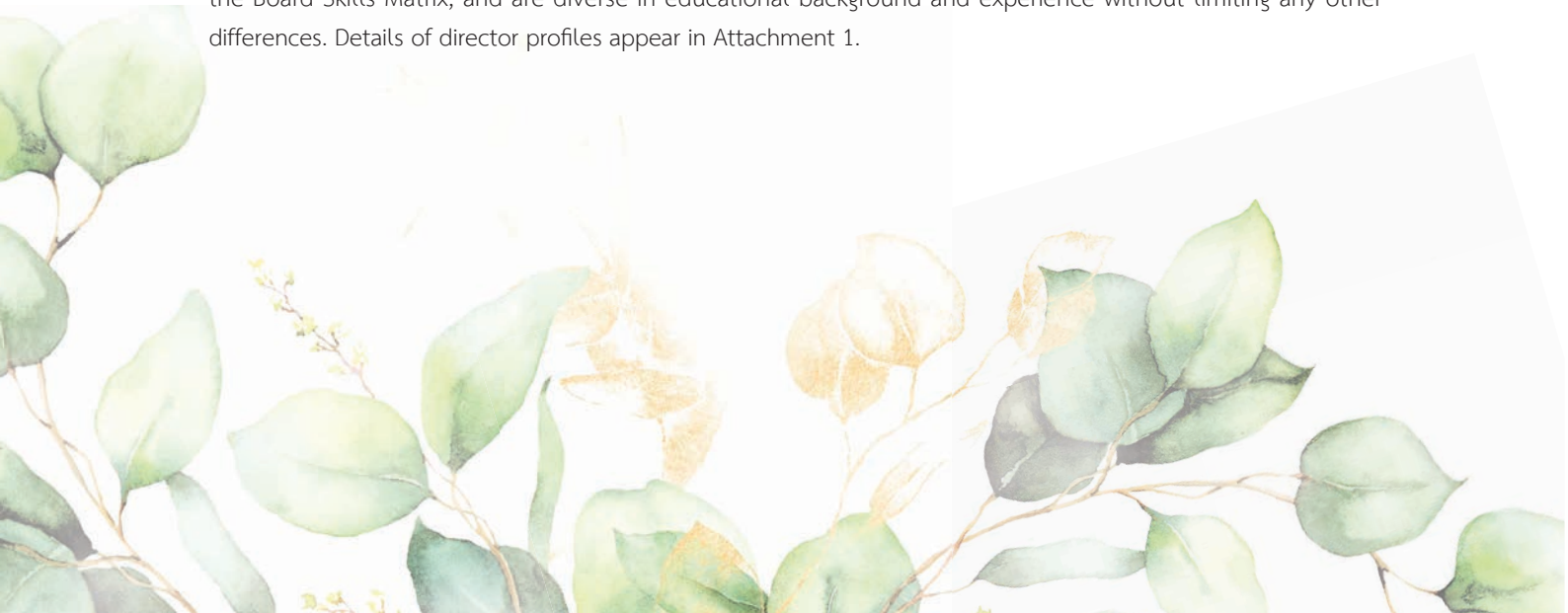
7.2.2 Information of the Board of Directors and the Controlling persons

The Board of Directors as at 31 December 2022:

No.	Name	Position
1	Mr. Khantachai Vichakkhana	Chairman and Independent Director
2	Mr. Prachai Leophairatana	Director
3	Mr. Prateep Leopairut	Director
4	Dr. Pramuan Leophairatana	Director
5	Mr. Prayad Liewphairatana	Director
6	Mrs. Orapin Leophairatana	Director
7	Mr. Tayuth Sriyusiri	Director
8	Miss Malinee Leophairatana	Director
9	Mr. Supoj Singsanei	Chairman of the Audit Committee and Independent Director
10	Mr. Pises Iamsakulrat	Audit Committee and Independent Director
11	Mr. Thavich Taychanavakul	Audit Committee and Independent Director
12	Mr. Pakorn Leopairut	Director
13	Mr. Pornpol Suwanamas	Audit Committee and Independent Director
14	Miss Thanyarat Iamsopana	Director
15	Dr. Virat Chatdarong	Director

However, all directors of the Company have undertaken at least one training course of the Thai Institute of Directors Association regarding directors, including the Directors Certification Program (DCP) or the Directors Accreditation Program (DAP).

The Board of Directors consists of 15 directors, 5 of whom are independent directors, of which 3 are female directors. The Board is diverse (Board Diversity), whose skills align with the Company's business strategy through the Board Skills Matrix, and are diverse in educational background and experience without limiting any other differences. Details of director profiles appear in Attachment 1.



Board Skills Matrix

	Name list/ Specialized knowledge	Policy Development	Business Judgment	Strategic Planning	Finance & Accounting	Internal Audit	Law	Corporate Governance & CSR	Risk Management & Internal Control	HR & Organization Development	Construction Industry Expertise	International Business	Innovation Management
1.	Mr. Prachai Leophairatana	X	X	X	X	X	X	X	X	X	X	X	X
2.	Mr. Prateep Leopairut	X	X	X				X	X	X	X	X	X
3.	Dr. Pramuan Leophairatana	X	X	X				X	X	X	X	X	X
4.	Mr. Prayad Liewphairatana	X	X	X				X	X	X	X	X	X
5.	Mr. Pises Iamsakulrat	X	X	X	X	X		X	X	X	X	X	X
6.	Miss Malinee Leophairatana	X	X	X	X	X		X	X	X	X	X	
7.	Mrs. Orapin Leophairatana	X	X	X	X	X	X	X	X	X	X	X	X
8.	Mr. Tayuth Sriyusiri	X	X	X				X	X	X	X	X	X
9.	Mr. Thavich Taychanavakul	X	X	X	X	X		X	X	X	X	X	
10.	Mr. Khantachai Vichakkhana	X	X	X			X	X	X	X	X	X	X
11.	Mr. Supoj Singaneai	X	X	X	X	X		X	X	X	X	X	
12.	Mr. Pakorn Leopairut	X	X	X				X	X	X	X	X	
13.	Mr. Pornpol Suwanamas	X	X	X	X	X		X	X	X	X	X	
14.	Miss Thanyarat Iamsopana	X	X	X				X	X	X	X	X	X
15.	Mr. Virat Chatdarong	X	X	X				X	X	X	X	X	X

7.2.3 Functions and Responsibilities of the Board of Directors

Authority of the Board of Directors

1. To carry out activities prudently and in compliance with related governing laws, the objectives of the Company, and the Articles of Association, in order to protect the Company's interests and for the benefit of shareholders.
2. To consider policy, vision, work plans and key strategies, as well as ethical standards for business operations, and to supervise and monitor Management, to ensure that they perform duties efficiently and are in compliance with the Company's policies.
3. To monitor the operational results of the Company and any other key progress criteria.
4. To determine interim dividends to shareholders.
5. To ensure that financial reports are complete, accurate, reliable and timely, and are prepared in compliance with generally accepted accounting principles.
6. To monitor the implementation of internal control and audit systems; to comply with all regulations and related governing laws; and to ensure appropriate risk management.
7. To ensure that the Company performs in compliance with good corporate governance policies, and focuses on fair treatment for all related parties, and discloses all relevant information that might affect the interests of related parties and the public.
8. To monitor and to prevent conflicts of interest and ensure that connected transactions and any other transactions that might affect the interests of related parties are in compliance with related rules and regulations.
9. To consider the nomination of qualified persons to perform the duties of directors.
10. To consider the need and appropriateness to determine remuneration to directors.

The actions of the Board of Directors that must be approved by the Shareholders' Meeting

1. Entering into the inter-company transactions or acquisition or disposition of the Group's significant assets or any other action as announced by law and the Capital Markets Committee.
2. Sale or transfer of all or part of the Company's business to another person
3. Amendments to the Memorandum of Association or Articles of Association of the Company.
4. Increase or decrease the Company's registered capital
5. Dissolution of corporations or mergers with other companies
6. Issuance of debentures of the Company

Roles and Responsibilities of the Chairman of the Board of Directors

To ensure the separation of authority in terms of policymaking and management of the Company is clearly separate. Therefore, the Company requires the Chairman of the Board of Director, the Chairman of the Executive Board and the President are different persons, with the Chairman of the Board of Directors has role and responsibilities as follows:

1. Call the Board of Directors' Meeting and act as the Chairman of the Board of Directors' meeting and the Shareholders' Meeting, as well as play a role in setting the agenda with the Chief Executive.
2. Play a role in controlling meetings effectively in accordance with rules and regulations of the Company, support and allow directors to express their opinions independently.
3. Support and encourage the Board of Directors to perform duties to the best of ability in accordance with the scope of authority, duties, responsibilities under good corporate governance principles.
4. Monitor and follow up the administration of the Board of Directors and other sub-committees to achieve the intended objectives.
5. Be the decisive voter in the event that the Board of Directors' meeting holds a vote and votes on both sides are equal. (Details are provided on the Company's website <https://www.tpipolene.co.th/th/aboutus/org-tpi/board-roles-th>)

7.2.4 Nomination and appointment of directors and sub-directors and Presidents

1) Nomination and appointment of the directors of the Company

The Company's Board of Directors comprises qualified members who have skills, experience, honesty, ethics, and independence and have capabilities in diverse fields, pertinent to the Company's businesses and the appointment of new directors must be approved at the Board of Directors' Meeting and/or the Shareholders' Meeting (as the case may be).

- (1) To assume that one shareholder has the same vote as 1 share per 1 vote.
- (2) Each shareholder can use all available votes according to (1) elect a single person or multiple persons as directors. In the event of an election of several individuals as the directors, votes cannot be divided into anyone more or less.
- (3) The person receiving the highest number of votes respectively will be elected as a director as much as the number of directors who will have or will be elected at that time. In the event that the person who is elected in the next order has the same votes and exceeds the number of directors who should have or will be elected at that time, the Chairman of the board will be the decisive voter.

At every annual ordinary meeting of shareholders, the directors shall be removed from their positions for one-third of the number of directors at the time. If the number of directors can't be straightened into three parts, the number issued by the closest number to one-thirds, considering the longest-in-position director is the one who leaves the position. Thus, departing directors may be re-elected by the shareholders' meeting to become new directors.

In the event that the director's position is vacated for reasons other than the term of issue under the term, the Board of Directors shall select a qualified person who does not have a prohibited nature under the law on public limited companies and the law on Securities and Exchange to be a replacement director at the next board meeting unless the term of the director is less than 2 months. The person who becomes the director only serves as much as the remaining term of the director he replaces. However, the resolutions of the board, as mentioned above, must consist of at least three-fourths of the remaining number of directors.

2) Nomination of independent directors

The Company has a policy of nominating independent directors in accordance with the Announcement of the Capital Market Supervisory Board No. 39/2016. Re: Permission and Authorization for IPO issuance, dated September 30, 2016 (including amended) as follows:

1. Are restricted in the number of shares they may hold to not greater than 1% of the voting shares in the Company, its subsidiaries, its associated companies, or its juristic persons that may impose conflicts of interest.
2. Have no management participation in the Company, its subsidiaries, and are not employees or regularly paid consultants, or persons, who have control over the Company or its associated companies, its subsidiaries, or its associated companies or is the same order as a major shareholder or of control over the Company, unless it has been removed from such characteristics at least two years prior to the date of appointment as an Audit Committee member. Such prohibited characteristics do not include cases where independent directors have been officials or advisors of government offices that are major shareholders or controlling persons of the Company.
3. Have no close relatives, or persons related in a way by legal registration in a manner that is a parent, spouse, siblings and children, as well as spouses of children of other directors, the management, major shareholders, controlling persons, or persons who will be proposed as the directors, the management or controlling authorities of the Company or its subsidiaries.
4. Have no business relationship with the Company, its subsidiaries, or its associated companies, major shareholders or controlling persons of the Company in a manner that may impede the use of their independent judgment, including not being or has been an implicit shareholder or controlling person of a person with a business relationship with a company, a major company, a subsidiary unless it has been removed from such characteristics at least two years prior to the date of filing an application for permission to the SEC.

Such business relationships include commercial transactions that are normally conducted for business operations as well as renting or leasing a property, assets or services transaction, or providing or receiving financial assistance by receiving or lending guarantees, provision of assets as collateral for liabilities, as well as other similar circumstances, which results in the Company or its parties having to pay debts to the other party, from 3% of net tangible asset of the Company or Baht 20 million or more, whichever is lower. The calculation of such debt obligations is based on value of connected transaction to comply with criteria as announced by the Capital Market Supervisory Board on for connected transaction. However, such debt obligations include those incurred during the one year prior to the date of business relationship with the same person.

5. Not being or used to be an auditor of the Company, mother company, a subsidiary, associates, major shareholders or controlling persons of the Company and are not implicit shareholders, the supervisor or partner of the audit office, which the auditor of the Company, mother company, a subsidiary, associates, major shareholders or controlling persons of the Company unless it has been removed from such characteristics at least two years prior to the date of filing an application for permission to the SEC.

6. Not being or used to be a professional service provider, including providing services as legal advisors or financial advisors, which receive service fees in excess of Baht 2,000,000 per annum from the Company, mother company, a subsidiary, associates, major shareholders or controlling persons of the Company and are not implicit shareholders unless it have been removed from such characteristics at least two years prior to the date of filing an application for permission to the SEC.
7. Not being a director appointed to represent by the Directors of the Company, major shareholders or shareholders who are related to major shareholders.
8. Not to operate a business of the same condition and be a competition that is materially to the business of the Company or its subsidiaries, or not to be a partner that is materially in the partnership or as a director who is involved in the management, employees, consultants who receive regular salaries or hold more than 1% of the total voting shares of other companies, which operate in the same condition and are competition that is materially with the Company's business or its subsidiaries.
9. There are no other characteristics that prevent them from giving an independent opinion on the Company's operations.

3) General guidelines for the appointment of directors on the Company's sub-committees

The Board of Directors may appoint one or more sub-committee members to support the performance of the Board of Directors. The sub-committee is responsible will be responsible for reviewing matters of particular importance. The Board of Directors will approve the appointment of sub-committee members, issuance of sub-committee charters to determine the relevant regulations, composition of the sub-committee, duties and responsibilities, as well as other matters related to such sub-committees, as deemed appropriate by the Board of Directors. Each year, the Board of Directors will review the charter of each subcommittee.



7.3 Information about sub-committees

The Sub-Committees consist of the followings:

7.3.1 Executive Management Committee as of 31 December 2022

No.	Name	Position
1	Mr. Prachai Leophairatana	Chairman of Executive Management Committee
2	Mr. Prateep Leopairut	Executive Director
3	Dr. Pramuan Leophairatana	Executive Director
4	Mr. Prayad Liewphairatana	Executive Director
5	Mrs. Orapin Leophairatana	Executive Director
6	Mr. Pakorn Leopairut	Executive Director
7	Miss Tanyaratt Iamsopana	Executive Director

Seven Directors are authorized to sign on behalf of the Company. Two of the seven directors must jointly sign, together with the affixation of the official company stamp.

Functions and Responsibilities of the Executive Management Committee

The Board of Directors is appointed by the Board of Directors or the Shareholders' Meeting to perform the following functions:

1. To govern and formulate the operational strategy of the business, goals and operational plans, the Company's financial goals and budgets, taking into account appropriate business factors. To present and seek approval to the Board of Directors in case the circumstances change, the Board of Directors will review the use of approved budgets to suit the situation, as well as implement business strategies in accordance with the policies of the Board of Directors.
2. To monitor the performance of parties in accordance with the policy, business strategy, goals and operational plans, the financial goals and budgets of the Company approved by the Board of Directors to be effective and effective in favor of business conditions and provide advice, advice, management to senior management.
3. To consider selecting and appointing senior executives. The Board of Directors will be the preliminary consideration of the nomination of qualified persons who have knowledge, skills and experience that are beneficial to the Company's operations before offering them to the Board of Directors for approval. Define organizational structure and policies regarding the management of the Company. Consider and monitor replacement management creation plans, including workforce plans and remuneration guidelines and management's performance evaluation criteria.
4. To appoint and remove employees as well as assign rewards to employees.
5. To consider and provide feedback or opinions to the Board of Directors regarding any projects, proposals or transactions related to the Company's business operations, as well as to consider fundraising options when necessary and exceeding the limits set and/or to applicable laws and regulations or in the Articles of Association of the Company to be approved by the Shareholders' Meeting and/or the Board of Directors.
6. To conduct business related to the general administration of the Company, including any authority and responsibilities as assigned or in accordance with the policies assigned by the Board of Directors.
7. To appoint and/or assign to the Executive Committee or any person or persons to act within the jurisdiction of the Executive Committee deemed appropriate by the Board of Directors, as well as the Table of Authority schedule specified by the Board of Directors, where the Board of Directors may withdraw or amend such powers within the scope of the Board of Directors.

7.3.2 The Audit Committee as of 31 December 2022

No.	Name	Position
1	Mr. Supoj Singsanei *	Chairman of the Audit Committee
2	Mr. Pisej Iamsakulrat	Audit Committee
3	Mr. Thavich Taychanavakul	Audit Committee
4	Mr. Pornpol Suwanamas	Audit Committee

Remark: Possesses background and experience in auditing of financial statements.

Functions and Responsibilities of the Audit Committee

The Audit Committee is responsible for reviewing the Company's financial reports, adequacy of internal control systems, risk management systems, compliance with legal regulations and prepare reports or comments to the Board of Directors for approval or to be presented to the Shareholders' Meeting, as the case may be:

1. To monitor the auditing process and internal control systems of the Company to ensure that they are appropriate and efficient.
2. Review the Company's appropriate and effective Internal Control system and consider the independence of the Internal Audit agency as well as approve the appointment, removal, dismissal of the head of the internal audit agency and/or the hiring of an internal audit company or any other entity responsible for the internal audit.
3. To supervise and ensure that the Company acts in compliance with the regulations imposed by the SET and the SEC and related governing laws.
4. To consider, select and propose the appointment of an independent person to act as auditor of the Company and present the person's remuneration to the Board of Directors for approval from the shareholders' meeting, as well as attend meetings with the auditor without management attending the meeting at least once a year.
5. To consider the disclosure of information regarding connected transactions or transactions that may have conflicts of interest in accordance with the rules and legal regulations imposed by the Capital Market Committee and the terms of the SET to ensure that the transaction is reasonable and in the best interests of the Company.
6. Prepare the audit committee's report publicly in the Company's annual report. The report must be signed by the Chairman of the Audit Committee and must contain at least the following information:
 - Opinion on accuracy, completeness and reliability of the Company's financial reports
 - Opinion on the adequacy of the Company's internal control system
 - Opinion on compliance with securities and exchange laws Set of Exchange of Thailand or laws relating to the Company's business operations
 - Opinion on the suitability of the auditor
 - Comments on transactions that may have conflicts of interest
 - Number of audit committee meetings and attendance of each audit committee member
 - Opinions or overall observations received by the Audit Committee for the performance of charter duties
 - Other items that shareholders and investors should know Within the scope of duties and responsibilities assigned by the Board of Directors.

7. In the performance of the duties of the Audit Committee, if the following items or actions are found to have a significant impact on the Company's financial position and performance, the Board of Directors shall report to the Board of Directors to make revisions within the period designated by the Audit Committee.
 - (1) List of conflicts of interest
 - (2) Fraud or irregularities or significant impairments in the internal control system.
 - (3) Violation of securities and exchange laws SET's terms or laws relating to the Company's business
 If the Board of Directors or management does not make revisions within the above period, the Company will not be updated. One of the audit committee members may report the above items or actions to the SEC or the SET.
8. Perform any other operations as assigned by the Board of Directors with the approval of the Audit Committee.
9. Review regulations and performance in the past year at least once (1) times a year.

7.3.3 Nomination Committee as of 31 December 2022

No.	Name	Position
1	Mr. Khantachai Vichakkhana	Chairman and Independent Director
2	Mr. Prachai Leophairatana	Director
3	Mr. Prateep Leopairut	Director
4	Dr. Pramuan Leophairatana	Director
5	Mr. Prayad Liewphairatana	Director
6	Mrs. Orapin Leophairatana	Director
7	Mr. Tayuth Sriyusiri	Director
8	Miss Malinee Leophairatana	Director
9	Mr. Supoj Singsanei	Chairman of the Audit Committee and Independent Director
10	Mr. Pises Iamsakulrat	Audit Committee and Independent Director
11	Mr. Thavich Taychanavakul	Audit Committee and Independent Director
12	Mr. Pakorn Leopairut	Director
13	Mr. Pornpol Suwanamas	Audit Committee and Independent Director
14	Miss Thanyarat Iamsopana	Director
15	Mr. Virat Chatdarong	Director

Duties and Responsibilities of the Nomination Committee

1. Select persons who deserve to be nominated as new directors when there is a vacancy (from resignation or a full term) to propose to the Board of Directors or the Shareholders' Meeting to proceed with the appointment, taking into account the composition of the knowledge and skills of the Board member. The qualifications of directors who wish to be nominated must be in accordance with the Company's business strategy.

2. Consider the nomination of directors to act as a specific director based on the composition of the Board of Directors, knowledge and competence of Directors deemed appropriate to perform the duties of the directors and presented to the Board of Directors for appointment.
3. Disclose the nomination committee's operational report in the annual report.
4. The Nomination Committee should meet together at least once a year.

The nomination method has been set out for appointment as a director as follows:

1. The Nomination Committee determines the qualifications of directors who wish to nominate for replacements and have elements and qualifications in accordance with the related legal regulations and to be in line with the Company's strategy and business operation. The Guide to Good Corporate Governance, Ethical Standards and Business Ethics has stated the qualifications of the Board of Directors that each director must come from a qualified person in the various professions necessary to manage the Company's business that they should consist of those with business knowledge, legal and financial luminaries, political science, security, risk management in various crises / civil society, community enterprises, natural resource Environment and Sustainable Development
2. The Nomination Committee concludes the nomination and nomination of the appropriate person to be a director with the accompanying reasons and present it to the Board of Directors.
3. The Board of Directors considers the selection of qualified persons according to the list presented by the Nomination Committee for appointment as a director or to present the list to the Shareholders' Meeting for approval of the appointment of the next director.
4. Corporate Secretary performs duties as Secretary of the Nomination Committee

7.3.4 Remuneration Committee as of 31 December 2022

No.	Name	Position
1	Mr. Khantachai Vichakkhana	Chairman and Independent Director
2	Mr. Prachai Leophairatana	Director
3	Mr. Prateep Leopairut	Director
4	Dr. Pramuan Leophairatana	Director
5	Mr. Prayad Liewphairatana	Director
6	Mrs. Orapin Leophairatana	Director
7	Mr. Tayuth Sriyusiri	Director
8	Miss Malinee Leophairatana	Director
9	Mr. Supoj Singsanei	Chairman of the Audit Committee and Independent Director
10	Mr. Pises Iamsakulrat	Audit Committee and Independent Director
11	Mr. Thavich Taychanavakul	Audit Committee and Independent Director
12	Mr. Pakorn Leopairut	Director
13	Mr. Pornpol Suwanamas	Audit Committee and Independent Director
14	Miss Thanyarat Iamsopana	Director
15	Mr. Virat Chatdarong	Director

Duties and Responsibilities of the Remuneration Committee

1. Set guidelines or methods for determining compensation, as well as consider offering fair and reasonable compensation. For directors and directors and shareholders' meetings for approval
2. To consider and propose the evaluation and remuneration guidelines of the Management and the President for approval.
3. Acknowledge and provide feedback on organizational restructuring and job level, including evaluation and consideration of executive remuneration.
4. Responsibility to the Board of Directors directly by roles and board of directors responsible for the operation of the Company to all stakeholders.
5. Disclose the report of the remuneration committee's operations in the annual report.
6. The remuneration committee should meet at least once a year.
7. The Corporate Secretary Performs Duties of Secretary of the Remuneration Committee.

7.3.5 The Corporate Governance Committee as of 31 December 2022 consists of:

No.	Name	Position
1	Mr. Khantachai Vichakkhana	Chairman and Independent Director
2	Mr. Prachai Leophairatana	Director
3	Mr. Prateep Leopairut	Director
4	Dr. Pramuan Leophairatana	Director
5	Mr. Prayad Liewphairatana	Director
6	Mrs. Orapin Leophairatana	Director
7	Mr. Tayuth Sriyusiri	Director
8	Miss Malinee Leophairatana	Director
9	Mr. Supoj Singsanei	Chairman of the Audit Committee and Independent Director
10	Mr. Pises Iamsakulrat	Audit Committee and Independent Director
11	Mr. Thavich Taychanavakul	Audit Committee and Independent Director
12	Mr. Pakorn Leopairut	Director
13	Mr. Pornpol Suwanamas	Audit Committee and Independent Director
14	Miss Thanyarat Iamsopana	Director
15	Mr. Virat Chatdarong	Director

Duties and Responsibilities of the Corporate Governance Committee

1. Determine the objectives and goals of the business that lead to good governance and sustainable business growth.
2. Consider giving opinions, giving suggestions, and reviewing the good corporate governance policy, business ethics, sustainable development policy of the company, anti-fraud and corruption policy, including the policy and any other guidelines related to corporate governance that will support the Company's operations on the basis of corporate governance for sustainable development, including the operation of taking care of all stakeholders, society, communities, environment, and any other policies or guidelines that will support the Company's operations in accordance with good governance to suit the business of the Company and its subsidiaries.

3. Supervise the management to implement various policies and practices to continuously develop the Company by promoting innovation and responsible business practices. However, such guidelines must be in line with and suitable for the business of the Company, recommendations of regulatory agencies or relevant and comparable to international standards.
4. Follow up and review practices and systems within the organization to be in line with good corporate governance policies, business ethics, and good practices as defined and supervise for concrete practical results.
5. 5 Follow up and direct in the event that the operations of the management and employees have issues regarding non-compliance with the established policies and guidelines.
6. Assess the performance of the Board of Directors, the management team, and any subsidiaries in accordance with the Company's and its subsidiaries' policies on good corporate governance, business ethics, and sustainable development. Process the corporate governance assessment that will be presented to the Board of Directors for the following year along with the necessary comments and recommendations.
7. Reporting the Company's performance, encouraging participation, and fostering communication with all stakeholders—shareholders, customers, partners, society, and the environment—will help everyone realize and comprehend good corporate governance, business ethics, work practices, anti-fraud and corruption policies, and relevant practices—as well as the Company's performance.
8. Seek professional opinions from individuals or external organizations to provide advice or independent advice on good corporate governance to the Corporate Governance Committee and related parties, including hiring a third party from time to time to help the performance of the Corporate Governance Committee and to be able to perform its duties to achieve its objectives within the specified period and such employment will be beneficial to the Company.
9. Report the performance of duties to the Board of Directors and/or the shareholders' meeting.
10. Assess the performance of the Corporate Governance Committee annually and report the results to the Board of Directors.
11. Perform duties or perform any other acts as assigned by the Board of Directors and perform any acts as stipulated by laws or regulations of government agencies.

7.3.6 The Risk Management Committee as of 31 December 2022 consists of:

No.	Name	Position	Attendance *
1	Mr. Prachai Leophairatana	Chairman	1/1
2	Mrs. Orapin Leophairatana	Vice Chairman	1/1
3	Mr. Prasert Ittimakin	Director	1/1
4	Miss Chularat Danwattanachai	Director	1/1
5	Mr. Karan Pipitsombat	Director	1/1
6	Mr. Chettha Maneechai	Director	1/1
7	Dr. Nithipong Vikittaset	Director	1/1
8	Mr. Sanong Chiradarakul	Director	1/1
9	Dr. Virat Chatdarong	Director	1/1
10	Mr. Kamjorn Pairojsak	Director	1/1

No.	Name	Position	Attendance *
11	Mr. Somchai Kitpipit	Director	1/1
12	Miss Kusuma Chantharothorn	Director	1/1
13	Mrs. Somapan Kaewsuwan	Secretary	1/1

Duties and Responsibilities of the Risk Management Committee

1. Review and propose the policy and risk management framework to the Board of Directors for approval.
2. Review and approve the risk appetite and present to the Board of Directors for acknowledgment.
3. Overseeing the development and implementation of risk management policies and frameworks on an ongoing basis to
4. ensure that the Group has an effective enterprise-wide risk management system and consistent compliance.
5. Review risk management reports to monitor material risks and take action to ensure that the organization has adequate and appropriate risk management.
6. Regularly report to the Board of Directors on key risks and risk management.
7. Provide advice and consultation to the Sub-Risk-Management Committee (SRM) and/or the departments and/or working groups related to risk management, including considering appropriate ways to correct various information about developing a risk management system.
8. Consider appointing sub-committees and/or additional or replacement personnel in the risk management sub-committee and/or units and/or working groups related to risk management as appropriate, including determining roles and responsibilities for the benefit of carrying out the objectives
9. Any other operations related to risk management assigned by the Board of Directors.

In this regard, the management and/or the risk management subcommittee and/or the unit and/or the working group related to risk management and/or the internal auditor and/or the auditor must report or present the information and related documents to the Risk Management Committee to support the work of Risk Management Committee to achieve the assigned duties.๕



7.3.7 The Sustainable Development Committee as of December 31, 2022 consists of:



Remark * Being a director of TPI Polene Public Company Limited

Sustainable Development Committee

No.	Name	Position	Attendance *
1	Mr. Prachai Leophairatana	Chairman of the Sustainability Committee	1/1
2	Sustainable Development Committee (Head Office Set)	List of directors according to structure	1/1
3	Sustainable Development Committee (Saraburi Plant Set)	List of directors according to structure	1/1
4	Sustainable Development Committee (Tile Plant Set)	List of directors according to structure	1/1
5	Sustainable Development Committee (Rayong Plant Set)	List of directors according to structure	1/1

Duties and Responsibilities of All Sustainability Development Committees

1. Determine policies, strategies, operational frameworks, strategic approaches, and consider and select issues that promote sustainable development of the organization, including setting sustainable development goals that are in line with business operations in economic, social, and environmental aspects propose to the Chief Executive Officer for approval.
2. Supervise, review, monitor the progress of implementation, and evaluate the effectiveness of the implementation of the sustainability development policy.
3. Encourage relevant organizations both inside and outside the organization to practice and create involvement in the implementation of various projects under the umbrella of sustainable development.
4. Consult, promote, support the appropriate resources and personnel to ensure that the sustainability strategy is implemented throughout the organization and aligned in the same direction.
5. The Chairman of the Committee has the power to appoint sub-committees or working groups to be responsible for each aspect of sustainable development operations to cover and be consistent with the organization's key issues.
6. Report on the performance of the preparation of sustainability reports to senior executives.

The names of the Sustainable Development Committee and their responsibilities can be studied at the Company's website at <http://www.tpipolenepower.co.th/index.php/th/th-aboutus/boardrd-mgt/esg-board>

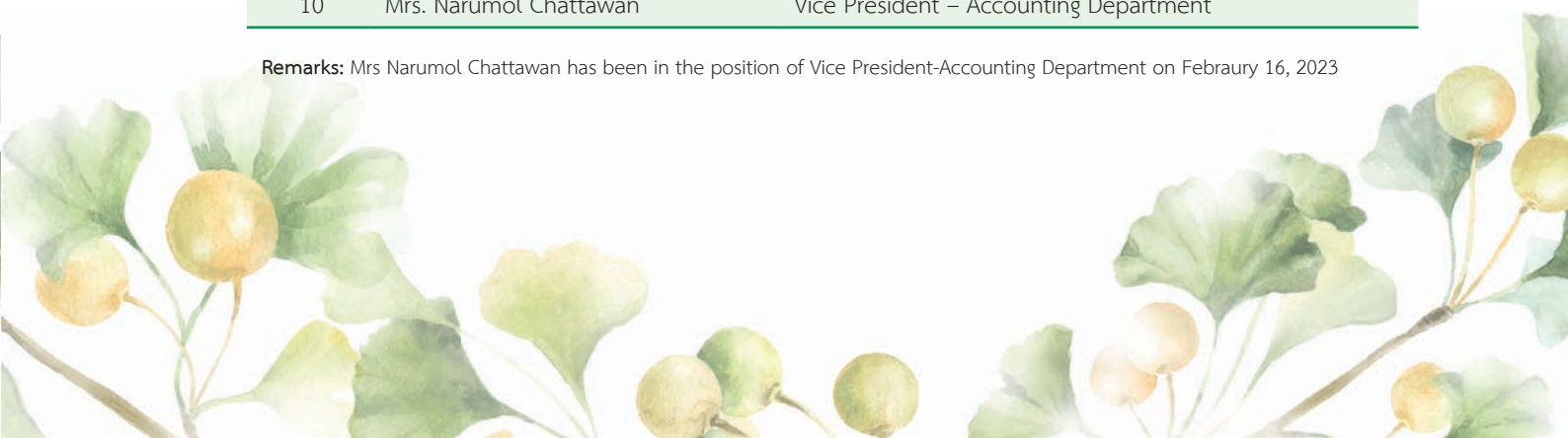
7.4 Information about executives

The management structure as of December 31, 2022 can be found on the Company's website at <https://www.tpipolene.co.th/th/aboutus/org-tpi/organization-structure-th>

7.4.1 The Management as at 16 February 2023:

No.	Name	Position
1	Mr. Prachai Leophairatana	Chief Executive Officer
2	Mr. Prateep Leophairatana	President
3	Dr. Pramuan Leophairatana	President
4	Mrs. Orapin Leophairatana	Senior Executive Vice President
5	Mr. Prasert Ittimakin	Senior Vice President – Accounting and Finance Division
6	Mr. Karan Pipitsombat	Senior Vice President – Plant Manager
7	Mr. Somkeart Srisuwan	Senior Vice President – Information Technology Division
8	Miss Chularat Danwattanachai	Vice President – Accounting and Finance Division
9	Mr. Pongsak Yiengsakun	Vice President – Finance Department
10	Mrs. Narumol Chattawan	Vice President – Accounting Department

Remarks: Mrs Narumol Chattawan has been in the position of Vice President-Accounting Department on February 16, 2023



Functions and Responsibilities of the Chief Executive Officer

1. To carry out activities prudently; to be in compliance with the objectives of the Articles of Association; and to be in line with establishing policy as approved by the Board of Directors of the Company, in order to protect the Company's interests and for the benefit of shareholders.
2. To monitor and manage daily operational results of each department to ensure these are carried out effectively and efficiently.
3. To assign, nominate, remove and punish employees and staff of the Company to comply with Company discipline.
4. To report work progress to be in line with work plans and budgets as approved by the Board of Directors.
5. Have the power to issue orders, regulations, announcements, records to ensure compliance with the Company's policies and interests and to maintain work discipline within the organization.
6. To have the power to delegate the authorities and/or assign another person to perform a specific task instead by delegating such subsidies and/or assignments to be subject to the scope of power of attorney and/or in accordance with the regulations. The terms, as well as the Table of Authority table specified by the Board of Directors, or the orders set by the Board of Directors and/or the Company.
7. The Company has designated the Board of Directors to authorize the approval and amendment of the plan. Annual budget, investment plan, one-time investment expenses, as well as the Company's management and sales expense budget The Chief Executive Officer and/or President and/or Senior Executive Vice President has the authority to approve investments from approved investment statements. Requesting expenses, determining or changing marketing plans and annual marketing budgets in accordance with an approved budget without limits, including: The Chief Executive Officer and/or The President and/or Senior Executive Vice President have the authority to approve advertising, promotions and marketing activities, both in accordance with the plan and not within the plan within the limits approved by the Board of Directors.

In addition, the Board of Directors has authorized the management of the Company to the Chief Executive Officer and the President with the following principles and jurisdictions as follows:

1. To be authorized to manage the Company's business in accordance with the objectives, regulations, policies, regulations, requirements, orders, as well as resolutions of the Board of Directors meeting and/or the resolutions of the Shareholders' Meeting of the Company in all respects.
2. Be an authorized contact person, order and process and sign legal agreements, contracts, order documents, notices or any necessary and appropriate notices in order to complete the above actions. The use of the powers of the aforementioned CEO and President cannot be done if the Chief Executive Officer and President have a stake or may have any conflict of interest with the Company.

Succession Plan

The Company has a policy and has continued to develop senior management in order to have qualified corporate executives to replace top executives by setting out a Succession Plan for preparing personnel to be prepared for higher positions. Through the nomination committee and the remuneration committee, there are appropriate and transparent criteria and procedures for selecting personnel to assume responsibility for key management positions in the Company. This helps to guarantee that the Company has qualified executives with skills, experience, and professional abilities.

In addition, there is a succession plan according to employee level with the objective to make the organization ready in terms of manpower, recruitment planning, and developing personnel in the organization with potential in the department manager level and above to plan replacement and succession for employees who

will retire. Furthermore, there is a talent management or job position that is the target of the competitor market in order to reduce the loss rate of personnel with knowledge, ability, and experience, as well as to retain employees with potential and potential to be ready for opportunities in development and promotion to higher positions

Business relationships or professional service relationships between independent directors and the Company, or the parent company, or its subsidiaries, or subsidiary companies, or associated companies, or juristic persons within the Company, that may impose conflicts of interest in an amount exceeding the restricted amount under the notification of the SEC regarding permission and approval of new shares issuance (if any), as well as the resolution and opinion of the Board of Directors approval (if any) for the transaction concerning such a business relation or professional service.

- None -

7.4.2 Remuneration policy of directors and the Management

The remuneration of the Management at all levels is based on performance, which is determined by the Board of Directors, the Chief Executive Officer and the President and top executives together, considering the perspectives of the processes within the organization and employees, and covering both the annual performance and the assessment of potential and leadership that will ensure that the organization can be led to achieving its long-term goals. Each executive has operational indicators that correspond to their roles. Each year, the Board of Directors considers the salary adjustment of the chairman of the executive committee, the president and senior executive vice president and chief executive officer and top executives in accordance with their performance. However, salary adjustments must meet the Company's criteria and be comparable to companies in the same industry.

7.4.3 Remuneration of the Directors

In 2022, remuneration awarded to the Company's seven Executives including salaries and bonuses was Baht 233,235,800 compared with Baht 191,299,550 for total of six persons in 2021.

7.5 Human resource management in line with business strategy

The Company is aware of the changes and business competition, including the challenges of various industries in the future, therefore, it strives to develop and increase the competitiveness of the organization in various areas, including human resource management as follows:

- Employment: The workforce is planned in line with future business missions.
- Up skill, Reskill, as well as instilling a Mind set about learning, creativity, customer-centeredness, and adaptability in terms of digital and technology, including the knowledge necessary for new business operations in the future.
- Improving recruitment and selection guidelines to increase personnel with knowledge, experience, and a variety of talents from outside (Mid-career) to join the mission of the Company both now and in the future.

7.5.1 Number of Employees

As at 31 December 2022, the Company and its subsidiaries have a total of 10,119 employees, divided into line of business as follows:



Company / Business Group	Number of Employees (2022)			Number of Employees (2021)		
	Head Office	Plant	Total	Head Office	Plant	Total
1. TPI Polene Public Co., Ltd.						
1.1 Head Office	1,388	-	1,388	1,392	-	1,392
1.2 Cement plant and Cement Distribution Terminal	-	4,364	4,364	-	4,233	4,233
1.3 LDPE plant, Rayong Province	-	574	574	-	579	579
1.4 Concrete Roof Tiles plant and Fiber Cement plant, Saraburi Province	-	900	900	-	812	812
2. TPI Concrete Co., Ltd.	180	1,127	1,307	192	1,195	1,387
3. TPI Polene Bio Organics Co., Ltd.	36	39	75	33	46	79
4. TPI Polene Power Public Co., Ltd. and subsidiaries	98	1,045	1,143	98	1,044	1,142
5. Master Achieve (Thailand) Co., Ltd.	-	49	49	-	47	47
6. Thai Nitrate Co., Ltd.	13	70	83	10	73	83
7. TPI All Seasons Co., Ltd.	8	226	234	7	189	196
8. TPI Healthcare Co., Ltd.	2	-	2	1	-	1
Total	1,725	8,394	10,119	1,733	8,218	9,951

7.5.2 Employee remuneration

Remuneration to employees (excluding executives) for 2022 was Baht 6,333 million such remuneration includes salary, commissions, bonuses, allowances and other benefits.

7.5.3 Provident Fund

Some group of companies have set up provident funds for its employees on the voluntary basis of employees to become fund members, with employees paying cumulative rates of 3 percent to 10 percent of their monthly salary, and the Company paying contributions of 3 percent to 10 percent of the employee's salary every month. This provident fund is registered in accordance with the requirements of the Ministry of Finance and is managed by authorized fund managers.

7.5.4 Policy on Personnel Development

The Company places importance on training and developing employees to enhance their knowledge, experience skills, as well as to promote ethics and integrity in their ongoing operations. The Company has established development courses in line with employees at all levels. Employees who start working will have a coaching system to organize training courses by job title. Development training courses are organized to support Career Development, as well as new technology knowledge courses that have changed so that employees can complete their assignments efficiently, build operational pride and support the growth of employees.

In 2022, as a result of the COVID-19 pandemic, employees will continue to improve and the Company has adopted a Virtual Classroom training model, which is similar to Classroom training. Employees remain engaged in effective teaching and learning with instructors.

In 2022, the Company has promoted a culture of risk management by setting a policy from the management and organizing training courses “Risk Management” to provide knowledge and understanding to employees on risk management, which will organize training every year at least 2 times a year for employees at all levels to create knowledge and understanding, participation, and systematic risk management

Employee Development Courses total of 1,128 courses

Course category*	Number of courses	Objective
1. Management and leadership courses	162	Enhance leadership skills such as driving people within the organization to accomplish their objectives.
2. Occupational Health and Safety and Environmental Program	226	Organizes safety tasks to reduce the risk associated from illness, injury or death and care for the quality of life of personnel within the organization.
3. Technical areas	705	Focuses on improving skills, employee efficiency with learning, especially professionals, to encourage employees to show their full potential.
4. Technology & Engineering	21	To adapt the organization to keep pace with the digital era. Therefore, it must have knowledge of technology, innovation, rules and ethics.
5. Support Delivering work and preparing for retirement	14	To prepare employees for retirement and delivering jobs smoothly.

Remark * Hard Skill refers to specialist skills required for the profession. Soft Skill refers to performance skills that allow you to work and communicate with others effectively.

Average training hours of employees

Number of hours trained *	2020	2021	2022
Employees : target to 20 hours/person/year (hour)	25.60	25.49	24.47
Training Expense (TPIPL and subsidiaries)	2,600,249.59	3,570,689.34	2,739,308.95

Remark : * Training in companies and subsidiaries mainly uses speakers from within the organization.

