



Environment Social Governance Report

2023

Ethical management, Quality, Innovation and Respect

Grand Pacific Petrochemical Corporation

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About the Report

This report references the Global Reporting Initiative (GRI) Sustainability Reporting Standards 2021 (GRI Standards 2021) and the SASB Standards for the Chemicals industry and the Taiwan Stock Exchange's disclosure indicators for the Chemical industry as supplementary information, adopting the referencing option as the disclosure principle. To provide reliable public information, this report has been independently verified by DQS in accordance with the AA1000 Assurance Standard V3 (AA1000AS V3) (GRI 2-5). The carbon inventory data in this report pertains to the Kaohsiung plant and has been independently verified by SGS, a third-party.





In response to environmental protection, we promote paperless initiatives; hence, this report is published in electronic version on the Company's website.

About the “GRAND PACIFIC PETROCHEMICAL 2023 ESG Report”

Grand Pacific Petrochemical Corporation (Public Issuance Code 1312, TW) has released an “ESG Report” with the primary purpose of transparently and publicly presenting the Company's practices, achievements, strategies, and goals in corporate social responsibility to the general public. The ESG Report is published annually with regular updates. This “ESG Report” was published in June 2024 and primarily presents the actions, performance data, and achievements of Nan Ya Plastics’ Taipei/Taichung offices and Kaohsiung plant in environmental protection, corporate governance, and social engagement for the period from January 1, 2023, to December 31, 2023, with some performance data also reflecting 2022.

Considering the entities that have an impact on the operation of the group, the scope of this report mainly focuses on Nan Ya Plastics’ Taipei office and Kaohsiung plant. The Company’s main customers include chemical material manufacturers, with ABS/Nylon product sales covering regions such as China, Europe, America, and Japan. For SM products, the focus is on domestic sales, and the application scope of the products includes industries such as electronics, chemicals, and automobiles. This report does not cover other subsidiaries or joint venture companies

(GRI 2-2); any exceptions will be specifically noted in the report.

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During the reporting period of this year's report, there were no significant changes in the Company's operational activities, products, services (including sales market regions), entities, and activities in the value chain compared to the previous period (GRI 2-6). Financial statement figures in the report are presented in New Taiwan Dollars, while environmental, safety, and health-related performance are expressed using internationally accepted indicators. Any estimations or assumptions will be noted in the relevant chapters. This report will be submitted to the Board of Directors for approval in August 2024.

The report is scheduled to be issued annually on an ongoing basis (GRI 2-3)

Current version: Issued in August 2024

Last version: Issued in June 2023

Next version: Expected to be issued in June 2025

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For any comments on this report, please feel free to contact us. Contact information:

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CHAPTER 01

The Company's ESG policies are ethical corporate management, continuance in improvement of environmental protection, and care for vulnerable groups.

Strategy and Vision

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Grand Pacific Petrochemical emphasis on sustainable business practices. The concept of “sustainability” or “corporate social responsibility” is not just a single issue but a core value integrated into every initiative.

1. Words from the President(102-14)

Senior Management's Expectations

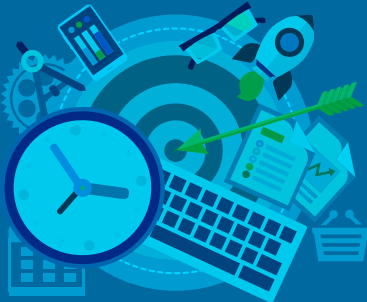
Over the past year, despite the excess capacity and low demand in the petrochemical market, the production amount of SM still increased by 14 thousand tons compared to the previous year; whereas the total shipments including those for internal use reached 293 thousand tons, increased by 11 thousand tons compared to the previous year. Facing the new year, the Company is determined to fearlessly face challenges. Apart from the emphasis on styrene monomer as the core niche, we have extended the scope upward to research and develop Nylon 66 of advanced engineering plastics and downward to work on the basics by optimizing the quality of ABS as the direction for our annual goal.

In addition to focusing on our current core businesses, Grand Pacific actively seeks to develop low-carbon and carbon-three industries. We aim to optimize costs, efficiency, quality, and processes, and explore sales channels for niche products such as energy-saving and emission-reducing products. We strive for steady growth in both quality and quantity and seize business opportunities to pursue profitability. The Company's scale projects with a capacity of 660,000 tons/year of propane dehydrogenation and 450,000 tons/year of polypropylene at Quangang Petrochemical Park in Quanzhou, Fujian, are expected to commence production in the second half of 2024, aiming to achieve full-load production and commercialization. Additionally, the research and development center continues to actively explore the diversified development of high-value prod-

ucts such as high-function nylon fibers and PP engineering plastics. Moreover, we actively seek cross-disciplinary industrial development such as semiconductor electronic chemicals and biomass materials. In the meantime, we cooperate with both domestic and foreign research institutes or search for co-development with remarkable companies overseas to pave the way for the Company's big step towards more promising accomplishment and territory.