7.6 Other key information

7.6.1 The list of persons assigned to perform the Company's important tasks is as follows:

Corporate Secretary

The Company has appointed **Mr. Nitisit Jongpitakrat** as the Corporate Secretary since June 30, 2006, as approved and resolved in the Company's Board of Directors' meeting no. 6/2549 on June 30, 2006, with duties and responsibilities as defined in the Securities Act as follows:

1. Prepare and keep documents of the Company, namely the register of directors, Letter of The Board of Directors meeting, minutes of the Board of Directors Meeting, Letter of Shareholders' Meeting Minutes of the Shareholders' Meeting and Annual Report.
2. Keep track of conflict of interest reports, as reported by the directors or the management.
3. Conduct regarding the Board of Directors' meeting and the Shareholders' Meeting
4. To advise on the related rules and regulations that the Board of Directors and the management should be aware of.
5. Supervise and coordinate the Company's compliance with the legal regulations and resolutions of the Board of Directors' Meeting and the Shareholders' Meeting, as well as the Policy of Good Corporate Governance and Business Ethics in full and complete.
6. Take other actions as announced by the Capital Market Supervisory Board.

Details of the Corporate Secretary appear in attachment 1 on "Details about the Directors, the Management, controlling persons, the person directly responsible for supervision of the accounting work and the corporate secretary".

Supervision of the accounting work

The Company assigned Mrs Narumol Chattawan, Vice President, Accounting Department to be responsible directly for supervising the Company's accounting work, with an autobiography, in attachment 1 on "Details about the Directors, the Management, Controlling persons and the person directly responsible for supervising the Company's accounting work and the corporate secretary".

The Company's Internal Audit Supervisor

The Company has assigned Mr. Somchai Kitpipat, Assistant Vice President, Internal Audit Department, as the Head of Internal Auditing of the Company, with an autobiography in Attachment 3 on "Details about Supervision of the Internal Audit and Supervisor of Compliance".

Head of Corporate Compliance

The person assigned to the responsibility is the supervisor of the supervision of the Company's operations. Initially, the Company requires each supervisor to be responsible for the Company's job as follow.

- Corporate Secretary : Responsible for compliance with relevant laws and regulations of the Stock Exchange of Thailand and the Securities and Exchange Commission, as well as relevant laws.
- Legal Department : Legal officers are responsible for compliance with relevant laws and regulations relating to the Company's business operations.
- Factory : The plant manager is responsible for legal compliance in various aspects of management within the plant.
- Environment Department : Responsible for environmental management both within the plant and surrounding communities, including within the Company's various projects and complying with occupational health and environmental laws, as well as factory laws, etc.
- Risk Management Department : Responsible for the risk management of the Company's business, including assessing the risks in various areas of the company to comply with various laws.

7.6.2 List of Investor Relations

Contact Person Mr. Siam Viriyosuttikul : Finance Management Manager
Tel : 02-213-1039 Ext. 12983 / 12985

7.6.3 Audit Fees and Other Remuneration

1. The Company and its subsidiaries paid Audit Fee as follows:
 - (1) The statutory auditor of the Company for the financial year ended 2022 in the amount of Baht -0-
 - (2) The office of the statutory auditor of the Company, or other persons or related enterprises relating to the statutory auditor of the Company for year 2022 in the amount of Baht 11,600,000.
2. Non-audit fee: TPIPL and its subsidiaries paid a fee to KPMG Phoomchai Audit Limited to review the report of promotional privileges and benefits of exemption from payment of corporate income tax by virtue of the promotional certificates of the Board of Investment in 2022 for a total of Baht 300,000.



8. Report on the important performance of corporate governance

8.1 Summary of the board's performance in 2022

In 2022, the Board of Directors reviewed and established the Group's policy, direction and business strategy, including the Group's vision, mission and business goals.

The Board of Directors evaluates the Company's performance both financially and non-financially, assessing it from stakeholders (e.g. customer satisfaction, employee satisfaction, etc.), In-house processes in the organization and learning and growing of organizations and employees.

8.1.1 Nomination, Development and Training of Directors

1) Criteria for selection of the independent directors

The Company has a policy of nominating independent directors in accordance with the Announcement of the Capital Market Supervisory Board No. 39/2016. Re: Permission and Authorization for The IPO reissued, dated September 30, 2016 (including amended) as follows:-

1. Holding shares not more than 1% of the total voting shares of the Company and its subsidiaries. The Company shall count the shareholdings of the relevant directors of the independent directors (According to Section 258 of the Securities and Exchange Act).
2. Not being or not have been a director who is involved in management Employees, consultants with regular salaries, or controlling personsof the Company, the subsidiaries, the Associates, the subsidiaries Company in the same order as a major shareholder or of controlling over the Company, unless it has been removed from such characteristics at least two years prior to the date of appointment as audit committee member. Such prohibited characteristics do not include cases where independent directors have been officials or advisors of government offices that are major shareholders or controlling personsof the Company.
3. Not being a person with a family relationship or by legal registration in a manner that is parents, couple marriages, brothers and sisters, and offspring, as well as children of other directors, the management, major shareholders, controlling persons, or persons who will be proposed as directors, the management, or controlling persons of the Company or its subsidiaries.
4. Have no any business relationships with the Company, the subsidiary, associates, major shareholders or controlling personsof the Company in a manner that may impede the use of their independent judgment, including not being or has been an implicit shareholder or controlling person of a person with a business relationship with a company, a major company, a subsidiary unless it has been removed from such characteristics at least 2 years prior to the date of filing an application for permission to the SEC. Such business relationships include entering into commercial transactions that are normally conducted for business operations, namely renting or leasing the property, assets or services transaction, or providing or receiving financial assistance by receiving or lending guarantees, provision of assets as collateral for liabilities, as well as other similar circumstances, which results in the Company or its parties having to pay debts to the other party, from 3% of the net tangible asset of the Company or Baht 20 million or more, whichever is lower. The calculation of such debt obligations is based on rule and regulation imposed in connection with connected transactions in accordance with the Notification of the Capital Market Supervisory Board in determining the debt obligations incurred during the one year prior to the date of business relationship with the same person.

5. Have not been an auditor of the Company, the subsidiary, associates, major shareholders or controlling persons of the Company in a manner that may impede the use of their independent judgment, including not being or has been an implicit shareholder or controlling person of a person with a business relationship with a company, a major company, a subsidiary unless it has been removed from such characteristics at least two years prior to the date of filing an application for permission to the SEC.
6. Have not been a professional service provider, including providing services as legal advisors or financial advisors, which receive service fees in excess of Baht 2,000,000 per annum from the Company, the subsidiary, associates, major shareholders or controlling persons of the Company in a manner that may impede the use of their independent judgment, including not being or has been an implicit shareholder or controlling person of a person with a business relationship with a company, a major company, a subsidiary unless it has been removed from such characteristics at least two years prior to the date of filing an application for permission to the SEC.
7. Not being a director appointed to represent on behalf of the Directors of the Company, major shareholders or shareholders who are related to major shareholders.
8. Not to operate a business of the same condition and be a competition that implies to the business of the Company or its subsidiaries, or not to be a partner with implications in the partnership or as a director who is involved in the management, employees, consultants who receive regular salaries or hold more than 1% of the total voting shares of other companies, which operate in the same condition and are implicit competition with the Company's business or its subsidiaries.
9. There are no other characteristics that prevent it from giving an independent opinion.

2) Criteria for nomination of directors and the management

In appointing directors of the Company, the Company will consider the knowledge, competence and experience related to the business or by the major shareholders of the Company with experience in the business that will benefit the Company. However, the appointment of new directors must be approved by the Board of Directors' Meeting and/or the Shareholders' Meeting (as the case may be).

1. To assume that one shareholder has the same vote as one share per one vote.
2. Each shareholder can use all available votes according to (1) elect a single person or multiple persons as directors. In the event of an election of several individuals as the directors, votes cannot be divided into anyone more or less.
3. The person receiving the highest number of votes respectively will be elected as a director as much as the number of directors who will have or will be elected at that time. In the event that the person who is elected in the next order has the same votes and exceeding the number of directors who should have or will be elected at that time, the Chairman of the board will be the decisive voter.

At every annual ordinary meeting of shareholders, the directors shall be removed from their positions for a third of the number of directors at that time. If the number of directors can't be straightened into three parts, the number is issued by the closest number to one-thirds, considering the longest-in-position director is the one who leaves the position. Departing directors may be elected by the shareholders' meeting to become new directors.

In the event that the director's position is vacated for reasons other than the term of issue in accordance with the term, the Board of Directors shall select a person who is qualified and does not have a prohibited nature under the Law on Public Limited Companies and the Securities and Exchange Act, to be a replacement director at the next board meeting unless the term of the director is less than two months, with the person who becomes the director only as much as the remaining term of the director

he replaces. However, the resolutions of the board, as mentioned above, must consist of at least three-fourths of the remaining number of directors.

In 2022, according to the resolution of the 2022 Annual General Meeting of Shareholders, Mr. Prateep Leopairut was appointed as a director of the Company, effective from April 20, 2022.

3) Criteria and processes for recruiting CEO and Presidents to replace vacant positions by the Nominating Committee are based on the following criteria:

1. Being a director of the Company according to the Articles of Association
2. Having the knowledge and ability to run a business with the skills, experience, professionalism, and specific qualifications in various areas that are extremely necessary and beneficial to the business of the Company.
3. Have experience in related business
4. Have high leadership
5. Recognized by relevant business organizations
6. Approved by the Board of Directors
7. Consider conflicts of interest

4) Development and Training of Directors

The Board of Directors and high-ranking executives place great importance on regularly attending training seminars related to the development of knowledge and competency in performing director duties. All directors have a history of attending training courses with the Thai Institute of Directors Association (IOD), including other leading organizations and institutes, and participating in various seminars on related topics.

At present, there are directors who have participated in training courses related to their duties as directors of the IOD, namely Directors Certification Program (DCP) or Directors Accreditation Program (DAP).

The Company has arranged for directors to participate in trainings organized by the Thai Institute of Directors Association (IOD) to increase knowledge of directors' duties.

In 2021 - 2022, the directors participated in the training as follows:

1. Directors attended the training (External Training)

No.	List of Directors	Course	Organized by	Training Date
1	Mr.Pornpol Suwanamas	Directors Association Program (DAP), Class 169/2020	Thai Institute of Directors Association (IOD)	24 February 2020
		Get to know Architects for Executives, Class 4	Architect Council	5 November 2022 - 29 April 2023
		Leadership Succession Program (LSP), Class 12	Foundation of Institute for Research and Development of Public Enterprises (IRDP)	12 March - 9 September 2022
2	Dr. Virat Chatdarong	Directors Association Program (DAP), Class 189/2022	Thai Institute of Directors Association (IOD)	17 January 2022

No.	List of Directors	Course	Organized by	Training Date
3	Mr. Pakorn Leopairut	Digital Marketing Analytics for Growth	Ministry of Digital Economy and Society (MDES) and Thai Digital Users Association (DUGA)	11-12 May 2022
		Executive Breakfast Forum 2022 Ep.12 Balancing Risk, Trust and Opportunity in an Uncertain World	Ministry of Digital Economy and Society (MDES) and Thai Digital Users Association (DUGA)	7 June 2022
		Get to know Architects for Executives, Class 4	Architect Council	5 November 2022 - 29 April 2023

2. Directors attended the training (In-house Training)

No.	List of Directors	Course	Organized by	Training Date
1	Mr. Prachai Leophairatana Mrs. Orapin Leophairatana Mr. Pakorn Leopairut	Sustainability reporting process according to GRI Standards	Thaipat Institute	17 September 2021
		Sustainability Reporting	Thaipat Institute	15 October 2021
2	Dr. Virat Chatdarong Mr. Pakorn Leopairut	Driving organizations with ESG data and introducing ESG systems	Thaipat Institute	29 September 2022
		Study, review, and identify sustainability issues		4 October 2022
		Prioritizing Sustainability Issues		6 October 2022

In addition, the Company has always informed directors of information related to good corporate governance practices to increase knowledge and understanding.

However, information on the training of the directors from the Thai Institute of Directors Association (IOD); as per details appeared in attachment 1 on “Details about the Directors, the Management, controlling persons, the person directly responsible for supervision of the accounting work and the corporate secretary.”

The Company recognizes the importance of the duties of new directors, thus providing the introduction of guidelines for the overall implementation of the Company, structure of subsidiaries, associates and related business companies to have an understanding of the shareholding structure between them. In addition, it provides important and necessary information to perform the duties of the directors, such as in-house structure, Memorandum of Association, Articles of Association, Business Ethics of the Board of Directors, Manual of Listed company, Good Corporate Governance Policy, related governing laws, Financial Statements, Notes to the financial statements, including holding meetings with the Chairman of the Board of Directors, Board of Directors, Sub-Committee of the Company to be informed about the Company’s business operations.

Directors Orientation

For directors who have taken new positions in the Board of Directors, orientation has been held so that new directors can receive the Company's business policy, as well as related information such as management structure, shareholders, performance, as well as law, rules and handover of directors' manuals, which are useful for performing duties as a director. Director's Manual / Information for Directors consist of the followings:

Director's Manual:

1. Public Limited Companies Act, B.E. 1992
2. Securities and Exchange Act, B.E. 1992
3. Company Registration
4. Company's Certificate
5. Company Memorandum of Association
6. Company Articles of Association
7. Code of conduct
8. Guide to Directors of Listed Companies

Information for Directors:

1. Presentation to recommend the Company's business operations.
2. List of Boards of Directors, Specific Committee and Management Structure Chart
3. Good Corporate Governance Principles for Listed Companies
4. Connected transactions of listed companies
5. Information Advice for Registered Executives
6. Company Profile
7. Annual Report
8. Financial Statements

which are shown in detail on the Company's web site

<https://www.tpipolene.co.th/th/aboutus/board-orientation-th>

8.1.2 Attendance and remuneration of the Board of Directors and audit committees of the Company individually

(1) Attendance of the Board of Directors and the Audit Committee of the Company

The Company has set a formal pre-meeting date annually in accordance with good corporate governance principles so that directors can plan to allocate time to attend meetings regularly, and additional extraordinary meetings might be held to consider urgent matters of importance. In each meeting, The Company will send the invitation to the Meeting and the supporting documents to the Board of Directors not less than 7 days prior to the meeting; unless there are urgent circumstances such as extraordinary board meetings, for example, to provide directors with sufficient time to study the information prior to the meeting. The directors can make further relevant inquiries through the Corporate Secretary for further coordination.

However, the Company has provided a preliminary schedule on the date and time of the 2023 Board meeting* as detailed below:

Meeting number	Date/ Month/ Year of The Meeting	note
1/2023	Thursday, January 26, 2023	
2/2023	Thursday, February 23, 2023	
3/2023	Thursday, March 30, 2023	
4/2023	Thursday, April 27, 2023	
5/2023	Thursday, May 25, 2023	
6/2023	Thursday, June 29, 2023	
7/2023	Thursday, July 27, 2023	
8/2023	Thursday, August 31, 2023	
9/2023	Thursday, September 28, 2023	
10/2023	Thursday, October 26, 2023	
11/2023	Thursday, November 30, 2023	
12/2023	Thursday, December 28, 2023	

Remark : * For such preliminary schedules, changes are subject to appropriate. Additional details is shown on the Company's web site <https://www.tpipolene.co.th/th/aboutus/time-table-board-th>

In 2022, there were meetings of the Board of Directors and sub-committees with the details of the directors attending the meeting as follows:

Name	Position	Board meeting in 2022				
		The Board of Directors total 12 times	Audit Committee total 5 times	Nomination Committee total 1 time	Remuneration Committee total 1 times	Corporate Governance Committee total 1 time
1. Mr.Khantachai Vichakkhana	Chairman and Independent Director	12/12	-	1/1	1/1	1/1
2. Mr. Prachai Leophairatana	Director	12/12	-	1/1	1/1	1/1
3. Mr. Prateep Leopairut*	Director	8/12	-	1/1	1/1	1/1
4. Dr. Pramuan Leophairatana	Director	11/12	-	1/1	1/1	1/1
5. Miss Malinee Leophairatana	Director	7/12	-	1/1	1/1	1/1
6. Mr. Prayad Liewphairatana	Director	12/12	-	1/1	1/1	1/1
7. Mrs. Orapin Leophairatana	Director	12/12	-	1/1	1/1	1/1
8. Mr. Pises Iamsakulrat	Audit Committee and Independent Director	11/12	5/5	1/1	1/1	1/1
9. Mr. Thavich Taychanavakul	Audit Committee and Independent Director	11/12	3/5	1/1	1/1	1/1
10. Mr. Tayuth Sriyuksiri	Director	12/12	-	1/1	1/1	1/1
11. Mr. Supoj Singsane	Chairman of the Audit Committee and Independent Director	12/12	5/5	1/1	1/1	1/1

Name	Position	Board meeting in 2022				
		The Board of Directors total 12 times	Audit Committee total 5 times	Nomination Committee total 1 time	Remuneration Committee total 1 times	Corporate Governance Committee total 1 time
12. Mr.Pakorn Leopairut	Director	11/12	-	1/1	1/1	1/1
13. Mr. Pornpol Suwanamas	Audit Committee and Independent Director	10/12	3/5	1/1	1/1	1/1
14. Miss Thanyarat Iamsopana	Director	11/12	-	1/1	1/1	1/1
15. Mr. Virat Chatdarong	Director	12/12	-	1/1	1/1	1/1

Remark * Mr. Prateep Leopairut took the position on April 20, 2022 and began attending the meeting in May 2022.

However, at the end of the meeting, the Company will prepare the minutes of the meeting, proposed to the Board of Directors' meeting at the next meeting, and the Chairman of the Board of Directors to sign the authentication and certified minutes are systematically stored for reference queries.

(1) Remuneration of the Board of Directors

1. Monetary compensation

In 2022, the remuneration of 15 directors received in the form of director remuneration and bonuses totaling Baht 33,330,652 compared with the remuneration and bonuses of 15 directors totaled Baht 26,471,984 in 2021 with details of remuneration and bonuses for 2022 as follows:

Unit: Baht

No.	Name	Position	Remuneration	Bonus	Total
1	Mr. Khantachai Vichakkhana	Chairman of the Board	1,985,400	300,818	2,286,218
2	Mr. Prachai Leophairatana	Director	1,985,400	300,818	2,286,218
3	Mr. Prateep Leopairut 1/	Director	1,323,600	-	1,323,600
4	Dr. Pramuan Leophairatana	Director	1,985,400	300,818	2,286,218
5	Mr. Supoj Singsanei	Director	1,985,400	300,818	2,286,218
6	Miss Malinee Leophairatana	Director	1,985,400	300,818	2,286,218
7	Mr. Prayad Liewphairatana	Director	1,985,400	300,818	2,286,218
8	Mrs. Orapin Leophairatana	Director	1,985,400	300,818	2,286,218
9	Mr. Pises Iamsakulrat	Director	1,985,400	300,818	2,286,218
10	Mr. Tayuth Sriyusiri	Director	1,985,400	300,818	2,286,218
11	Mr. Thavich Taychanavakul	Director	1,985,400	300,818	2,286,218
12	Mr. Pakorn Leopairut	Director	1,985,400	300,818	2,286,218
13	Mr. Pornpol Suwanamas	Director	1,985,400	300,818	2,286,218
14	Miss Thanyarat Iamsopana	Director	1,985,400	300,818	2,286,218
15	Mr. Virat Chatdarong	Director	1,985,400	300,818	2,286,218
Total			29,119,200	4,211,452	33,330,652

Note: 1/ The Board of Directors on April 20, 2022 resolved to appoint Mr. Prateep Leopairut took a position as a director of the Company.

Remuneration of Directors in Subsidiary Company (Thai Nitrate Co., Ltd.) in 2022

No.	Name	Position	Remuneration	Bonus	Total
1	Mr. Prachai Leophairatana	Director	120,000	120,000	240,000
2	Dr. Pramuan Leophairatana	Director	80,000	80,000	160,000
3	Mr. Prayad Liewphairatana	Director	80,000	80,000	160,000
4	Mrs. Orapin Leophairatana		80,000	80,000	160,000
5	Mr. Pakorn Leopairut	Director	80,000	80,000	160,000
	Total		440,000	440,000	880,000

2. Other remuneration

The Company provides personal cars to the management.

8.1.3 Supervision of subsidiaries and associates

The Company has an investment policy in subsidiaries and/or associates with policies in line with the Group's vision and growth plan, which will enable the Group to increase its performance or profitability in order to achieve its goals of becoming a leading entrepreneur in the business and to support the Company's core business operations, including convenience and mobility, efficiency in operations and increased competitiveness based on factors such as legal provisions, financial structure, taxation and risk management, etc.

However, the Company has a policy of managing TPI Polene Group by requiring the subsidiaries to conduct businesses in accordance with the Company's policies in order to have systematic management and supervision in the same direction. As for the management of associates and other subsidiaries, the Company has sent representatives to join as the Executive Committee to make decisions about policies and operational plans based on good corporate governance principles, ethical business operations to ensure efficient, transparent, fair operation and achieve the goals set forth.

The Company has a policy of supervising the operations of its subsidiaries and associates as follows:

1. The Company will send the person on behalf of the Company to be a director in each subsidiary and/or associate in accordance with the shareholding in each company. However, sending representatives of the Company as directors in each subsidiary and/or associates must be considered and approved by the Board of Directors' Meeting, taking into account the suitability of each company.
2. The Board of Directors and the Management of each subsidiary and/or associates will have significant scope of authority and responsibilities in accordance with applicable laws, such as disclosure of information about financial position and performance. Connected transactions of subsidiaries and/or associates, as well as the acquisition or disposition of significant assets to the Company by applying the relevant notices of the Capital Market Supervisory Board and the Notification of the Board of Directors, including disclosing and submitting information on their interests and persons relating to the Board of Directors to the relationships and transactions with subsidiaries and/or associates in a manner that may cause conflicts of interest and avoid transactions that may cause conflicts of interest.
3. The Company will formulate the necessary plans and actions to ensure that the subsidiary and/or associates disclose information about their operating performance and financial position, and that the Company will take the necessary actions and monitor the subsidiary and/or associates with adequate and appropriate internal control systems and control systems to conduct the business.

In addition, the Company will closely monitor the performance and operations of such subsidiaries and/or associates and present the results of the analysis, including comments or recommendations, to the Board of Directors and the Board of Directors of those subsidiaries or associates for consideration, policy determination or improvement, to encourage the business of its subsidiaries and/or associates with developing and growing continuously.

8.1.4 Monitoring compliance with corporate governance policies and practices

The Company has followed up to achieve good corporate governance practices in 4 issues as follows:

(1) Protection of Conflict of Interest

The Board has a clear policy to execute transactions, which have potential conflicts of interest in a manner that is in the best interests of the Company and its shareholders. Transactions between the Company (and its subsidiaries) and anyone, with which a possible conflict of interest might occur, require approval under the rules and regulations imposed by the SEC and the SET concerning information disclosure. In addition, such transactions are subject to an approval process in which only unconnected persons may participate.

Disclosure of the details of connected transactions that may involve conflicts of interest (according to criteria of the SET and the SEC) in the Company's Annual Report or or declared in other reports as the case may be. This also includes disclosure of information on connected transactions according to the general accepted accounting standard criteria. Details of connected transactions are disclosed in the section "Inter-Company Transactions".

In addition, pursuant to the Articles of Association, Directors shall notify the Company without delay of their interests in any contract executed with the Company or affiliated companies, and of their holding, and its increase or decrease, of shares or debentures of the Company.

In 2022, the Company has prepared a plan and performance regarding the prevention of conflicts of interest of the Company.

The Company has the determination to manage according to the principles of good corporate governance by striving to operate with transparency, morality, ethics, and responsibility to shareholders, customers, employees, society, and other stakeholders. The Company has given importance to and promoted the creation of a concrete corporate governance culture. The Chairman of the Board of Directors has established a policy to prevent conflicts of interest in the Company's business ethics manual for the Board of Directors, executives, and all employees acknowledge and compliance with good practices with a conscience that adheres to honesty, morality and ethics including protecting the interests of the organization as a whole.

In 2022, TPI Polene Group has prepared a business ethics manual that focuses on the conflict of interest prevention policy delivered to company directors, executives, and employees at all levels and everyone has been acknowledged for use as a complete guideline. In addition, understanding has been created and the results are measured by testing according to the assessment form approved by the executives who are the Board of Directors. As a result, 100 percent of all 7,138 test takers passed the test.

(2) Dissemination of internal information

1) Monitoring of internal data usage

The Company maintains the use of internal information in accordance with the law and in accordance with good corporate governance guidelines. It is set out in writing in the Directors' Business Code of Conduct, the management and employees, which will be given to the directors, the management and employees when start working on the first day in the workforce, key policies can be summarized as follows:

1. The Company has designated the directors, the management and employees sign acknowledgement of the relevant notices of the SEC to designate directors and the management to be responsible for reporting changes in securities holdings to the SEC under Section 59 of the Securities and Exchange Act B.E. 2535 (1992) within three working days from the date of the change of securities holdings and shall notify the Corporate Secretary to provide a record of the change and summary of the number of securities of directors and the management individually to present to the Board of Directors at the next meeting. In addition, penalties have been imposed if they have violated or not met such requirements.
2. The Company has a requirement not to use financial statements or other insider information that affects the price of the Company's securities to disclose to third parties or non-affiliated parties and do not trade securities for a month before financial statements or other information affecting the price of securities of companies/group companies in public. The Company must not trade securities until after 24 hours since all such information has been disclosed in public. Failure to act in accordance with such requirements constitutes a disciplinary act of the Company. If the director any executive or employee who has learned of important internal information, anyone who commits a disciplinary offense, will be punished from warning, payment cuts, unpaid suspensions, until dismissal.

However, the guidelines as above have been resolved and approved by the Board of Directors.

In recent years, it has not been found that directors and the Management have traded securities during the Company's term of referendum. In addition, the Company has begun to introduce electronic systems to enhance reporting efficiency with directors, the Management and employees as well.

The Company has made it a priority to achieve equality and fairness to all shareholders. Internal information or material information regarding changes in the price of unsealed securities is considered to be internal information used in the business operations and is classified information of the Company, which, if disclosed, will affect the Company, especially affecting the value of the shares of the Company that is traded on the SET. Therefore, the Management and employees at all levels of the Company must keep the internal information confidential. Thus, guidelines practices are established as follows:

1. The Company's employees must maintain and keep customers' information and commercial information confidential, which must be maintained in respect of their responsibilities unless required by law to disclose for litigation purposes or the Board of Directors approves the disclosure.
2. Disclosure of information that may have any impact on the Company must be undergone by the person who has the decision to act on such matters unless assigned by the disclosure authority.
3. Internal information is information on business operations and management of confidential business. If disclosed in public, it will affect the Company.
4. Employees and related persons must not disclose information that has not been disclosed in public and do not trade securities of the Company or the companies they are involved in when they know information that has not been disclosed in public.
5. Important documents and confidential information must be maintained in specific ways defined at each level and type or type of data must be carefully stored, and easy to use. After the period of time, the data or documents or stored in electronic system, the employees involved must ensure that the destruction is made in an appropriate way, valid for each type of information or document, some documents must be preserved as required by legal regulations imposed and should be studied on a case-by-case basis.

The Company has policies and procedures to ensure that directors and the management do not provide internal information of the Company, that has not been made public to exploit themselves, including securities trading as follows:

1. The Company will educate the directors, the management, including executive positions in accounting or finance or equivalent, regarding the duties that must be prepared and submitted to their securities holding reports of their offspring the SEC under Section 59 and penalties under Section 275 of the Securities Act, including reporting the acquisition or distribution of their own securities, couple marriage and their offsprings to the SEC under Section 246 and penalty imposed under Section 298 of the Securities Act.
2. The Company requires the Directors, the management, including executive positions in accounting or finance or equivalent, to prepare and submit reports of the holding of their securities, of married couples and their offsprings to the Corporate Secretary before sending them to the SEC, the reports of which shall be prepared and delivered within 30 days from the date of appointment to the position of director and/or executive, or report the change in securities holdings within three business days from the date of the purchase, sale or transfer of such securities.
3. The Board of Directors and employees in particular business units of the related information (including couple marriage and offsprings of such persons) are prohibited to trade the Company's securities at least one month prior to the disclosure of quarterly and annual financial statements and within 24 hours after the disclosure of such financial statements. In addition, in the event of the Board of Directors and employees in the particular business units concerned with the information (including couple marriage and offsprings of such person) know undisclosed information that may affect the Company's securities price, such persons must not trade the Company's securities until after 24 hours since all such information has been disclosed in public.
4. The Company imposes disciplinary penalties if there is a breach of internal information to exploit themselves, disciplinary action starts with written warning, wages cut, suspend unpaid work, or dismissal. The punishment will be determined by the intent of the offense and the seriousness of the offense.

Company shares held by the Directors and the Management (including couple marriage and their offspring) as at January 4, 2023.

Name	Shareholding As at December 30, 2021 (Shares)	Shareholding As at January 4, 2023 (Shares)	Change Increase/ (decrease) During year 2022 (Shares)
1. Mr. Prachai Leophairatana	615,746,240	975,746,240	360,000,000
2. Mr. Prateep Leopairut	100,000	100,000	-
3. Dr. Pramuan Leophairatana	544,900,000	544,900,000	-
4. Mr. Prayad Liewphairatana	603,122,740	603,122,740	-
5. Mrs. Orapin Leophairatana*	*	*	*
6. Mr. Pisej Iamsakulrat	8,128,400	8,128,400	-
7. Mr. Thavich Taychanavakul	270,800	270,800	-
8. Mr. Tayuth Sriyuksiri	94,425,890	94,425,890	-

Name	Shareholding As at December 30, 2021 (Shares)	Shareholding As at January 4, 2023 (Shares)	Change Increase/ (decrease) During year 2022 (Shares)
9. Mr. Khantachai Vichakkhana	27,760	27,760	-
10. Miss Malinee Leophairatana	8,143,080	8,143,080	-
11. Mr. Supoj Singsane	-	-	-
12. Mr. Pakorn Leopairut	596,651,800	596,651,800	-
13. Mr. Pornpol Suwanamas	-	-	-
14. Miss Thanyarat Iamsopana	13,455,000	13,455,000	-
15. Dr. Virat Chatdarong	8,000,000	8,000,000	-
16. Mr. Prasert Ittimakin	10,480	10,480	-
17. Mr. Karan Pipitsombat	29,000	29,000	-
18. Mr. Somkeart Srisuwan	-	-	-
19. Miss Chularat Danwattanachai	-	-	-
20. Mr. Pongsak Yiengsakun	-	-	-
21. Mrs. Narumol Chattawan	-	-	-

Remark: * Included in shareholding changes of Mr. Prachai Leophairatana to comply with the provisions contained in the SEC Act, article 258.

4) Anti-Corruption Policy

The Company is committed to pursuing its business operations, with an emphasis on transparency with ethics and responsibility to shareholders, customers, employees, society and other stakeholders. The Company has the policy that the Directors, the Management and all levels of employees are prohibited from operating or accepting, soliciting, demanding, or accepting assets or other benefits to other persons in business dealings with the Company, whether directly or indirectly, as a motive for them to do or refrain from doing any act to acquire or keep benefits that are unsuitable to the business to perform in compliance with the principles of good corporate governance, codes of conduct and/or related to the terms and regulations or any legal issues to create sustainable value and long-term growth of the business.

Objective

1. All employees must not induce to act or refrain from acting that may lead to malfeasance and corruption, and not get involved in corruption, whether directly or indirectly.
2. To support all employees' roles and responsibilities to take part in the activities of the Anti-Corruption Policy.
3. To conduct its business with fairness and enhance the confidence of its stakeholders.

Scope of Anti-Corruption Policy

Stakeholders of the Company who are involved in the Anti-Corruption Policy are classified into 2 major groups as follows:-

1. Internal: Director, Management Team, and all levels of staff/employees
2. External: Customer or suppliers, contractors, sub-contractors, business partners, creditors, governmental authorities and private officers.

Definition

Corruption means any type of bribery; an offering, agreement to give, giving, promising to give, soliciting, or receiving of money, assets, or other inappropriate benefits from government officers, government sectors, private sectors, or responsible person either in direct or indirect action so that such person could proceed or disregard his/her function in order to acquire, retain the business, recommend a specific company to the entity, or achieve any improper benefits in business transactions. Exceptions shall be applied in the case of laws, regulations, statements, standards, customs, or business traditions that are enabled to do so.

Roles and Responsibilities

The Board of Directors is responsible for determining the policy, monitoring, and forming of an effective system supporting the anti-corruption act in order to affirm that the Management Team is intensively concerned with, emphasizes, and cultivates an anti-corruption mindset as the Company's culture.

Presidents and the management are responsible for determining the anti-corruption system, promoting, and encouraging that anti-corruption manners are conveyed to all staff and related parties. This also includes reconsideration of systems or regulations in order to best adjust to business changes, regulations, standards, and laws.

The Audit Committee is responsible for the revision of financial and accounting reports, internal controls, internal audit functions, and risk management so that such operations are concise, appropriate, effective, and conform to global standards.

The Internal Audit Director is responsible for auditing, assessing, and evaluating whether business transactions are accurate and comply with guidelines, approval authorities, standards, laws, and policies in such monitored departments in order to assure that the internal controls are sufficient and suitable for probable risk in corruption. This shall be directly reported to the Audit Committee.

Anti-Corruption Guidelines

1. Staff members shall not be negligent in any corruption conditions involved directly with the Company. All staff members must notify such acts to supervisors or the responsible person provided in particular channels, including cooperating with any fact-finding investigation.
2. A person who commits corruption is considered for disciplinary offenses. This means such person is to be considered for discipline according to the Company's standards. Legal prosecution may be applied in case such acts violate laws.
3. The Company shall be fair and provide safeguards for staff members who report corruption cases relating to anti-corruption.
4. The Company understands the importance of dissemination, knowledge sharing, and constant communications with employees.
5. The Internal Audit Department of the Company will be responsible for reviewing and evaluating internal control systems, disclosure of Company information, and to review implementation of the provisions and risk management systems that can mitigate risks against corruption and report directly to the Audit Committee.

Provision in Implementation

Implementation of Anti-Corruption Policy (to interact properly with business partners and the related parties who have conflicts of interest)

All employees will be responsible for adhering to the Company's Anti-Corruption Policy in their business connections with customers, suppliers and all parties concerned. (Hereinafter called "related parties who have conflicts of interest" who have a direct impact on business operations)

1. The employees must comply with the Anti-Corruption Policy and measures, the Company's corporate governance principles and code of business conduct and hospitality activities from other persons in business dealing with the Company.
2. The employees must not accept gifts, entertainment and hospitality offerings or entertainment and hospitality activities from other persons in business dealing with the Company, whether directly or indirectly.
3. Employees must not be corrupt or accept corruption in any form under any circumstances, related to the business without getting prior approval from the direct supervisors. Any acceptance thereof as above from other persons must comply with the Anti-Corruption Policy and measures, the Company's corporate governance principles and code of business conduct and must not have any impact on the business decision of said employee.
4. Employees must not perform any act to acquire or keep benefits from their positions in the Company to accept gifts, entertainment and hospitality offering or entertainment and hospitality activities from other persons in business dealing with the Company.
5. Whenever the employees advise the HR department of the Company, those actions must not go against the benefits and/or recruitments of the Company and employees must refrain from doing any act to acquire or keep benefits that go against relevant laws and regulations.
6. There are to be no close relationships between supervisors and those under their supervision within the same departments such as married couples, or parents or offspring, that may impose conflicts of interest.
7. The Business Relations and Procurement Process with the Public Sector or all types of bribery or illegal payments are prohibited in all business transactions, operations, and connections to the government.
8. Corrupt persons who violate or fail to comply with the anti-corruption measures must face punishment under the Company's rules and may also face prosecution if the action violates the law.
9. Employees must be granted an approval from their supervisors before offering all types of gifts (such as the Company's products) or entertainment and hospitality activities to other persons for business purposes, to be in compliance with the Anti-Corruption Policy and measures, the Company's corporate governance principles, and its code of business conduct. In case of emergency that in any circumstances, supervisor approval has not been granted in advance, such employees are deemed to get an approval from their supervisors immediately after offering all types of gifts (such as the Company's products) or all forms in any circumstances to other persons for business purposes.
10. Employees must not acquire or take benefits from their positions in the Company to perform inappropriate relationships, sexual harassment and other verbal or physical harassment of a sexual nature, any kinds of treatment or consideration of, or making a distinction in favor of or against (discrimination based on race, sex, disabilities or religion). This also includes burglary, threats, force or any other kind of action that violates the law.
11. Employees should ask or request opinions from their supervisors or responsible persons when the employees face or have doubt about any act that is considered corruption in order to avoid any arguments.

Disclosure of the Anti-Corruption Policy

In order for everyone in the organization to be aware of the anti-corruption policy, the Company will proceed as follows.

1. The Company announces the written publication of the Anti-Corruption Policy and measures as a principal guideline for employees to follow.
2. The Company discloses the written publication of the Anti-Corruption Policy and measures through the Company's channels, such as letters, the Company's website and Annual Report.
3. The Anti-Corruption Policy needs to be reviewed regularly, including with a possible revision of such policy.

Additional practices regarding prevention of corruption

The Group has an anti-corruption policy focused on promoting morality, ethics, transparency in business practices in accordance with the Company's business ethics, as well as conducting business with an effective management system, that is transparent and verifiable. In addition, the Company encourages its personnel at all levels not to be involved in any corruption directly or indirectly, and promotes the participation of employees at all levels in preventing and combating corruption related to the Company's business, including the Company has trained employees at all levels.

The Group has a policy of giving or receiving gifts, as well as other benefits from individuals or companies engaged in business with the Company so as not to cause conflicts of interest. Any special compensation or incentives of value from third parties with business relevance. Employees of the Company must first be approved by direct supervisors. However, this is receiving such gifts must be in accordance with the rules, business traditions, or business etiquette and must not influence employee business decisions.

In addition, the Group has a policy of not authorizing or encouraging unlawful payments or bribing government agencies, and also clearly determines how to report whistleblowers or complaints in cases where unlawful acts are witnessed. The Company also sets out guidelines for conducting investigations and penalties in the Company's anti-corruption policy.

5) Whistleblowing

1. Complaints or recommendations

- 1.1 A complaint if encountering any acts that are considered corruption, either directly or indirectly.
- 1.2 Any act that is considered corruption and/or has a direct effect on the internal controls of the Company, to cooperate in the fact-finding investigation stipulated by the Company's regulations.
- 1.3 Any act that has a direct impact on the Company's reputation and benefits.
- 1.4 Any misconduct that goes against the law, morals or business ethics.

2. Whistleblowing or complaint channels

All employees are obliged to report to the following persons and/or agencies when they see fraud, or corruption related to the Company's activities that violate this policy by using one of the channels.

3. Internal feedback mechanism (internal complainant)

- (1) Head of Audit Head of Human Resources or Head of Legal Affairs
- (2) Feedback box
- (3) Electronic mail (E-mail: orapinr@tpipolene.co.th)

4. External feedback mechanism (external complainant)

- (1) Letter : Mrs. Orapin Liaopiratana
Senior Executive Vice President
TPI Polene Public Company Limited
26/56 Chantad Mai Road, Tungmahamek, Sathorn, Bangkok 10120
- (2) Electronic mailbox (E-mail: orapinr@tpipolene.co.th)
- (3) Letter : Audit Committee
TPI Polene Public Company Limited
26/56 Chantad Mai Road, Tungmahamek, Sathorn, Bangkok 10120
- (4) Tel. 02-285-5090 or 02-213-1039 ext. 12962 / 12963 – Internal Audit Department

Identities and confidentiality protected**1. Identities protected**

As the whistleblower or the person filing the grievance in good faith is greatly beneficial to the Company and all employees, said whistleblower or the person subject to such grievance and parties involving in the fact-finding and reporting process, regardless of the difficulties they might have, the Company will ensure that no employees shall be demoted, penalized or be otherwise affected because they honestly decline to participate in corruption.

The Company has a policy to investigate such reports with equality, transparency, care, and fairness and subject them to a proper investigation. All information will be kept confidential and only be revealed when necessary while we will take into consideration the safety of and damage to the whistleblower or the person filing the grievance, which will be carried out in a confidential manner to ensure staff that make the reports will have their identities protected.

2. Names and Confidentiality Protected

The whistleblower or the person filing the grievance (various groups of stakeholders or employees) may choose not to reveal his or her name, address or contact number unless he or she feels that such a disclosure will enable the Company to inform him or her of the progress. Information will be kept confidential and only be revealed when necessary while we will take into consideration the safety of and damage to the whistleblower or the person filing the grievance. The Company will hear all such reports with equality, transparency, care, and fairness and subject them to a proper investigation, which will be carried out in a confidential manner to ensure the staff members who make the reports will have their identities protected.

Fact-Finding Process and Penalties

- 1. Having received the grievance, the Management Representatives, whose members consist of the Compliance Unit and the Audit Committee, will be responsible for conducting an investigation.
- 2. During the fact-finding process, the Management Representatives and the Audit Committee might ask the Management Representatives to keep them informed of the progress of further investigation.
- 3. In case tips or grievances are found to contain material evidence, the person committing corruption or violating or failing to comply with the anti-corruption measures will be granted an opportunity to acknowledge the charges and will have the right to defend themselves by providing additional information or evidence that they weren't involved in any corruption or that they violated or failed to comply with the anti-corruption measures as accused.

4. In case the person who committed corruption or violated or failed to comply with the anti-corruption measures, is proven guilty, the Company will take actions in accordance with the established procedures to investigate and levy disciplinary punishment on employees at fault relating to corruption matters. Such person will be considered for discipline according to Company standards. Legal prosecution may apply in case such acts violate the laws. The Management's decision is considered the final judgment for punishment on employees at fault relating to corruption matters.

Disclosure of the Anti-Corruption Policy

In order for everyone in the organization to be aware of the anti-corruption policy, the Company will proceed as follows.

1. The Company announces the written publication of the anti-corruption policy and measurements as a principal guideline for employees to follow.
2. The Company discloses the written publication of the anti-corruption policy and measures through the Company's channels, such as letters, the Company's website and annual report, etc.
3. The anti-corruption policy needs to be reviewed regularly.

Anti-Corruption Performance

In 2022, the Company will have reviewed the Chief Executive Officer's investigation into corruption, will have made public its anti-fraud and corruption policy, which outlines expectations for all employees to be aware of and actively engage in preventing and combating corruption in the organization, both directly and indirectly, and will have established channels for internal communications regarding complaints of corruption related to the Company. The Company provides protection to complainants and complaints will be kept confidential both during and after the investigation is completed. If the accused has actually committed an offense, the Company has imposed disciplinary action in accordance with the regulations set by the Company, and if the offender is an unlawful act, the offender must be prosecuted and legally punished.

In 2022, all divisions of the Company, especially those that are in contact with third parties, risks associated with fraud and/or corruption, there are total of 75 department assessed as vulnerable to corruption, representing 100% and the proportion of employees who have trained in anti-corruption courses is 6.31% of the Company's total employees (not including employees in subsidiaries and subsidiaries companies which have the same policy). Those 7,016 employees are aware of the anti-corruption policy and accounted for 100%. Besides, the Company's suppliers acknowledged the policies and practices regarding corporate anti-corruption representing 88.45% of total suppliers or accounting for total of 1,4394 companies. There were no lawsuits filed by the organization for corruption, and there were no corruption incidents against suppliers, despatchers or trade partners, including fraud incidents that occur within the organization. More details of the Privacy Policy can be found on the Company's website, <https://www.tpipolene.co.th/th/aboutus/corruption-policy>

Data Security Performance

The Company recognizes that personal data is important so that the personal data of Customers, Suppliers of Employees and or those involved (Visitor or all concerned) to the business of TPI Polene Group is collected, disclosed securely and being used for the purposes agreed by the data subject and in accordance with the Personal Data Protection Act B.E. 2562, under the establishment of a privacy policy.

As for Customer Information, the Company recognizes the importance of protecting personal data of customers with the aim of providing products and services to meet the needs of customers in the most efficient way.

In 2022, the Company has not received any complaints of personal data breaches. More details of the Privacy Policy can be found on the Company's website, <https://www.tpipolene.co.th/th/aboutus/pdpda>.

6. The IT Security Policy Committee has disclosed the follow-up results

Responding to Cyber Threats

The Company is aware of how cyber risks affect the information system. Malicious individuals or hackers currently have the means and tools necessary to damage an information system or steal information in a variety of ways, which could have a significant negative effect on the Company, its business partners, including various agencies that have contact with it regarding trade information, important information of the Company, and related parties, including the Company's reputation.

Operational Objectives

The Company understands the significance of creating and enhancing cyber security defenses since cyber attacks have a significant impact on the operation and reputation of the Company (Cyber Security Protection). As a result, it is thought acceptable to continuously examine the cyber threat protection system as well as to create and upgrade the cyber protection system in order to keep up with the growing cyber dangers and the gravity of ongoing threats to information systems.

Current Operational Plan

The Company has taken measures to prevent and monitor cyber threats in the following areas:

1. Communication systems and networks outside the Company:

Install a firewall to separate the scope of the network system outside and inside the Company apart from each other to prevent attacks from malicious people or hackers on the information systems of the Company and its subsidiaries from outside the Company.
2. Host computer and client computer :
 1. Closing vulnerabilities in the operating system of the host and client computers that may result in cyber threats (Cyber Security Patching for Computer Operating System).
 2. Install Endpoint Security to protect against computer viruses and malicious programs.
3. Connecting to the Company's information system from the Company's branch offices or external agencies:

The use of Virtual Private Network or VPN is required to connect to the Company's work system for the safety of data transmission/receiving between branch offices or external agencies to the Company's information system.
4. Knowledge Base :
 1. The information management team regularly conducts cybersecurity studies.
 2. Basic Cyber Security Awareness Training (Basic Cyber Security Awareness Training) is a guideline for working and using information systems to be safe from cyber threats.
5. Review of information systems by external auditors:

Receive annual information system reviews from external auditors according to standards and frameworks or information system review standards such as ITIL, ISO27001, etc., and make improvements to correct deficiencies found from information system reviews so that the information system is more reliable.

Future Action Plan

The Company is aware of cyber security in which malicious people or hackers have developed various methods and technologies continuously and consistently. As a result, the Company needs to develop and improve the cyber threat protection system to keep up with the cyber threats that occur all the time. The Company has therefore discussed with experts in the field of cyber protection with additional action plans as follows.

1. Conduct a cybersecurity review of the Company by conducting a Cyber Security Assessment to find cyber vulnerabilities and will find ways to improve and develop additional cyber protection systems.
2. Prepare work plans and ask for budgets to improve the cyber defense system from top executives and the Board of Directors.
3. Implementation of a knowledge base system on cyber threats and prevention guidelines for use in disseminating knowledge to users of information systems of the Company and its subsidiaries.
4. Procure or hire a Cyber Security Operation Team for 24-hour surveillance and establish a Cyber Security Operation Center (CSOC) to be a cyber-threat surveillance unit.

Operational Goals

To increase confidence in the operations of the Company and its subsidiaries to suppliers and related agencies with the following goals:

1. Prevent or mitigate the damage caused by cyber threats by taking preventive and vigilant actions to minimize the likelihood of their occurrence (Cyber threats cannot be prevented 100%).
2. Raise awareness of cyber threats (Cyber Security Awareness) to employees at all levels to promote their knowledge to keep up with various types of cyber threats and to reduce the risk of cyber threats in their operations under the information system of the Company and the daily life of the employees.

8.2 Report on the performance of the Audit Committee in 2022

8.2.1. Attendance of individual audit committees

In 2022, the Audit Committee conducted a total of 5 meetings with the following details of the meeting:

Name	Position	Number of Meeting Attendance
1. Mr. Supoj Singsanei	Chairman of the Audit Committee and Independent Director	5/5
2. Mr. Pises Iamsakulrat	Independent Director and Audit Committee	5/5
3. Mr. Thavich Taychanavakul	Independent Director and Audit Committee	3/5
4. Mr. Pornpol Suwanamas	Independent Director and Audit Committee	3/5

8.2.2 Performance of the Audit Committee

As per details contained in the Audit Committee report.

Audit Committee's Report for 2022

To: Shareholders:

The Audit Committee of TPI Polene Public Company Limited for the year 22022 consists of four independent directors, who are all qualified with knowledge of finance, law and management administration: namely, Mr. Supoj Singsaneai as the Chairman of the Audit Committee; Mr. Pises Iamsakulrat, Mr. Thavich Taychanavakul and Mr. Pises Iamsakulrat as Audit Committee members; with Mr. Nitisit Jongphitakrat, the Corporate Secretary, as Secretary to the Audit Committee.

In 2022, the Audit Committee held a total of 5 meetings to review, consider, and evaluate the internal control system, review financial statements and disclose information to investors, review compliance with relevant legal requirements, review risk management, review connected transactions or conflicts of interest, and consider selection, appointment, and determination of the auditor's remuneration. The performance of duties can be summarized as follows:

1. To review and to evaluate internal control systems

The Company and its subsidiaries have appropriate internal control systems and have operated the business efficiently and effectively under appropriate and sufficient internal controls, as supported by the operational performance report. The Company and its subsidiaries have internal controls and risk management systems that can protect against potential risks to the Company and to all related parties. The systems are in place to ensure that any mistakes and irregularities will be identified in due course; and that financial reports are accurate, adequate and reliable; and the assets used by the Company and its subsidiaries, benefit all parties as well as shareholders. In addition, the Company has performed in compliance with the principles of good corporate governance and has embraced the Code of Conduct as a policy for all employees to follow, by emphasizing the balanced consideration of all related parties, fair treatment to all parties concerned, including shareholders, suppliers, contractors, and the community as a whole. The Company also realizes the importance of public well-being creation and environmental conservation and fosters the development of all our staff to expand their knowledge so as to become a knowledge organization. This will further enhance our long-term development and create sustainable growth for the Company. The Company has a sound internal control system and works effectively and efficiently under an adequate and appropriate internal control system, which can help prevent damage, according to the Audit Committee's examination of the Company's operations over the previous year. This might take place quickly, lower operational risks, aid in making the Company's financial statements and reports accurate and trustworthy, and enable the protection of the Company's assets and investors' money. A unit dedicated to internal auditing is in place to give assurance in accordance with the yearly plan, which is reviewed and approved by the chairman of the audit committee.

2. To review the disclosure of all relevant information for investors

Financial statements are financial reports that show the performance and financial position of an entity that must be disclosed to stakeholders. The Audit Committee has reviewed important items in the consolidated financial statements of the Company and its subsidiaries, both quarterly financial statements and fiscal year 2022 financial statements as well as having a meeting with the Company's auditor to independently exchange opinions on the financial statements without the presence of management on issues of material information of the financial statements and disclosures in the notes to the financial statements. It was found that the Company prepared financial reports in accordance with generally accepted accounting standards and disclosed sufficient information in the notes to the financial statements within a reasonable period of time as required by law and the financial reporting standards set by the Federation of Accounting Professions which are beneficial to the decision of investors and all stakeholders.

3. To review and to ensure that the Company performs in compliance with all regulations and related governing laws

The Company has a clear policy to comply with all regulations and related governing laws, and codes of conduct, to protect against the use of insider information. As announced in the Company's Rules and Regulations, any misuse of internal information shall be subject to disciplinary action, including dismissal. The Company supervises submission by the Management of reports of their shareholding in the Company to comply with related governing laws. The Company realizes the importance of information disclosure, including financial statements and other reports, and ensures that they are complete, accurate, reliable and timely.

4. Risk Management Review

The Company has set up a risk management committee chaired by the Chief Executive Officer and has executives from related departments as committees to consider structures, policies, risk management frameworks, risk management plans, review risks, and follow up on risk management. The Risk Management Department is responsible for preparing risk management reports, implementing and supporting risk management across the organization. The Company has focused on the environmental risks from greenhouse gas emissions that affect climate change, the risks that may arise from economic crime and modern technology (IT SECURITY), consumer behavior risks from rapidly changing communication technologies, risks caused by the outbreak of COVID-19, etc. The Company, through the Risk Management Committee and all organizational departments, has continuously observed the changing environment and taken into account significant risks that could have an impact on the Company's operations. From weekly management meetings, the Company has determined measures to respond to risks within acceptable levels and has included them in the annual work plan.

5. Review of fraud investigations

The Company has announced an Anti-Fraud and Corruption Policy through its Chief Executive Officer, which outlines guidelines for employees at all levels of the Company to understand and take part in the prevention and fight against corruption in the organization both directly and indirectly. This includes creating channels for whistleblowers or complaints about corruption actions related to the Company from both internal complainants and external stakeholders. The Company provides protection to complainants and complaints will be kept confidential both during and after the investigation is completed. If the accused has actually committed an offense, the Company has imposed disciplinary action in accordance with the regulations set by the Company. If the offense is an unlawful act, the offender must be prosecuted and subject to legal penalties.

6. Review of connected transactions or conflicts of interest

The Company has developed the Company's business ethics (Code of Conduct) for company directors, executives, and employees at all levels in order to acknowledge and strengthen the organizational culture that places importance on non-conforming operations with interests and conflicts of interest with the Company in order for the organization to benefit the most from business operations that are transparent and verifiable. The Audit Committee has reviewed the connected transactions and transactions that may have conflicts of interest from the relevant director's reports and found that the transactions were reasonable, did not cause the Company to lose benefits, and properly disclosed to the regulatory authority within the specified timeframe.

7. To select, nominate, and propose the remuneration of the statutory auditors of the Company for the year 2023

The Audit Committee has taken into consideration the independence, performance, experience and an appropriate remuneration of auditors. The Audit Committee has passed a unanimous resolution to propose to the Company's Board of Directors for consideration and to propose to the shareholders' meeting to consider and approve the appointment of Mr. Ekkasit Chuthamsatid, CPA registration no. 4195 or Mr. Bunyarit Thanormcharoen, CPA registration no. 7900 or Mr. Natthaphong Tantichattanont, CPA registration no. 8829 or Miss Thanyalux Keadkaew,

CPA registration no. 8179, KPMG Phoomchai Audit Limited, to be the statutory auditors of the Company for the year 2023.

The Audit Committee considers that in the previous year, the Board of Directors as well as the Management of the Company, was in complete compliance with the principles of good corporate governance. They performed their duties and responsibilities ethically, with integrity, and in a professional manner, to achieve the objectives of the Company. In addition, a product quality system, in compliance with international standards and applicable laws, has been developed. The Audit Committee recognizes that the Company is committed to social and environmental responsibility. The Company has also prepared financial reports in compliance with generally accepted accounting principles, with an adequate disclosure of information, internal control and audit systems, and is able to ensure product quality and good corporate governance, without any material deficiencies.

On behalf of the Audit Committee,



(Mr. Supoj Singsane)
Chairman of the Audit Committee

8.3 Summary of performance of other sub-committees

1. Report of the Executive Committee, which is included with the board of directors' report signed with Chairman of the Board of Directors and Chief Executive Officer
2. Audit Committee Report 2022, signed by Chairman of the Audit Committee
3. Rules for reports of other sub-committees of the Company for the year 2022 are as follows:
 - 3.1 Report of the Nomination and Remuneration Committee
 - 3.2 Report of the Corporate Governance Committee
 - 3.3 Report of the Risk Management Committee
 - 3.4 Report of the Sustainable Development Committee
4. At the Board of Directors' Meeting No. 12/2022 held on December 29, 2022, the Board of Directors signed and acknowledged the report of the sub-committees of the Company for the year 2022 as follows:

Report of the Nomination and Remuneration Committee

According to the procedures of the Nomination and Remuneration Committee of TPI Polene Public Company Limited, the Nomination and Remuneration Committee held one meeting in 2022, and all of the directors were present. The committee is made up of professionals from many sectors, and Mr. Khanchai Vijakkhana serves as its chairman. The complete board of directors collaborates as the Nomination and Remuneration Committee, and Mr. Nitisit Jongpitakrat, the Corporate Secretary, serves as its secretary.

The Nomination and Remuneration Committee has performed its duties within the scope of responsibilities specified in the Nomination and Remuneration Committee Charter as approved by the Board of Directors, who reported the meeting results to the Board of Directors. The important matters are considered, which can be summarized as follows:

1. Consider nominating new directors to replace those who retire by rotation and nominate additional directors based on knowledge, ability, experience, transparent work history, morality, responsibility, leadership, and professional. Additionally, the diversity of the Board of Directors' composition (Board Diversity) is taken into account, and the Board Skills Matrix is defined to determine the qualifications of the directors to be hired by taking into account appropriate qualifications, necessary skills, and consistency with the composition and structure of the Board of Directors in accordance with company business strategy. In addition, the criteria for selecting directors in accordance with strong corporate governance principles are utilized as a factor in selecting new directors and giving new directors who have been appointed an orientation, including encouraging directors to continuously advance their knowledge.
2. Consider the annual budget, determine the remuneration of the Board of Directors, including senior executive vice presidents, the President, and the Chief Executive Officer based on the evaluation criteria and the Company's performance. It also takes into account the appropriateness of the duties and responsibilities assigned, linked to the performance of the Company and the performance compared with companies in the same industry group and of similar size.
3. Reviewed the charter of the Nomination and Remuneration Committee in accordance with the principles of good corporate governance (CG Code).

The Nomination and Remuneration Committee has performed its duties independently in accordance with good corporate governance principles to ensure transparency and confidence in the recruitment and remuneration process for shareholders and stakeholders in all sectors.



(Mr. Khantachai Vichakkana)
Chairman of Nomination
and Remuneration Committee



(Mr. Prachai Leophairatana)
Chief Executive Officer

Report of the Corporate Governance Committee

In 2022, the Corporate Governance Committee held one meeting in which 100% of the directors attended and gave useful comments to the management in developing good corporate governance of TPI Polene Group. Summary of the performance of the Corporate Governance Committee in 2022 can be summarized as follows:

1. Promote the performance of the Board of Directors in line with good corporate governance and business ethics of TPI Polene Group by educating directors on the prevention of inside information usage and the prevention of conflicts of interest. The Value of Audit course, accounting knowledge tips that the Audit Committee shouldn't miss, the Director Certificate Program run by the Thai Institute of Directors Association (IOD), etc. are just a few examples of the topics on which the Corporate Governance Committee encouraged directors to attend meetings and seminars in 2022 without encountering any major conflicts.
2. Promote awareness and compliance with the principles of good governance and business ethics of TPI Polene to executives and employees of TPI Polene Group in all operating areas by organizing training to educate all executives and employees regarding the prevention of inside information usage, prevention of conflicts of interest, anti-corruption, including promoting the creation of the Company's Code of Conduct manual for executives and employees at all levels to raise awareness and have guidelines for good practice. Executives and employees at all levels prepare the Company's business ethics test to measure their understanding. In addition, the Company has promoted the establishment of processes and mechanisms for management in case of grievances and whistleblowing in case of violations of ethics and business ethics and corruption in order to strengthen the organizational culture in line with the business ethics of TPI Polene Group for sustainable growth.
3. Reviewed the scope of duties of the Corporate Governance Committee, Audit Committee, Nomination Committee, and Remuneration Committee to be in line with the Principles of Good Corporate Governance for Listed Companies 2017 (CG Code) of the SEC.
4. Agree on a tax policy to ensure that the Company conducts its business with an appropriate tax structure and is consistent with its transactions and operates with transparency, adhering to laws and regulations including complying with the law regarding transfer pricing to be transparent and in accordance with the Arm's length principle.
5. Encourage information disclosure and transparency by preparing annual information disclosure form/annual report (Report 56-1 One report) as well as quarterly disclosure of the Company's performance which is material, complete, sufficient, reliable, and timely through various channels continuously, such as the system of the Stock Exchange of Thailand and the website of TPI Polene, including participating in the Opportunity Day event with the Stock Exchange of Thailand on a quarterly basis.
6. Promote quarterly disclosure of sustainability performance covering three dimensions (Environmental, Social, and Governance) to investors through the 56-1 One report, Sustainability Report, and on the TPI Polene website.

As a result of the success that the TPI Polene Group has continuously focused on good corporate governance, resulting in the Thai Institute of Directors Association (IOD) notified the Company that the CG Score for the year 2022 is very good (received 4 stars from a total score of 81%), an increase from a good rating (or 3 stars from a total score of 73%) in the previous year.

The Corporate Governance Committee is committed to fully performing its duties in accordance with the direction and goals of the organization in order to achieve sustainable business growth, to create maximum benefits for shareholders and all stakeholders fairly for sustainable growth altogether.



(Mr. Khantachai Vichakkana)
Chairman of the Corporate
Governance Committee



(Mr. Prachai Leophairatana)
Chief Executive Officer

Report of the Risk Management Committee

In 2022, the Risk Management Committee held 1 meeting in which 100% of the directors attended the meeting and gave useful comments to the management in improving the risk management of TPI Polene Group. Summary of the performance of the Risk Management Committee in 2022 can be summarized as follows:

1. Supervise risk management in all aspects to ensure that risk management is in accordance with the plan as follows:
 - 1.1 A Feasibility Study is required to prepare a feasibility study to be used as a tool for screening new investments before considering investment and business expansion.
 - 1.2 Financial projections must be prepared in advance to be able to manage net cash flow and assess financial liquidity for both short-term and long-term financial planning.
 - 1.3 Apply MIS information system as a tool to manage production, raw materials, sales, transportation, inventory levels, accounts receivable, EBITDA, profit/loss, cash and investment status, etc.
 - 1.4 TPI Polene Group has set a policy of net zero greenhouse gas emissions (Net Zero Greenhouse Gas Emission) by the year 2043 (or B.E. 20586) in line with the policy of the Greenhouse Gas Management Organization (Thailand has announced that it will achieve its goal of being carbon neutral by 2050 and achieving net zero emissions by 2065).
 - 1.5 TPI Polene Group aims to use waste fuel to replace coal in all 4 cement plants by 2022 and can use waste fuel to replace coal up to 25% of internal coal consumption by 2023 and in power plants to reach 100% by 2025. This produces a clear business tangible, can lower business risk because to the volatility of coal prices in comparison to the generally stable cost of trash, and can also lower risk of climate change, which is a global priority, up until the objective of lowering greenhouse gas emissions. This may result in the regulation of greenhouse gas emissions in the future which may incur costs in doing business for companies that are unable to adapt to such risks.
 - 1.6 Reduce the risk of lack of main production factors to prevent business interruption by applying for concession cards for lime and shale mining business, as well as making short-term and long-term contracts to purchase coal and raw materials without relying on one supplier.
 - 1.7 Manage foreign currencies by using the Natural Hedging principle (because the Company is a Net exporter) managed foreign currency in line with the trend of exchange rates in the foreign currency market.
 - 1.8 Bring technology and innovation to develop products with higher added value. It can also save energy costs, including the development of waste fuel production.
 - 1.9 Develop Platform Online, an online sales channel and New Normal stores in the community to support changes in consumer behavior and respond to the lifestyles of the new generation.
 - 1.10 Emphasis on continuous product research and development, such as the development of 43 different types of mortar, virus-killing products, Bio Knox, Microme Knox Solution, etc.
 - 1.11 Focus on cyber security with a team responsible for overseeing, conducting system tests, and practicing various plans to be able to prevent threats to cyber security.
 - 1.12 Strictly comply with relevant rules and regulations.
2. In the long run, TPI Polene Group will continue to look for investment opportunities in companies with high profit margins and growth rates, concentrating on controlling production costs, substituting waste fuels for coal, and boosting production efficiency through the use of electric trains to transport raw materials in mines and factories, among other things.
3. Consider reviewing risk management information, which consists of an organizational risk management framework that has been accepted as a guideline for promoting risk management and is a practice that is internationally accepted by categorizing risks into 6 categories as follows:
 - 3.1 Strategic Risk is the risk arising from the inability to operate the business according to the planned plan in accordance with internal and external factors. Therefore, the risk of the business plan must be managed, for

example: (1) Risk management of the use of waste fuel energy to replace coal to reduce production costs, which requires management of the amount and cost of waste procurement, including moisture properties of waste, etc. (2) Investment in projects that are environmentally friendly, and (3) Investment in projects and businesses with high growth potential in the future.

Such projects require a feasibility study and a sensitivity analysis of important factors before investing as well as following up on investment progress so as not to face the risk of return from investments that may not meet the targets, risks from delays in project implementation and investments higher than the budget, etc.

- 3.2 Operational Risk is the risk to operations that is brought on by internal operational processes or external factors that have an impact on revenue and operating costs, such as cost control, obtaining enough raw materials while staying within budget constraints, ensuring that both short-term and long-term contracts for the purchase of coal are adequate for business operations while preventing operational interruptions, etc.
 - 3.3 Financial Risk is the prudent use of financial policies within a set budget in order to obtain appropriate returns and sufficient cash flow to operate the business, to ensure that the Company is properly manage risk and a good internal control system suitable for the changing environment, to reduce financial risks such as risk from exchange rate volatility, interest rates, liquidity adequacy, revolving credit lines, long-term credit, and issuance of debentures managed in line with the changing trends in the exchange rate, money market, and capital market, etc.
 - 3.4 Compliance Risk is the risk of inability to comply with rules, regulations, relevant regulations or existing rules that are inappropriate, out of date, obstructing operations, and may result in legal penalties imposed. The Company must have an agency that strictly controls compliance with government regulations and policies, including corruption, and operates in accordance with the rules and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand, etc.
 - 3.5 Environmental Risk is the risk of emissions from the production process affecting the environment. Therefore, the Company's production process must be managed so that the Company's production process does not cause dust, chemical residues, and wastewater which can cause impact on the environment of the community, etc.
 - 3.6 Social Risk is the risk in human resource management, safety, occupational health, and working environment, including human rights violations, etc. The Company therefore has a policy to enhance knowledge and skills, including providing appropriate remuneration to employees, respecting human rights with regard to benefits and equality, and providing industry standard safety operating manuals. In addition, there is a complaint channel, a welfare committee is established to take care of the safety, occupational health of employees, etc.
- By identifying risks and taking appropriate action when they arise, risk management is practiced throughout the organization.

4. Establishing management-set policies and holding training sessions on "Risk Management in the Organization (Risk Management)" to inform staff about risk management would help to foster a culture of risk management. Employees at all levels will participate in training at least twice a year to systematically build knowledge, participation, and risk management.

The Risk Management Committee has carried out its responsibilities independently in overseeing the risk management of TPI Polene Group with caution and complete competence in order to ensure effective risk management in order to achieve the organization's objectives and goals and to maximize the benefit of TPI Polene shareholders and all groups of stakeholders fairly and sustainably over the long term.



(Mr. Prachai Leophairatana)
Chairman of the Risk Management Committee

Sustainable Development Committee Report

In 2022, the Sustainable Development Committee held 1 meeting in which 100% of the directors attended and gave useful comments to the management in the sustainability development of TPI Polene Group covering the implementation of the conceptual framework of sustainable development in all 3 dimensions, consisting of an environmental dimension, a social dimension, and a corporate governance (ESG) dimension by monitoring progress and driving concrete operations and results that tangible according to the sustainable development strategy, including elevating sustainability development to be at the forefront in the same industry, which can be summarized as follows

1. Environmental dimension was carried out as follows:

- 1.1 Aiming for a low-carbon society by setting a Net Zero Green House Gas Emission target for net zero greenhouse gas emissions in the TPI Polene group by the year 2043 (or B.E. 2586) in accordance with the policy of the Greenhouse Gas Management Organization (From the waste to be used as alternative fuel in the cement production process of the Company and in the power generation process of the power plant of TPI Polene Power Public Company Limited). Thailand has announced that it will achieve its carbon neutral goal by 2050 and achieve net zero emissions by 2065.

In 2022, cement plants can recycle approximately 360,675.09 tons of waste, replacing coal fuel by approximately 12.29% of all fuels from the target 25% due to all 4 cement plants have been gradually replaced by coal instead of coal in 2022. However, the last completed cement plant started to COD using waste fuel instead of coal in December 2022. Therefore, it is expected that in 2023, the Company will be able to fully use waste fuel to replace coal by 25%.

In addition, TPIPP can recycle approximately 2.73 million tonnes of waste as fuel instead of coal. Since December 2022, the TG7 power plant has been able to replace 100% of coal with waste fuel whilst TG8 power plant has gradually replaced coal with 10% by 2022.

This action is regarded as the business of cement production and power generation, while eliminating solid waste and reducing carbon dioxide emissions to reduce global warming at the same time.

Thailand Greenhouse Gas Management Organization issued a certified carbon credit to TPI Polene Group on May 24, 2022, for a total of 717,931 tons of carbon dioxide equivalent.

- 1.2 Cement plants increase energy efficiency by targeting all types of energy consumption per clinker production not exceeding 3,450 MJ/ton, all types of energy consumption per cement production not exceeding 175 MJ/ton, and all kinds of energy consumption per mortar production does not exceed 45 MJ/ton.
- 1.3 TPI Polene Group has a waste management strategy based on the 3Rs and the notion of producing zero waste, which forbids the release of waste, waste water, used motor oil, chemicals, and waste to the environment by disposing of waste in a closed system using a cement kiln heated to over 1,800 °C. It is a cutting-edge, eco-friendly technology. TPI Polene Group also uses the Bio-Circular-Green (BCG) strategy to maximize the use of raw materials resources. For instance, 100% of the excess aggregate from the production of construction stone is used, and the leftover raw materials from one factory are used as the raw material in another factory.
- 1.4 TPI Polene Group has a policy to manage water use for maximum efficiency without draining water outside the factory, including controlling the quality of wastewater to be valuable according to the wastewater standards according to the regulations of the Department of Industrial Works.

- 1.5 Reduce the impact of operations along the value chain, for example, transporting construction stone raw materials in the Company's plants without causing pollution by using electric trains and conveyor systems to transport stones from the mine to the plant instead of vehicles that use fuel oil. TPI Polene Group also has a policy to change the vehicles used to transport the products of the Group from combustion systems to electric vehicles, which helps reduce both transportation costs and pollution.
2. Social Dimension: Conduct business with responsibility, giving importance to all groups of stakeholders in a balanced manner based on the principle of cooperation, as well as improving channels and bring the opinions of the stakeholders forward to the responsible department continuously. It can be summarized as follows:
 - 2.1 Aiming to generate good returns for shareholders by continuously paying dividends and maintaining good performance continuously.
 - 2.2 Consider human rights principles, respect personal data, protect labor rights, encourage youth in education, etc.
 - 2.3 Have safety, occupational health, and create a good working environment.
 - 2.4 Manage and develop the potential and skills of personnel continuously by setting a target number of training hours per person per year.
 - 2.5 The Company recorded 81.09 percent of employees as having overall engagement and work satisfaction in 2022. The Company developed initiatives to continuously foster positive relationships with employees using the survey findings of such individuals.
 - 2.6 TPI Polene Group provides equal opportunities for employment without discrimination, covering both disabled and other disadvantaged groups. In 2022, TPI Polene group has employed a total of 866 people, employed 2 disabled people, and employed 57 elderly people.
 - 2.7 Give importance to customer satisfaction in the products and services of TPI Polene Group.
 - 2.8 Give importance to the security of corporate information systems (IT Security).
 - 2.9 Promote environmentally friendly procurement to reduce the risk of doing business with suppliers.
 - 2.10 TPI Polene Group has created value and improved the quality of life for communities in all areas where TPI Polene Group's business operations are located, for example, organizing a chemical-free project for home school lunches at Subbon School, Saraburi Province, granting scholarships to well-educated children, and waste sorting projects to exchange electricity for community development, etc.
 - 2.11 TPI Polene Group has supported various public projects and activities for communities, educational institutions, temples, hospitals and government agencies by donating cement, other construction materials, bio-organic fertilizers, drinking water, and health products. In addition, X-ray vehicles and mobile health check-up machines were also delivered to Songkhla Nakarin Hospital and Nano Super Special Armor paint was donated to the King Bhumibol Stream Art project, etc. The total value of the donation is approximately Baht 67.36 million.
3. Corporate Governance Dimension: TPI Polene Group adheres to the principles of accuracy and compliance with relevant laws and regulations under the business ethics. There is a framework based on good corporate governance, transparent disclosure of information and performance, comprehensive risk management, and management flexibility to meet the challenges of business competitiveness. It can be summarized as follows.
 - 3.1 Promote the performance of the Board of Directors, executives, and employees in line with good corporate governance and business ethics in all areas of operation.
 - 3.2 Set guidelines for social enterprise operations, focusing on responding to the needs and improving the quality of life for communities in all areas where the Company's business operations are located, including social network communities across the country.
 - 3.3 Respond to the needs of all stakeholders in a balanced way for sustainable growth.

The Company obtained honors and certificates from reputable organizations in encouraging development for sustainability in the year 2022 as a consequence of its success in integrating sustainable ideals into continuous business operations. These achievements can be summarized as follows.

1. On July 1, 2022, the Company was selected as a listed company with outstanding environmental, social, and governance (ESG) performance to be included in the ESG Emerging List of Sustainable Companies for the year 2022 by Thaipat Institute
2. On October 10, 2022, the Company was selected to be in the sustainable stock THSI (Thailand Sustainability Investment) for the year 2022 from the Stock Exchange of Thailand.
3. On October 27, 2022, the Company received the Corporate Governance Report of Thai Listed Companies : CGR for the year 2022 by the Thai Institute of Directors (IOD) at a very good level (Very Good).
4. On December 21, 2022, the Company received an honorable award (Sustainability Disclosure Award) for the disclosure of sustainability information for the year 2022 from Thaipat Institute.

In addition, in 2022, the Company has prepared a sustainability report based on the GRI (Global Reporting Initiative) reporting standards by identifying materiality issues in all 3 aspects (ESG) as follows

ESG	24 Important Points (TPIPL)
1. Economic Dimension	1. Economic Performance 2. Anti-corruption 3. Technology, innovation and service 4. Research and Development 5. Risk and Crisis Management
2. Environmental Dimension	1. Emission 2. Energy 3. Used Water and Wastewater 4. Waste 5. Material Use 6. Transportation 7. Land Degradation
3. Social Dimension	1. Occupational Health and Safety 2. Training and Education 3. Employment 4. Labor Management and Labor Relations 5. Customer Privacy 6. Products and Services 7. Customer Health and Safety 8. Product and Service Labeling 9. Customer Satisfaction 10. Data Security 11. Local Communities 12. Social Supplier Assessment

The Sustainability Development Committee has a strong commitment to upgrade the Company as a sustainability organization, which will continuously bring benefits towards overall Economy, Society and Environment together in the future as always.

A handwritten signature in black ink, consisting of a large 'P' followed by several loops and a long diagonal stroke extending upwards and to the right.

(Mr. Prachai Leophairatana)
Chairman of the Sustainability Committee

8.4 Summary of performance appraisal of directors and top executives (CEO) (Year 2022)

TPI Polene Public Company Limited arranges for the Board of Directors, subcommittees, and top executives (CEO) of the Company to conduct self-evaluations at least once a year in order to adhere to the principles of good corporate governance. This is done by including the factors that affect the Company's sustainability performance as part of the performance assessment indicators for the Board of Directors and executives, and concentrating on the assessment results that can be used to make improvements (CEO). The assessment form includes

1. Performance assessment form of the Board of Directors as a whole (Assessment as a whole)
2. Performance assessment form for the committee as a group
3. Performance assessment form of the Board of Directors individually (for the Board of Directors/Sub-Committees)
4. Performance assessment form of Chief Executive Officer (CEO)

The assessment criteria are determined by the percentage of the full score for each item as follows:

More than 90% score = Excellent

More than 80% Score = Very Good

More than 70% Score = Good

More than 60% score = Fair

Below 60% = Need Improvement

1. Performance assessment form of the Board of Directors as a whole (Assessment as a whole)

Consists of 6 topics, namely structure and qualifications of the committee, roles, duties and responsibilities of the committee, meetings of the committee, performance of duties of directors, relationship with management, self-development of directors, and development of executives. The assessment results have an average score of 92.5% (Excellent).

2. Performance assessment form for the committee as a group

Consists of 3 topics: structure and qualifications of directors, meetings of sub-committees, roles, duties and responsibilities of sub-committees.

☐ Audit Committee The assessment results have an average score of 92% (Excellent).

☐ Nomination and Remuneration Committee The assessment results have an average score of 90% (Very Good).

3. Performance assessment form of the Board of Directors individually (for the Board of Directors/Sub-Committees)

Consists of 3 topics: structure and qualifications of the committee/sub-committee, meetings of the committee/sub-committee, roles, duties and responsibilities of the committee/sub-committee.

The assessment results have an average score of 93% (Excellent).

4. Performance assessment form of Chief Executive Officer (CEO or equivalent)

It is an assessment that takes into account the elements that determine the Company's sustainability performance as part of the KPI. To assess the performance of Chief Executive Officer (CEO), including financial performance (e.g. revenue, company sales, Economic Value Add (EVA), other financial performance) and environmental, social and/or governance (ESG) performance, such as employee/supplier/community satisfaction, especially with the aim of reducing greenhouse gas emissions, reducing the use of company resources, etc. These are part of the performance assessment indicators of Chief Executive Officer (CEO or equivalent) that consists of 10 topics:

1. Leadership
2. Strategies
3. Strategy Implementation
4. Financial Planning and Performance
5. Relationship with the Board of Directors
6. External Relations
7. Management and Relations with Personnel
8. Succession
9. Knowledge of Products and Services
10. Personal Attributes

The assessment results have an average score of 95% (Excellent).



9. Internal Controls and Inter-Company Transactions

9.1 Internal Controls

At the Board of Directors' meeting no. 1/2566, held on 26 January 2023, attended by the four Audit Committee members, the Board considered and evaluated the sufficiency of the internal control systems of the Company by investigating the management and other relevant departments, and considering an assessment report which was prepared by the management and reviewed by the Audit Committee. These were 5 aspects of internal control systems as follows:

1. CONTROL ENVIRONMENT

The Company has provided a good internal control environment in terms of organizational structure, policies, guidelines for operating practices that realize adequate internal control systems and personnel management methods, as well as setting strategies and business goals that are appropriate, clear, reasonable, and measurable. The Company requires various departments to prepare annual goals or plans based on the principle of consideration to adhere to the benefits and fairness to all relevant stakeholders in the manner of sustainable business operations on the basis of fairness, honesty, ethics, ethics, responsibility for the environment, society, and good governance by setting up TPIPL Code of Conduct (Code of Conduct) and an employee handbook that brings the principles of influence 4 ways to success and the determination to create a balanced happiness with a sustainable better quality of life according to the Four Brahma Vihara principles, including the Four Noble Truths, which are the noble truths leading to the release of suffering according to the Lord Buddha's teachings, are used as guidelines in the performance of executives and employees as follows:

1. The Principles of Iddhibat, 4 Virtues of Success that are used in work, consisting of
 - 1.1 Chana means love of work, being satisfied with the work that is being done.
 - 1.2 Viriya means being diligent in the work you have.
 - 1.3 Chitta means being attentive and responsible for the work done.
 - 1.4 Wimansa means scrutinizing and using intelligence to examine the work.
2. Principle of Brahma Vihara 4, which means the Dharma of Brahma or of the Grand Master. Brahma Viharn is principles for all It is a principle that will help us live a noble and pure life. This principle includes
 - 2.1 Mercy, the desire for others to be happy
 - 2.2 Kindness, the desire for others to be free from suffering
 - 2.3 Mudita, the joy when others do well
 - 2.4 Upekkha, Knowing to be indifferent and neutral.
3. The Four Noble Truths for this work consist of
 - 3.1 Suffering means the problem itself.
 - 3.2 Samudaya means the cause of the problem.
 - 3.3 Nirodha means the end of the problem.
 - 3.4 The Eightfold Path means a practical way to eliminate problems.

2. RISK MANAGEMENT

The Company has risk management. and has communicated the risk management policy to the executives and employees at all levels and departments acknowledge and comply with To reduce risks, both business risks and operational risks, including risks that may cause fraud to be within the acceptable level of the organization. regularly and appropriate financial risk management. Risk Management is responsible for considering the policy structure. Risk Management Framework risk management plan review of risks and follow up on risk management with the Risk Management Department as support Managing risks throughout the organization by considering, analyzing, both

internal and external risk factors of the Company and determining various risk mitigation measures. By taking into account the cost of risk management that is worth the benefit that the Company will receive the most. In the past year, the Company has given importance to environmental risks from Greenhouse gas emissions that affect climate change, the risk of the COVID-19 epidemic that affects the work of employees in the organization, the risk of consumer behavior from communication technology. that changes rapidly and risks that may arise from economic crime and modern technology (IT SECURITY), etc.

3. CONTROL ACTIVITIES

The Company has established operational procedures and operational controls for all levels of departments in the organization. Including the management clearly in order to achieve the organization's objectives, that is, there is a clear written authorization and level of approval. There is a separation of tasks that may facilitate corruption actions clearly separated from each other by separating the duties and responsibilities of recording accounting transactions and information and the duty to take care of the storage of assets from each other

In addition, the policy Transaction Procedures of Connected Transactions or transactions that may have conflicts of interest of the Company with major shareholders Directors, executives or persons related to such persons shall be in accordance with the relevant regulations. which is done by a person who has no interest in the transaction By taking into account the best interests of the Company. And all relevant stakeholders are important.

4. INFORMATION AND COMMUNICATION

The Company has set up important information systems. It is accurate, reliable and up to date for use in the administration of the management. through an efficient communication system within the organization. And sent to the Board of Directors at least 7 days in advance, including the minutes of the Board of Directors' meeting with details. Sufficient for shareholders or related persons to be able to inspect. Accounting details have been kept completely categorized for at least 5 years in accordance with the accounting law. and never been notified by the auditor that there was a flaw in such matter

5. MONITORING ACTIVITIES

The Company has a system for monitoring and evaluating internal control continuously. by personnel with sufficient knowledge and competence, as well as comparing the performance of the management with the set business goals on a monthly basis There is a meeting every week at the Company's management meeting. To take corrective action if the performance is different from the business goals set. The results of the quarterly operations are reported at the Board of Directors' meeting.

audit office

The Company has an internal audit department. so that internal work processes can manage risks have internal control and compliance to achieve the operational objectives of the organization The internal audit department has an annual internal audit plan. by preparing an audit plan in accordance with the business strategic direction and significant risks that affect operations Audit results are reported to the management and the audit committee for consideration. The results of the implementation of the suggestions found from the audit are regularly followed up. However, in the operation of the Internal Audit Department, there is no limitation in expressing opinions.

The person holding the position of head of internal audit of the Company

The Company has assigned Mr. Somchai Kitpipit, the position of Assistant Vice President. internal audit department Served as the head of the Company's internal audit department. Because he is a person who has knowledge and understanding of the business of the Company. together with knowledge, skills and experience in internal auditing for working in the Company as well The details about the head of the internal audit of the Company.

9.2 Inter-Company Transactions

Disclosure of information about inter-company transactions, and other transactions that might have the potential to involve conflicts of interest, is in compliance with the rules and regulations imposed by the SET and the SEC.

The Audit Committee has performed its duties and responsibilities to review inter-company transactions. The procedures used in inter-company transactions have always been subject to the normal terms and conditions of business and reflect applicable market prices. The Company established procedures for the above transactions in the same manner as for transactions with general customers and all inter-company transactions reflect applicable market prices to ensure that there are no conflicts of interest.

As of 31 December 2022, the Company and its subsidiaries had inter-company transactions with related persons, which might have the potential to involve conflicts of interest. The Directors and/or Management have considered the reasonableness of the above inter-company transactions, and all were undertaken for the maximum benefit of the Company and were subject to the normal terms and conditions of business to reflect applicable market prices and in compliance with the rules and regulations imposed by the SET and the SEC. Details of the inter-company transactions are contained in Note 4 of the consolidated financial statements as at December 31, 2022, which can be summarized as follows:

Company	Description of transaction	million Baht	Necessity and reasonableness
1. United Grain Industry Co., Ltd ("UGI") There are 5 common Directors. Mr. Prachai Leophairatana Dr. Pramuan Leophairatana Mr. Prayad Liewphairatana Mrs. Orapin Leophairatana Miss Malinee Leophairatana	- The Company and its subsidiaries paid UGI for cement bags.	5.310	Transactions are always undertaken at market rates to support normal business operations of the Company.
	- Accounts Payable	2,424	
2. Thai Plastic Film Co., Ltd. There are 6 common Directors. Mr. Prachai Leophairatana Mr. Prateep Leopairut Dr. Pramuan Leophairatana Mr. Prayad Liewphairatana Mrs. Orapin Leophairatana Miss Malinee Leophairatana	- The Company sells plastic resin to Thai Plastic Film Co., Ltd.	0	Transactions are always undertaken at market rates to support normal business operations of the Company.
	- The Company hires Thai Plastic Film Co., Ltd. to produce cement bags at the rate of Baht 2.00 to 2.60 per bag. (This rate includes labor cost, rental charges, electricity and other related expenses)	101.673	
	- The Company and its subsidiaries paid Thai Plastic Film Co., Ltd. for cement bags.	101.018	
	- Accounts Payable	137.187	
3. Thai Plastic Product Co., Ltd. There are 6 common Directors. Mr. Prachai Leophairatana Mr. Prateep Leopairut Dr. Pramuan Leophairatana Mr. Prayad Liewphairatana Mrs. Orapin Leophairatana Miss Malinee Leophairatana	- The Company and its subsidiaries purchased cement bags for export from Thai Plastic Product.	358.832	Transactions are always undertaken at market rates to support normal business operations of the Company.
	- Accounts Payable	226.358	
	- The Company sells plastic resin to Thai Plastic Product Co., Ltd.	4.140	

Company	Description of transaction	million Baht	Necessity and reasonableness
4. Bangkok Union Insurance Plc. (BUI) There are 4 common Directors. Mr. Prachai Leophairatana Miss Malinee Leophairatana Mr. Thavich Taychanavakul Miss Tanyaratt Iamsopana	- The Company and its subsidiaries pay insurance premium to BUI.	284.022	Transactions are always undertaken at market rates to support normal business operations of the Company.
5. Bangkok Union Life Insurance Plc. There are 4 common Directors. Dr. Pramuan Leophairatana Mr. Prayad Liewphairatana Miss Malinee Leophairatana Miss Tanyaratt Iamsopana	- The Company and its subsidiaries paid life insurance premium to Bangkok Union Life Insurance Plc.	17.527	Transactions are always undertaken at market rates to support normal business operations of the Company.

The details of the connected transactions for the year 2020 are disclosed in the annual report of the Company through the Company's website (www.tpipolene.co.th)

Procedures to approve Related Transactions

Since the Company is a listed company, its practices regarding related transactions are conducted according to the rules and regulations of the SET and the SEC. The Company is highly aware of the sensitivity of this issue and closely monitors any situation in which a potential related transaction could occur. The above inter-company transactions were subject to the normal terms and conditions of business to reflect applicable market prices. Directors of the Company who are not deemed to be connected parties to such transactions are responsible for making decisions in regard to the said connected transactions.

The process for approval of connected transactions will be carried out under the standards of integrity and be reviewed by the Audit Committee to be in the best interests of the Company and its shareholders. This complies with SEC and SET regulations. The Company will disclose types and values of transactions that might present conflicts of interest accurately and completely. For any transactions that are considered to have potential conflicts of interest, market prices will be used as criteria to consider those transactions.

Potential Future Related Transactions

The Company expects to continue its business transactions with subsidiaries, the Joint Venture Company, affiliated companies, and related companies in the normal course of its business. Inter-company transactions are subject to normal terms and there is no conflict of interest. The Company adheres to practices for the above transactions that comply with the SET regulations, and regulations of other relevant governmental authorities, with regard to the reasonableness of the conditions and fair prices.



Attachment : Financial Statements

03

Financial statements for the year ended 31 December 2022



Independent Auditor's Report

To the Shareholders of TPI Polene Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of TPI Polene Public Company Limited and its subsidiaries (the “Group”) and of TPI Polene Public Company Limited (the “Company”), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2022, and the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2022 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements* section of my report. I am independent of the Group and the Company in accordance with the *Code of Ethics for Professional Accountants including Independence Standards* issued by the Federation of Accounting Professions (Code of Ethics for Professional Accountants) that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code of Ethics for Professional Accountants. 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.



<i>Valuation of inventory</i>	
Refer to Note 3 and 7 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>Inventory is a significant balance. There is slow moving in some type of inventory. There is a risk arising from the degree of judgment involved in assessing the net realisable value which is based on assumptions concerning future events and activities.</p> <p>Due to the high level of management's judgment and the significant carrying amounts involved, this is one of the key judgmental areas that my audit is concentrated on.</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none"> • understanding the Group's business plan and process on estimate the net realisable value derived from business plan; • considering the management's significant assumptions used in their assessment of the net realisable value of inventory, which included comparing them to internally and externally derived data; • assessing the appropriateness of the methodology used to calculate the net realisable value at year end, considering the reasonableness of selling price used by comparing to the selling price during subsequent sales and assessing the accuracy of the calculation; and • evaluating the adequacy of disclosure in accordance with the related Thai Financial Reporting Standards.



<i>Impairment assessment of property, plant and equipment in consolidated financial statements and loan to in separate financial statements</i>	
Refer to Note 4 and 14 to financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The continuous loss in operation of two subsidiaries; TPI Polene Bio Organics Co., Ltd. and TPI All Seasons Co., Ltd. indicated that property, plant and equipment and loan to may be impaired.</p> <p>Since the consideration of impairment of assets depend on the management's judgments and assumptions in respect to the forecast of operating results, discount rate, economic conditions and key assumptions used to estimate the recoverable amount of aforementioned business, this is one of the key judgmental areas that my audit is concentrated on.</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none"> • understanding the management's process of identifying impairment indicator, defining significant increase in credit risk and impairment testing, estimate recoverable amount and expected credit loss; • evaluating key assumptions used in discounted future cash flows such as growth rate, future outcomes, and economic conditions used to measure the credit loss and considering the reasonableness of forecasts by comparing historical estimation with the actual results as well as assessing the appropriateness of discount rate used; • evaluating credit risk and considering the reasonableness of supporting information; • assessing the accuracy of the calculation; and • evaluating the adequacy of disclosure in accordance with the related Thai Financial Reporting Standards.



<i>Recognition of deferred tax assets</i>	
Refer to Note 3 and 31 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The Group has recognised deferred tax assets for unused tax losses that it believes are recoverable.</p> <p>The recoverability of recognised deferred tax assets is in part dependent on the Group's ability to generate future taxable profits sufficient to utilise tax losses (before the latter expire).</p> <p>Due to the inherent uncertainty in forecasting the amount and timing of future taxable profits, this is one of the key judgmental areas that my audit is concentrated on.</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none"> • understanding the method of the management's recognition of deferred tax assets and the assessment of assumptions used in projecting the Group's future taxable profits; • considering the reasonableness of the forecast of future taxable profits by comparing the past forecast to the actual operating results and the operation plans and evaluating assumption used by management by comparing to operation plan and external information; • assessing the accuracy of the calculation; and • evaluating the adequacy of disclosure in accordance with the related Thai Financial Reporting Standards.



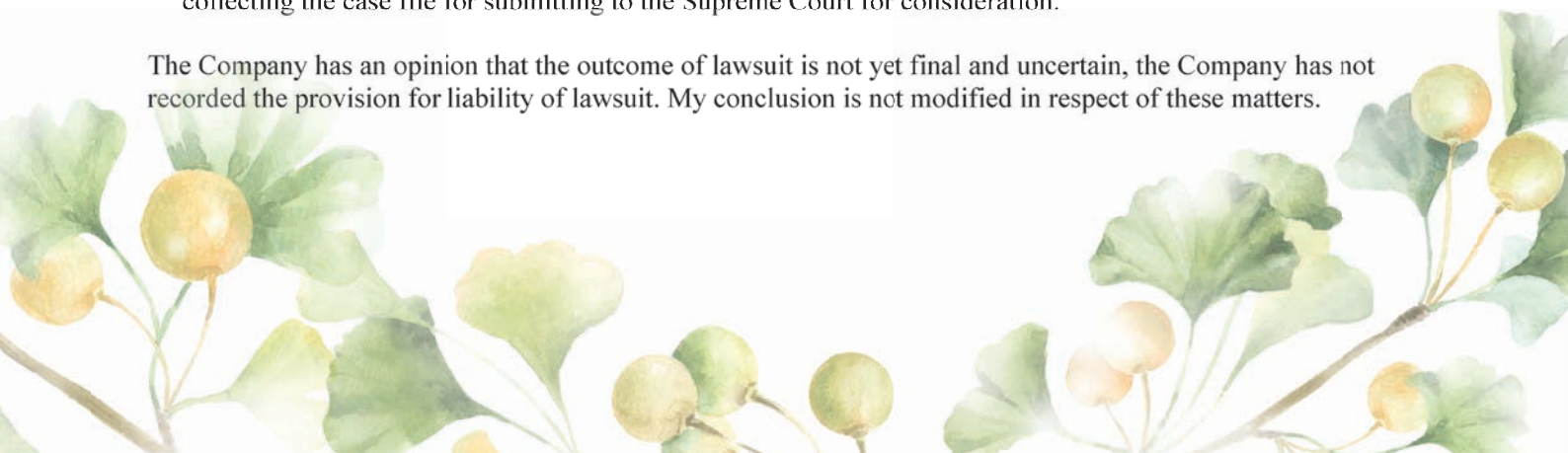
Emphasis of Matter

Without modifying my opinion.

I draw attention to notes 38(2) and 38(4) to 38(7) to the financial statements, which described the uncertainty related to the outcome of lawsuits filed against the Company in relation to its operation of mining. The Civil Court issued a judgement as follows:

- 1) On 2 August 2019, the Civil Court had an order on the Black Case No. SorWor.5/2559, engaging the mining activity unlawfully (engaging in the mining restricted area), that the Company has to return the limestone for cement industry back to the area where the mining activity was done and restore the area into its previous condition or pay the compensation of Baht 1,603 million with interest at 7.5 percent per annum from the date of being notified of the land survey result until the date that payment is made in full. The Company filed the appeal together with a delay of judgement execution on 3 December 2019. On 10 May 2022, the Court of Civil, by reading the Court of Appeal's judgement, announced a revision of the calculation of interest. Later, the Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgement of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 12 October 2022. The case is pending a judgement of the Supreme Court.
- 2) On 13 December 2019, the Civil Court had an order on the Black Case No. SorWor.4/2559, the Black Case No. SorWor.6/2559 and the Black Case No. SorWor.1/2560, engaging the limestone and shale mining activity in the area outside its concession area and engaging the mining activity unlawfully, that the Company has to return the limestone and shale for cement industry back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation of Baht 4,688 million with interest at 7.5 percent per annum from the discovery date of the unlawful of mining activity or the date of violation of mining until the date that payment is made in full. The Company filed the appeal. The Court of Appeal's judgement, announced a revision of the calculation of interest. The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court. On 15 and 22 November 2022, the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company's appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.
- 3) On 24 March 2020, the Civil Court issued a judgment on the Black Case No. SorWor.2/2561, the violation in relation to Company's operation of mining outside its concession area that the Company has to either make a restitution of shale and a specific performance of soil rehabilitation or pay damages totaling Baht 67 million with interest at 7.5 percent per annum from the date of violation of mining to the date that payment is made in full. The Company filed the appeal. The Court of Appeal's judgement, announced a revision of the calculation of interest. The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court. On 23 January 2023, the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company's appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.

The Company has an opinion that the outcome of lawsuit is not yet final and uncertain, the Company has not recorded the provision for liability of lawsuit. My conclusion is not modified in respect of these matters.



Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

(Bunyarit Thanormcharoen)
Certified Public Accountant
Registration No. 7900

KPMG Phoomchai Audit Ltd.
Bangkok
14 February 2023



TPI Polene Public Company Limited and its Subsidiaries**Statement of financial position**

Assets	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2022	2021	2022	2021
		(in thousand Baht)			
Current assets					
Cash and cash equivalents	5	10,671,192	5,668,608	8,043,775	1,157,874
Trade accounts receivable	4, 6	5,559,513	5,965,998	3,900,175	8,657,063
Other receivables		893,332	952,730	574,258	585,366
Short-term loans to related parties	4	-	-	366,269	418,380
Receivables and advances to related parties	4	129,950	94,889	468,108	470,831
Inventories	7	19,355,015	15,715,380	15,757,810	12,653,929
Other current financial assets	35, 41	953,799	5,995,446	-	2,502,208
Other current assets		1,102,979	638,477	726,285	203,274
Non-current assets classified as held for sale		465,338	-	260,244	-
Total current assets		39,131,118	35,031,528	30,096,924	26,648,925
Non-current assets					
Other non-current financial assets	35, 41	513,274	520,319	14,309	18,447
Investments in associates	9	856,337	842,539	856,337	842,539
Investments in joint venture	9	249,894	-	-	-
Investments in subsidiaries	10	-	-	28,736,575	26,088,167
Long-term investments in related party	4, 12	45,653	45,653	45,653	45,653
Receivables and advances to related parties	4	-	-	421,075	421,115
Investment properties	13	532,187	585,740	74,044	130,516
Property, plant and equipment	14	100,473,740	96,366,052	55,448,812	54,802,393
Right-of-use assets	15	567,889	652,953	347,422	359,483
Intangible assets	16	713,564	660,155	710,635	657,712
Advances payment for plant, machinery and equipment		656,659	240,381	126,237	108,361
Deferred tax assets	31	521,401	545,114	285,077	291,195
Other non-current assets		237,712	223,164	173,181	163,737
Total non-current assets		105,368,310	100,682,070	87,239,357	83,929,318
Total assets		144,499,428	135,713,598	117,336,281	110,578,243

The accompanying notes form an integral part of the financial statements

TPI Polene Public Company Limited and its Subsidiaries

Statement of financial position

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2022	2021	2022	2021
		(in thousand Baht)			
<i>Current liabilities</i>					
Short-term loans from financial institutions	17, 35	4,355,338	3,391,674	4,355,338	3,391,674
Trade accounts payable	4, 18, 35	3,791,529	3,616,626	3,129,922	3,155,688
Other payables	19	3,582,420	2,961,175	2,266,396	2,312,691
Payables and advances from related parties	4	12,549	7,513	272,268	984,447
Current portion of long-term loans from financial institutions	17, 35	-	1,000,000	-	1,000,000
Current portion of lease liabilities	15, 17, 35	151,050	157,073	102,038	97,055
Current portion of debentures	17, 35	12,843,200	12,565,000	10,023,200	8,567,000
Interest payable		375,212	383,089	309,896	324,667
Current income tax payable		119,352	72,562	-	-
Other current liabilities		227,203	251,152	118,400	93,905
Total current liabilities		25,457,853	24,405,864	20,577,458	19,927,127
<i>Non-current liabilities</i>					
Lease liabilities	15, 17, 35	280,479	350,856	144,490	150,222
Debentures	17, 35	53,742,400	50,678,600	41,255,000	39,964,200
Deferred tax liabilities	31	37,370	43,694	-	-
Non-current provisions for employee benefits	20	2,041,884	2,257,704	1,709,848	1,919,174
Other non-current liabilities		125,205	415,037	238,344	246,261
Total non-current liabilities		56,227,338	53,745,891	43,347,682	42,279,857
Total liabilities		81,685,191	78,151,755	63,925,140	62,206,984

TPI Polene Public Company Limited and its Subsidiaries**Statement of financial position**

		Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
Liabilities and equity	<i>Note</i>	2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Equity					
Share capital:	21				
Authorised share capital		23,560,235	23,751,500	23,560,235	23,751,500
Issued and paid-up share capital		18,935,235	19,126,500	18,935,235	19,126,500
Share premium:					
Share premium on ordinary shares		60,600	60,600	60,600	60,600
Other surpluses		9,840,436	9,840,436	9,840,436	9,840,436
Share premium on treasury shares	22	220,536	220,536	220,536	220,536
Retained earnings					
Appropriated					
Legal reserve	23	1,559,673	1,209,292	1,559,673	1,209,292
Treasury shares reserve	22	-	-	-	-
Unappropriated		22,684,993	17,796,425	22,681,164	17,796,425
Treasury shares	22	-	-	-	-
Other components of equity		109,668	117,470	113,497	117,470
Equity attributable to owners of the parent		53,411,141	48,371,259	53,411,141	48,371,259
Non-controlling interests	11	9,403,096	9,190,584	-	-
Total equity		62,814,237	57,561,843	53,411,141	48,371,259
Total liabilities and equity		144,499,428	135,713,598	117,336,281	110,578,243

TPI Polene Public Company Limited and its Subsidiaries

Statement of comprehensive income

		Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
Note		2022	2021	2022	2021
		(in thousand Baht)			
Income					
Revenue from sale of goods	24, 32	48,132,999	38,919,785	37,719,377	28,570,130
Cost of sales of goods	7	(35,276,512)	(26,391,000)	(29,073,010)	(21,505,453)
Gross profit		12,856,487	12,528,785	8,646,367	7,064,677
Transportation income		1,453,474	1,348,630	1,423,617	1,184,514
Net foreign exchange gain		437,171	390,708	204,785	-
Investment income		70,890	60,416	69,553	76,245
Other income	25	868,466	559,515	689,294	803,752
Profit before expenses		15,686,488	14,888,054	11,033,616	9,129,188
Cost of distributions and transportations	26	(3,749,878)	(3,346,691)	(3,414,732)	(2,884,102)
Administrative expenses	27	(2,012,696)	(2,047,289)	(1,233,758)	(1,166,689)
Net foreign exchange loss		-	-	-	(69,448)
Total expenses		(5,762,574)	(5,393,980)	(4,648,490)	(4,120,239)
Profit from operating activities		9,923,914	9,494,074	6,385,126	5,008,949
Finance costs	30	(1,934,590)	(2,061,541)	(1,890,541)	(1,887,727)
Share of profit of subsidiaries accounted for using equity method	10	-	-	2,471,275	2,922,175
Share of profit of joint venture and associates accounted for using equity method	9	21,280	24,703	21,386	24,703
Profit before income tax expense		8,010,604	7,457,236	6,987,246	6,068,100
Tax income (expense)	31	(165,828)	(539,277)	20,361	(397,566)
Profit for the year		7,844,776	6,917,959	7,007,607	5,670,534

TPI Polene Public Company Limited and its Subsidiaries

Statement of comprehensive income

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2022	2021	2022	2021
<i>(in thousand Baht)</i>					
Other comprehensive income (expense)					
<i>Items that will be reclassified subsequently to profit or loss</i>					
Exchange differences on translating financial statements		(177)	353	-	-
Gain on measurement of financial assets	8, 35	3	2	-	-
Share of other comprehensive income (expense) of subsidiaries accounted for using equity method	10	-	-	(174)	355
Share of other comprehensive income (expense) of associates accounted for using equity method	9	(7,588)	12,735	(7,588)	12,735
Income tax relating to items that will be reclassified	31	-	-	-	-
Total items that will be reclassified subsequently to profit or loss		(7,762)	13,090	(7,762)	13,090
<i>Items that will not be reclassified to profit or loss</i>					
Gain (loss) on investments in equity instruments designated at fair value through other comprehensive income	8, 35	(50)	7	(50)	7
Gain on remeasurements of defined benefit plans	20	136,275	-	132,446	-
Share of other comprehensive income of subsidiaries accounted for using equity method	10	-	-	3,829	-
Income tax relating to items that will not be reclassified	31	(26,479)	(2)	(26,479)	(2)
Total items that will not be reclassified to profit or loss		109,746	5	109,746	5
Other comprehensive income (expense) for the year, net of tax		101,984	13,095	101,984	13,095
Total comprehensive income for the year		7,946,760	6,931,054	7,109,591	5,683,629
Profit (loss) attributable to:					
Owners of the parent		7,007,607	5,670,534	7,007,607	5,670,534
Non-controlling interests		837,169	1,247,425	-	-
Profit for the year		7,844,776	6,917,959	7,007,607	5,670,534
Total comprehensive income (expense) attributable to:					
Owners of the parent		7,109,591	5,683,629	7,109,591	5,683,629
Non-controlling interests		837,169	1,247,425	-	-
Total comprehensive income for the year		7,946,760	6,931,054	7,109,591	5,683,629
Basic earnings per share (in Baht)	33	0.370	0.297	0.370	0.297

TPI Polene Public Company Limited and its Subsidiaries
Statement of changes in equity

Consolidated financial statements															
Note	Other surpluses			Retained earnings			Other components of equity								
	Issued and paid-up share capital	Share premium on ordinary share	Shareholding changes in Group	Share premium on treasury share	Legal reserve	Treasury shares reserve	Unappropriated	Treasury shares	Translation reserve	Fair value reserve	Share of other comprehensive income of associates using equity method	Total other components of equity	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Year ended 31 December 2021															
Balance at 1 January 2021															
Transactions with owners, recorded directly in equity															
Contributions by and distributions to owners															
22		-	-	-	-	(63,843)	54,000	63,843	-	-	-	-	-	-	-
22		-	-	-	-	(195,794)	195,794	195,794	-	-	-	-	281,272	-	281,272
11, 34		-	-	-	-	-	(1,147,590)	-	-	-	-	-	(1,147,590)	(674,630)	(1,822,220)
	(54,000)	-	-	-	-	(259,637)	(897,796)	259,637	-	-	-	-	(866,318)	(674,630)	(1,540,948)
Comprehensive income for the year															
	-	-	-	-	-	-	5,670,534	-	-	-	-	-	5,670,534	1,247,425	6,917,959
	-	-	-	-	-	-	-	-	353	7	12,735	13,095	13,095	-	13,095
	-	-	-	-	-	-	5,670,534	-	353	7	12,735	13,095	5,683,629	1,247,425	6,931,054
Transfer to legal reserve															
23	-	-	-	-	283,526	-	(283,526)	-	-	-	-	-	-	-	-
Balance at 31 December 2021															
	19,126,500	60,600	9,840,436	220,536	1,209,292	-	17,796,425	-	177	(81)	117,374	117,470	48,371,259	9,190,584	57,561,843

The accompanying notes form an integral part of the financial statements

TPI Polene Public Company Limited and its Subsidiaries
Statement of changes in equity

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TPI Polene Public Company Limited and its Subsidiaries
Statement of changes in equity

		Separate financial statements												
		Other surplus					Retained earnings			Other components of equity				
	Note	Issued and paid-up share capital	Share premium on ordinary share	Shareholding change in Group	Share premium on treasury share	Legal reserve	Treasury shares reserve	Treasury shares reserve	Unappropriated	Treasury shares	Fair value reserve	Share of other comprehensive income of subsidiaries and associates using equity method	Total other components of equity	Total equity
									(in thousand Baht)					
Year ended 31 December 2021		19,180,500	60,600	9,840,436	135,058	925,766	259,637	13,307,213	(259,637)	104,626	104,375	43,553,948		
Balance at 1 January 2021														
Transaction with owners, recorded directly in equity														
Contributions by and distributions to owners														
22		(54,000)	-	-	-	-	(63,843)	54,000	-	-	-	-	-	
22		-	-	-	85,478	-	(195,794)	195,794	-	-	-	-	281,272	
34		-	-	-	-	-	-	(1,147,590)	-	-	-	-	(1,147,590)	
Total transactions with owners, recorded directly in equity		(54,000)	-	-	85,478	-	(259,637)	(897,796)	259,637	-	-	-	(866,318)	
Comprehensive income for the year														
Profit		-	-	-	-	-	-	5,670,534	-	-	-	-	5,670,534	
Other comprehensive income		-	-	-	-	-	-	-	-	5	13,090	13,095	13,095	
Total comprehensive income (expense) for the year		-	-	-	-	-	-	5,670,534	-	5	13,090	13,095	5,683,629	
Transfer to legal reserve														
23		-	-	-	-	283,526	-	(283,526)	-	-	-	-	-	
Balance at 31 December 2021		19,126,500	60,600	9,840,436	220,536	1,209,292	-	17,796,425	(246)	117,716	117,470	48,371,259		

TPI Polene Public Company Limited and its Subsidiaries
Statement of changes in equity

		Separate financial statements											
		Other surplus				Retained earnings			Other components of equity				
	Note	Issued and paid-up share capital	Share premium on ordinary share	Shareholding change in Group	Share premium on treasury share	Legal reserve	Treasury shares reserve	Unappropriated shares (in thousand Baht)	Treasury shares	Fair value reserve	Share of other comprehensive income of subsidiaries and associates using equity method	Total other components of equity	Total equity
Year ended 31 December 2022													
Balance at 1 January 2022													
Transaction with owners, recorded directly in equity													
Contributions by and distributions to owners													
22		(191,265)	-	-	-	-	(365,554)	191,265	365,554	-	-	-	-
22		-	-	-	-	-	365,554	(365,554)	(365,554)	-	-	-	(365,554)
34		-	-	-	-	-	-	(1,704,155)	-	-	-	-	(1,704,155)
		(191,265)	-	-	-	-	-	(1,878,444)	-	-	-	-	(2,069,709)
Comprehensive income for the year													
Profit													
		-	-	-	-	-	-	7,007,607	-	-	-	-	7,007,607
Other comprehensive income (expense)													
		-	-	-	-	-	-	105,957	-	(40)	(3,933)	(3,973)	101,984
		-	-	-	-	-	-	7,113,564	-	(40)	(3,933)	(3,973)	7,109,591
Transfer to legal reserve													
23		-	-	-	-	350,381	-	(350,381)	-	-	-	-	-
Balance at 31 December 2022													
		18,935,235	60,600	9,840,436	220,536	1,559,673	-	22,681,164	-	(286)	113,783	113,497	53,411,141

TPI Polene Public Company Limited and its Subsidiaries**Statement of cash flows**

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Cash flows from operating activities</i>				
Profit for the year	7,844,776	6,917,959	7,007,607	5,670,534
<i>Adjustments to reconcile profit (loss) to cash receipts (payments)</i>				
Depreciation and amortisation	3,292,473	3,097,646	2,012,833	1,845,933
Interest income	(52,782)	(51,019)	(34,107)	(42,024)
Finance costs	1,934,590	2,061,541	1,890,541	1,887,727
Dividend income	(9)	(9)	(9)	(9)
Unrealised loss on foreign exchange	606	16,923	16,854	3,153
(Reversal of) expected credit losses	(15,588)	(174)	868	-
Reversal of losses on decline in value of inventories	(16,915)	(10,777)	(6,129)	(2,314)
Provision for employees benefits	3,829	2,792	-	-
(Gain) loss on sale and write-off of plant and equipment	16,634	74,188	(53,795)	18,148
Reversal of cancellation of provision for decommissioning	(77,111)	-	-	-
(Gain) loss on fair value adjusted	-	(11,201)	-	34
Gain on disposal of investments in subsidiary	-	(1,300)	-	(1,300)
Share of profit of subsidiaries and associates				
accounted for using equity method	(21,386)	(24,703)	(2,492,661)	(2,946,878)
Share of loss of joint venture				
accounted for using equity method	106	-	-	-
Tax expense (income)	165,828	539,277	(20,361)	397,566
	13,075,051	12,611,143	8,321,641	6,830,570
<i>Changes in operating assets and liabilities</i>				
Trade accounts receivable	386,303	(1,282,780)	4,720,402	(2,418,164)
Other receivables	11,957	(137,989)	16,027	(37,906)
Receivable and advances to related parties	(35,061)	(34,649)	2,723	(215,823)
Inventories	(3,622,720)	(4,592,201)	(3,097,752)	(4,108,378)
Other current assets	(434,303)	(125,601)	(500,665)	(1,061)
Other non-current assets	(14,548)	(54,402)	(9,444)	(36,154)
Trade accounts payable	229,647	737,482	28,978	700,261
Other payables	673,274	477,170	(18,299)	539,133
Payable and advances from related parties	5,036	(31,758)	(712,179)	48,216
Other current liabilities	(23,949)	(317)	24,495	(6,594)
Provision for employee benefits	(83,374)	(71,570)	(76,880)	(37,508)
Other non-current liabilities	(16,597)	(6,705)	(7,917)	3,126
Net cash generated from operations	10,150,716	7,487,823	8,691,130	1,259,718
Net tax paid	(158,327)	(216,901)	(22,346)	(3,080)
Net cash from operating activities	9,992,389	7,270,922	8,668,784	1,256,638

TPI Polene Public Company Limited and its Subsidiaries**Statement of cash flows**

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Cash flows from investing activities</i>				
Interest received	101,867	89,877	33,966	84,826
Dividend received	9	9	1,526,571	1,771,134
(Increase) decrease in equity and debt instruments	5,047,001	(3,020,996)	2,502,208	(799,889)
Proceeds from disposal of investments in subsidiary	-	1,300	-	1,300
Acquisition of property, plant and equipment	(6,794,668)	(6,069,539)	(3,064,591)	(2,653,011)
Acquisition of investment properties	-	(79,771)	-	-
Acquisition of intangible assets	(37,650)	(215,412)	(37,650)	(214,529)
Proceeds from sale of plant and equipment	8,163	5,556	637,120	2,081
Proceeds from sale of intangible asset	-	-	-	1,776
Advance payment for plant, machinery and equipment	(889,509)	(328,650)	(223,044)	(177,874)
Acquisition of subsidiary, net of cash acquired	-	-	(1,700,000)	-
Acquisition of interest in joint venture	(250,000)	-	-	-
Cash outflow on loans to related parties	-	-	-	(38,600)
Proceeds from repayment of loans to related parties	-	-	52,153	1,100
Cash outflow for decommissioning	(2,278)	(779)	-	-
Net cash used in investing activities	(2,817,065)	(9,618,405)	(273,267)	(2,021,686)

TPI Polene Public Company Limited and its Subsidiaries**Statement of cash flows**

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in thousand Baht)			
Cash flows from financing activities				
Finance cost paid	(2,562,699)	(2,547,451)	(1,993,846)	(2,052,762)
Dividend paid to owners of the Company	(2,328,812)	(1,822,220)	(1,704,155)	(1,147,590)
Payment of lease liabilities	(182,439)	(180,044)	(117,807)	(127,979)
Increase in short-term loans from financial institutions	963,664	2,076,492	963,664	2,316,492
Proceeds from short-term loan from related parties	-	-	950,000	1,578,000
Repayment of short-term loans from related parties	-	-	(950,000)	(1,578,000)
Repayment of long-term loans from financial institutions	(1,000,000)	(1,988,625)	(1,000,000)	(1,988,625)
Proceeds from issue of debentures	15,909,000	22,950,400	11,314,000	16,000,000
Repayment of debentures	(12,567,000)	(17,393,000)	(8,567,000)	(13,393,000)
Proceeds from sale treasury shares	-	281,272	-	281,272
Payment of treasury shares	(365,554)	-	(365,554)	-
Net cash from (used in) financing activities	(2,133,840)	1,376,824	(1,470,698)	(112,192)
Net increase (decrease) in cash and cash equivalents,				
before effect of exchange rates	5,041,484	(970,659)	6,924,819	(877,240)
Effect of exchange rate changes	(38,900)	(18,612)	(38,918)	186
Net increase (decrease) in cash and cash equivalents	5,002,584	(989,271)	6,885,901	(877,054)
Cash and cash equivalents at 1 January	5,668,608	6,657,879	1,157,874	2,034,928
Cash and cash equivalents at 31 December	10,671,192	5,668,608	8,043,775	1,157,874
Non-cash transactions				
Advances of plant, machinery and equipment	656,659	240,381	126,237	108,361
Other payables - plant and equipment	679,726	250,149	157,916	185,912
Other non-current liabilities - intangible assets	69,813	77,730	69,813	77,730

TPI Polene Public Company Limited and its Subsidiaries

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Notes to the financial statements For the year ended 31 December 2022

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 authorised for issue by the audit committee, as appointed by the Board of Directors of the Company, on 14 February 2023.

1 General information

TPI Polene Public Company Limited, the “Company”, is incorporated in Thailand and has its registered office at 26/56, TPI Tower, Chan Tat Mai Road, Tungmahamek, Sathorn, Bangkok.

The Company was listed on the Stock Exchange of Thailand in November 1990.

The Company operates in 3 major industries and has 18 distribution terminals around the country. It operates in the cement industry at Kang-Khoi, Saraburi and has 8 plants consisting of 4 cement manufacturing plants and 4 dry mortar manufacturing plants. It operates in the construction materials industry at Amphur Chalermprakiet, Saraburi and has cement roof tiles and fibre cement board manufacturing plants. It operates in the plastic industry at Amphur Muang, Rayong and has 2 LDPE and EVA plastic manufacturing plants. Details of the Company’s subsidiaries as at 31 December 2022 and 2021 are given in note 10.

2 Basis of preparation of the financial statements

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements are presented in Thai Baht, which is the Company’s functional currency. The accounting policies, described in note 3 have been applied consistently to all periods presented in these financial statements.

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions that are described in each note are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

3 Significant accounting policies

(a) Basis of consolidation

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

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

When the Group loses control over a subsidiary, it derecognises the assets and liabilities, any related non-controlling interests and other components of equity of the subsidiary. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

The Group recognised investments in associates and joint venture using the equity method in the consolidated financial statements in which the equity method is applied. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements in which the equity method is applied include the Group's dividend income and share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

If an investment in an associate becomes an investment in a joint venture or vice versa, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method. In all other cases, when the group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former investee at the date when significant influence or joint control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset.

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated on consolidation. Unrealised gains arising from transactions with associates and joint ventures are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group, other than business combinations with entities under common control. Expenses in connection with a business combination are recognised as incurred.

The Group elect to apply a 'concentration test' that permits a simplified assessment of whether an acquired set of activities and assets is an assets rather than a business acquisition when substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, any contingent consideration and equity interests issued by the Group. If a business combination results in the termination of pre-existing relationships between the Group and the acquiree, then the lower of the termination amount, as contained in the agreement, and the value of the off-market element is deducted from the consideration transferred and recognised in other expenses.

Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group estimates provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

(b) *Investments in subsidiaries, associates and joint ventures*

Investments in subsidiaries, associates and joint ventures in the separate financial statements of the Company are accounted for using the equity method.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

The Group recognised investments in associates and joint ventures using the equity method in the consolidated financial statements. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's dividend income and share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Disposal of investments in the separate financial statements

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

If the Company 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.

(c) *Foreign currencies*

Transactions in foreign currencies are translated to the respective functional currencies at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date.

Foreign currency differences are generally recognised in profit or loss. However, foreign currency differences arising from the translation of the following items are recognised in other comprehensive income:

- an investment in equity securities designated as at FVOCI (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss);

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date. The revenues and expenses of foreign operations are translated to Thai Baht at rates approximating the exchange rates at the dates of the transactions.

Foreign exchange differences are recognised in other comprehensive income and accumulated in the translation reserve until disposal of the investment, except to the extent that the translation difference is allocated to non-controlling interests.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Group disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

(d) Financial instruments

(d.1) Classification and measurement

Debt securities issued by the Group are initially recognised when they are originated. Other financial assets and financial liabilities (except trade accounts receivables (see note 3(f))) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value plus or minus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or FVTPL. Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Debt investments measured at FVOCI are subsequently measured at fair value. Interest income, calculated using the effective interest method, foreign exchange gains and losses and expected credit loss are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividend income is recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Write offs

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(d.4) Interest

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortised cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

(e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances, call deposits and highly liquid short-term investments which have maturities of three months or less from the date of acquisition. Bank overdrafts that are repayable on demand are a component of cash and cash equivalents for the purpose of the statement of cash flows.

(f) Trade accounts receivable

A trade receivable is recognised when the Group has an unconditional right to receive consideration. A trade receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find the ECLs rates. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date.

(g) Inventories

Inventories are measured at the lower of cost and net realisable value. Cost of finished goods, diesel and natural gas, is calculated using the first in first out principle. Cost of other inventories are calculated using the weighted average cost principle. Cost includes direct costs incurred in acquiring the inventories. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

A right to recover returned products is recognised when the products are expected to be returned by customers and measured by reference to the former carrying amount of the sold inventories less any expected costs to recover those products.

(h) Non-current assets classified as held for sale

Non-current assets are classified as held for sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use. Such assets are measured at the lower of their carrying amount and fair value less cost to sell. Impairment losses on initial classification as held for sale and subsequent gains and losses on remeasurement are recognised in profit or loss.

Once classified as held for sale, intangible assets, plant and equipment are no longer amortised or depreciated, and any equity-accounted investee is no longer equity accounted.

(i) Investment properties

Investment properties are measured at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed assets includes capitalised borrowing costs.

Depreciation is calculated on a straight-line basis over the estimated useful lives of buildings of 20 years and recognised in profit or loss. No depreciation is charged on freehold land and assets under construction.

Differences between the proceeds from disposal and the carrying amount of investment property are recognised in profit or loss.

(j) Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes capitalised borrowing costs, and the costs of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

Differences between the proceeds from disposal and the carrying amount of property, plant and equipment are recognised in profit or loss.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item when the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset or on unit of production method of relevant assets and recognised in profit or loss. No depreciation is provided on freehold land, assets under construction and major spare parts have not been issued.

The estimated useful lives are as follows:

Land improvement	5 - 10 years
Leasehold improvement	8 - 10 years
Buildings and structures	10 - 40 years and per lease period
Machinery and equipment for production (concrete)	3 - 10 years
Other machinery and equipment for production	5 - 40 years
Tools and factory equipment	3 - 30 years
Furniture, fixtures and office equipment	3, 5 and 10 years
Vehicles	5 - 25 years

Machinery and equipment for production of construction materials, cement roof tiles and fibre cement board, LDPE and EVA and machine for melt sheets calculate depreciation based on units of production.

(k) Intangible assets

Concession

Cost of concessions on mining limestone and shale are include acquisition, exploration and development costs and are measured at cost less accumulated amortisation and accumulated impairment losses.

Research and development

Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditure and expenditure on research activities are recognised in profit or loss as incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and impairment losses. The expenditure cost includes the cost of materials, direct labour, overhead costs that are directly attributable to preparing the asset for its intended use, and borrowing costs.

Other intangible assets

Other intangible assets that have indefinite useful lives are measured at cost less impairment losses. Other intangible assets are measured at cost less accumulated amortisation and impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.

The estimated useful lives are as follows:

Cost of raw material resources and cost of concessions	Life of concessions :	25 - 30 years
Software licenses		12 years
Capitalised development costs		12 years

(l) *Leases*

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

At commencement or on modification of a contract, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices of each component. For the leases of property, the Group has elected not to separate non-lease components and accounted for the lease and non-lease components wholly as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which are recognised as expenses on a straight-line basis over the respective lease terms.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any prepaid lease payments, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of all lease payments that shall be paid under the lease. The Group uses the Group's incremental borrowing rate to discount the lease payments to the present value. The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a lease modification, or a change in the assessment of options specified in the lease. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

As a lessor

At inception or on modification of a contract, the Group allocates the consideration in the contract to each component on the basis of their relative standalone selling prices.

At lease inception, the Group considers to classify a lease that transfers substantially all of the risks and rewards incidental to ownership of the underlying asset to lessees as a finance lease. A lease that does not meet this criteria is classified as an operating lease.

The Group recognises lease payments received under operating leases in profit or loss on a straight-line basis over the lease term as part of other income. Initial direct costs incurred in arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as other income in the accounting period in which they are earned.

(m) Impairment of non-financial asset

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount, unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss of asset recognised in prior periods 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.

(n) Employee benefits

Defined contribution plans

Obligations for contributions to the Group's provident funds are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods. The defined benefit obligations is discounted to the present value, which performed annually by a qualified actuary using the projected unit credit method.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

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 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.

(o) 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 is recognised as a finance cost.

(p) Fair values measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and asset positions at a bid price and liabilities and liability positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

(q) Treasury shares

When share capital recognised as equity is repurchased, the amount of consideration paid, including directly attributable costs, is classified as treasury shares and recognised as a deduction from equity. An equal amount is appropriated from retained earnings and taken to a reserve for treasury shares within equity. When treasury shares are sold, the amount received is recognised as an increase in equity by crediting the cost of the treasury shares sold, calculated using the weighted average method, to the treasury shares account and transferring the equivalent amount back from reserve for treasury shares to retained earnings. Surpluses on the sale of treasury shares are taken directly to a separate category within equity, 'Share premium on treasury shares'. Net deficits on sale or cancellation of treasury shares are debited to retained earnings after setting off against any remaining balance of surplus on treasury shares.

(r) Revenue from contracts with customers

Revenue recognition

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax and is after deduction of any trade discounts and volume rebates.

Revenue from sales of goods is recognised on the date on which the goods are delivered to the customers. For the sales that permit the customers to return the goods, the Group estimates the returns based on the historical return data, does not recognise revenue and cost of sale for the estimated products to be returned.

Revenue for rendering of services is recognised over time as the services are provided. The stage of completion is assessed based on surveys of work performed. The related costs are recognised in profit or loss when they are incurred.

For bundled packages, the Group recognises revenue from sales of products and rendering of services separately if a product or service is separately identifiable from other items and a customer can benefit from it or the multiple services are rendered in different reporting periods. The consideration received is allocated based on their relative stand-alone selling prices.

Long-term advances received from customers

Long-term advances received from customers is recognised as revenue when the Group transferred control over the goods to the customers. For the advances that contain a significant financing component, they include the interest expense accreted on the contract liability under the effective interest method. The Group uses practical expedient which is not adjust the consideration for any effects of a significant financing component for the contract for which the period is 12 months or less.

Customer loyalty programme

For customer loyalty programmes that the Group offers to customers, the consideration received is allocated based on the relative stand-alone selling price of the products and the loyalty points. The amount allocated to the loyalty points is recognised as contract liabilities and revenue is recognised when loyalty points are redeemed or the likelihood of the customer redeeming the loyalty points becomes remote. The stand-alone selling prices of the points is estimated based on the discount provided to customers and the likelihood that the customers will redeem the points. The estimate is reviewed at the end of the reporting period.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

(s) Income tax

Income tax expense for the year comprises current and deferred tax, which is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities, using tax rates enacted or substantively enacted at the reporting date. Current deferred tax assets and liabilities are offset in the separate financial statements.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(t) Earnings per share

Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

(u) Related parties

A related party is a person or entity that has direct or indirect control or joint control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that is under common control or under the same significant influence as the Group; or a person or entity over which the Group has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making.

(v) Segment reporting

Segment results that are reported to the Group's the chief operating decision maker include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly insert unallocated items, e.g. corporate assets.



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

4 Related parties

Relationships with subsidiaries, associates and joint venture are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Country of incorporation	Nature of relationships
Key management personnel	Thailand	Persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.
Pornchai Enterprise Co., Ltd.	Thailand	Co-director
TPI Holding Co., Ltd.	Thailand	Co-director
Leophairatana Enterprise Co., Ltd.	Thailand	Co-director
Bangkok Union Insurance Public Co., Ltd.	Thailand	Co-director
Lampang Food Products Co., Ltd.	Thailand	Co-director
Hong Yiah Seng Co., Ltd.	Thailand	Co-director
Saraburi Ginning Mill Co., Ltd.	Thailand	Co-director
Thai Petrochemical Industry Co., Ltd.	Thailand	Co-director
Rayong Forest Co., Ltd.	Thailand	Co-director
Hong Yiah Seng Real Estates and Investment Co., Ltd.	Thailand	Co-director
TPI EOEG Co., Ltd.	Thailand	Co-director
E&T Renewable Energy Co., Ltd.	Thailand	Co-director



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Significant transactions with related parties Year ended 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Subsidiaries				
Sales of goods	-	-	10,534,733	16,269,875
Transportation income	-	-	192,518	186,344
Purchase of raw materials and spare parts	-	-	553,417	347,880
Purchase of electricity	-	-	1,568,251	1,638,787
Purchase of steam	-	-	34,974	34,006
Purchase of goods for sales promotion	-	-	115,104	102,822
Dividend income	-	-	1,526,562	1,771,125
Interest income	-	-	14,967	27,879
Interest expense	-	-	4,589	2,749
Other income	-	-	434,567	680,197
Administrative expenses	-	-	32,351	29,583
Associates				
Sale of goods	4,501	1,920	4,197	1,786
Purchase of raw materials	566,349	534,603	529,358	509,655
Interest expense	3,564	6,255	182	75
Other income	-	5	-	5
Insurance premium	17,527	26,807	13,584	19,291
Joint Venture				
Other income	15	-	15	-
Other related parties				
Sales of goods	1,789	2,521	260	327
Transportation income	76	75	4	1
Interest expense	7,028	4,558	4,705	2,685
Other income	303	300	300	300
Insurance premium	284,022	242,994	129,995	116,346
Administrative expenses	61,993	62,088	57,186	58,213
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	411,429	330,539	310,723	239,555
Post-employment benefits	4,001	4,501	-	-
Total key management personnel compensation	415,430	335,040	310,723	239,555



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Trade accounts receivable				
Subsidiaries				
TPI Concrete Co., Ltd.	-	-	219,228	1,524,103
TPI Polene Power Public Co., Ltd.	-	-	385,558	122,773
TPI All Seasons Co., Ltd.	-	-	319,237	444,953
Polene Silicon Co., Ltd. (Formerly: Polene Plastic Co., Ltd.)	-	-	157,605	5,601,944
TPI Polene Bio Organics Co., Ltd.	-	-	10,426	12,953
TPI Commercial Co., Ltd.	-	-	4,364	5,459
Thai Nitrate Co., Ltd.	-	-	95	38
Associates				
BUI Life Insurance Public Co., Ltd.	-	7	-	-
United Grain Industry Co., Ltd.	217	117	36	37
Other related parties				
Bangkok Union Insurance Public Co., Ltd.	37	17	4	4
Pornchai Enterprise Co., Ltd.	164	165	11	23
Lampang Food Products Co., Ltd.	9	9	9	9
Rayong Forest Co., Ltd.	410	455	-	-
Hong Yiah Seng Co., Ltd.	76	-	-	-
	913	770	1,096,573	7,712,296
Less allowance for expected credit loss	-	-	-	-
Net	913	770	1,096,573	7,712,296

	Interest rate		1 January 2022	Separate financial statements		31 December 2022
	Year ended 31 December 2021	Year ended 31 December 2022		Increase	Decrease	
	<i>(% per annum)</i>			<i>(in thousand Baht)</i>		
Short-term loans to related parties						
Subsidiaries						
TPI Polene Bio Organics Co., Ltd.	MLR - 1.5	MLR - 1.5	253,096	-	(2,000)	251,096
TPI All Seasons Co., Ltd.	MLR - 1.5	-	44,153	-	(44,153)	-
TPI Commercial Co., Ltd.	MLR - 1.5	MLR - 1.5	97,993	-	(4,000)	93,993
Master Achieve (Thailand) Co., Ltd.	MLR - 1.5	MLR - 1.5	20,790	-	(1,000)	19,790
TPI Healthcare Co., Ltd.	MLR - 1.5	-	1,000	-	(1,000)	-
			417,032	-	(52,153)	364,879
Accrued interest receivable			1,348	14,572	(14,530)	1,390
Total			418,380	14,572	(66,683)	366,269
Less allowance for expected credit loss			-	-	-	-
Net			418,380			366,269

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Receivables and advances to related parties - current				
Subsidiaries				
TPI Concrete Co., Ltd.	-	-	973	3,019
TPI Polene Power Public Co., Ltd.	-	-	197,435	74,970
TPI All Seasons Co., Ltd.	-	-	13,473	16,508
Polene Silicon Co., Ltd.	-	-	72,062	200,014
TPI Polene Bio Organics Co., Ltd.	-	-	110,757	98,994
TPI Commercial Co., Ltd.	-	-	256	66
TPI Service Co., Ltd.	-	-	76	139
Thai Nitrate Co., Ltd.	-	-	186	180
TPI Polene Power (International) Co., Ltd.	-	-	65	65
TPI Biomass Power Co., Ltd. (Formerly: TPI Polene Power (On Nut) Co., Ltd.)	-	-	-	65
Thai Propoxide Co., Ltd.	-	-	64	65
TPI Healthcare Co., Ltd.	-	-	28,093	36,319
TPI Bio Pharmaceuticals Co., Ltd.	-	-	121	75
Master Achieve (Thailand) Co., Ltd.	-	-	1,876	293
TPI Polene Power Investment Co., Ltd.	-	-	-	34
TPI Distribution Center Co., Ltd. (Formerly: TPI Olefins Co., Ltd.)	-	-	1	1
TPI Solar Power Co., Ltd.	-	-	1	-
TPI Wind Power Co., Ltd.	-	-	1	-
Associates				
BUI Life Insurance Public Co., Ltd.	5,317	5,415	4,581	4,642
United Grain Industry Co., Ltd.	8	8	8	8
Joint Venture				
E&T Renewable Energy Co., Ltd.	164	-	16	-
Other related parties				
Bangkok Union Insurance Public Co., Ltd.	123,875	86,615	37,933	35,173
Pornchai Enterprise Co., Ltd.	521	2,718	65	68
Rayong Forest Co., Ltd.	65	67	65	67
TPI EOEG Co., Ltd.	-	1	-	1
Thai Petrochemical Industry Co., Ltd.	-	65	-	65
Total	129,950	94,889	468,108	470,831
Less allowance for expected credit loss	-	-	-	-
Net	129,950	94,889	468,108	470,831
Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Long-term investments in related parties				
Related parties				
Pornchai Enterprise Co., Ltd.	45,653	45,653	45,653	45,653

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Receivables and advances to related parties - non-current				
Subsidiary				
Thai Propoxide Co., Ltd.	-	-	421,984	421,984
Less losses recognised using the equity method in excess of the investment	-	-	(909)	(869)
Net	<u>-</u>	<u>-</u>	<u>421,075</u>	<u>421,115</u>

In 1997, the Company entered into an agreement to sell land to Thai Propoxide Co., Ltd. (a subsidiary) at the price of Baht 477 million, in consideration for a loan payable by August 2000, with interest of 16%. No payments of principal or interest were subsequently made by the subsidiary and consequently the Company deferred recording the gain on the sale land of Baht 40 million and interest income of Baht 155 million in income and ceased accrued interest. The deferred gain and interest income are disclosed as non-current liabilities in the statement of financial position of the separate financial statements.

The subsidiary used the land as collateral for a bank loan, the proceeds of which were subsequently loaned to the Company. In 2000, the subsidiary's bank loan was assigned to the Company. Subsequently, in 2011, the land has been released by the bank as collateral and the subsidiary has sold a part of land to the Company and repaid a part of the land loan to the Company of Baht 68 million.

At 31 December 2022, the outstanding amount of accounts receivable from the subsidiary from the sale of land total Baht 422 million (2021: Baht 422 million) and the deferred gain on the sale of Baht 35 million (2021: Baht 35 million) and deferred interest income of Baht 134 million (2021: Baht 134 million) in the statement of financial position of the separate financial statements.



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

	Consolidated		Separate			
<i>Expected credit losses</i>	financial statements		financial statements			
<i>Year ended 31 December</i>	2022	2021	2022	2021		
	<i>(in thousand Baht)</i>					
Trade account receivables	-	-	-	-		
Short-term loans to related parties	-	-	-	-		
Receivables and advances to related parties	-	-	-	-		
	Consolidated		Separate			
<i>Balances with related parties</i>	financial statements		financial statements			
<i>At 31 December</i>	2022	2021	2022	2021		
	<i>(in thousand Baht)</i>					
<i>Trade accounts payable</i>						
Subsidiaries						
TPI Concrete Co., Ltd.	-	-	-	30		
TPI Polene Power Public Co., Ltd.	-	-	36,343	43,595		
TPI All Seasons Co., Ltd.	-	-	20,069	13,872		
Polene Silicon Co., Ltd.	-	-	-	1,110		
TPI Polene Bio Organics Co., Ltd.	-	-	-	171		
Thai Nitrate Co., Ltd.	-	-	8,694	9,288		
TPI Healthcare Co., Ltd.	-	-	18,051	4,499		
Associate						
United Grain Industry Co., Ltd.	2,424	2,559	-	15		
Thai Plastic Film Co., Ltd.	137,187	142,098	136,967	141,620		
Thai Plastic Products Co., Ltd.	226,358	167,372	221,512	159,573		
Total	365,969	312,029	441,636	373,773		
	Interest rate		Separate financial statements			
	Year ended	1	31			
	31 December	January	December			
	2021	2022	Increase	Decrease		
	2022		2022			
	<i>(% per annum)</i>		<i>(in thousand Baht)</i>			
<i>Short-term loans from related parties</i>						
Subsidiaries						
TPI Polene Power Public Co., Ltd.	-	1.45	-	700,000	(700,000)	-
Thai Nitrate Co., Ltd.	-	1.60	-	250,000	(250,000)	-
			-	950,000	(950,000)	-
Accrued interest			-	3,168	(3,168)	-
Total			-	953,168	(953,168)	-



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Payables and advances from related parties				
Subsidiaries				
TPI Concrete Co., Ltd.	-	-	1,630	1,944
TPI Polene Power Public Co., Ltd.	-	-	244,179	966,211
TPI All Seasons Co., Ltd.	-	-	2,140	2,000
Polene Silicon Co., Ltd.	-	-	-	12
TPI Polene Bio Organics Co., Ltd.	-	-	6,170	5,084
TPI Healthcare Co., Ltd.	-	-	4,099	4,020
TPI Bio Pharmaceuticals Co., Ltd.	-	-	1,187	983
Master Achieve (Thailand) Co., Ltd.	-	-	1,987	-
Associates				
BUI Life Insurance Public Co., Ltd.	97	164	97	164
United Grain Industry Co., Ltd.	10	2,335	-	4
Thai Plastic Film Co., Ltd.	1,944	732	1,821	732
Other related parties				
Pornchai Enterprise Co., Ltd.	9,757	1,145	8,245	443
Bangkok Union Insurance Public Co., Ltd.	105	2,998	77	2,711
Hong Yiah Seng Co., Ltd.	629	109	629	109
Rayong Forest Co., Ltd.	7	30	7	30
Total	12,549	7,513	272,268	984,447

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Current portion of lease liabilities				
Subsidiaries				
TPI Concrete Co., Ltd.	-	-	5,086	-
TPI Polene Bio Organics Co., Ltd.	-	-	3,165	-
Mondo Thai Co., Ltd.	-	-	230	151
Thai Nitrate Co., Ltd.	-	-	771	-
Associates				
United Grain Industry Co., Ltd.	11,903	6,612	3,741	1,449
Other related parties				
Pornchai Enterprise Co., Ltd.	36,591	35,233	30,747	31,294
Hong Yiah Seng Co., Ltd.	3,069	2,810	2,095	2,015
Rayong Forest Co., Ltd.	24	23	24	23
Saraburi Ginning Mill Co., Ltd.	1,678	2,144	459	972
Leophairatana Enterprise Co., Ltd.	4,180	4,204	-	-
Hong Yiah Seng Real Estates and Investment Co., Ltd.	1,219	1,173	-	-
Total	58,664	52,199	46,318	35,904

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Balances with related parties At 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Lease liabilities				
Subsidiaries				
TPI Concrete Co., Ltd.	-	-	5,288	-
TPI Polene Bio Organics Co., Ltd.	-	-	3,290	-
Mondo Thai Co., Ltd.	-	-	14,648	14,878
Associates				
United Grain Industry Co., Ltd.	107,147	153,723	3,052	2,281
Other related parties				
Pornchai Enterprise Co., Ltd.	36,262	33,440	28,522	26,297
Hong Yiah Seng Co., Ltd.	2,351	2,631	537	2,631
Rayong Forest Co., Ltd.	961	985	961	985
Saraburi Ginning Mill Co., Ltd.	1,920	3,599	-	459
Leophairatana Enterprise Co., Ltd.	6,013	9,811	-	-
Hong Yiah Seng Real Estates and Investment Co., Ltd.	1,920	3,139	-	-
Total	156,574	207,328	56,298	47,531

Significant agreements with related parties**(a) Office building lease agreements**

The Company and its subsidiary have long-term office building lease agreements with a related company. Previously, the initial lease term for each lease agreement was for 3 years, with the lease being renewable. In July 1999, the Company and a subsidiary entered into a 90 years office building lease agreement with a related company to replace the expired original office building lease agreements in which the Company and a subsidiary made one payment for the whole lease period (*the total rental for the 90 years term of the lease is Baht 40,000 per square meter, equivalent to a monthly rental, before discounting cash flows, of Baht 37 per square meter*). The annual rental is deducted from the prepaid rentals. Subsequently, on 24 July 2001, the Company and its subsidiary agreed to sign the amendments in addition to the existing office building lease agreements with a related company. The initial period of the lease is for 30 years, commencing from the original date on which the rentals of each respective agreement were prepaid. The related party warranted that the lease would be renewable for another 2 subsequent periods of 30 years under the same conditions, including rental fee as set out in the original agreements.

On 25 August 2006, the Company and its subsidiary registered the lease with the Land Department.

Should either party terminate the lease agreement, the unused prepaid rentals are refundable to the Companies. Both parties agreed in principle to execute a mortgage on the office building as security for the unused prepaid rentals. As at 31 December 2022, there was no mortgage agreement as security for the unused prepaid rentals, so the recoverability of prepaid rentals depends on the ability of the related company to repay.

(b) Electricity supply agreement

The Company entered into an electricity supply contract with a subsidiary company, to provide the waste heat to the subsidiary that will be used in the manufacturing process for electricity. The subsidiary company shall supply the electricity to the Company based on certain percentage as specified in the agreement. The agreement shall remain in full force and effect so long as, unless it is terminated by mutual agreement in writing of both parties.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

(c) Office building services agreements

The Company and its subsidiaries entered into office building services agreements with related parties for 3 years. The details were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Non-cancellable service contract commitments</i>				
Within one year	50,058	32,231	41,316	26,738
After one year but within five years	43,563	27,086	39,436	20,891
Total	93,621	59,317	80,752	47,629

The subsidiary had made several land rental agreements with its related parties which specified that lessee has to decommission the assets from rental area at the end of contract, causing lessee to set up the decommissioning costs as at 31 December 2022 in amount of Baht 5.7 million (31 December 2021: Baht 4.9 million).

The subsidiary had made several land rental agreements with its related parties which specified that lessee has to decommission the assets from rental area at the end of contract, causing lessee to set up the decommissioning costs as at 31 December 2021 in amount of Baht 269.6 million. Subsequently, on 30 September 2022, both parties agreed to cancel the terms of the delivery of the leased assets and decommission of the agreements.

5 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Cash on hand	2,292	5,278	1,675	4,247
Cash at banks - current accounts	78,171	63,060	14,088	27,107
Cash at banks - savings accounts	6,390,424	5,598,413	3,828,012	1,126,510
Cash at banks - savings accounts (Private funds)	-	1,551	-	10
Highly liquid short-term investments	4,200,305	306	4,200,000	-
Total	10,671,192	5,668,608	8,043,775	1,157,874

6 Trade account receivables

		Consolidated financial statements		Separate financial statements	
<i>At 31 December</i>	<i>Note</i>	2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Related parties	4	913	770	1,096,573	7,712,296
Other parties		5,592,549	6,014,765	2,836,977	977,274
Total		5,593,462	6,015,535	3,933,550	8,689,570
<i>Less allowance for expected credit loss</i>		<i>(33,949)</i>	<i>(49,537)</i>	<i>(33,375)</i>	<i>(32,507)</i>
Net		5,559,513	5,965,998	3,900,175	8,657,063

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Related parties				
Within credit terms	723	689	766,006	2,024,029
Overdue:				
1 - 30 days	39	58	45,648	1,536,660
31 - 60 days	4	4	64,260	1,389,295
61 - 90 days	18	14	60,961	1,086,110
More than 90 days	129	5	159,698	1,676,202
Total	913	770	1,096,573	7,712,296
Less allowance for expected credit loss	-	-	-	-
Net	913	770	1,096,573	7,712,296
Other parties				
Within credit terms	4,927,888	5,533,308	2,587,836	810,043
Overdue:				
1 - 30 days	290,725	321,775	137,986	106,223
31 - 60 days	110,362	48,208	26,428	6,451
61 - 90 days	70,214	25,980	12,866	2,939
More than 90 days	193,360	85,494	71,861	51,618
Total	5,592,549	6,014,765	2,836,977	977,274
Less allowance for expected credit loss	(33,949)	(49,537)	(33,375)	(32,507)
Net	5,558,600	5,965,228	2,803,602	944,767
Net total	5,559,513	5,965,998	3,900,175	8,657,063
Allowance for expected credit loss				
	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
At 1 January	(49,537)	(64,784)	(32,507)	(37,242)
Addition	(1,683)	(174)	(1,666)	-
Reversal	15,242	-	-	-
Write-off	2,029	15,421	798	4,735
At 31 December	(33,949)	(49,537)	(33,375)	(32,507)

The Group requires various customers to provide cash, bank and personal guarantees as collateral.

The normal credit term granted by the Group ranges from 30 days to 360 days.

Information of credit risk is disclosed in note 35 (b.1).

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Notes to the financial statements For the year ended 31 December 2022

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Finished goods	2,111,902	1,799,241	2,323,165	2,096,425
Work in process	6,926,370	5,370,380	4,657,256	3,281,036
Raw materials and chemicals	2,250,291	1,670,665	1,893,293	1,405,548
Packages	525,996	479,828	426,911	390,381
Oil and coal	2,964,500	2,507,785	2,798,918	2,337,348
Spare parts and general supplies	4,658,435	4,012,616	3,428,114	2,946,455
Goods in transit	270,743	245,002	265,495	238,207
Total	19,708,237	16,085,517	15,793,152	12,695,400
Less allowance for decline in value	(353,222)	(370,137)	(35,342)	(41,471)
Net	19,355,015	15,715,380	15,757,810	12,653,929
Inventories recognised in cost of sales of goods				
- Cost	35,293,427	26,401,777	29,079,139	21,507,767
- Reversal of net realisable value	(16,915)	(10,777)	(6,129)	(2,314)
Net	35,276,512	26,391,000	29,073,010	21,505,453

8 Marketable financial assets

	Consolidated financial statements			
Marketable equity and debt securities	At 1 January	Increase (decrease)	Fair value adjustment	At 31 December
	<i>(in thousand Baht)</i>			
2022				
Current financial assets				
Debt securities measured at				
- FVTPL	3,849,788	(3,849,788)	-	-
Total	3,849,788	(3,849,788)	-	-
Non-current financial assets				
Equity/Debt securities measured at				
- FVOCI	1,440	-	(47)	1,393
Total	1,440	-	(47)	1,393
2021				
Current financial assets				
Debt securities measured at				
- FVTPL	2,699,273	1,139,314	11,201	3,849,788
Total	2,699,273	1,139,314	11,201	3,849,788
Non-current financial assets				
Equity/Debt securities measured at				
- FVOCI	1,431	-	9	1,440
Total	1,431	-	9	1,440

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

<i>Marketable equity and debt securities</i>	At 1 January	Separate financial statements Increase (decrease) (in thousand Baht)	Fair value adjustment	At 31 December
2022				
Current financial assets				
Debt securities measured at				
- FVTPL	1,803,991	(1,803,991)	-	-
Total	1,803,991	(1,803,991)	-	-
Non-current financial assets				
Equity securities measured at				
- FVOCI	233	-	(50)	183
Total	233	-	(50)	183
2021				
Current financial assets				
Debt securities measured at				
- FVTPL	1,302,891	501,066	34	1,803,991
Total	1,302,891	501,066	34	1,803,991
Non-current financial assets				
Equity securities measured at				
- FVOCI	226	-	7	233
Total	226	-	7	233

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

<i>Allowance for expected credit loss</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Associates</i>				
At 1 January	842,539	805,101	842,539	805,101
Share of profit of associates accounted for using equity method	21,386	24,703	21,386	24,703
Share of other comprehensive income (expense) of associates accounted for using equity method	(7,588)	12,735	(7,588)	12,735
At 31 December	856,337	842,539	856,337	842,539
<i>Joint venture</i>				
At 1 January	-	-	-	-
Acquisition	250,000	-	-	-
Share of loss of joint venture accounted for using equity method	(106)	-	-	-
At 31 December	249,894	-	-	-

The Group has not recognised loss relating to an investment in an indirect associate accounted for using the equity method where its share of loss exceeds the carrying amount of its investment. As at 31 December 2022, the Group's cumulative share of unrecognised loss was Baht 985 million (2021: Baht 985 million). The Group has no obligation in respect of this loss.

On 1 December 2022, the subsidiary entered into a memorandum of understanding with Electricity Generating Public Co., Ltd. ("EGCO") are incorporated in Thailand, in order to invest in E&T Renewable Energy Co., Ltd., a new joint venture established in Thailand. The purpose of the joint venture are manufacturing and distributing electricity. The subsidiary and EGCO equally invested 49.99% in the joint venture and paid an initial authorised share capital in 25% of the authorised share capital of Baht 500 million.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Investments in associates and joint venture as at 31 December were as follows:

	Type of business	Ownership interest		Paid-up capital			Consolidated financial statements			At equity method	
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
		(%)					(in thousand Baht)				
Associates											
BBU Life Insurance Public Co., Ltd.	Life insurance	25.00	25.00	500,000	500,000	125,000	125,000	119,991	128,711		
United Grain Industry Co., Ltd.	Manufacture and sale of packaging	19.00	19.00	550,000	550,000	104,500	104,500	736,346	713,828		
						229,500	229,500	856,337	842,539		
Indirect associates											
Thai Special Steel Industry Public Co., Ltd.	Manufacture and sale of steel (in the process of registering the dissolution)	29.53	29.53	4,220,000	4,220,000	1,246,200	1,246,200	-	-		
Thai Plastic Film Co., Ltd.	Manufacture and sale of packaging	19.00	19.00	40,000	40,000	-	-	-	-		
Thai Plastic Products Co., Ltd.	Manufacture and sale of packaging	19.00	19.00	60,000	60,000	-	-	-	-		
Total						1,475,700	1,475,700	856,337	842,539		
Indirect joint venture											
E&T Renewable Energy Co., Ltd.	Generate electricity from renewable energy	35.11	-	250,000	-	250,000	-	249,894	-		
Total						250,000	-	249,894	-		

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	Type of business	Ownership interest		Paid-up capital		Cost		At equity method	
		2022	2021	2022	2021	2022	2021	2022	2021
		(%)				(in thousand Baht)			
Associates									
BUI Life Insurance Public Co., Ltd.	Life insurance	25.00	25.00	500,000	500,000	125,000	125,000	119,991	128,711
United Grain Industry Co., Ltd.	Manufacture and sale of packaging	19.00	19.00	550,000	550,000	104,500	104,500	736,346	713,828
Total						229,500	229,500	856,337	842,539

No dividend distribution from investments in associates held by the Group and the Company during years ended 31 December 2022 and 2021.

None of the Group's and the Company's associates are publicly listed and consequently do not have published price quotations.

All associates were incorporated in Thailand.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Immaterial associates

The following is summarised financial information for the Group's interest in immaterial associates based on the amounts reported in the Group's consolidated financial statements:

	2022	2021
	<i>(in thousand Baht)</i>	
Carrying amount of interests in immaterial associates	856,337	842,539
Group's share of:		
- Profit (loss) from continuing operations	21,280	24,703
- Other comprehensive income (expense)	(7,588)	12,735
- Total comprehensive income (expense)	13,692	37,438

10 Investments in subsidiaries

	Separate financial statements	
	2022	2021
	<i>(in thousand Baht)</i>	
<i>Subsidiaries</i>		
At 1 January	26,088,167	24,911,629
Increase capital of TPI Concrete Co., Ltd.	1,700,000	-
Share of profit of subsidiaries	2,471,275	2,922,175
Dividends income	(1,526,562)	(1,771,125)
Losses recognised using the equity method in excess of the investment	40	25,133
Share of other comprehensive income (expense) of subsidiaries	3,655	355
At 31 December	28,736,575	26,088,167

None of the Company's subsidiaries are publicly listed and consequently do not have published price quotations, except for TPI Polene Power Public Co., Ltd. which is listed on the Stock Exchange of Thailand. Based on the closing price of Baht 3.40 at 31 December 2022 (*31 December 2021: Baht 4.16*), the fair value of the Company's investment in TPI Polene Power Public Co., Ltd. was Baht 20,060 million (*31 December 2021: Baht 24,544 million*).

On 1 July 2022, the Company paid for the newly issued ordinary shares of TPI Concrete Company Limited, a subsidiary, amounting to 17 million shares with the par value of Baht 100 per share, amounting to Baht 1,700 million.

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Investments in subsidiaries as at 31 December 2022 and 2021, dividend income from those investments for the years then ended, were as follows:

	Type of business	Ownership interest (%)	Separate financial statements						Dividend		
			Paid-up capital		Cost		At equity method		Income for the year		
			2022	2021	2022	2021	2022	2021	2022	2021	
			(in thousand Baht)								
Direct subsidiaries											
TPI Concrete Co., Ltd.	Manufacturing and distributing ready mixed concrete	99.99	99.99	3,700,000	2,000,000	3,699,999	1,999,999	3,029,428	1,477,194	-	-
TPI Polene Power Public Co., Ltd.	Distributing gasoline, diesel and natural gas / Manufacturing and distributing electricity and refuse derived fuel (RDF) and organics waste	70.24	70.24	8,400,000	8,400,000	5,899,999	5,899,999	21,686,754	21,227,078	1,475,000	1,593,000
TPI All Seasons Co., Ltd.	Manufacturing and distributing melt sheets	99.99	99.99	450,000	450,000	450,000	450,000	400,143	316,923	-	-
TPI Polene Bio Organics Co., Ltd.	Manufacturing and distributing organic fertilizer	99.99	99.99	3,300,000	3,300,000	2,654,400	2,654,400	1,555,664	1,590,417	-	-
Thai Propoxide Co., Ltd.	Manufacturing electricity (dormant)	99.99	99.99	250	250	250	250	-	-	-	-
Thai Nitrate Co., Ltd.	Manufacturing and distributing nitric acids and ammonium nitrate	99.99	99.99	468,750	468,750	784,409	784,409	1,903,853	1,317,325	51,562	178,125
TPI Healthcare Co., Ltd.	Manufacturing and distributing products for humans	99.99	99.99	5,050	5,050	4,950	4,950	8,626	7,256	-	-
TPI Commercial Co., Ltd.	Retailing business	99.94	99.94	100	100	-	-	6,000	4,292	-	-

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	Type of business	Separate financial statements									
		Ownership interest (%)		Paid-up capital		Cost		At equity method		Dividend Income for the year	
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
		(in thousand Baht)									
Direct subsidiaries (continue)											
TPI Service Co., Ltd.	Construction service	95.10	95.10	4,600	4,600	4,457	4,457	12,151	10,211	-	-
Master Achieve (Thailand) Co., Ltd.	Manufacturing and distributing factory equipment	99.99	99.99	100,000	100,000	99,931	99,931	95,573	102,172	-	-
TPI Bio Pharmaceuticals Co., Ltd.	Manufacturing and distributing products for animals	99.99	99.99	5,500	5,500	5,647	5,647	9,198	7,547	-	-
Indirect subsidiaries											
Mondo Thai Co., Ltd.	Property developing	83.27	83.27	36,000	36,000	10,350	10,350	9,623	9,479	-	-
Polene Silicon Co., Ltd.	Export and import business	99.93	99.93	10,000	10,000	-	-	19,562	18,273	-	-
TPI Polene Power Investment Co., Ltd.	Generate and distribute electricity in Cambodia (in the process of registering the dissolution)	-	70.24	-	3,957	-	-	-	-	-	-
TPI Biomass Power Co., Ltd.	Generate electricity from waste and biomass (dormant)	70.23	70.23	187,500	187,500	-	-	-	-	-	-
TPI Polene Power (International) Co., Ltd.	Investing in alternative energy business (dormant)	70.23	70.23	100,000	100,000	-	-	-	-	-	-
TPI Deep Sea Port Co., Ltd.	Port business operation (dormant)	70.23	70.23	25,000	25,000	-	-	-	-	-	-

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Separate financial statements											
Type of business	Ownership interest (%)	Paid-up capital		Cost		At equity method		Dividend Income for the year			
		2022	2021	2022	2021	2022	2021	2022	2021		
		(in thousand Baht)									
<i>Indirect subsidiaries (continue)</i>											
TPI Distribution Center Co., Ltd.	Operate business about collecting, storing, and distributing products to consumer (dormant)	70.23	70.23	1,000	1,000	-	-	-	-	-	-
TPI Smart City Co., Ltd. (Formerly: TPI Polene Power (SongKhla) Co., Ltd.)	Operate all types of communities and industrial estate (dormant)	70.22	70.22	1,000	1,000	-	-	-	-	-	-
TPI Solar Power Co., Ltd.	Generate electricity from solar energy (dormant)	70.22	70.22	1,000	1,000	-	-	-	-	-	-
TPI Wind Power Co., Ltd.	Generate electricity from wind energy (dormant)	70.22	70.22	1,000	1,000	-	-	-	-	-	-
Total				13,614,392	11,914,392	28,736,575	26,088,167	1,526,562	1,771,125		

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

11 Non-controlling interests

The following table summarises the information relating to each of the Group's subsidiaries that has a material non-controlling interest, before any intra-group eliminations:

<i>As at 31 December</i>	TPI Polene Power Public Co., Ltd.	
	2022	2021
	<i>(in thousand Baht)</i>	
Non-controlling interest percentage	29.75%	29.75%
Current assets	7,001,514	9,105,261
Non-current assets	43,577,859	39,380,089
Current liabilities	(5,115,055)	(5,058,461)
Non-current liabilities	(13,899,890)	(12,575,068)
Net assets	31,564,428	30,851,821
Carrying amount of non-controlling interest	9,390,417	9,178,417
Other individually immaterial subsidiaries	12,679	12,167
Total	9,403,096	9,190,584

<i>For the year ended 31 December</i>	TPI Polene Power Public Co., Ltd.	
	2022	2021
	<i>(in thousand Baht)</i>	
Revenue	10,625,495	11,358,260
Profit	2,812,784	4,191,330
Other comprehensive income	(177)	353
Total comprehensive income	2,812,607	4,191,683
Total comprehensive income allocated to non-controlling interest	836,751	1,247,026
Other individually immaterial subsidiaries	418	399
Total	837,169	1,247,425
Dividends to non-controlling interest	(624,657)	(674,630)
Cash flows from operating activities	1,608,807	1,237,331
Cash flows from investing activities	(679,687)	(1,635,019)
Cash flows from financing activities	(609,698)	141,351
Others	(49)	118



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12 Long-term investments in related parties

Consolidated and Separate financial statements					
	Type of business	Relationship	Ownership interest		Cost
			2022	2021	
			(%)		(in thousand Baht)
Related parties					
Pomchai Enterprise Co., Ltd.	Real estate and service rental	Shareholder	0.65	0.65	45,653
Total					45,653



TPI Polene Public Company Limited and its Subsidiaries

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13 Investment properties

	Consolidated financial statements			Separate financial statements	
	Land	Buildings	Total	Land	Total
	<i>(in thousand Baht)</i>				
Cost					
At 1 January 2021	505,713	4,500	510,213	74,044	74,044
Additions	79,771	-	79,771	56,472	56,472
At 31 December 2021 and 1 January 2021	585,484	4,500	589,984	130,516	130,516
Transfers	(30,436)	30,436	-	-	-
Transfer from property, plant and equipment	-	3,575	3,575	-	-
Transfer to property, plant and equipment	(56,472)	-	(56,472)	(56,472)	(56,472)
At 31 December 2022	498,576	38,511	537,087	74,044	74,044
Depreciation and impairment losses					
At 1 January 2021	-	3,944	3,944	-	-
Depreciation charge for the year	-	300	300	-	-
At 31 December 2021 and 1 January 2022	-	4,244	4,244	-	-
Depreciation charge for the year	-	656	656	-	-
At 31 December 2022	-	4,900	4,900	-	-
Net book value					
At 31 December 2021	585,484	256	585,740	130,516	130,516
At 31 December 2022	498,576	33,611	532,187	74,044	74,044

The fair value of investment properties of the Group and the Company as at 31 December 2022 of Baht 967 million and Baht 74 million, respectively (2021: Baht 1,020 million and Baht 131 million, respectively) was determined by independent professional valuers, at open market values on an existing use basis. The fair value of measurement for investment property has been categorised as a Level 3 fair value.

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14 Property, plant and equipment

	Consolidated financial statements									
	Land and land improvement	Buildings and structures	Machinery and equipment for production	Tools and factory equipment	Office furniture, fixture and equipment <i>(in thousand Baht)</i>	Vehicle	Major spare parts	Exploration assets	Assets under construction and installation	Total
<i>Cost</i>										
At 1 January 2021	13,203,704	18,179,092	83,791,873	9,233,086	701,826	2,384,535	533,075	1,601,820	9,436,781	139,065,792
Additions	1,486,369	7,857	182,752	226,600	23,573	509	23,354	-	4,429,781	6,380,795
Transfers - net	-	358,452	5,330,045	51,652	8,961	490	(185,234)	-	(5,564,366)	-
Disposals / write - off	(54,074)	(57,622)	(97,528)	(7,955)	(5,375)	(14,321)	-	(1,601,820)	-	(1,838,695)
At 31 December 2021 and 1 January 2022	14,635,999	18,487,779	89,207,142	9,503,383	728,985	2,371,213	371,195	-	8,302,196	143,607,892
Additions	780,613	3,101	116,026	390,762	37,622	7,163	40,503	-	6,426,589	7,802,379
Transfers - net	3,189	224,038	3,450,377	16,713	10,148	1,839	(1,780)	-	(3,704,524)	-
Transfer from investment property	56,472	-	-	-	-	-	-	-	-	56,472
Transfer to investment property	-	(3,575)	-	-	-	-	-	-	-	(3,575)
Transfer to assets held for sale	-	-	(1,013,650)	-	-	-	-	-	-	(1,013,650)
Disposals / write - off	-	(36,366)	(271,502)	(8,955)	(2,873)	(62,308)	-	-	(188)	(382,192)
At 31 December 2022	15,476,273	18,674,977	91,488,393	9,901,903	773,882	2,317,907	409,918	-	11,024,073	150,067,326

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Consolidated financial statements

	Land and land improvement	Buildings and structures	Machinery and equipment for production	Tools and factory equipment	Office furniture, fixture and equipment (in thousand Baht)	Vehicle	Major spare parts	Exploration assets	Assets under construction and installation	Total
Depreciation and impairment losses										
At 1 January 2021	588	7,106,872	29,033,624	5,944,590	540,213	1,908,563	-	1,601,820	4,532	46,140,802
Depreciation charge for the year	224	533,623	1,805,527	423,879	39,752	56,984	-	-	-	2,859,989
Disposals / write - off	-	(52,536)	(78,992)	(6,085)	(5,199)	(14,319)	-	(1,601,820)	-	(1,758,951)
At 31 December 2021 and 1 January 2022	812	7,587,959	30,760,159	6,362,384	574,766	1,951,228	-	-	4,532	47,241,840
Depreciation charge for the year	284	509,999	2,031,057	422,586	41,081	54,477	-	-	-	3,059,484
Transfer to assets held for sale	-	-	(548,312)	-	-	-	-	-	-	(548,312)
Disposals / write - off	-	(22,253)	(66,611)	(5,521)	(2,839)	(62,202)	-	-	-	(159,426)
At 31 December 2022	1,096	8,075,705	32,176,293	6,779,449	613,008	1,943,503	-	-	4,532	49,593,586
Net book value										
At 31 December 2021	14,635,187	10,899,820	58,446,983	3,140,999	154,219	419,985	371,195	-	8,297,664	96,366,052
At 31 December 2022	15,475,177	10,599,272	59,312,100	3,122,454	160,874	374,404	409,918	-	11,019,541	100,473,740



TTPI Polene Public Company Limited and its Subsidiaries
Notes to the financial statements
For the year ended 31 December 2022

Separate financial statements										
						Office furniture, fixture and equipment <i>(in thousand Baht)</i>	Vehicle	Major spare parts	Assets under construction and installation	Total
Cost										
At 1 January 2021	3,095,438	15,572,014	53,316,414	8,854,422	562,787	2,348,180	287,470	5,560,585	89,597,310	
Additions	-	-	2,923	192,991	111,273	448	23,744	2,739,146	2,970,525	
Transfers - net	-	287,173	2,260,703	28,165	6,541	-	(38,675)	(2,543,907)	-	
Disposals	-	-	(31,681)	(2,308)	(2,992)	(14,298)	-	-	(51,279)	
At 31 December 2021 and 1 January 2022	3,095,438	15,859,187	55,548,359	9,073,270	577,609	2,334,330	272,539	5,755,824	92,516,556	
Additions	54,634	-	-	343,726	23,825	7,416	32,735	2,813,996	3,276,332	
Transfers - net	-	197,889	3,040,757	676	9,967	1,661	-	(3,250,950)	-	
Transfer from investment property	56,472	-	-	-	-	-	-	-	56,472	
Transfer to asset held for sale	-	-	(448,401)	-	-	-	-	-	(448,401)	
Disposals	-	-	(13,628)	(6,547)	(2,309)	(65,093)	-	(573,097)	(660,674)	
At 31 December 2022	3,206,544	16,057,076	58,127,087	9,411,125	609,092	2,278,314	305,274	4,745,773	94,740,285	
Depreciation and impairment losses										
At 1 January 2021	-	6,306,021	21,727,612	5,731,151	443,066	1,866,705	-	-	36,074,555	
Depreciation charge for the year	-	418,915	766,729	397,586	30,041	57,387	-	-	1,670,658	
Disposals	-	-	(13,366)	(452)	(2,937)	(14,295)	-	-	(31,050)	
At 31 December 2021 and 1 January 2022	-	6,724,936	22,480,975	6,128,285	470,170	1,909,797	-	-	37,714,163	
Depreciation charge for the year	-	411,144	955,833	391,051	29,520	55,266	-	-	1,842,814	
Transfer to asset held for sale	-	-	(188,158)	-	-	-	-	-	(188,158)	
Disposals	-	-	(6,930)	(3,156)	(2,274)	(64,986)	-	-	(77,346)	
At 31 December 2022	-	7,136,080	23,241,720	6,516,180	497,416	1,900,077	-	-	39,291,473	
Net book value										
At 31 December 2021	3,095,438	9,134,251	33,067,384	2,944,985	107,439	424,533	272,539	5,755,824	54,802,393	
At 31 December 2022	3,206,544	8,920,996	34,885,367	2,894,945	111,676	378,237	305,274	4,745,773	55,448,812	

The gross amount of the Group and the Company's fully depreciated plant and equipment that was still in use as at 31 December 2022 amounted to Baht 14,514 million and Baht 9,988 million, respectively (2021: Baht 13,894 million and Baht 9,779 million, respectively).

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

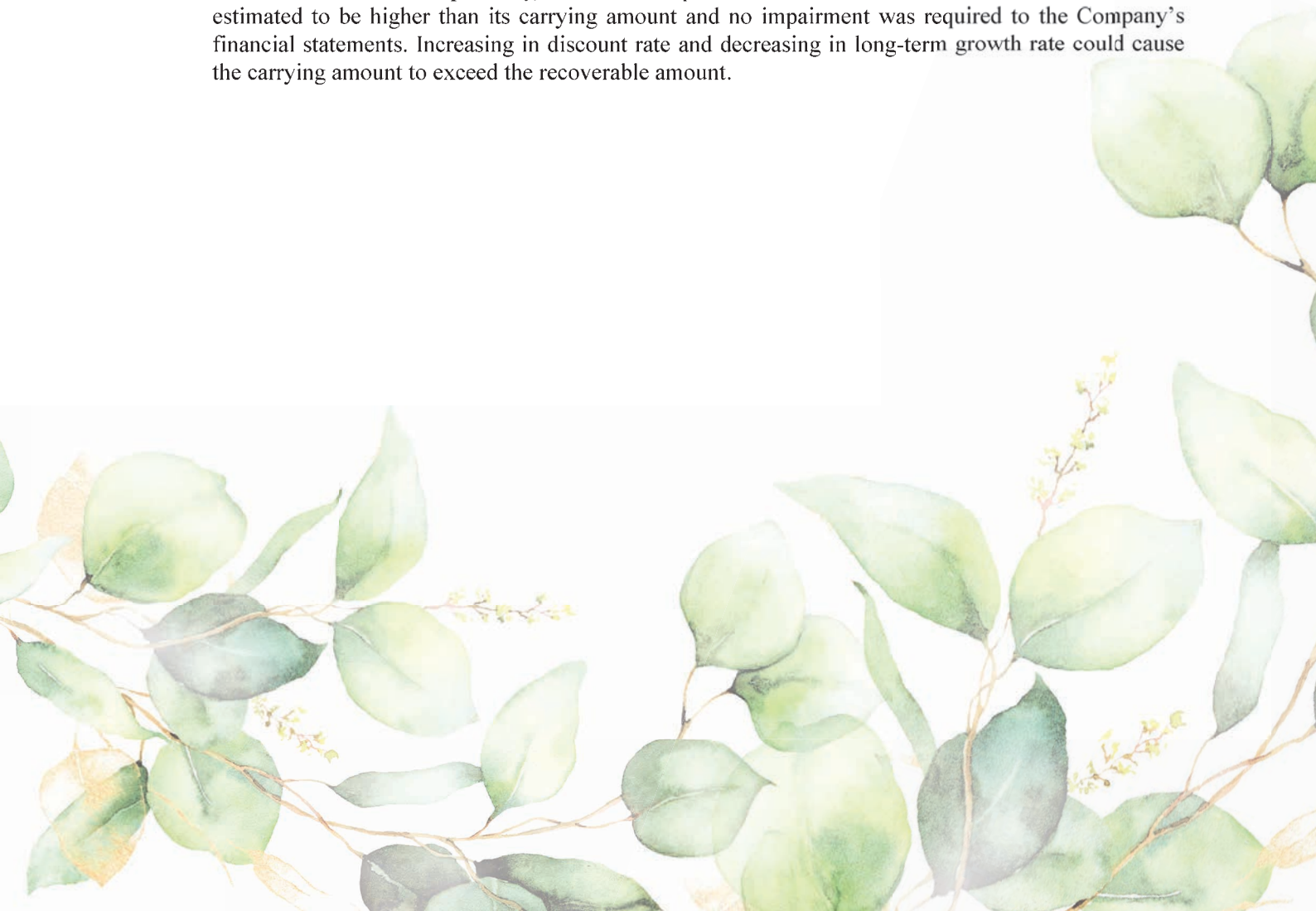
Security

At 31 December 2022 the Company's land, buildings, machinery and equipment with a net book value of Baht 5,740 million. (2021: Baht 5,557 million) are mortgaged or pledged as collateral for the long-terms loan.

Capitalised borrowing costs relating to the acquisition of the construction of new factory of the Group and the Company as at 31 December 2022 are Baht 624 million and Baht 89 million, respectively (2021: Baht 525 million and Baht 191 million, respectively), with capitalisation in the consolidated and separate financial statements of 1.59% - 4.90% (2021: 1.68% - 5.20%).

Impairment assessment for property plant and equipment in consolidated financial statements and loan to in separate financial statements

Two subsidiaries of the Company; TPI Polene Bio Organics Co., Ltd. and TPI All Seasons Co., Ltd. has continuous loss in operation which indicated the impairment in property, plant and equipment in consolidated financial statements and loan to in separate financial statements. The Group and the Company have assessed the recoverable amount base on value in use; determined by discounting future cash flows to be generated from the continuing use of assets. The key assumptions used to determine recoverable amount included sale volume and selling price, long-term growth rate derived from expectations of future outcomes taking into account past experience, adjusted for anticipated revenue growth and discount rate referred to weighted average cost of capital (WACC) of TPI Polene Bio Organics Co., Ltd. and TPI All Seasons Co., Ltd. at 9.42% and 10.54%, respectively (2021: 8.00% and 10.86%, respectively). Base on impairment assessment, the recoverable amount was estimated to be higher than its carrying amount and no impairment was required to the Company's financial statements. Increasing in discount rate and decreasing in long-term growth rate could cause the carrying amount to exceed the recoverable amount.



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

15 Lease

<i>Right-of-use assets At 31 December</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Land	180,425	237,614	48,708	42,033
Buildings	240,050	238,851	185,286	184,908
Equipment	5,915	14,871	5,915	14,871
Vehicles	141,499	161,617	107,513	117,671
Total	567,889	652,953	347,422	359,483

In 2022, additions to the right-of-use assets of the Group and the Company were Baht 106 million and Baht 117 million, respectively (2021: Baht 232 million and Baht 171 million, respectively).

The Group lease a number of land, buildings and vehicles for 2-30 years, with extension options at the end of lease term. The rental is payable monthly as specified in the contract.

Extension options

The Group has extension options on property leases exercisable up to one year before the end of the contract period. The Group assesses at lease commencement date whether it is reasonably certain to exercise the extension options and will regularly reassess.

<i>For the year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Amounts recognised in profit or loss</i>				
Depreciation of right-of-use assets:				
- Land	50,688	47,562	6,062	3,380
- Buildings	51,833	61,343	47,720	57,052
- Equipment	8,956	8,841	8,956	8,841
- Vehicles	79,626	80,515	66,381	67,122
Interest on lease liabilities	23,633	21,272	15,264	10,122
Expenses relating to short-term leases	42,943	58,787	30,130	40,565

In 2022, total cash outflow for leases of the Group and the Company were Baht 205.05 million and Baht 132.69 million, respectively (2021: Baht 200.58 million and Baht 133.07 million, respectively).



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

16 Intangible assets

	Consolidated financial statements				
	Cost of raw material resources and cost of concessions	Software licenses	Development assets (in thousand Baht)	Others	Total
Cost					
At 1 January 2021	1,011,688	59,383	41,205	128,016	1,240,292
Additions	3,533	-	62,319	139,750	205,602
Disposals	-	-	-	(8,016)	(8,016)
At 31 December 2021					
and 1 January 2022	1,015,221	59,383	103,524	259,750	1,437,878
Additions	32,938	-	57,721	4,712	95,371
Transfers	225,573	-	-	(225,573)	-
Disposals	(24,687)	-	-	-	(24,687)
At 31 December 2022	1,249,045	59,383	161,245	38,889	1,508,562
Amortisation					
At 1 January 2021	654,800	48,913	34,914	-	738,627
Amortisation for the year	29,589	1,735	7,772	-	39,096
At 31 December 2021					
and 1 January 2022	684,389	50,648	42,686	-	777,723
Amortisation for the year	29,889	1,734	9,607	-	41,230
Disposals	(23,955)	-	-	-	(23,955)
At 31 December 2022	690,323	52,382	52,293	-	794,998
Net book value					
At 31 December 2021	330,832	8,735	60,838	259,750	660,155
At 31 December 2022	558,722	7,001	108,952	38,889	713,564

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Separate financial statements

	Cost of raw material resources and cost of concessions	Software licenses	Development assets (in thousand Baht)	Others	Total
Cost					
At 1 January 2021	1,011,688	59,383	41,205	120,000	1,232,276
Additions	3,533	-	61,436	139,750	204,719
Disposals	-	-	(1,776)	-	(1,776)
At 31 December 2021 and 1 January 2022	1,015,221	59,383	100,865	259,750	1,435,219
Additions	32,938	-	56,905	4,712	94,555
Transfers	225,573	-	-	(225,573)	-
Disposals	(24,687)	-	-	-	(24,687)
At 31 December 2022	1,249,045	59,383	157,770	38,889	1,505,087
Amortisation					
At 1 January 2021	654,800	48,913	34,914	-	738,627
Amortisation for the year	29,589	1,735	7,556	-	38,880
At 31 December 2021 and 1 January 2022	684,389	50,648	42,470	-	777,507
Amortisation for the year	29,889	1,734	9,277	-	40,900
Disposals	(23,955)	-	-	-	(23,955)
At 31 December 2022	690,323	52,382	51,747	-	794,452
Net book value					
At 31 December 2021	330,832	8,735	58,395	259,750	657,712
At 31 December 2022	558,722	7,001	106,023	38,889	710,635

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

17 Interest-bearing liabilities

Consolidated financial statements						
	Secured	2022 Unsecured	Total (in thousand Baht)	Secured	2021 Unsecured	Total
Current						
Short-term loans from financial institution	-	4,355,338	4,355,338	-	3,391,674	3,391,674
Current portion of long-term loans from financial institutions	-	-	-	-	1,000,000	1,000,000
Current portion of lease liabilities	-	151,050	151,050	-	157,073	157,073
Current portion of debentures	-	12,843,200	12,843,200	-	12,565,000	12,565,000
Non-current						
Lease liabilities	-	280,479	280,479	-	350,856	350,856
Debentures	-	53,742,400	53,742,400	-	50,678,600	50,678,600
Total interest-bearing liabilities	-	71,372,467	71,372,467	-	68,143,203	68,143,203
Separate financial statements						
	Secured	2022 Unsecured	Total (in thousand Baht)	Secured	2021 Unsecured	Total
Current						
Short-term loans from financial institution	-	4,355,338	4,355,338	-	3,391,674	3,391,674
Current portion of long-term loans from financial institutions	-	-	-	-	1,000,000	1,000,000
Current portion of lease liabilities	-	102,038	102,038	-	97,055	97,055
Current portion of debentures	-	10,023,200	10,023,200	-	8,567,000	8,567,000
Non-current						
Lease liabilities	-	144,490	144,490	-	150,222	150,222
Debentures	-	41,255,000	41,255,000	-	39,964,200	39,964,200
Total interest-bearing liabilities	-	55,880,066	55,880,066	-	53,170,151	53,170,151

The periods to maturity of interest-bearing liabilities as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Within 1 year	17,349,588	17,113,747	14,480,576	13,055,729
1-5 years	53,919,850	50,853,860	41,366,921	40,080,488
After 5 years	103,029	175,596	32,569	33,934
Total	71,372,467	68,143,203	55,880,066	53,170,151

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Secured interest-bearing liabilities as at 31 December were secured on the following net book value assets:

<i>Assets pledged as security for liabilities as at 31 December</i>	<i>Note</i>	Consolidated and Separate financial statements	
		2022	2021
		<i>(in thousand Baht)</i>	
Land and buildings		1,220,231	1,294,944
Machinery and equipment		4,519,680	4,261,595
Total	14	<u>5,739,911</u>	<u>5,556,539</u>

As at 31 December 2022 the Group and the Company had unutilised credit facilities totalling Baht 153 million and Baht 108 million, respectively (2021: Baht 153 million and Baht 108 million, respectively).



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Debentures

As at 31 December 2022, the Group and the Company had the unsecured, unsubordinated debentures in registered form with debentures holders' representative, payable quarterly totalling Baht 66,586 million and Baht 51,278 million, respectively (2021: Baht 63,244 million and Baht 48,531 million, respectively) as follows:

Issued Date	Consolidated financial statements						Interest rate (% p.a.)	Term
	The period to maturity over				Total			
	The period to maturity within one year		one year					
	2022	2021	2022	2021	2022	2021		
				(in thousand Baht)				
5 August 2015	-	3,743,000	-	-	-	3,743,000	5.20	7 years
1 April 2016	-	1,197,000	-	-	-	1,197,000	4.60	6 years
1 April 2016	2,640,500	-	-	2,640,500	2,640,500	2,640,500	4.80	7 years
11 January 2019	-	3,525,000	-	-	-	3,525,000	4.10	3 years
1 March 2019	-	100,000	-	-	-	100,000	3.80	2 years 10 months 30 days
11 July 2019	2,820,000	-	-	2,820,000	2,820,000	2,820,000	3.90	3 years 6 months
11 July 2019	-	-	2,888,000	2,888,000	2,888,000	2,888,000	4.90	5 years 6 months
9 August 2019	-	4,000,000	-	-	-	4,000,000	3.50	3 years 3 months
16 January 2020	4,382,700	-	-	4,382,700	4,382,700	4,382,700	3.50	3 years
2 July 2020	-	-	4,127,000	4,127,000	4,127,000	4,127,000	4.25	3 years 9 months
19 August 2020	-	-	3,789,600	3,789,600	3,789,600	3,789,600	3.90	3 years 11 months
5 November 2020	-	-	3,515,300	3,515,300	3,515,300	3,515,300	4.25	4 years
5 November 2020	-	-	3,410,700	3,410,700	3,410,700	3,410,700	4.50	5 years

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Issued Date	The period to maturity within one year		The period to maturity over one year		Total		Interest rate (% p.a.)	Term
	2022	2021	2022	2021	2022	2021		
	<i>(in thousand Baht)</i>							
4 March 2021	-	-	4,000,000	4,000,000	4,000,000	4,000,000	4.15	4 years 3 months
30 April 2021	-	-	4,000,000	4,000,000	4,000,000	4,000,000	3.50	2 years 9 months
10 June 2021	3,000,000	-	-	3,000,000	3,000,000	3,000,000	3.00	2 years 6 months
8 October 2021	-	-	3,581,200	3,581,200	3,581,200	3,581,200	3.55	4 years 6 months
8 October 2021	-	-	4,000,000	4,000,000	4,000,000	4,000,000	3.70	4 years 11 months
12 November 2021	-	-	4,523,600	4,523,600	4,523,600	4,523,600	3.55	4 years 3 months
30 June 2021	-	-	3,745,000	-	3,745,000	-	4.10	5 years
11 August 2022	-	-	4,593,000	-	4,593,000	-	4.10	5 years
15 November 2022	-	-	2,532,800	-	2,532,800	-	4.25	4 years
15 November 2022	-	-	2,042,200	-	2,042,200	-	4.32	4 years 3 months
15 November 2022	-	-	2,994,000	-	2,994,000	-	4.50	5 years
Total	12,843,200	12,565,000	53,742,400	50,678,600	66,585,600	63,243,600		



Notes to the financial statements For the year ended 31 December 2022

Issued Date	The period to maturity within one year			The period to maturity over one year			Separate financial statements		Term
	2022	2021		2022	2021	2022	Total	Interest rate (% p.a.)	
						(in thousand Baht)			
5 August 2015	-	3,745,000		-	-			3,745,000	7 years
1 April 2016	-	1,197,000		-	-			1,197,000	6 years
1 April 2016	2,640,500	-		-	2,640,500	2,640,500		2,640,500	7 years
11 January 2019	-	3,525,000		-	-	-		3,525,000	3 years
1 March 2019	-	100,000		-	-	-		100,000	2 years 10 months 30 days
11 July 2019	3,000,000	-		-	3,000,000	3,000,000		3,000,000	3 years 6 months
11 July 2019	-	-		2,888,000	2,888,000	2,888,000		2,888,000	5 years 6 months
16 January 2020	4,382,700	-		-	4,382,700	4,382,700		4,382,700	3 years
2 July 2020	-	-		4,127,000	4,127,000	4,127,000		4,127,000	3 years 9 months
5 November 2020	-	-		3,515,300	3,515,300	3,515,300		3,515,300	4 years
5 November 2020	-	-		3,410,700	3,410,700	3,410,700		3,410,700	5 years
4 March 2021	-	-		4,000,000	4,000,000	4,000,000		4,000,000	4 years 3 months
30 April 2021	-	-		4,000,000	4,000,000	4,000,000		4,000,000	2 years 9 months
8 October 2021	-	-		4,000,000	4,000,000	4,000,000		4,000,000	4 years 6 months
8 October 2021	-	-		4,000,000	4,000,000	4,000,000		4,000,000	4 years 11 months
30 June 2022	-	-		3,745,000	-	3,745,000		-	5 years
15 November 2022	-	-		2,532,800	-	2,532,800		-	4 years
15 November 2022	-	-		2,042,200	-	2,042,200		-	4 years 3 months
15 November 2022	-	-		2,994,000	-	2,994,000		-	5 years
Total	10,023,200	8,567,000		41,255,000	39,964,200	51,278,200		48,531,200	

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

18 Trade accounts payable

		Consolidated financial statements		Separate financial statements	
	<i>Note</i>	2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Related parties	4	365,969	312,029	441,636	373,773
Other parties		3,425,560	3,304,597	2,688,286	2,781,915
Total		3,791,529	3,616,626	3,129,922	3,155,688

19 Other payables

		Consolidated financial statements		Separate financial statements	
		2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Accrued expenses		1,329,895	1,124,550	893,767	892,395
Deposit from sales		417,008	595,442	356,126	505,491
Guarantee and deposits		328,237	311,660	322,254	306,290
Retention payable		475,510	172,023	50,732	48,592
Machine Payable		362,328	220,634	157,916	185,912
Others		669,442	536,866	485,601	374,011
Total		3,582,420	2,961,175	2,266,396	2,312,691

20 Non-current provisions for employee benefits

		Consolidated financial statements		Separate financial statements	
<i>At 31 December</i>		2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Post-employment benefits					
Defined benefit plan		2,041,884	2,257,704	1,709,848	1,919,174

Defined benefit plan

The Group and the Company operate a defined benefit plan based on the requirement of Thai Labour Protection Act B.E. 2541 (1998) to provide retirement benefits to employees based on pensionable remuneration and length of service. The defined benefit plans expose the Group to actuarial risks, such as longevity risk, interest rate risk and market (investment) risk.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Present value of the defined benefit obligations	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
At 1 January	2,257,704	2,326,482	1,919,174	1,956,682
Recognised in profit or loss:				
Current service cost and interest on obligation	3,829	2,792	-	-
Recognised in other comprehensive income:				
Actuarial gain	(136,275)	-	(132,446)	-
Other				
Benefit paid	(83,374)	(71,570)	(76,880)	(37,508)
At 31 December	2,041,884	2,257,704	1,709,848	1,919,174

Principal actuarial assumptions	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(%)</i>			
Discount rate	3.33 - 3.78	2.70 - 2.91	3.33 - 3.72	2.70 - 2.87
Future salary growth	2.50 - 4.50	2.35 - 6.11	3.50	4.29 - 6.11

Assumptions regarding future mortality have been based on published statistics and mortality tables.

At 31 December 2022, the weighted-average duration of the defined benefit obligation was 23 years (2021: 24 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.

Effect to the defined benefit obligation At 31 December	Consolidated financial statements			
	1% increase in assumption		1% decrease in assumption	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Discount rate	(161,993)	(246,316)	186,597	281,140
Future salary growth	160,651	249,268	(142,780)	(222,128)
Effect to the defined benefit obligation At 31 December	Separate financial statements			
	1% increase in assumption		1% decrease in assumption	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Discount rate	(129,445)	(176,131)	150,151	207,857
Future salary growth	129,342	179,151	(114,040)	(155,934)

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

21 Share capital

	Par value per share (in Baht)	Consolidated and Separate financial statements			
		2022		2021	
		Number	Amount (thousand shares / in thousand Baht)	Number	Amount
Authorised					
At 1 January	1	23,751,500	23,751,500	23,805,500	23,805,500
- ordinary shares					
Reduction of shares	1	(191,265)	(191,265)	(54,000)	(54,000)
At 31 December					
- ordinary shares	1	23,560,235	23,560,235	23,751,500	23,751,500
Issued and paid-up					
At 1 January	1	19,126,500	19,126,500	19,180,500	19,180,500
- ordinary shares					
Reduction of shares	1	(191,265)	(191,265)	(54,000)	(54,000)
At 31 December					
- ordinary shares	1	18,935,235	18,935,235	19,126,500	19,126,500

22 Treasury shares

During 2021, the Company has sold 165.61 million treasury shares totalling to Baht 281.27 million, consisting the cost of the repurchased treasury shares calculated by the weighted average method in the amount of Baht 195.79 million and surplus on sale of treasury shares (Surplus on treasury shares) in the amount of Baht 85.48 million, presented as a separate category within equity.

On 16 June 2021, the Company's treasury shares has remained 54.00 million shares. The Company registered to decrease capital totalling 54.00 million shares, at par value Baht 1 per share, by writing off the treasury shares totally 54.00 million shares that could not be sold through the Securities Exchange of Thailand on 11 June 2021 with the Ministry of Commerce and write-off all treasury shares and treasury shares reserve from equity.

At the Board of Directors meeting held on 23 December 2021, it approved the Company's share repurchase for financial management purposes scheme, the maximum amount for the share repurchase is not greater than Baht 450 million, number of shares repurchased 191.27 million shares, at par value Baht 1 per share, or representing 1% of the total paid-up capital. The repurchase period has started from 10 January 2022 to 10 April 2022.

On 21 January 2022, the Company has completely repurchased the shares under the program of 191.27 million shares at a total cost of Baht 365.55 million.

On 27 July 2022, the Company registered to decrease capital totalling 191.27 million shares, at par value Baht 1 per share, totalling Baht 191.27 million and registered with the Department of Business Development, the Ministry of Commerce and write-off all treasury shares and treasury shares reserve from equity.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

23 Reserves

Reserves comprise:

Appropriations of profit and retained earnings

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

Treasury shares reserve

The treasury shares reserve represents the amount appropriated from retained earnings equal to the cost of the Company's own shares held by the Company. The treasury shares reserve is not available for dividend distribution.

24 Segment information and disaggregation of revenue

Management determined that the Group has four reportable segments which are the Group's strategic divisions for different products and services, and are managed separately because they require different technology and marketing strategies. The following summary describes the operations in each of the Group's reportable segments.

- Construction Materials
- Petrochemical & Chemicals
- Energy & Utilities
- Agriculture

Each segment's performance is measured based on segment profit before tax, as included in the internal management reports that are reviewed by the Group's CODM. Segment profit before tax is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Reportable segment results**Consolidated Financial Statements**

	Revenue from external customers		Inter-segment revenue		Total reportable segment revenue		Reportable segment profit (loss) before interest, tax, depreciation, and amortisation	
	2022	2021	2022	2021	2022	2021	2022	2021
					<i>(in thousand Baht)</i>			
Construction Materials	22,999,991	16,968,829	6,028,419	6,439,711	29,028,410	23,408,540	2,978,515	1,859,328
Petrochemical & Chemicals	16,766,659	12,550,440	4,757,551	10,093,393	21,524,210	22,643,833	6,455,803	5,384,337
Energy & Utilities	8,234,425	9,266,087	1,965,549	1,807,746	10,199,974	11,073,833	3,913,956	5,426,308
Agriculture	131,924	134,429	149,418	158,073	281,342	292,502	20,098	(13,744)
Total	48,132,999	38,919,785	12,900,937	18,498,923	61,033,936	57,418,708	13,368,372	12,656,229
Other gain (loss)							3,058	(15,214)
							13,371,430	12,641,015
Finance costs							(1,934,590)	(2,061,541)
Depreciation and amortisation							(3,292,473)	(3,097,646)
Share of profit (loss) of associates accounted for using equity method							21,280	24,703
Elimination of inter-segment (profit) loss							(155,043)	(49,295)
Profit before income tax expense for the year							8,010,604	7,457,236

Timing of reportable segment revenue recognition of the Group is at a point in time.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

<i>For the year ended 31 December</i>	Consolidated financial statements	
	Reportable segment	
	profit (loss) before tax	
	2022	2021
	<i>(in thousand Baht)</i>	
Construction Materials	(312,106)	(1,563,314)
Petrochemical & Chemicals	6,230,390	5,219,060
Energy & Utilities	2,826,835	4,301,464
Agriculture	(28,084)	(60,322)
Total	8,717,035	7,896,888
Other gains (losses)	1,926	(28,813)
Finance costs for investment	(620,647)	(397,456)
Elimination of inter-segment (profit) loss	(87,710)	(13,383)
Profit (loss) before income tax expense for the year	8,010,604	7,457,236

(b) Reportable segment financial position

	Consolidated financial statements	
	Segment assets	
	2022	2021
	<i>(in thousand Baht)</i>	
Construction Materials	84,542,431	76,935,278
Petrochemical & Chemicals	10,452,895	15,297,125
Energy & Utilities	46,571,295	43,031,698
Agriculture	2,108,930	2,117,248
Others	587,747	584,705
	144,263,298	137,966,054
Unallocated assets	4,286,799	9,059,366
Total	148,550,097	147,025,420
Elimination of inter-segment assets	(4,050,669)	(11,311,822)
Total assets	144,499,428	135,713,598

(c) Disaggregation of revenue

	Separate financial statement	
	Revenue from sale of goods	
	2022	2021
	<i>(in thousand Baht)</i>	
Construction Materials	23,330,546	17,047,621
Petrochemical & Chemicals	14,388,831	11,522,509
Total	37,719,377	28,570,130

Timing of revenue recognition of the Company is at a point in time.

Geographical segments

In presenting information on the basis of geographical segments, segment revenue is based on the geographical location of customers. Segment assets are based on the geographical location of the assets.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

<i>Geographical information</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Thailand	29,301,215	26,427,221	24,889,630	28,258,765
China	9,348,358	8,349,487	6,061,270	-
Bangladesh	548,642	399,104	274,799	-
India	1,579,077	-	1,145,110	-
Others	7,355,707	3,743,973	5,348,568	311,365
Total	48,132,999	38,919,785	37,719,377	28,570,130

The Group is managed and operates principally in Thailand.

(d) Disaggregation of finance cost

	Separate financial statements	
	Finance cost	
	2022	2021
	<i>(in thousand Baht)</i>	
Construction Materials	1,175,785	1,486,884
Petrochemical & Chemicals	94,109	3,387
Investing	620,647	397,456
Total	1,890,541	1,887,727

25 Other income

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Revenue from machine rental	216,755	183,155	-	-
Income from sale of scraps	62,821	59,339	62,821	59,339
Sale steam	99,030	52,709	11,722	13,313
Rental trucks income	13,847	14,741	16,750	21,221
Share services income	1,907	2,014	295,657	580,763
Other income - claim insurance	14,102	510	13,908	480
Income from sale of spare parts	-	-	26,381	17,486
Others	460,004	247,047	262,055	111,150
Total	868,466	559,515	689,294	803,752

26 Cost of distributions and transportations

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Delivery expenses	2,211,698	1,812,988	1,990,020	1,500,166
Personnel expenses	838,895	831,473	720,224	717,873
Depreciation and amortisation	173,882	208,223	194,997	198,150
Maintenance expenses	31,782	34,418	29,463	29,659
Others	493,621	459,589	480,028	438,254
Total	3,749,878	3,346,691	3,414,732	2,884,102

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

27 Administrative expenses

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Personnel expenses	1,026,047	942,839	770,655	713,276
Depreciation and amortisation	196,043	156,355	147,573	142,381
Maintenance expenses	34,003	21,966	30,636	20,671
Others	756,603	926,129	284,894	290,361
Total	2,012,696	2,047,289	1,233,758	1,166,689

28 Employee benefit expenses

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Management				
Wages and salaries	349,848	276,930	276,640	210,977
Defined benefit plan	4,001	4,501	-	-
Others	61,581	53,609	34,083	28,578
	415,430	335,040	310,723	239,555
Other employees				
Wages and salaries	5,958,508	5,681,627	4,628,090	4,401,836
Defined benefit plan	4,303	3,865	-	-
Others	370,422	325,513	271,119	232,290
	6,333,233	6,011,005	4,899,209	4,634,126
Total	6,748,663	6,346,045	5,209,932	4,873,681

Defined contribution plans

The defined contribution plans comprise provident funds established by some companies of the Group for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at rates ranging from 3% to 10% of their basic salaries and by the Company at rates ranging from 3% to 10% 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.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

29 Expenses by nature

The statements of comprehensive income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>Included in cost of sales of goods:</i>				
Changes in inventories of finished goods and work in progress	(1,868,651)	(1,916,202)	(1,602,960)	(1,773,744)
Raw materials and consumables used	19,445,547	15,787,063	9,880,376	8,308,131
Reversal of loss on decline in value of inventories	(16,915)	(10,777)	(6,129)	(2,314)
Depreciation of plant and equipment	2,916,137	2,719,256	1,663,852	1,491,590
Amortisation of intangible assets	6,411	13,812	6,411	13,812
<i>Included in distribution costs:</i>				
Depreciation of plant and equipment	164,275	200,451	185,720	190,594
Amortisation of intangible assets	9,607	7,772	9,277	7,556
<i>Included in administrative expenses:</i>				
Depreciation of plant and equipment	170,831	138,843	122,361	124,869
Amortisation of intangible assets	25,212	17,512	25,212	17,512

30 Finance costs

		Consolidated financial statements		Separate financial statements	
	Note	2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
<i>Interest expense :</i>					
Loans from related party		-	-	3,168	1,986
Loans from financial institutions		95,462	136,178	95,462	135,803
Debentures		2,435,727	2,423,780	1,865,181	1,931,282
Leases	15	23,633	21,272	15,264	10,122
Total interest expense		2,554,822	2,581,230	1,979,075	2,079,193
Others		4,126	5,401	-	-
		2,558,948	2,586,631	1,979,075	2,079,193
<i>Less: amounts included in the cost of qualifying assets:</i>					
- Construction contracts work in progress		(624,358)	(525,090)	(88,534)	(191,466)
Net		1,934,590	2,061,541	1,890,541	1,887,727

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

31 Income tax

<i>Income tax recognised in profit or loss</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Current tax expense				
Current year	172,388	170,992	-	-
Adjustment for prior years	2,530	6,913	-	455
	<u>174,918</u>	<u>177,905</u>	<u>-</u>	<u>455</u>
Deferred tax expense				
Movements in temporary differences	(9,090)	361,372	(20,361)	397,111
Total tax (income) expense	<u>165,828</u>	<u>539,277</u>	<u>(20,361)</u>	<u>397,566</u>

Consolidated financial statements						
	2022			2021		
	Tax			Tax		
<i>Income tax</i>	(expense)			(expense)		
	benefit			benefit		

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Separate financial statements						
	Before tax	2022 Tax (expense) benefit	Net of tax (in thousand Baht)	Before tax	2021 Tax (expense) benefit	Net of tax
Income tax						
Recognised in other comprehensive income						
Financial assets at FVOCI	(50)	10	(40)	7	(2)	5
Defined benefit plan						
actuarial gains	132,446	(26,489)	105,957	-	-	-
Share of other comprehensive income (expense) of subsidiaries accounted for using equity method	3,655	-	3,655	355	-	355
Share of other comprehensive income (expense) of associates accounted for using equity method	(7,588)	-	(7,588)	12,735	-	12,735
Total	128,463	(26,479)	101,984	13,097	(2)	13,095

Reconciliation of effective tax rate

	Consolidated financial statements			
	Rate (%)	2022 (in thousand Baht)	Rate (%)	2021 (in thousand Baht)
Profit before income tax expense		8,010,604		7,457,236
Income tax using the Thai corporation tax rate	20	1,602,121	20	1,491,447
Income not subject to tax		(117,776)		(321,153)
Profit was derived from promoted activities		(541,197)		(746,457)
Expenses not deductible for tax purposes		58,568		104,720
Deferred tax asset from tax loss expired		45,709		55,290
Prior year losses recognised as deferred tax asset in current year		(367,816)		-
Recognition of previously unrecognised tax losses		(558,246)		(71,305)
Current year losses for which no deferred tax asset was recognised		41,935		19,822
Under provided in prior years		2,530		6,913
Total	2	165,828	7	539,277

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Reconciliation of effective tax rate

	Separate financial statements			
	2022		2021	
	Rate (%)	(in thousand Baht)	Rate (%)	(in thousand Baht)
Profit before income tax expense		<u>6,987,246</u>		<u>6,068,100</u>
Income tax using the Thai corporation tax rate	20	1,397,449	20	1,213,620
Income not subject to tax		(529,586)		(948,402)
Profit was derived from promoted activities		-		(2,331)
Expenses not deductible for tax purposes		25,776		95,800
Deferred tax asset from tax loss expired		-		38,424
Prior year losses recognised as deferred tax assets in current year		(367,816)		-
Recognition of previously unrecognised tax losses		(546,184)		-
Under provided in prior years		-		455
Total	(0.29)	(20,361)	7	397,566

Deferred tax
At 31 December

	Consolidated financial statements			
	Assets		Liabilities	
	2022	2021	2022	2021
		(in thousand Baht)		
Total	1,246,516	1,261,781	(762,485)	(760,361)
Set off of tax	(725,115)	(716,667)	725,115	716,667
Net deferred tax assets (liabilities)	521,401	545,114	(37,370)	(43,694)

Deferred tax
At 31 December

	Separate financial statements			
	Assets		Liabilities	
	2022	2021	2022	2021
		(in thousand Baht)		
Total	1,021,635	1,008,617	(736,558)	(717,422)
Set off of tax	(736,558)	(717,422)	736,558	717,422
Net deferred tax assets (liabilities)	285,077	291,195	-	-



TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

Movements in total deferred tax assets and liabilities during the year were as follows:

	At 1 January 2022	Consolidated financial statements (Charged) / Credited to		At 31 December 2022
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax assets				
Allowance for expected credit loss	15,398	(3,436)	-	11,962
Allowance for decline in value of inventories	2,911	(2,157)	-	754
Allowance for impairment of assets	1,806	-	-	1,806
Provision for sales discount and sales promotional	13,249	25,364	-	38,613
Provision for employee benefit	442,853	(16,675)	(26,489)	399,689
Loss carry forward	772,307	21,224	-	793,531
Provision for decommissioning costs	13,125	(13,125)	-	-
Others	132	19	10	161
Total	1,261,781	11,214	(26,479)	1,246,516
Deferred tax liabilities				
Amortisation gap of concessions	(3,275)	180	-	(3,095)
Lease liabilities	(166,633)	(16,077)	-	(182,710)
Depreciation gap of assets	(534,524)	5,103	-	(529,421)
Property, plant and equipment	(55,929)	8,670	-	(47,259)
Total	(760,361)	(2,124)	-	(762,485)
Net	501,420	9,090	(26,479)	484,031

	At 1 January 2021	Consolidated financial statements (Charged) / Credited to		At 31 December 2021
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax assets				
Allowance for expected credit loss	18,460	(3,062)	-	15,398
Allowance for decline in value of inventories	4,604	(1,693)	-	2,911
Allowance for impairment of assets	1,806	-	-	1,806
Provision for sales discount and sales promotional	14,398	(1,149)	-	13,249
Provision for employee benefit	456,609	(13,756)	-	442,853
Loss carry forward	1,081,549	(309,242)	-	772,307
Provision for decommissioning costs	5,387	7,738	-	13,125
Others	92	42	(2)	132
Total	1,582,905	(321,122)	(2)	1,261,781

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

	At 1 January 2021	Consolidated financial statements (Charged) / Credited to		At 31 December 2021
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax liabilities				
Amortisation gap of concessions	(3,666)	391	-	(3,275)
Lease liabilities	(152,244)	(14,389)	-	(166,633)
Depreciation gap of assets	(499,602)	(34,922)	-	(534,524)
Property, plant and equipment	(64,599)	8,670	-	(55,929)
Total	(720,111)	(40,250)	-	(760,361)
Net	862,794	(361,372)	(2)	501,420
	At 1 January 2022	Separate financial statements (Charged) / Credited to		At 31 December 2022
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax assets				
Allowance for expected credit loss	12,122	(160)	-	11,962
Allowance for impairment of assets	900	-	-	900
Provision for sales discount and sales promotional	12,437	25,396	-	37,833
Provision for employee benefit	383,835	(15,376)	(26,489)	341,970
Loss carry forward	599,173	29,637	-	628,810
Others	150	-	10	160
Total	1,008,617	39,497	(26,479)	1,021,635
Deferred tax liabilities				
Amortisation gap of concessions	(3,275)	180	-	(3,095)
Lease liabilities	(126,436)	(23,486)	-	(149,922)
Depreciation gap of assets	(587,711)	4,170	-	(583,541)
Total	(717,422)	(19,136)	-	(736,558)
Net	291,195	20,361	(26,479)	285,077
	At 1 January 2021	Separate financial statements (Charged) / Credited to		At 31 December 2021
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax assets				
Allowance for expected credit loss	13,069	(947)	-	12,122
Allowance for impairment of assets	900	-	-	900
Provision for sales discount and sales promotional	13,492	(1,055)	-	12,437
Provision for employee benefit	391,336	(7,501)	-	383,835
Loss carry forward	930,111	(330,938)	-	599,173
Others	152	-	(2)	150
Total	1,349,060	(340,441)	(2)	1,008,617

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Notes to the financial statements For the year ended 31 December 2022

	At 1 January 2021	Separate financial statements (Charged) / Credited to		At 31 December 2021
		Profit or loss (in thousand Baht)	Other comprehensive income	
Deferred tax liabilities				
Amortisation gap of concessions	(3,666)	391	-	(3,275)
Lease liabilities	(103,525)	(22,911)	-	(126,436)
Depreciation gap of assets	(553,561)	(34,150)	-	(587,711)
Total	(660,752)	(56,670)	-	(717,422)
Net	688,308	(397,111)	(2)	291,195

As at 31 December 2022, the Group has deferred tax arising from loss carry forward has not been recognised in the consolidated financial statements amounting to Baht 267 million (2021: Baht 1,183 million) and the Company has no deferred tax assets arising from loss carry forward has not been recognised in separate financial statements (2021: Baht 944 million).

The tax losses expire in 2023 to 2027. The deductible temporary differences do not expire under current tax legislation. The Group has not recognised these items as deferred tax assets because it is not probable that the Group will have sufficient future taxable profit to utilise the benefits therefrom.

Recognition of deferred tax asset from tax loss

In 2022 and 2021, the Group has entered into several agreements for many projects. As a result, management estimates future taxable profits and, as at 31 December 2022, the Group recognised deferred tax assets from tax losses in the consolidated and separate financial statements amounting to Baht 794 million and Baht 629 million, respectively (2021: Baht 772 million and Baht 599 million, respectively) because management considered it is probable that future taxable profits would be available against which such losses can be used.

Deferred tax asset from loss carry forward in the consolidated and separate financial statements will expire as detail shown below.

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Deferred tax assets from loss carry forward expiring in year				
- 2022	-	383,888	-	338,180
- 2023	395,853	57,673	338,180	-
- 2024	50,797	21,161	29,637	-
- 2025	260,993	260,993	260,993	260,993
- 2026	48,592	48,592	-	-
- 2027	37,296	-	-	-
Total	793,531	772,307	628,810	599,173

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Notes to the financial statements For the year ended 31 December 2022

32 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Group has been granted privileges by the Board of Investment relating to petrochemical products, plastic film products, masterbatch, compound plastic, compound rubber, organic fertilizer, natural gas stations, power plants and fuel production from garbage and waste. The privileges granted include:

- (a) exemption from payment of import duty on machinery and equipment approved by the Board;
- (b) exemption from payment of corporate income tax for certain operations for a period of 3 - 8 years from the dates on which the income is first derived from such operations;
- (c) a 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of 5 years, commencing from the expiry date in (b) above;
- (d) a deduction of twice the actual transportation, electrical and water supply expenses for a period of 10 years from the respective revenues and a 25% reduction of the capital expenditure for the installation or the construction of the facilities in addition to the normal depreciation; and
- (e) losses occur during the period could be carried forward 5 years commencing from the expiry date of the privileges to deducted from the profit that occur after the period of exemption of cooperate income tax.

As a promoted company, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted businesses:

	Consolidated financial statements					
	2022			2021		
	Promoted businesses	Non-promoted businesses	Total	Promoted businesses	Non-promoted businesses	Total
	<i>(in thousand Baht)</i>					
Export sales	-	10,529,560	10,529,560	-	12,520,668	12,520,668
Local sales	9,635,663	40,868,737	50,504,400	9,578,463	35,236,685	44,815,148
Eliminations	<u>(2,329,451)</u>	<u>(10,571,510)</u>	<u>(12,900,961)</u>	<u>(1,724,739)</u>	<u>(16,691,292)</u>	<u>(18,416,031)</u>
Total	<u>7,306,212</u>	<u>40,826,787</u>	<u>48,132,999</u>	<u>7,853,724</u>	<u>31,066,061</u>	<u>38,919,785</u>

	Separate financial statements					
	2022			2021		
	Promoted businesses	Non-promoted businesses	Total	Promoted businesses	Non-promoted businesses	Total
	<i>(in thousand Baht)</i>					
Export sales	-	4,522,336	4,522,336	-	411,216	411,216
Local sales	<u>450,063</u>	<u>32,746,978</u>	<u>33,197,041</u>	<u>139,385</u>	<u>28,019,529</u>	<u>28,158,914</u>
Total	<u>450,063</u>	<u>37,269,314</u>	<u>37,719,377</u>	<u>139,385</u>	<u>28,430,745</u>	<u>28,570,130</u>

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Notes to the financial statements For the year ended 31 December 2022

33 Basic earnings per share

The calculations of basic earnings per share for the years ended 31 December 2022 and 2021 were based on the profit for the years attributable to ordinary shareholders of the Company and the number of ordinary shares outstanding during the years, after adjusting the own shares held by subsidiaries. The calculations are as follows:

	Consolidated and Separate financial statements	
	2022	2021
	<i>(in thousand Baht / thousand shares)</i>	
Profit attributable to ordinary shareholders of the Company (Basic)	7,007,607	5,670,534
Number of ordinary shares outstanding at 1 January	19,126,500	19,180,500
Effect of treasury shares	(182,992)	(78,642)
Weighted average number of ordinary shares outstanding (basic)	18,943,508	19,101,858
Earnings per share (basic) (in Baht)	0.370	0.297

34 Dividends

At the annual general meeting of the shareholders of the Company held on 22 April 2021, the shareholders approved the appropriation of dividend from the Company's retained earnings of Baht 0.06 per share, amounting to Baht 1,150.83 million. After a deduction of the interim dividends of Baht 0.03 per share which paid to the Company's shareholders in 2020, the remaining dividends of Baht 0.03 per share, totalling Baht 573.79 million. The dividend was paid to the shareholders in May 2021.

At the Board of Directors' meeting of the Company held on 30 September 2021, the Board of Directors approved the appropriation of interim dividend from the Company's retained earnings of Baht 0.03 per share, amounting to Baht 573.80 million. The dividend was paid to the shareholders in October 2021.

At the annual general meeting of the shareholders of the Company held on 20 April 2022, the shareholders approved the appropriation of dividend from the Company's retained earnings of Baht 0.09 per share, amounting to Baht 1,721.39 million (not yet deducting the 191.265 million repurchase shares at record date, which doesn't have the right to receive dividend payment pursuant to related legal regulations imposed). After a deduction of the interim dividends of Baht 0.03 per share which paid to the Company's shareholders in 2021, the remaining dividends of Baht 0.06 per share, totalling Baht 1,136.11 million. The dividend was paid to the shareholders in May 2022.

35 Financial instruments

(a) Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy, but does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

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Notes to the financial statements For the year ended 31 December 2022

		Consolidated financial statements					Fair value		
		Carrying amount		(in thousand Baht)					
At 31 December 2022	Note	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	Level 1	Level 2	Level 3	Total
Financial assets									
Other financial assets									
Investment in equity instruments	8	-	183	-	183	183	-	-	183
Investment in debt instruments	8	-	1,210	515,301	516,511	-	470,610	-	470,610
Total financial assets		-	1,393	515,301	516,694				
Financial liabilities									
Promissory Note	17	-	-	4,355,338	4,355,338	-	4,356,344	-	4,356,344
Debentures	17	-	-	66,585,600	66,585,600	-	66,929,768	-	66,929,768
Total financial liabilities		-	-	70,940,938	70,940,938				



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Notes to the financial statements For the year ended 31 December 2022

	Note	Consolidated financial statements					Fair value				
		Carrying amount		(in thousand Baht)			Level 1	Level 2	Level 3	Total	
		Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	Level 1	Level 2	Level 3	Total		
At 31 December 2021											
Financial assets											
Other financial assets											
Investment in equity instruments	8	-	233	-		233	233	-	-	-	233
Investment in debt instruments	8	3,849,788	1,207	512,454		4,363,449	3,806,496	541,970	-	-	4,348,466
Promissary Note		-	-	2,145,658		2,145,658	-	2,145,658	-	-	2,145,658
Total financial assets		3,849,788	1,440	2,658,112		6,509,340					
Financial liabilities											
Promissary Note	17	-	-	3,391,674		3,391,674	-	3,392,337	-	-	3,392,337
Debentures	17	-	-	63,243,600		63,243,600	-	63,905,528	-	-	63,905,528
Total financial liabilities		-	-	66,635,274		66,635,274					

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Notes to the financial statements For the year ended 31 December 2022

At 31 December 2022	Note	Separate financial statements			Fair value		
		Carrying amount		Total (in thousand Baht)	Level 1	Level 2	Level 3
		Financial instruments measured at FVTPL	Financial instruments measured at FVOCI				
Financial assets							
Other financial assets							
Investment in equity instruments	8	-	183	183	183	-	183
Investment in debt instruments	8	-	-	12,529	-	12,872	12,872
Total financial assets		-	183	12,529			
Financial liabilities							
Promissory Note	17	-	-	4,355,338	-	4,356,344	4,356,344
Debentures	17	-	-	51,278,200	-	51,659,611	51,659,611
Total financial liabilities		-	-	55,633,538			



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Notes to the financial statements For the year ended 31 December 2022

At 31 December 2021	Note	Separate financial statements			Fair value		
		Carrying amount		Total (in thousand Baht)	Level 1		Level 3
		Financial instruments measured at FVTPL	Financial instruments measured at FVOCI		Level 2	Level 3	
Financial assets							
Other financial assets							
Investment in equity instruments	8	-	233	233	-	-	233
Investment in debt instruments	8	1,803,991	-	1,815,780	12,486	-	1,816,477
Promissary Note		-	-	698,218	698,218	-	698,218
Total financial assets		1,803,991	233	2,514,231			
Financial liabilities							
Promissary Note	17	-	-	3,391,674	3,392,337	-	3,392,337
Debentures	17	-	-	48,531,200	49,120,253	-	49,120,253
Total financial liabilities		-	-	51,922,874			

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Notes to the financial statements For the year ended 31 December 2022

The following tables present valuation technique of financial instruments measured at fair value in the statements of financial position:

Type	Valuation technique
Investments in government bonds guaranteed by the government, classified as financial assets measured at amortised cost	Thai Bond Market Association Government Bond Yield Curve as of the reporting date.
Corporate debt securities (Private funds)	<i>Market comparison/discounted cash flow:</i> The fair value is estimated considering (i) current or recent quoted prices for identical securities in markets that are not active and (ii) a net present value calculated using discount rates derived from quoted prices of securities with similar maturity and credit rating that are traded in active markets, adjusted by an illiquidity factor.
Investments in marketable unit trusts classified as financial assets measured at FVTPL or FVOCI	The net asset value as of the reporting date.
Debentures	A valuation technique incorporating observable market data which is adjusted with counterparty credit risk (excluding own credit risk) and other risks to reflect true economic value.

(b) Financial risk management policies

Risk management framework

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

(b.1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers and investments in debt securities.

(b.1.1) Trade accounts receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate. Detail of concentration of revenue are included in note 24(c).

The risk management committee has established a credit policy under which each new customer is analysed individually for creditworthiness before the Group's commercial terms and conditions are offered. The Group's review financial statements, industry information and in some cases bank references. Sale limits are established for each customer and reviewed regularly. Any sales exceeding those limits require approval from the risk management committee.

The Group limits its exposure to credit risk from trade accounts receivables by establishing a maximum payment period of 360 days. Outstanding trade receivables are regularly monitored by the Group. An impairment analysis is performed by the Group at each reporting date. The provision rates of expected credit loss are based on days past due for groupings of various customer segments with similar credit risks to reflect differences between economic conditions in the past, current conditions and the Group's view of economic conditions over the expected lives of the receivables.

Information relevant to trade accounts receivables and contract assets are disclosed in note 6 and 24, respectively.

(b.1.2) Investment in debt securities

The Group considers that all debt investments measured at amortised cost and FVOCI have low credit risk. Then the credit loss allowance assessed during the year was therefore limited to 12 months expected losses or 'low credit risk'. Marketable bonds are considered to be an investment grade credit rating published by external credit rating agencies. The credit risk of other instruments are considered to be low when the risk of default is low and the issuer has a strong capacity to meet its contractual cash flow obligations.

(b.1.3) Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents is limited because the counterparties are banks and financial institutions which the Group considers to have low credit risk.

(b.2) 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.

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Notes to the financial statements For the year ended 31 December 2022

The following table shows the remaining contractual maturities of financial liabilities at the reporting date.

Consolidated financial statements					
		Contractual cash flows			
	Carrying amount	1 year or less	After 1 year but within 5 years	More than 5 years	Total
<i>At 31 December 2022</i>			(in thousand Baht)		
<i>Non-derivative financial liabilities</i>					
Short-term loans from financial institutions	4,355,338	4,355,338	-	-	4,355,338
Trade payables	3,791,529	3,751,996	35,212	4,321	3,791,529
Loans from financial institutions	-	-	-	-	-
Lease liabilities	431,529	181,368	217,364	140,055	538,787
Debentures	66,585,600	12,843,200	53,742,400	-	66,585,600
Total	75,163,996	21,131,902	53,994,976	144,376	75,271,254
<i>At 31 December 2021</i>					
<i>Non-derivative financial liabilities</i>					
Short-term loans from financial institutions	3,391,674	3,391,674	-	-	3,391,674
Trade payables	3,616,626	3,438,856	169,755	8,015	3,616,626
Loans from financial institutions	1,000,000	1,000,000	-	-	1,000,000
Lease liabilities	507,929	136,258	208,569	224,777	569,604
Debentures	63,243,600	12,565,000	50,678,600	-	63,243,600
Total	71,759,829	20,531,788	51,056,924	232,792	71,821,504
Separate financial statements					
		Contractual cash flows			
	Carrying amount	1 year or less	After 1 year but within 5 years	More than 5 years	Total
<i>At 31 December 2022</i>			(in thousand Baht)		
<i>Non-derivative financial liabilities</i>					
Short-term loans from financial institutions	4,355,338	4,355,338	-	-	4,355,338
Trade payables	3,129,922	3,114,876	11,030	4,016	3,129,922
Loans from financial institutions	-	-	-	-	-
Lease liabilities	246,528	122,502	134,943	42,648	300,093
Debentures	51,278,200	10,023,200	41,255,000	-	51,278,200
Total	59,009,988	17,615,916	41,400,973	46,664	59,063,553
<i>At 31 December 2021</i>					
<i>Non-derivative financial liabilities</i>					
Short-term loans from financial institutions	3,391,674	3,391,674	-	-	3,391,674
Trade payables	3,155,688	3,140,065	8,230	7,393	3,155,688
Loans from financial institutions	1,000,000	1,000,000	-	-	1,000,000
Lease liabilities	247,277	104,761	125,906	45,287	275,954
Debentures	48,531,200	8,567,000	39,964,200	-	48,531,200
Total	56,325,839	16,203,500	40,098,336	52,680	56,354,516

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Notes to the financial statements For the year ended 31 December 2022

(b.3) Market risk

The Group is exposed to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is as follows:

(b.3.1) Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases and sales of goods, purchases of machine and equipment and loans which are denominated in foreign currencies.

<i>Exposure to foreign currency at At 31 December</i>	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
<i>United States Dollars</i>				
Cash and cash equivalents	2,441,951	3,228,154	2,431,049	8,849
Trade accounts receivable	1,192,951	2,364,823	1,171,381	29,578
Trade accounts payable	(642,653)	(184,644)	(642,320)	(184,248)
Other payables - machines	(507,970)	(42,393)	(23,418)	(993)
	<u>2,484,279</u>	<u>5,365,940</u>	<u>2,936,692</u>	<u>(146,814)</u>
<i>EURO</i>				
Cash and cash equivalents	6,491	3,375	214	9
Trade accounts receivable	7,676	21,737	-	-
Trade accounts payable	(14,098)	(20,786)	(14,098)	(20,786)
Other payables - machines	(167,868)	(193,550)	(134,498)	(184,919)
	<u>(167,799)</u>	<u>(189,224)</u>	<u>(148,382)</u>	<u>(205,696)</u>
<i>Others</i>				
Cash and cash equivalents	1,273	1,066	836	626
Trade accounts receivable	121,571	84,782	121,571	-
Trade accounts payable	(68,268)	(20,848)	(68,268)	(20,848)
Other payables - machines	(2,035)	-	-	-
	<u>52,541</u>	<u>65,000</u>	<u>54,139</u>	<u>(20,222)</u>
Net exposure	<u>2,369,021</u>	<u>5,241,716</u>	<u>2,842,449</u>	<u>(372,732)</u>

(b.3.2) 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 debt securities and loan interest rates are mainly fixed. The Group is primarily exposed to interest rate risk from its borrowings (see note 17). The Group mitigates this risk by ensuring that the majority of its debt securities and borrowings are at fixed interest rates.

36 Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board regularly monitors the return on capital, by evaluating result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

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Notes to the financial statements For the year ended 31 December 2022

37 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Capital commitments				
Agreements for construction, machine and equipment	<u>9,041,368</u>	<u>4,281,222</u>	<u>1,396,171</u>	<u>1,072,564</u>
Other commitments				
Short-term lease and services commitments	1,628	1,287	-	-
Unused letters of credit	306,244	924,895	306,244	867,766
Purchase agreement for raw material	99,001	349,148	99,001	349,148
Bank guarantees	1,093,476	314,543	263,169	183,294
Total	<u>1,500,349</u>	<u>1,589,873</u>	<u>668,414</u>	<u>1,400,208</u>

38 Contingent liabilities

As at 31 December 2022, the Company had the major lawsuits as follows:

- 1) Due to on 20 February 2017, Tham Phra Phothisat Temple (the “Plaintiff”) filed a complaint with the Central Administrative Court (the “Court”) being the Black Case No. Sor. 3/2560, and claimed that Plaintiff is authorized by the Fine Arts Department to be the caretaker of the Phothisat cave (Tham Phra Phothisat), but did not have a written power of attorney, and alleged that the Company’s mining activity caused damage to the engraved images in Phothisat cave. Later, on 2 June 2017, the Court called the Company to be a party (as an interpleader) in the case where the Plaintiff filed a lawsuit against the Minister of the Ministry of Industry, 1st Defendant, the Director-General of Department of Primary Industries and Mines, 2nd Defendant, Department of Mineral Resources, 3rd Defendant and Saraburi Provincial Industry Office, 4th Defendant (collectively “Defendants”); claiming that the Defendants’ issuance of Prathanabat to the Company is done in contradiction to regulation of Ministry of Interior on the Conditions and Means of Prathanabat Issuance, under Section 9 of the Land Code B.E. 2497, which such regulation of Ministry of Interior was issued in B.E. 2535; thus, the Plaintiff requested that such Prathanabat issued by the Defendants to “Petrochemical Industry Company Limited” which such Prathanabat was later assigned to the Company, be revoked. Further, the Plaintiff filed a request for an emergency interim measure demanding that the Court orders the Company to stop the blasting of rocks for mining activity, until the decision of this case is reached.

On 3 August 2017, the Court, together with the parties of this case went to examine the location at Phothisat cave and found the Bas-relief art images of Buddha, Shiva god, Narai god, Hermit, etc. located at the front area of the cave; and during the examination at the location, the officer of Fine Arts Department informed that according to the evidences which are the photographed pictures of the art images which were taken in B.E. 2507, B.E. 2508, B.E. 2534, B.E. 2535, B.E. 2559 and B.E. 2560, there is no traces of any changes to the art images based on comparison with those pictures. Further, the Court, together with the parties of this case, examined the area of the Company (interpleader) which was granted with Prathanabat by witnessing the rock blasting activity of the interpleader around 15.30 o’clock, standing approximately 300-400 metres from the area of blasting activity; which at the time of blasting, it made a slightly loud sound, but no vibration was detected. Later, on 8 September 2017, Court denied the Plaintiff’s request for an emergency interim measure for the Company to comply with the order of the 4th Defendant.

The 1st Defendant submitted a written statement dated 8 May 2017 to the Court, which stated that the 1st Defendant is authorized with the power to issue Prathanabat to each applicant in accordance with the Minerals Act, B.E. 2510. The 2nd Defendant submitted a written statement dated 4 May 2017 to the Court, which stated that the 2nd Defendant was assigned with the administration power from Department of Mineral Resources according to the Reorganization of Ministry, Sub-Ministry, and Department Act, B.E. 2545 and is authorized with the duty to consider the application for Prathanabat which have been submitted to the officials at the local Industry Office, and the 2nd Defendant is authorized with the power to grant Prathanabat in accordance with Section 54 of the Minerals Act, B.E. 2510; and after Prathanabat is granted, the 2nd Defendant has the duty to control, monitor and inspect that the person whom has been granted with Prathanabat, shall comply with the Minerals Act, B.E. 2510 and the conditions set forth in the annex of Prathanabat. The 3rd Defendant submitted a written statement dated 28 March 2017 to the Court, which stated that the presently, the 3rd Defendant is not authorized by the laws related to the issuance of Prathanabat, which is due to the Royal Decree on transfer of administration duty and power of the administrative agencies issued according to the Reorganization of Ministry, Sub-Ministry, and Department Act, B.E. 2545, Section 151 which transferred the said duty, power and asset to Department of Primary Industries and Mines (2nd Defendant). The Fine Arts Department also submitted a written statement dated 5 April 2017 to the Court, which stated that the Phothisat cave is deemed as ancient monument under Section 4 of Act on ancient monuments, antiques, objects of art and national museum, B.E. 2504 and the Fine Arts Department had already announced the registration of Phothisat cave as ancient monuments in the government gazette since 6 April 1965; and the Fine Arts Department authorized the director of Regional Office of the Arts Department, No.3, Ayutthaya, with the authority to file any complaint to the inquiry officer who has authority in the area, against any wrongdoer. The statement further clarified that on 14 December 2016, the Fine Arts Department had inspected the Phothisat cave and there appeared to be no traces of any damage, nor any damage to the Bas-relief art images from Dvaravati era, e.g. images of Buddha, Narai god, Shiva god or other persons; which are in good order and it was found that the conditions of the other areas within the cave are normal without traces of any damage being caused by the mining activity of the Company.

The fact-finding procedure of the case had ended and the Court had set the first trial date to be 9 September 2020 together with submission of summary of facts from the Judge who presided over this case dated 11 August 2020 and scheduled the date of rendering the Court's decision to be on 30 September 2020.

The Court ruled that the Defendants lawfully issued Prathanabat to "Petrochemical Industry Company Limited" and in accordance with the Land Code and Minerals Act, B.E. 2510, which such Prathanabat was later transferred to the Company, which were done lawfully and legitimately; the mining activity of the Company which is the blasting of rocks according to Prathanabat and using the explosives not exceeding the rate of 130 kilograms, further, the result of vibration or compression level inspection are according to the safety standard, when compared with the standard set forth by the Ministry of Natural Resources and Environment. Additional, the Fine Arts Department also stated that according to the inspection result, there is no additional damage, the Bas-relief art images are in good condition and there is no damage to the area within the cave; thus, the Court has no reason nor cause to issue the order according to the Plaintiff's request and the Court has ruled that the case is dismissed and the Court's order relating to the emergency interim measure dated 8 September 2017 shall be revoked starting from the first day of which the appeal submission period has expired (in case there is no appeal submission) or starting from the date on which the Court has ordered its decision to accept or not accept the appeal (in case there is submission of an appeal), as the case maybe.

The Plaintiff submitted the appeal to the Court on 27 October 2020 and the Court accepted the appeal of the Plaintiff. Therefore, the Court's order dated 8 September 2017 relating to the emergency interim measure ceased to be in effect. The Court allowed the date to submit the answer to the appeal to be within 21 February 2021. The interpleader submitted the answer to the appeal on 5 February 2021. The case is pending the considering of the Supreme Court.

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Notes to the financial statements For the year ended 31 December 2022

- 2) This case is due to the Company received permit to dig the water-well, from Mittraphap Subdistrict Administration Organization and the Company dig the water-well in the Company's own land, in order to preserve the environment and to be used for prevention of fire (the Black Case No. SorWor.2/2561). Later, on 21 June 2018, the Department of Primary Industry and Mines, Ministry of Industry, by representation of the district attorney, the Office of Attorney General (the "Plaintiff"), filed a lawsuit against the Company (the "Defendant") at the Civil Court (the "Court"), claiming the violation in mining activity with the principal amount of claim of Baht 71,566,889.42. The Plaintiff claimed that the Company conducted its shale mining unlawfully in the area in which Prathanabat for such area has not been granted, totaling 2 locations; thus, requesting that the Court to order the Company to return the shale totaling of 249,159.96 metric tons back to the original area and restore the area into its previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount of Baht 66,650,289.31 together with interest.

The Company plead in its defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence, the Plaintiff claimed that the Company conducted unlawful mining activity, however, the claim is fault, the Company did not commit any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim. The hearing was finished and the Court ordered the date to render the Court's decision to be on 24 March 2020.

On 24 March 2020, the Court ordered the Company to return the shale totaling 249,159.96 metric tons back to the original area and restore the area to its previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount of Baht 66,650,289.31 together with interest at the rate of 7.5 percent per annum on the said amount, starting from the date of the violation (28 June 2017) until the date of the complaint filing (359 days) making the interest to be Baht 4,916,600.11. Total amount of combined principal and interest is Baht 71,566,889.31. The Court also ordered that the interest on the principal amount of Baht 66,650,289.31, in the rate of 7.5 percent per annum would be paid calculating from the next day after the date of filing of the complaint until the payment is received in full together with the court fees in behalf of the Plaintiff and attorney fee of Baht 80,000.

The Company filed the appeal together with the request for delay of judgement execution on 19 August 2020.

On 20 October 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per annum pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per annum but not exceeding the rate of 7.5 percent per annum as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 18 February 2022.

On 23 January 2023, the Civil Court made the announcement of the Supreme Court's order, whereby the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company's appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines' filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 3) On 20 June 2019, Tham Phra Phothisat Temple (the "Plaintiff") filed a lawsuit against the Ministry of Industry, as 1st defendant and other related persons as co-defendants, totaling 31 persons, in a Black Case No. Sor. 17/2562, which the Company is the 30th Defendant in the lawsuit and the Plaintiff also filed request for the Court to order an emergency interim measure, until the decision of this case is reached. Later on, the Court also ordered the Committee of Professional on Environmental Impact Assessment Report (the "Committee"), as the 32nd Defendant. The Court has considered and issued the order dated 17 September 2019, to accept the complaint against some of the respondents and denied to accept the complaint against some respondents and some claims (the Court only accept the followings as defendants: Ministry of Industry, as 1st Defendant, Minister of Ministry of Industry, as 2nd Defendant, Department of Primary Industry and Mines, as 3rd Defendant, Director-General of Department of Primary Industry and Mines, as 4th Defendant, the Company, as the 30th Defendant and the Committee, as the 32nd Defendant, respectively). The Court also issued order dated 17 September 2019 which denied the Plaintiff's request for an emergency interim measure. The Plaintiff claimed to be the authorized person from the Fine Arts Department as caretaker of the Phothisat Cave, but did not have a written power of attorney, but requested to the Court to order that the application for Prathanabat of the Company is unlawful, the Plaintiff also claimed that the resolution of the 32nd Defendant which approved the Company's Environmental Impact Assessment Report for the Company's mining activity, concealed the facts, thus, unlawful. The Plaintiff requested the Court to order the revocation of the Company's application for Prathanabat of limestone mining, in which the Company has submitted for approval.

The Defendant submitted written statement of defense which informed the Court that the Plaintiff has no authority to file the complaint and this complaint repeated the complaint filed in Black Case No. Sor.3/2560, and the Company's application for Prathanabat of limestone mining is lawful and in accordance with the rules, procedures and methods as prescribed by the laws, further, the applied area for Prathanabat is not the restricted area under the laws in respect of Mineral and Forest; and there is an Environmental Impact Assessment Report which have been prepared correctly and completely in accordance with the law in relation to Enhancement and Conservation of National Environmental Quality and law related to Mineral, for application for Prathanabat which have been submitted for approval from the authority. The application for Prathanabat is pending the consideration for approval of the authority and the Company's application for Prathanabat did not cause any damage or grievance to the Plaintiff, thus, the Defendant requested the Court to dismiss the complaint.

The Company have made and submitted the additional statement of defense to the Court on 14 January 2021, the case is under the process of the Court's fact finding procedure.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

- 4) On 8 July 2015, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the “Plaintiff”) filed a civil lawsuit (the Black Case No. SorWor.4/2559) against the Company (the “Defendant”) with the principle amount of claim in total of Baht 4,066,535,823. The Plaintiff later amended the complaint to increase the amount of claim to be the total of Baht 4,338,558,231.54; claiming that the Company engaged its limestone mining activity in the area outside the designated area under the Prathanabat and requested that the Company returned the limestone ore in total of 31,522,374.26 metric tons and restore the area to be in its previous condition or pay the compensation together with the 7.5 per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

The case was requested to be transferred to the Environmental Law Division of the Civil Court to be jointly considered with other related cases and the Court granted the said request.

On 13 December 2019, the Civil Court ordered the Company to return the limestone ore in total of 31,522,374.26 metric tons back to the area where the mining activity was done and to restore such area to the previous condition or pay the compensation of Baht 4,047,472,854.98 together with the 7.5 percent per annum interest on the said principle amount, calculating from the discovery date of the unlawful mining activity (24 July 2014) until the date of the filing of complaint (350 days) totaling Baht 291,085,376.56 making it Baht 4,338,558,231.54 in total. The Court also ordered the Defendant to pay 7.5 percent per annum interest on the principal of Baht 4,047,472,854.98 counting from the day after the complaint filing date until the payment is made in full.

The Company filed an appeal with the request for a delay of judgement execution on 8 May 2020.

On 17 November 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per annum pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per annum but not exceeding the rate of 7.5 percent per annum as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgement of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 17 March 2022.

On 22 November 2022, the Civil Court made the announcement of the Supreme Court’s order, whereby the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company’s appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines's filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 5) On 24 March 2016, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the "Plaintiff") filed a civil lawsuit (the Black Case No. SorWor.6/2559) against the Company (the "Defendant") claiming that the Company engaged its limestone mining activity in the area outside the designated area under the Prathanabat. The complaint requested the Company to return the limestone ore of 2,447,906.76 metric tons and restore the area into the previous condition or pay the compensation of Baht 327,680,219.25 together with 7.5 percent per annum interest.

The Company plead in its defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

The case was requested to be jointly considered with other related cases and the Court granted the said request.

On 13 December 2019, the Civil Court ordered the Company to return the limestone ore for cement industry, in total of 2,477,906.76 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation of Baht 314,311,227.98 together with the 7.5 percent per annum interest, calculating from the discovery date of the unlawful mining activity (31 August 2015) until the date of the filing of complaint (207 days) totaling Baht 13,368,991.27 making it Baht 327,680,219.25 in total. The Court also ordered the Defendant to pay 7.5 percent per annum interest on the principal of Baht 314,311,227.98 counting from the day after the complaint filing date until the payment is made in full and ordered that the Defendant pay the court fees on the Plaintiff's behalf (court fee shall be calculated from the amount of claim ordered in favour of the Plaintiff) and to pay the attorney fee of Baht 100,000.

The Company filed an appeal with the request for a delay of judgement execution on 8 May 2020.

On 17 November 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per annum pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per annum but not exceeding the rate of 7.5 percent per annum as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgement of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 17 March 2022.

On 22 November 2022, the Civil Court made the announcement of the Supreme Court's order, whereby the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company's appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines' filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

- 6) On 24 March 2016, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the Saraburi Office of District Attorney (the "Plaintiff") filed a civil lawsuit (the Black Case No. SorWor.5/2559) against the Company (the "Defendant") in the civil case claiming for compensation totaling Baht 1,671,128,829.14 stating that the Company engaged its limestone mining activity unlawfully (engaged in the mining restricted area) demanding that the ore totaling 12,484,023.50 metric tons be returned and the area be restored into its previous condition or pay the compensation together with the 7.5 percent per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

On 2 August 2019, the Court ordered the Company to return the limestone for cement industry totaling 12,484,023.50 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation of Baht 1,602,948,617.40 together with the interest of 7.5 percent per annum of such amount calculating from the date of being notified of the land survey result (31 August 2015) until the date of the filing of complaint (207 days) making the interest to be Baht 68,180,211.74, making it Baht 1,671,128,829.14 in total, together with payment of 7.5 percent per annum interest on the principle amount of Baht 1,602,948,617.40 counting from the day after the complaint filing date until the payment is made in full and ordered that the Defendant pay the court fees on the Plaintiff's behalf (court fee shall be calculated from the amount of claim ordered in favour of the Plaintiff) and to pay the attorney fee of Baht 200,000.

The Company does not agree with the decision of the Court of the First Instance and filed the appeal together with the request for a delay of judgement execution on 3 December 2019. The case is pending the consideration of the Court of Appeal. The Court makes an appointment for the hearing of a judgement or order of the Court of Appeal on 22 September 2020 but the appointment was postponed because the case is pending mediation during the appeal. Subsequently, the mediation in the appellate stage was terminated.

On 10 May 2022, The Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per annum pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per annum but not exceeding the rate of 7.5 percent per annum as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level. The future court fee on entry of a complaint of Baht 100 baht shall be paid back to the defendant. The defendant shall be required to pay for the appellate fees on behalf of the plaintiff together with an attorney fee imposed at Baht 200,000.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgement of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 12 October 2022. The case is pending a judgement of the Supreme Court.

- 7) On 2 March 2017, the Department of Primary Industries and Mines, Ministry of Industry by the representation of the district attorney of the Office of the Attorney General (the “Plaintiff”), filed a complaint against the Company (the “Defendant”) at the Civil Court, Environmental Law Department (the Black Case No. SorWor.1/2560) with the lawsuit amount of Baht 344,882,135.15 claiming that the Company partially engaged its mining activity in the area designated in the Prathanabat unlawfully requesting that the shale totaling 1,220,559.82 metric tons be returned to the area and the area be restored into its previous condition or to pay compensation together with the 7.5 percent per annum interest.

The Company plead in its statement of defense that the Plaintiff does not have any authority to file such lawsuit according to the Enhancement and Conservation of National Environmental Quality Act B.E. 2535, the lawsuit is vague, delusive without any evidence and is already time-barred by prescription period; further, the lawsuit is a civil claim in connection with criminal offence relating to unlawful mining activity, however, the Company has not committed any criminal offence and did not infringe any rights of the Plaintiff, thus, the civil claim does not exist due to non-existence of infringement, the Company has not committed any wrongdoing according to the complaint and is not liable to any claim, therefore, the Company denied all claims under the complaint. Additionally, the Company also has, in reserve pursuant to the Prathanabat, several hundred million tons of limestone and the said reserves, if not used before the expiration of the Prathanabat, would not be usable after the expiration date, therefore, the Defendant does not have any cause or necessity to the engage in mining activity outside the designated area.

On 13 December 2019, the Civil Court ordered the Company to return the shale for cement production industry totaling 1,220,559.82 metric tons back to the area where the mining activity was done and restore such area to the previous condition or pay the compensation consisting of the value of the shale and royalty fee to the government in the amount totaling Baht 326,499,751.86 together with 7.5 percent per annum interest calculating from the date of the violation (2 June 2016) until the date of the complaint filing (274 days) making the interest to be Baht 18,382,383.29. The total amount from combining the principal and interest, is the amount of Baht 344,882,135.15. The Court also ordered that the interest on the principal amount of Baht 326,499,751.86 in the rate of 7.5 percent per annum be paid counting from the day after the complaint filing date until the payment is made in full together with the court fees in behalf of the Plaintiff and attorney fee of Baht 200,000.

TPI Polene Public Company Limited and its Subsidiaries

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The Company filed the appeal with the request for delay of judgement execution to Court on 5 June 2020. On 24 June 2021, the Civil Court pronounced the judgment of the Court of Appeal in which the Court of Appeal modified the judgment by charging interest at a rate of 5 percent per annum pursuant to the judgment of the Court of First Instance from 11 April 2021 onwards until payment to the Plaintiff in full or by making an adjustment to decrease or increase the interest in accordance with the Royal Decree enacted under newly amended Section 7 of the Civil Procedure Code plus an increasing rate of 2 percent per annum but not exceeding the rate of 7.5 percent per annum as requested by the Plaintiff. Other than the amendment, the judgment of Court of Appeal shall govern. There is no court cost at the appellate level.

The Company has applied for permission to lodge an appeal to the Supreme Court challenging the judgment of the Court of Appeal together with a stay of execution pending the appeal to the Supreme Court on 9 November 2021.

On 15 November 2022, the Civil Court made the announcement of the Supreme Court's order, whereby the Supreme Court allowed the Company to submit an appeal to the Supreme Court and accepted the said Company's appeal for consideration. The case is in a process of the public prosecutor preparing an answer to the said appeal and collecting the case file for submitting to the Supreme Court for consideration.

The complaint of this case described that the lawsuit is a civil claim in connection with the criminal offence for the part concerning the Department of Primary Industry and Mines' filling of report to the inquiry official requesting the inquiry official to commence the criminal proceeding against the Company for unlawful mining activity without permit; and the inquiry official issued the opinion that this case shall not be prosecuted and later on, the District Attorney also concurred and issued the final order that the criminal case will not be prosecuted against the Company, thus, the criminal case is final.

Incidentally, the information regarding cases 1) - 7) above are under the consideration of the court, the above cases are not final. The Company and the legal advisors hereby opines that based on the evidence and information the Company possesses, the Company did not commit any wrongful acts against the plaintiff as detailed in the complaints; the plaintiff claimed that the defendant committed wrongful action against the plaintiff, therefore, the plaintiff has the burden of proof to prove that the defendant had committed such act as the plaintiff claimed and since the plaintiff had not presented the evidences which show that in fact, the defendant had committed wrongful act against the plaintiff, the, the court could consider to dismiss the case. However, the judgment depends on the consideration and discretion of the court. As at 31 December 2022, the outcome of lawsuit is not yet final, the Company has not recorded a provision for liability of lawsuit in the financial statements.

- 8) On 16 December 2019, individuals in total of 222 people sued Energy Regulatory Commission (ERC) et al to the Central Administrative Court which a subsidiary was listed as the 5th Defendant. The Plaintiffs requested that the approval of Environmental and Health Impact Assessment (EHIA) report for the project of 150 megawatts thermal power plant, the license to operate electricity generating business and the construction approval of the subsidiary be revoked. The Plaintiffs also requested that the Court take evidence out of Court and issued an interim measure and ordering that the electricity generating system be temporarily stopped until the final decision is reached.

On 25 December 2019, the Court inquired both Parties in considering the request for interim measure and rendered its decision on 28 January 2020 denied the request for interim measure due to the lack of reason to believe that the license to operate electricity generating business of the subsidiary is unlawful.

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

On 31 January 2020, the Court issued an order accepting the compliant and requesting the subsidiary to file the answer. The lawyer submitted the answer to Court on 1 July 2020.

On 7 December 2020, the Court sent the objection to the answer of the 5th Defendant and requested the subsidiary to submit additional answer to the Court within the prescribed period. The subsidiary submitted the additional answer to the Court on 12 March 2021, the case is under the Court consideration.

The subsidiary's legal consultant considered the complaint and its appendixes and hereby opines that the subsidiary lawfully and transparently received the license to operate the electricity generating business and the construction approval from the competent authorities, in accordance with the applicable laws and that the relevant public official have lawfully and honestly performed their duties without any conflict of interest in issuing the said license. The complaint of the Plaintiffs is untrue. As the case is in the preparation for answer, the subsidiary has causes to relieve itself of any liability generated from the complaint depending on the Central Administrative Court Decision. Moreover, the subsidiary has pressed charges against the 222 Plaintiffs to the Muak Lek police station, Saraburi, for taking the false information to charge the person in the Court. The case is under the investigation of the police.

For all above lawsuit, the Group's legal consultant opines that, based on the Company's evidences and information, the Company has a chance to defend itself in the court trial depending on the consideration of each courts.

39 Others

- 1) The subsidiary is a power company that produces electricity by turning community municipal solid waste to energy, which is clean and green energy. The subsidiary has participated in the Thailand Voluntary Emission Reduction Program, according to Thai standards, which is a waste management project ("T-VER"), with the Thailand Greenhouse Gas Management Organization ("TGO").

At the end of year 2021, the subsidiary registered with the TGO to apply for the reduction of greenhouse gases, which subsequently TGO has certified the reduction of greenhouse gases (carbon credit) for the subsidiary's project of 82,056 tons of carbon dioxide equivalent, and after sale of 34,690 tons of carbon dioxide equivalent, the subsidiary has the balance of 47,366 tons of carbon dioxide equivalent.

Subsequently, on 24 May 2022, TGO has certified the reduction of greenhouse gases (carbon credit) for the subsidiary's project for the period from 1 May 2017 to 31 December 2020, increased by 717,931 tons of carbon dioxide equivalent. As a result, the subsidiary has the balance of 765,297 tons of carbon dioxide equivalent.

In 2022, the subsidiary used approximately 2.73 million tons of all types of waste as fuel in the Company's power plants and Cement Plants of TPI Polene Public Company Limited, which can reduce greenhouse gas emissions or carbon reductions by approximately 6.34 million tons of carbon dioxide equivalent. The subsidiary is currently applying to TGO for approval for the reduction of greenhouse gases (carbon credit) for these new projects.

- 2) From December 2021 until the end of the year 2022, the Company has been granted limestone and shale concession for the manufacturing of cement industry from the Department of Primary Industries and Mines, Ministry of Industry, totaling 24 plots, with long-term concession period of 25 - 30 years for total areas of 6,375 Rai, with limestone and shale reserves of 388,017,000 tons and 43,043,400 tons, respectively, totaling 431,060,400 tons (average of 15.97 million tons per year).

TPI Polene Public Company Limited and its Subsidiaries

Notes to the financial statements For the year ended 31 December 2022

40 Events after the reporting period

- 1) On 18 January 2023, the subsidiary issued the unsecured, unsubordinated debentures in registered form with debenture holders' representatives in the total amount of Baht 6,000 million, which was comprised of Tranche 1, with the maturity term of 3 years 6 months together with a fixed interest rate at 4.15% per annum, payable quarterly, in the amount of Baht 3,000 million and Tranche 2, with the maturity term of 5 years together with a fixed interest rate at 4.60% per annum, payable quarterly, in the amount of Baht 3,000 million.
- 2) At the Board of Director's meeting of the subsidiary held on 26 January 2023, the Board of Director's meeting passed a resolution to declare the interim dividend payment from retained earnings as of 30 September 2022, in amount of Baht 0.09 per share for the Baht 8,400 million common shares, amounting to Baht 756 million and the dividend payment is scheduled on 23 February 2023.

41 Adjustment of accounts

Other current financial assets disclosed in the consolidated financial statements as at 31 December 2021 have been adjusted to conform with the remaining period and the objective of the subsidiary's business model.

Consolidated financial statements			
31 December 2021			
	Before adjustment	Adjustment (in thousand Baht)	After adjustment
Statement of financial position			
Other current financial assets	6,480,787	(485,341)	5,995,446
Other non-current financial assets	34,978	485,341	520,319
		-	



Board of Directors and Corporate Secretary as at 31 December 2022

NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE	WORK EXPERIENCE		
			HOLDING*	DURATION	POSITION
Mr. Khantachai Vichakkhana 74 years of age -no relationship	Master of Political Science, (Public Administration), Thammasat University	0.000	Jun 25, 2018- Present	Chairman and Independent	TPI Polene Plc.
	Bachelor of Law, Thammasat University		Jan 2016-Present	Director	TPI Polene Power Plc.
	Directors		Aug 8, 2014- Present	Independent Director	L.P.N. Development Plc.
	Accreditation Program (DAP No.112/2014)			Independent	
	Thai Institute of Directors (IOD)		2022-Present	Director, Director, Audit Committee, the Nomination, Remuneration and Corporate	Tong Hua Holding Plc.
	Role of Compensation Committee (RCC No.19/2014)		2002-2008	committee	Department of Lands
	Thai Institute of Directors (IOD)		2000-2002	Governance	Department of Lands
	Directors		2000	Vice Chairman, Chairman of the Audit Committee and Independent	Department of Lands
	Certification Program (DCP No.119/2015)		1999-2000	Director	Department of Lands
	Thai Institute of Directors (IOD)		1998-1999	Deputy Director- General	Department of Lands
	Guest Speaker Training Program		1995-1998	Directors : Land Registry Standard Bureau	Department of Lands
	Land Class 2: Department of Land (1979)		1992-1995	Staff Plan & Policy Analysis (Land)	Department of Lands
	Internal Security Operations Command Program (ISOC) : Royal Thai Army (1979)		1986-1988	Inspector-General Director of Bureau Authority	Department of Lands
	Advance Land Management School Program		1986	Land	Rajamangala University of Technology Bangkok
	Class 3: Department of Lands (1984)			Land	Thai Red Cross Council Triamudomsuksa Alumni Foundation
	Advance administration Program: Class 30, Institute of Administration Development, Department of Provincial Administration (1993)			Management Division Department of Important Book Land Officer- Chonburi	Retired Government Officials' Pension
	High Level Information Technology Executives (CIO) Seminar (2003)			Land Officer- Phuket	EPA Thammasat University Foundation
				Land Officer- Nonthaburi and Bangyai District	Hospital & Phrapiya School Foundation
				Land Officer- Nakhornnayok	Srisavarindhira Thai Red Cross Institute of Nursing
				Land Officer- Uttaradit	Chaipattana Foundation
				- Assets Management Committee	Environment for Life Foundation
				- Committee	
				- Committee	
				- Committee	
				- Assets Management Committee	

NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE	WORK EXPERIENCE		
		HOLDING*	DURATION	POSITION	COMPANY/ BUSINESS
Mr. Prachai Leophairatana 78 years of age Younger brother of Miss Malinee Leophairatana, elder brother of Mr. Prateep Leopairut, Dr. Pramuan Leophairatana, and Mr. Prayad Liewphairatana	Honorary Doctorate Degree in Industrial Engineering , Rajamangala University of Technology Krungthep	0.001	2001-Present	Chief Executive Officer	TPI Polene Plc.
			1991-Present	Chairman	TPI Polene Power Plc.
			Jan 2016-Present	Chairman of the Management Committee	TPI Polene Power Plc.
	April 2012-Present Oct 2019-Present		Director Executive	Bangkok Union Insurance Plc. TPI Deep Sea Port Co., Ltd.	
	Oct 2019-Present		Director Executive	TPI Smart City Co., Ltd.	
	Oct 2019-Present		Director Executive	TPI Wind Power Co., Ltd.	
	Oct 2019-Present		Director Executive	TPI Solar Power Co., Ltd.	
	2000-2006		Chairman Executive	Bangkok Union Insurance Plc.	
	1978-2006		Director Chief Executive Officer	Thai Petrochemical Industry Plc. and TPI Polene Group of Companies.	
	1992-2000		Senator	Parliamentary Commission	
	1969-1997		Chairman	Cathay Finance & Securities Plc.	
	Directors Accreditation Program (DAP No.35/2005) Thai Institute of Directors (IOD)				

NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLDING*	WORK EXPERIENCE		
			DURATION	POSITION	COMPANY/ BUSINESS
Mr. Prateep Leopairut 77 years of age Younger brother of Miss Malinee Leophairatana and Mr. Prachai Leophairatana, elder brother of Dr. Pramuan Leophairatana and Mr. Prayad Liewphairatana	Honorary Doctorate Degree in Engineering Materials Faculty of Engineering Rajamangala University of Technology Rattanakosin	0.001	2022-Present	President	TPI Polene Plc.
			1987-2019	President	TPI Polene Plc.
			1991-2019	Executive Director	TPI Concrete Co., Ltd.
			2002-Present	Executive Director	Polene Silicon Co., Ltd.
			2007- Jan 2015	President	Thai Nitrate Co., Ltd.
			2007 - 2019	President	Thai Nitrate Co., Ltd.
			2022- Present	President	Thai Nitrate Co., Ltd.
			2016 - 2017	Chairman	TPI Polene Power Plc.
			2011- Present	President	TPI Polene Bio Organics Co., Ltd.
			M.S. (Industrial Engineering) Stanford University U.S.A.	1978-Present	Director
	B.E. (Industrial Engineering) Chulalongkorn University		1989-Present	Director	Thai Plastic Film Co., Ltd.
			1988-Present	Director	Thai Plastic Product Co., Ltd.
	National Defense College in cooperation with the private sector, No.2, National Defense College		1994-Present	Vice Chairman	Bangkok Union Insurance Plc.
			1981-2006	President	International Plastic Trading Co., Ltd.
	The Political “Leadership in new era” program, No.2, King Prajadhipok’s Institute		1978-2006	President	Thai Petrochemical Industry Plc.
			1973-Present	Executive Director	Leophairatana Enterprises Co., Ltd.
	Directors Accreditation Program (DAP) No.28/2004 Thai Institute of Directors (IOD)		1996-Present	Executive Director	Pornchai Enterprises Co., Ltd.
			1996-Present 1987-present	Director President	Mondo Thai Co., Ltd. Thai Petrochemical Industry and Trade Association
	Directors Certification Program (DCP) No.53/2005 Thai Institute of Directors (IOD)		1987-1993	Director	Bangkok Union Insurance Plc.
			1990-1992	President	The Thai Packaging Association
	Audit Committee Program (ACP) No.8/2005 Thai Institute of Directors (IOD)		2009-2011	Commission of Central Asia	Thai Chamber of Commerce
			2009-2011	Committee of International Trade	Thai Chamber of Commerce
	Understanding the Fundamental of Financial Statements (UFS) no.1/2006 Thai Institute of Directors (IOD)		2009-2011	Committee of International Negotiation Trade	Thai Chamber of Commerce
			2009-Present	Specialist on the examination of working professionals with engineering diploma in industrial engineering field	Council of Engineers
	Chartered Director Class (CDC) No.5/2009 Thai Institute of Directors (IOD)		2009-Present	Expert on the examination of corporate engineering level of working professionals industrial engineering field	Council of Engineers
			2012-2014	Chairman	ASEAN Federation of Cement Manufacturers (AFCM)
	-Advanced Trade Negotiations Simulation Skills Course 2554		2012-Present	Committee of the Examination of Working professionals with Engineering diploma in industrial engineering field	Council of Engineers
2012-2016		President	Thai Cement Manufacturers Association (TCMA)		
-The Impact of Global Trade on the Thai Economy; Prepare Thai Businesses for Today 1/2012	2012-2016	President of Cement Group	The Federation of Thai Industries		
	2012-2016	Committee of the Federation of Thai Industries	The Federation of Thai Industries		
- The 6th EFEE World Conference on Explosives and Blasting 2554 ,European Federation of Explosives Engineers	2012-2016	Committee of Logistics Economic Division Committee of Logistics Economic and Infrastructure Development	The Federation of Thai Industries The Federation of Thai Industries		

NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLDING*	WORK EXPERIENCE		
			DURATION	POSITION	COMPANY/ BUSINESS
	- China International Water Soluble Fertilizer Conference and Exhibition 2013 China National Chemical Information Center - 4 Days MBA for Oil and Gas Executives 2013 Singapore Universal Network Intelligence - ASEAN Outstanding Engineering Achievement Award for Year 2013 - Asia Pacific Chemical Industry Meeting (APCIM) 10 February 1998 Singapore - The Premier Meeting P for the Oil Industry 9-11 September 1996 Singapore - Executive Seminar Partner for International Competitiveness Harvard University America 1991		2012-2016	Committee of Logistics Trade	The Federation of Thai Industries
			2012-2014	Committee of Development of the economic cooperation of neighboring countries, the Mae-kong sub region (GMS/ ACMECS/ MJ/ Business council of Burma-Laos-Cambodia-Vietnam)	The Federation of Thai Industries
			2012-2014	Committee of Facilitate on Trade, Import-Export and Custom Practices	The Federation of Thai Industries
			2012-2016	Committee of The Institute of Industrial Environment	The Federation of Thai Industries
			2012-Present	Committee of the Institute of Industrial Energy	The Federation of Thai Industries
			2012-2014	President of construction Materials Cluster	The Federation of Thai Industries
			2012-2014	Honorary Member and Council Association	The Thai Packaging Association
			2013-Present	Committee of the Examination of License for professional Engineer in industrial engineering field	Council of Engineers
			2013	Committee Council of the study system rice industry	Committee on Economics, Commerce and Industrial of the Senate
			2013-2014	Honorary Council	Committee on Economics, Commerce and Industrial of the Senate
			2015-Present	President	Thai Organic Fertilizer Industry Foundation Trade Association
			1996-Present	Director	TPI Distribution Center Company Limited
			2019-Present	Director	TPI Smart City Company Limited
			1996-Present	Director	TPI Allseason Co., Ltd
			2010-Present	Director	TPI Services Co., Ltd
			1996-Present	Director	TPI Bio Pharmaceuticals Co., Ltd
			1998-Present	Director	TPI Healthcare Co., Ltd
			1995-Present	Director	Propoxide Co.,Ltd

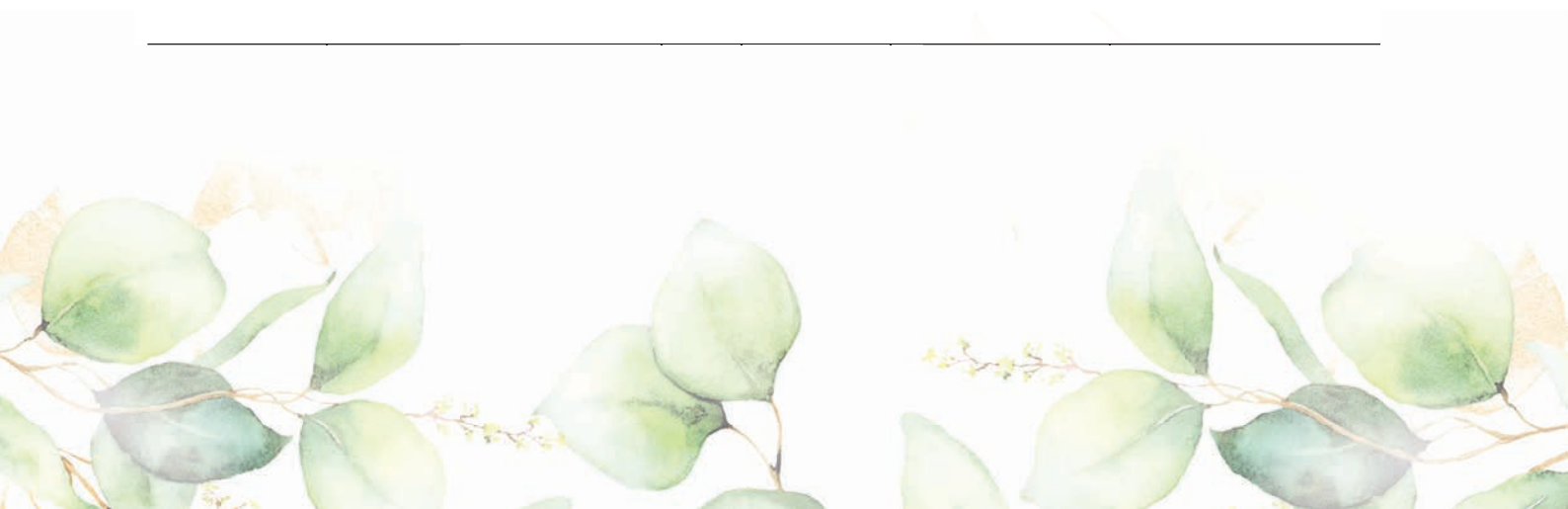
NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	
			DURATION	POSITION	COMPANY/ BUSINESS	
Dr. Pramuan Leophairatana	M.S., SC.D. Massachusetts Institute of Technology (MIT), U.S.A.	2.878	2001-Present 1973-Present	President Director	TPI Polene Plc. Leophairatana Enterprises Co., Ltd.	
72 years of age	B.S. (Honors)		1988-Present	Director	Thai Plastic Product Co., Ltd.	
Younger brother of Miss Malinee	University of California (Berkeley), U.S.A.		1989-Present	Director	Thai Plastic Film Co., Ltd.	
Leophairatana,			1989-Present	Director	United Grain Industry Co., Ltd.	
Mr. Prachai	Directors Accreditation Program (DAP- No.39/2005)		1991-Present	Vice Chairman	TPI Polene Power Plc.	
Leophairatana and	Thai Institute of		1991-Present	Executive Director	TPI Concrete Co., Ltd.	
Mr. Prateep	Directors (IOD)		1997-Present	Executive Director	Bangkok Union Life Insurance Plc.	
Leopairut, elder brother of Mr.						
Prayad	National Defense College No.41 and			2002-Present	Chairman	Polene Silicon Co., Ltd.
Liewphairatana	National Defense College in cooperation with the private sector No.11, King Prajadhipok’s Institute			2010-Present	Executive Director	TPI Polene Bio Organics Co., Ltd.
				Jul 2014-Present	Executive Director	Mondo Thai Co., Ltd.
				Aug2016-Present	Executive Director	Thai Nitrate Co., Ltd.
				Oct 2019-Present	Executive Director	TPI Smart City Co., Ltd.
				Oct 2019-Present	Executive Director	TPI Solar Power Co., ltd.
				Oct 2019-Present	Executive Director	TPI Wind Power Co., ltd.
				Oct 2019-Present	Executive Director	TPI Deep Sea Port Co., ltd.
				Oct 2013-Jan 2015	Executive Director	Thai Nitrate Co., Ltd.
				1996-Jul 2014	Executive Director	Mondo Thai Co., Ltd.
				1990- Aug 2013	Executive Director	Thai Nitrate Co., Ltd.
				1978-2006	Director	Thai Petrochemical Industry Plc.



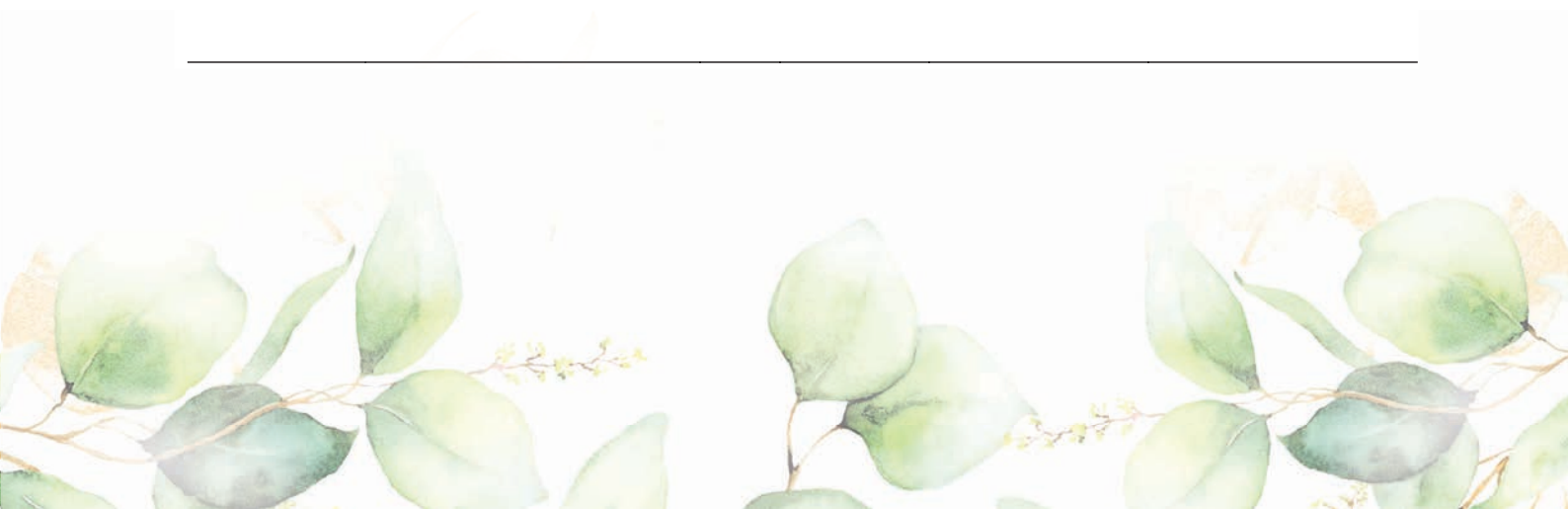
NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Miss Malinee Leophairatana	Master's degree in actuarial science Georgia State University, U.S.A.	0.043	April 2016- Present	Director	TPI Polene Plc.
80 years of age Elder sister of Mr. Prachai Leophairatana, Mr. Prateep Leopairut, Dr. Pramuan Leophairatana and Mr. Prayad Liewphairatana	Bachelor of Commerce and Accounting Major in Statistics (Second Honor), Chulalongkorn University		Jan 2016- Present	Director	TPI Polene Power Plc.
			Present	Director	Leophairatana Enterprises Co., Ltd.
			2011-Present	Chairman Executive Director	Bangkok Union Insurance Plc.
			1997-Present	Director	Bangkok Union Life Insurance Plc.
	Directors Certification Program (DCP) No.22/2002 Thai Institute of Directors (IOD)		1987-1989	President	Thai General Insurance Association
	Certified as Actuary under Section 78/2 of The Non-Life Insurance Act B.E.2535 as Amended by Non-Life Insurance Act(No.2), B.E.2551				
Mr. Prayad Liewphairatana	M.S.C.E. University of Michigan (ANN ARBOR) U.S.A.	3.185	1987-Present	President	TPI Polene Plc.
71 years of age Younger brother of Miss Malinee Leophairatana, Mr. Prachai Leophairatana, Mr. Prateep Leopairut, and Dr. Pramuan Leophairatana	Directors Accreditation Program (DAP- No.29/2004) Thai Institute of Directors (IOD)		1973-Present	Director	Leophairatana Enterprises Co., Ltd.
			1988-Present	President	Thai Plastic Product Co., Ltd.
			1988-Present	President	United Grain Industry Co., Ltd.
			1989-Present	President	Thai Plastic film Co., Ltd.
			1991-Present	Executive Director	TPI Polene Power Plc.
			1991-Present	Executive Director	TPI Concrete Co., Ltd.
			1996-Present	Executive Director	Mondo Thai Co., Ltd.
			1997- Present	Executive Director	Bangkok Union Life Insurance Plc.
			2002-Present	Executive Director	Polene Silicon Co., Ltd.
			Aug 2, 2016- Present	Executive Director	Thai Nitrate Co., Ltd.
			2010-Present	Executive Director	TPI Polene Bio Organics Co., Ltd.
			1981-2006	Director	International Plastic Trading Co., Ltd.



NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
				DURATION	COMPANY/ BUSINESS
Mrs. Orapin Leophairatana 75 years of age Mr.Prachai Leophairatana's wife	Political Science (2 nd Class Honors) Chulalongkorn University Directors Accreditation Program (DAP- No.35/2005) Thai Institute of Directors (IOD)	5.153	1998-2003, 2005-Present	Director/ Senior Executive Vice President	TPI Polene Plc.
			1998-Present	Executive Director	TPI Concrete Co., Ltd.
			2002-Present	Executive Director	Polene Silicon Co., Ltd.
			2007-Present	Executive Director	TPI Polene Power Plc.
			2009-Present	Vice Chairman	TPI All Seasons Co., Ltd.
			2010-Present	Executive Director	United Grain Industry Co., Ltd.
			2010-Present	Executive Director	Thai Petrochemical Industry Co., Ltd.
			2010-Present	Executive Director	TPI Polene Bio Organics Co., Ltd.
			Jul 2014- Present	Executive Director	Mondo Thai Co., Ltd.
			Oct 2019- Present	Executive Director	TPI Smart City Co.,Ltd.
			Oct 2019- Present	Executive Director	TPI Solar Power Co., Ltd.
			Oct 2019- Present	Executive Director	TPI Wind Power Co., Ltd.
			Oct 2019- Present	Executive Director	TPI Deep Sea Port Co., Ltd.
			Oct 2013-Jan 2015	Executive Director	Thai Nitrate Co., Ltd.
			2009- Aug 2013	Executive Director	Thai Nitrate Co., Ltd.
			2001-2011	Executive Director	Thai Listed Company Association
			April-Dec 1997	Director	Association of Finance Companies
			1986-1997	Director	Bangkok Stock Trading Center
			1995-1997	Director	Association of the Securities Brokerage
			1995-1997	Chairman	Cathay Finance & Securities Plc.
			1977- 1982	Managing Director Third Secretary	Ministry of Foreign Affairs
Mr. Supoj Singsanej 74 years of age -no relationship	M.B.A. Finance, Michigan State University, U.S.A. Bachelor of Accounting (Honor), Thammasat University Directors Certification Program (DCP- No.90/2007) Thai Institute of Directors (IOD) The Role of Chairman Program (RCP) No.18/2008 Thai Institute of Directors (IOD) Successful Formulation & Execution of Strategy (SFE) No.4/2009 Thai Institute of Directors (IOD)	-	Jun 25, 2018- Present	Chairman of the Audit Committee and	TPI Polene Plc.
			Apr 25, 2018- Jun 2018	Independent Director	TPI Polene Plc.
			Sep 15,2021- Present	Independent Director and Audit Committee Chairman	The Star Co., Ltd.
			2016- Present	Director	Marui Real Estate Co., Ltd.
			1988- Present	Director	Pisant Co., Ltd.
			2018-Present	Chairman and Chairman of the Audit Committee	Saksiam Leasing Plc.
			2018-Present	Chairman and Chairman of the Audit Committee	Samart Aviation Solutions Plc.
			1995-2015	Chairman of the Audit Committee	KPMG Phoomchai Audit Co., Ltd.
				Audit Partner and Senior Consultant	



NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Mr. Pises Iamsakulrat	Master of International Trade, Golden Gate University, U.S.A.	0.043	Mar 1,2018- Present	Independent Director and Audit Committee	TPI Polene Plc.
58 years of age -no relationship	Bachelor's degree, Business Administration, Menlo College, California, U.S.A		2008-Present	Director	TPI Polene Plc.
			1987- Present	Managing Director	Iamsakulrat Co., Ltd.
			1990- Present	Managing Director	Lampang Food Products Co., Ltd.
			1995- Present	Vice President	Laos Industrial-Agriculture Co., Ltd.
	Directors Accreditation Program (DAP- No. 140/2017)		1997- Present	Director	K. Cotton & Gloss Co., Ltd.
	Thai Institute of Directors (IOD)		1997- Present	Director	TPI Holding Co., Ltd.
			2004- Present	Managing Director	Maekong Inter Trade Co., Ltd.
Mr. Thavich Taychanavakul	Bachelor's degree, Business Administration Kinki University, Japan	0.001	Mar 1,2018- Present	Audit Committee	TPI Polene Plc.
73 years of age -no relationship	National Defense College No. 366		2008- Present	Independent Director	TPI Polene Plc.
			2013-Present	Chairman Executive Director	Mae Fah Luang University Council
			2012-Present	Advisor	Thai Industrial Estate Association
			2012-Present	Chairman Executive Director	Hi-Tech Kabin Logistics Co., Ltd.
			1999- Present	Chairman Executive Director	Ayutthaya Technology Hi- Tech Center Co., Ltd.
			1990-Present	Chairman Executive Director	Thai Industrial Estate Co., Ltd.
	Finance for Non-finance Director (FND) No.30/2006		May 15,2014- Present	Audit Committee /	Bangkok Union Insurance Plc.
	Thai Institute of Directors (IOD)		Mar 18,2019- Present	Independent Director Chairman Executive Director	Inter Far East Energy Corporation Plc.
Mr. Tayuth Sriyuksiri	Master of Business Administration, Boston University, U.S.A.	0.499	2008-Present	Executive Director	TPI Polene Plc.
68 years of age -no relationship	Bachelor's Degree, Engineering, Mechanic, Worcester University, U.S.A.		1982- Present	Managing Director	K. Cotton & Gloss Co., Ltd.
			1994- Present	Director	TPI Holding Co., Ltd.
			1999- Present	Director	Micro Fiber Industry Co., Ltd.
			2005- Present	Director	Wua Thai Manufacturing Plc.
	Director Accreditation Program (DAP- No.29/2004)				
	Thai Institute of Directors (IOD)				



NAME /AGE / FAMILY RELATION AMONG DIRECTOR & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Miss Tanyaratt Iamsopana	Master of Science, Technical University Berlin, Germany.	0.071	Present Present	Executive Director Managing Director	TPI Polene Plc. Bangkok Union Insurance Plc.
45 years of age Daughter of Ms. Malinee Leophairatana	Bachelor's Degree, Engineering, Thammasat University Director Accreditation Program (DAP- No.58/2006) Thai Institute of Directors (IOD) MMP, Class 52, Faculty of Commerce and Accountancy Chulalongkorn University The Executive Program for Young Professionals (EYP) 2/2016 Ministry of Finance Sasin Graduate Institute of Business Administration Certificate Global Executive Program (GEP) No. 1/2022		Present 2009-2011	Director Director, Property Insurance committee	Bangkok Union Life Insurance Plc. Thai General Insurance Association 2021-2023



NAME /AGE / FAMILY RELATIO AMONG DIRECTOR & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Mr. Pakorn Leopairut 42 years of age Son of Mr. Prateep Leopairut son	Master of Public and Private Management NIDA CEDI-BABSON ENTREPRENEURIAL LEADERSHIP PROGRAM No. 1/2556 Young F.T.I Eite No. 1 The Federation Of Thai Industries Executive Development Program No.10 Ministry of Finance FPO : Forum Economic Guru Seminar No. 3 Ministry of Finance Energy Executive Program No. 1 The Federation Of Thai Industries Directors Accreditation Program (DAP- No.132/2016) Thai Institute of Directors (IOD) Tisco Wealth Enhancement Program (WEP 4) No.4 (2016) The Young Executive Program in Energy Literacy for a Sustainable Future (YTEA) No.7 (2019) Digital Marketing Analytics for Growth) (MDES) and DUGA Executive Breakfast Forum 2022 Ep.12 Balancing Risk, Trust and Opportunity in an Uncertain World (MDES) (DUGA) know the architect For Senior Executives, Generation 4	3.151	2007-Present	Executive Director	TPI Polene Power Plc.
			Jan 2016- Present	Member of the Management Committee	TPI Polene Power Plc.
			Feb 2016- Present	President	TPI Polene Power Plc.
			2019- Present	Executive Director	TPI Polene Plc.
			2008- Present	Assistant Vice President	TPI Polene Plc.
			2009- Present	Executive Director	TPI All Seasons Co., Ltd.
			2010- Present	Executive Director	TPI Polene Bio Organics Co., Ltd.
			2010- Present	Executive Director	TPI Service Co., Ltd.
			2014- Present	Executive Director	TPI Polene Power (International) Co., Ltd.
			Jul 2015- Present	Executive Director	TPI Commercial Co., Ltd.
			2006- Present	Executive Director	TPI Healthcare Co., Ltd.
			2007- Present	President	Thai Petrochemical Industry Co., Ltd.
			Oct 2019- Present	Executive Director	Thai Nitrate Co., Ltd.
			Oct 2019- Present	Executive Director	TPI Smart City Co.,Ltd.
			Oct 2019- Present	Executive Director	TPI Solar Power Co., Ltd.
			Oct 2019- Present	Executive Director	TPI Wind Power Co., Ltd.
			2007-2008	Executive Director	TPI Deep Sea Port Co., Ltd.
			2002-2007	Investment Analyst	MFC Asset Management Plc.
			2016 – Present	Supervisor	Thai Petrochemical Industry Plc.
			2016 - Present	Director Director	Polene Silicon Co., Ltd TPI Distribution Center Company Limited



NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Mr. Pornpol Suwanamas 43 years of age -no relationship	Bachelor of Humanities, Srinakharinwirot University	-	2019-Present	Director	TPI Polene Plc.
			2008-Present	Director and Secretary	Mind Management Promotion Foundation under patriarchal patronage
	Master of Technology and printing / Mind and Brain Learning of Oxford Brookers University		2008-Present	Director and Secretary	Paendin Dham Foundation under patriarchal patronage
	PhD. Of Buddhist theology at Wat Bowoniwet School in Bangkok		2010-Present	Director and Secretary	Novice promotion foundation under patriarchal patronage
	Certification of No.29 Meditation instructor Course from Willpower Institute , Wat Tham Mongkol.		2013-Present	Vice Chairman	Rojana Dhamma Foundation
	Certification of No.13 teacher training from Willpower Institute , Wat Tham Mongkol.		2017-Present	Director	
	Intermediate Certificate Course of Political Leadership in the new era , King Prajadhipok's Institute		2018-May, 2019	Working Group Assistant secretary to the abbot of the Rama IX Kanchanaphisek Temple.	The National council on social welfare of Thailand Ministry of Labor
	Advanced Certificate Course in Promotion of a Peaceful Society. King Prajadhipok's Institute		1982-Dec 20, 2019	Advisor Assistant Secretary to Chiang Rai Lord Abbot of Buddhist monastery	Rojana Industrial Park PCL.
			2018 – May 2019		
			2013-Dec 20, 2019		
			2019	-Junior of Budget Commission -Consultant of Junior of Religion Commission	Pathumwan Demonstration School Srinakarinwirot University (primary school)
				Monk teacher- morality course	Pathumwan Demonstration School Srinakarinwirot University (Secondary school)
			2021	Monk teacher- morality courses Special lecturer	Navaminthrachinuthit Bodidecha School.
			2022-2023		Rama IX Kanchanaphisek School
			2023		Udomsuksa School
					Kasetsart University laboratory school Fa Sai Wittaya School King Prajadhipok's Institute Department of Environmental Quality Promotion and Chulalongkorn University Suan Sunandha Rajabhat University Office of Insurance Commission (OIC)



NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLDING *	WORK EXPERIENCE	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Dr. Virat Chatdarong 44 years of age -no relationship	- Ph.D.Massachusetts Inst of Technology (MIT), Engineering Department c Civil and Environment - Master's degree 1. M.B.A Sasin, Chulalongkorn Universi 2. Massachusetts Institut Technology (MIT), Engineering Department of Civil and Environment - Bachelor's degree Engineering Departmen Civil and Environment, Chulalongkorn University (1 st Honors Gold Medal) - Business Reform and Networking Courses (BRAIN 4) The Federati of Thai Insustries - The Political "Leadershi new era" program, 6th generation, King Prajadhaipok's Institute - Royal Recipients Ananthamahidol Foundati Engineering - Director Accreditation Program DAP 189/2022	0.042	2021 – Present	Vice President	TPI Polene Plc.
			2009 – 2021	Asst. Vice President	TPI Polene Plc.
			2009 – Present	Asst. Vice President	TPI All Seasons Co., Ltd.
			2008 – Present	Manager	Rayong Forest Co., Ltd.
			2018 – Present	Directors and Directors Deputy Secretary- General	The Federation of Thai Insustries
			2020– Present	Secretary	Thai Industrial Standares Insustries (TISI)
			2018 – 2020	Secretary	The International Electrotechnical Commission : IEC (The Federation of Thai Insustries)
			2018 – 2020	Vice Chairman	Rayong Industrial Council
			2016 – 2018	Secretary	Rayong Industrial Council
			2018 - Present	Director	The Federation of Thai Insustries



NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%SHARE HOLD ING*	WORK EXPERIENC E	NAME /AGE / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATION	POSITION	COMPANY/ BUSINESS
Mr. Nitisit Jongphitakratana 52 years of age -no relationship	Master of Law, Thammasat University	-	2006- Present	Secretary	TPI Polene Plc.
			2011- Present	Asst. Vice President	TPI Polene Plc.
				Department Manager	TPI Polene Plc.
			2006-2011		
OTHER EXECUTIVES					
Mr. Prasert Ittimakin 63 years of age -no relationship	M.B.A. Finance University of St. Thomas, U.S.A.	0.00	2001- Present	Senior Vice President	TPI Polene Plc.
				Accounting and Finance Division Vice President	TPI Polene Plc.
	Bachelor of Accounting, Chulalongkorn University		1998-2001	Accounting and Finance Division Vice President	Asia Credit & Securities Plc.
			1990-1998	Corporate Finance Department	
Mr. Karan Pipitsombat 62 years of age -no relationship	Master of Public Administration (MPPM) NIDA	0.00	2006- Present	Senior Vice President (Plant Manager)	TPI Polene Plc.
	Bachelor of Engineering, Mechanical, Chiang Mai University		2001-2006	Vice President (Asst. Plant Manager)	TPI Polene Plc.
Mr. Somkeart Srisuwan 63 years of age -no relationship	M.B.A. of Kasetsart	0.00	2012- Present	Senior Vice President	TPI Polene Plc.
	Bachelor of Accounting, Chulalongkorn University			Information Technology Division Senior Manager (SVP)	CIMB THAI Bank
			1999-2012	Office of Procurement and Administration Division	Krung Thai Thanakit Finance Co.,Ltd.
			1993-1999	Senior Manager (SVP) System Development Department Division	
Miss Chularat Danwattanachai 61 years of age -no relationship	M.B.A. Thammasat University	-	2001- Present	Vice President	TPI Polene Plc.
			1999-2001	Accounting and Finance Division Asst. Vice President	TPI Polene Plc.
				Accounting and Finance Division Asst. Vice President	Asia Credit & Securities Plc.
				1989-1998	Corporate Finance Department
Mr. Pongsak Yiengsakun 67 years of age -no relationship	Bachelor of Business Administration, Banking and Finance, Chulalongkorn University	-	2012- Present	Vice President	TPI Polene Plc.
			2001-2012	Financial Operations Department	TPI Polene Plc.
				Asst.Vice President Financial Operations Department	TPI Polene Plc.
				1992-2001	Manager of Finance Department

Mrs. Narumon Chattawan 56 years of age -no relationship	Bachelor Degree in Accounting, Thammasat University	-	16 Feb 2023- Present	Vice President Accounting Department	TPI Polene Plc.
			2022 – 15 Feb 2023	Assistant Vice President Accounting Department	TPI Polene Plc.
			2020-2022	Director	Trans Thai Railway Co., Ltd.
			2018-2022	Executive Director	Triton Holding Plc.
			2017-2022	Director/Executive Director/ CFO	Triton Engineering and Construction Public Company Limited
			2019-2020	Director	Nongree Power Plant Co., Ltd.
			2018-2018	Director	Splash Media Plc.

Remarks: * Percentage of shareholding above includes shares held by spouses and offspring.

Attachment 2

Positions of the Management and Controlling Persons over the Company, its Subsidiaries, the Joint Venture Company, Associated Companies and other related Companies as at 31 December 2022

Name	TPI Polene	The Affiliated Company 2/																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Mr. Prachai Leophairatana	//	//X	//X	//X	//X	//X	//X	//X	//	//X	-	//X	//X	//X	//X	//X	//X	//X
2. Mr. Prateep Leopairut	//	//	//	-	//	//	//	//	-	//	-	//	//	-	//	//	-	//
3. Dr. Pramuan Leophairatana	//	//	//	//	//	//	//	//	//	//	//	//	//	-	//	//	-	//
4. Mr. Prayad Liewphairatana	//	//	//	//	//	//	//	//	//	//	//	//	//	-	//	//	-	//
5. Mrs. Orapin Leophairatana	//	//	//	//	//	//	//	//	-	//	-	//	//	//	//	//	//	//
6. Mr. Pisej Iamsakulrat	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Mr. Thavich Taychanavakul	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Mr. Tayuth Sriyuksiri	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Mr. Khantachai Vichakkhana	/X	-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Miss Malinee Leophairatana	/	-	-	/	-	-	-	-	/	-	//	//	//	-	-	-	-	-
11. Mr. Supoj Singsanei	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Mr. Pakorn Leopairut	//	//	//	//	//	//	//	//	-	-	-	//	//	//	//	//	//	//
13. Mr. Pornpol Suwanamas	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Miss Tanyaratt Iamsopana	//	-	-	-	-	-	-	-	-	-	//	-	-	-	-	-	-	-
15. Dr. Virat Chatdarong	/	-	-	-	//	-	-	-	-	-	-	-	-	-	-	-	-	-

Noted : 1/ / = Director
2/ Company name

X = Chairman // = Executive Director

No.	The Affiliated Company	Status
1.	TPI Concrete Co., Ltd.	Subsidiary company
2.	Thai Propoxide Co., Ltd.	Subsidiary company
3.	TPI Polene Power Plc.	Subsidiary company
4.	TPI All Seasons Co., Ltd.	Subsidiary company
5.	Polene Silicon Co., Ltd.	Subsidiary company
6.	TPI Polene Bio Organics Co., Ltd.	Subsidiary company
7.	Thai Nitrate Co., Ltd.	Subsidiary company
8.	Thai Special Steel Plc.	Associated company
9.	Mondo Thai Co., Ltd.	Subsidiary company
10.	Bangkok Union Life Insurance Plc.	Associated company
11.	United Grain Industry Co., Ltd.	Associated company
12.	Pornchai Enterprises Co., Ltd.	Related company
13.	TPI Commercial Co., Ltd.	Subsidiary company
14.	TPI Service Co., Ltd.	Subsidiary company
15.	TPI Healthcare Co., Ltd.	Subsidiary company
16.	Master Achieve (Thailand) Co., Ltd.	Subsidiary company
17.	TPI Bio Pharmaceuticals Co., Ltd.	Subsidiary company

The Board of Directors – TPI Concrete Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Mr. Panya Tangsingtrong	Director
7. Mr. Pakorn Leopairut	Director

The Board of Directors – TPI Polene Power Plc. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Dr. Pramuan Leophairatana	Vice Chairman
3. Mrs. Orapin Leophairatana	Vice Chairman
4. Mr. Prayad Liewphairatana	Director
5. Mr. Pakorn Leopairut	Director
6. Miss Pattraporn Leopairut	Director
7. Mr. Pakkapol Leopairut	Director
8. Miss Nitawan Leophairatana	Director
9. Mr. Manue Leohairoj	Director
10. Mr. Thiraphong Vikitset	Director
11. Mr. Apichai Chantarsaen	Director
12. Mr. Khantachai Vichakkhana	Director
13. Miss Malinee Leophairatana	Director
14. Mr. Wanchai Manosutthi	Director
15. Mr. Porakrit Leophairatana	Director



The Board of Directors–TPI Polene Bio Organics Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Miss Pattraparn Leopairut	Director
7. Mr. Pakorn Leopairut	Director
8. Mr. Pakkapol Leopairut	Director
9. Mrs. Achira Chatdarong	Director
10. Mrs. Nitawan Leophairatana	Director
11. Mr. Thanakorn Liewphairatana	Director
12. Miss Chutinan Liewphairatana	Director
13. Mr. Vipot Kotbua	Director
14. Mr. Pakpoom Thongsorn	Director



The Board of Directors – TPI All Seasons Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Mr. Pakkapol Leopairut	Director
7. Mr. Pakorn Leopairut	Director
8. Mrs. Nitawan Leophairatana	Director
9. Mrs. Achira Chatdarong	Director
10. Mr. Virat Chatdarong	Director
11. Mr. Porakrit Leophairatana	Director

The Board of Directors – Mondo Thai Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director

The Board of Directors – TPI Commercial Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mrs. Orapin Leophairatana	Director
3. Mr. Pakorn Leopairut	Director
4. Miss Pattrapan Leopairut	Director
5. Mr. Pakkapol Leopairut	Director
6. Mrs. Achira Chatdarong	Director
7. Mrs. Nitawan Leophairatana	Director
8. Mr. Thanakorn Liewphairatana	Director
9. Miss Chutinan Liewphairatana	Director
10. Mr. Prasert Ittimakin	Director
11. Mr. Vipot Kotbua	Director
12. Mr. Pakpoom Thongsorn	Director
13. Mr. Chairat Kittithorn	Director



The Board of Directors – TPI Service Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leophairatan	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Leophairatan	Director
5. Mrs. Orapin Leophairatana	Director
6. Mr. Pakorn Leophairatan	Director
7. Mr. Pakkapol Leophairatan	Director
8. Mrs. Achira Chatdarong	Director
9. Mrs. Nitawan Leophairatana	Director
10. Mr. Thanakorn Liewphairatana	Director

The Board of Directors – Thai Nitrate Co., Ltd. as at 31 December 20212

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Mr. Prateep Leopairut	Director
7. Mr. Pakkapol Leopairut	Director

The Board of Directors – Master Achieve (Thailand) Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mrs. Orapin Leophairatana	Director
3. Mr. Prateep Leopairut	Director
4. Mr. Pakkapol Leopairut	Director
5. Mrs. Achira Chatdarong	Director
6. Mrs. Nitawan Leophairatana	Director
7. Miss Pattrapan Leophairut	Director
8. Mr. Thanakorn Liewphairatana	Director
9. Miss Chutinan Liewphairatana	Director

The Board of Directors – TPI Bio Pharmaceuticals Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Miss Pattrapan Leophairut	Director
7. Mr. Prateep Leopairut	Director
8. Mr. Pakkapol Leopairut	Director
9. Mr. Thanakorn Liewphairatana	Director
10. Miss Chutinan Liewphairatana	Director
11. Mr. Porakrit Leophairatana	Director

The Board of Directors – TPI Healthcare Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Miss Pattrapan Leophairut	Director
7. Mr. Prateep Leopairut	Director
8. Mrs. Nitawan Leophairatana	Director
9. Mr. Pakkapol Leopairut	Director
10. Mr. Porakrit Leophairatana	Director

The Board of Directors – Thai Propoxide Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Miss Pattrapan Leophairut	Director
7. Mr. Prateep Leopairut	Director
8. Mr. Pakkapol Leopairut	Director
9. Mr. Thanakorn Liewphairatana	Director
10. Miss Chutinan Liewphairatana	Director

The Board of Directors – Polene Silicon Co., Ltd. as at 31 December 2022

Name	Position
1. Mr. Prachai Leophairatana	Chairman
2. Mr. Prateep Leopairut	Director
3. Dr. Pramuan Leophairatana	Director
4. Mr. Prayad Liewphairatana	Director
5. Mrs. Orapin Leophairatana	Director
6. Miss Pattrapan Leophairut	Director
7. Mr. Prateep Leopairut	Director
8. Mr. Pakkapol Leopairut	Director
9. Mr. Thanakorn Liewphairatana	Director
10. Miss Chutinan Liewphairatana	Director
11. Mr. Porakrit Leophairatana	Director



Attachment 3

Detail of Internal Audit Manager as at 31 December 2022

NAME / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING	%S HAR E HOL DIN G*	WORK EXPERI ENCE	NAME / FAMILY RELATION AMONG DIRECTORS & EXECUTIVES	EDUCATIONAL BACKGROUND/ TRAINING
			DURATI ON	POSITION	COMPANY/ BUSINESS
Mr. Somchai Kitpipit -no relationship-	M.B.A. Business Law Ramkhamhaeng University	-	2006- Present	Asst. Vice President Internal Audit Department Internal Audit Manager Internal Audit Department	TPI Polene Plc. Agro Industry business, Securities business, Petrochemical business, Cement business, Printing equipment business.
	Bachelor of Business Administration (Accounting), Ramkhamhaeng University		1992-2006		
	Tax Auditor				

Courses Training for Internal Audit Manager

No.	Courses Training	Period	Training Companies
1.	Covid-19 Tax Update and Accounting Standards 2021	December 18-19, 2021	Tax Auditor's Association
2.	Anti-corruption	April 9, 2021	TPIPL Personnel Development and Training Department
3.	Personal Data Protection Act B.E. 2562 (2019)	September 25, 2020	TPIPL Personnel Development and Training Department
4.	Land and Property taxes, accounting for investment properties, as well as updating new legal regulation	November 21-22, 2020	Kritsomboon Training and Seminar Co., Ltd. with the approval of the Federation of Accounting Professions and the Revenue Department.
5.	Ongoing operations, Financial instruments and update legal regulation	November 23-24, 2019	Kritsomboon Training and Seminar Co., Ltd. with the approval of the Federation of Accounting Professions and the Revenue Department.
6.	Internal control and internal control assessment	May 29-30, 2019	Professional Internal Audit Service (PIAS)

Attachment 4

Assets used in the business operations and details of the appraisal of the assets as at December 31, 2022

Details of the assets used in the business operations and list of the asset appraisal are detailed in the Annual Report 2022 (Form 56-1 One Report), Section 1, Structure and Operation of the Group of Company, Section 4: Assets Used in Business Operation.



Attachment 5

Policies and Guidelines for Good Corporate Governance and Business Ethics : Full Version

Policies and Guidelines for Good Corporate Governance and Code of Conduct: Full Verion. The Company discloses such information on its website <https://www.tpipolene.co.th/th/aboutus/code-of-conduct-th>



Attachment 6

Audit Committee's Report for 2022

To: Shareholders

The Audit Committee of TPI Polene Public Company Limited consists of four independent directors, who are all qualified with knowledge of finance, law and management administration: namely, Mr. Supoj Singsanej as the Chairman of the Audit Committee; Mr. Pises Iamsakulrat and Mr. Thavich Taychanavakul and Mr. Pornpol Suwanamas, as Audit Committee members; with Mr. Nitisit Jongphitakratana, the Corporate Secretary, as Secretary to the Audit Committee.

The Audit Committee has fully performed its duties and responsibilities to review and evaluate internal control systems, disclosure of Company information, and to review implementation of the provisions of related governing laws, as well as any other important tasks, such as ESG principles to be in line with the Sustainability Report., etc. In 2022, the Audit Committee convened 5 meetings as follows:-

1. To review and to evaluate internal control systems

The Company and its subsidiaries have appropriate internal control systems and have operated the business efficiently and effectively under appropriate and sufficient internal controls, as supported by the operational performance report. The Company and its subsidiaries have internal controls and risk management systems that can protect against potential risks to the Company and to all related parties. The systems are in place to ensure that any mistakes and irregularities will be identified in due course; and that financial reports are accurate, adequate and reliable; and the assets used by the Company and its subsidiaries, benefit all parties as well as shareholders. In addition, the Company has performed in compliance with the principles of good corporate governance and has embraced the Code of Conduct as a policy for all employees to follow, by emphasizing the balanced consideration of all related parties, fair treatment to all parties concerned, including shareholders, suppliers, contractors, and the community as a whole. The Company also realizes the importance of public well-being creation and environmental conservation and fosters the development of all our staff to expand their knowledge so as to become a knowledge organization. This will further enhance our long-term development and create sustainable growth for the Company. The Company has a sound internal control system and works effectively and efficiently under an adequate and appropriate internal control system, which can help prevent damage, according to the Audit Committee's examination of the Company's operations over the previous year. This might take place quickly, lower operational risks, aid in making the Company's financial statements and reports accurate and trustworthy, and enable the protection of the Company's assets and investors' money. A unit dedicated to internal auditing is in place to give assurance in accordance with the yearly plan, which is reviewed and approved by the chairman of the audit committee.

2. To review the disclosure of all relevant information for investors

Financial statements are financial reports that show the performance and financial position of an entity that must be disclosed to stakeholders. The Audit Committee has reviewed important items in the consolidated financial statements of the Company and its subsidiaries, both quarterly financial statements and fiscal year 2022 financial statements as well as having a meeting with the Company's auditor to independently exchange opinions on the financial statements without the presence of management on issues of material information of the financial statements and disclosures in the notes to the financial statements. It was found that the Company prepared financial reports in accordance with generally accepted accounting standards and disclosed sufficient information in the notes to the financial statements within a reasonable period of time as required by law and the financial reporting standards set by the Federation of Accounting Professions which are beneficial to the decision of investors and all stakeholders.

3. To review and to ensure that the Company performs in compliance with all regulations and related governing laws

The Company has a clear policy to comply with all regulations and related governing laws, and codes of conduct, to protect against the use of insider information. As announced in the Company's Rules and Regulations, any misuse of internal information shall be subject to disciplinary action, including dismissal. The Company supervises submission by the Management of reports of their shareholding in the Company to comply with related governing laws. The Company realizes the importance of information disclosure, including financial statements and other reports, and ensures that they are complete, accurate, reliable and timely.

4. Risk Management Review

The Company has set up a risk management committee chaired by the Chief Executive Officer and has executives from related departments as committees to consider structures, policies, risk management frameworks, risk management plans, review risks, and follow up on risk management. The Risk Management Department is responsible for preparing risk management reports, implementing and supporting risk management across the organization. The Company has focused on the environmental risks from greenhouse gas emissions that affect climate change, the risks that may arise from economic crime and modern technology (IT SECURITY), consumer behavior risks from rapidly changing communication technologies, risks caused by the outbreak of COVID-19, etc. The Company, through the Risk Management Committee and all organizational departments, has continuously observed the changing environment and taken into account significant risks that could have an impact on the Company's operations. From weekly management meetings, the Company has determined measures to respond to risks within acceptable levels and has included them in the annual work plan.

5. Review of fraud investigations

The Company has announced an Anti-Fraud and Corruption Policy through its Chief Executive Officer, which outlines guidelines for employees at all levels of the Company to understand and take part in the prevention and fight against corruption in the organization both directly and indirectly. This includes creating channels for whistleblowers or complaints about corruption actions related to the Company from both internal complainants and external stakeholders. The Company provides protection to complainants and complaints will be kept confidential both during and after the investigation is completed. If the accused has actually committed an offense, the Company has imposed disciplinary action in accordance with the regulations set by the Company. If the offense is an unlawful act, the offender must be prosecuted and subject to legal penalties.

6. Review of connected transactions or conflicts of interest

The Company has created the Company's business ethics (Code of Conduct) for company directors, executives, and employees at all levels and everyone to acknowledge and strengthen the organizational culture that gives importance to operations that do not conflict with having an interest and conflicts of interest with the Company in order for the organization to gain the most from transparent and auditable business operations. The Audit Committee reviewed the connected transactions and transactions that may have conflicts of interest from the reports of the relevant directors and found that the transactions were reasonable and did not cause any disadvantage to the Company and properly disclosed to the regulatory authority within the specified timeframe.

7. To select, nominate, and propose the remuneration of the statutory auditors of the Company for the year 2023.

The Audit Committee has taken into consideration the independence, performance, experience and an appropriate remuneration of auditors. The Audit Committee has passed a unanimous resolution to propose to the Company's Board of Directors for consideration and to propose to the shareholders' meeting to consider and approve the appointment of Mr. Ekkasit Chuthamsatid, CPA registration no. 4195 or Mr. Bunyarit Thanormcharoen, CPA registration no. 7900 or Mr. Natthaphong Tantichattanont, CPA registration no. 8829, KPMG Phoomchai Audit Limited, or Miss Thanyalux Keadkaew, CPA registration no. 8179, to be the statutory auditors of the Company for the year 2023.

The Audit Committee considers that in the previous year, the Board of Directors as well as the Management of the Company, was in complete compliance with the principles of good corporate governance with an adherence to the importance of sustainable business management. They performed their duties and responsibilities ethically, with integrity, and in a professional manner, to achieve the objectives of the Company. In addition, a product quality system, in compliance with international standards and applicable laws, has been developed. The Audit Committee recognizes that the Company is committed to social and environmental responsibility. The Company has also prepared financial reports in compliance with generally accepted accounting principles, with an adequate disclosure of information, internal control and audit systems, and is able to ensure product quality and good corporate governance, without any material deficiencies.

On behalf of the Audit Committee,



(Mr. Supoj Singaneai)
Chairman of the Audit Committee



Attachment 6

Report of the Board of Directors' Responsibilities for Financial Statements

The Board of Directors of the Company are aware of their duties and responsibilities to ensure that 2022 financial statements of the Company and its subsidiaries are accurate, complete, and transparent, and are prepared in compliance with generally accepted accounting principles and reflect the application of an appropriate and consistent accounting policy. Such reports must be prepared prudently and on a reasonable basis and must reflect the Company's financial position and operational performance fairly and precisely for the benefit of shareholders and general investors.

In this regard, the Board of Directors have entrusted an Independent Audit Committee to be responsible for the review of accounting policy and financial reports, internal controls, internal audit and risk management systems. Comments on these issues have been included in the Audit Committee Report, which thereby forms a part of this Annual Report.

The Board of Directors are of the opinion that the overall internal control systems of the Company and its subsidiaries have functioned satisfactorily and credibly to ensure that the financial statements of the Company and its subsidiaries present financial positions, operational results and financial cash flow which are accurate and reliable in all material aspects.



(Mr. Khantachai Vichakkana)
Chairman of the Board



(Mr. Prachai Leopairatana)
Chief Executive Officer





บริษัท ทีพีโอ โพลีน จำกัด (มหาชน) TPI POLENE Public Company Limited

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26/56 Chan Tat Mai Rd., Thungmahamek, Sathorn, Bangkok 10120

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