This year, Grand Pacific's Board of Directors approved the staffing of Chief Sustainability Officer, of which role is appointed to the General Manager, Chia-Hsiung Tseng, to strengthen our strategic goals of sustainable development. There are two major focuses on the Company's sustainable transition. One is reducing 45% of carbon emissions by 2030 with 2015 as the base year and moving towards the vision of net zero emissions by 2050. The other is developing and combining ESG (Environment, Social Responsibility, and Corporate Governance) with high value and motivating green supply chains with technical innovation. Through the development of low carbon products, recycled materials, and hydrogen energy, we are to enhance the competitiveness in the green industry. Grand Pacific will devote itself to balancing corporate growth and sustainable development. (GRI 2-23)

The efforts in three dimensions of economic, environmental, and social aspects of corporate social responsibility are as following:



Economic Aspect

Corporate governance serves as the business core of Grand Pacific. In 2023, we strengthened the relevant policies and regulations of governance, conducted educational trainings related to ethical corporate management, reinforced the reviewing and reporting systems, and regularly reviewed its "Corporate Mission, Vision, Values," as well as "Core Functions" and "Management Functions," and required relevant personnel to adhere to them. In addition to disclosing important corporate social responsibility issues in the annual report, Grand Pacific also enhances operational transparency through the regular publication of ESG reports.

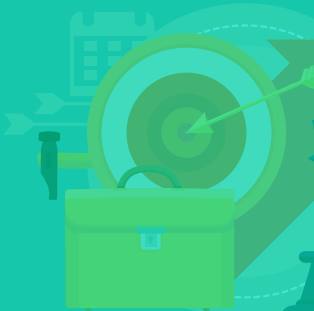
Environmental Aspect

To meet the challenges posed by internal and external environmental factors, Grand Pacific sells excessive electricity back to Taipower through cogeneration, which is then being used by other power users, to enhance the stability of power supply and the effectiveness of carbon reduction. Under the wave of sustainability transition, we actively proceed with gradual carbon reduction in gas-fired power plants, expedite the installment of renewable energy, establish carbon cycle, and develop hydrogen economy. The various green electricity actions we have taken are steadily bringing us to net zero through energy transition.



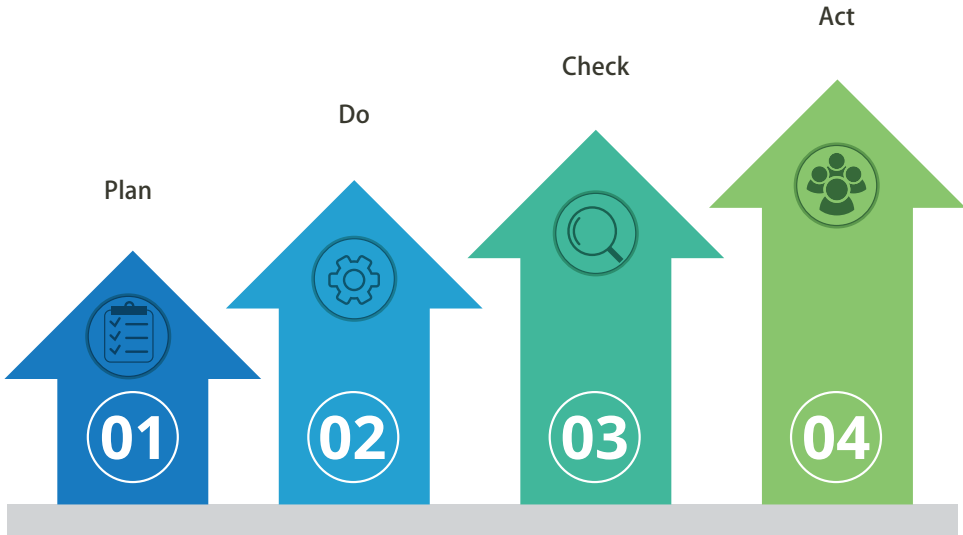
Social Aspect

Grand Pacific attaches importance to talent cultivation as well as employee safety and health, sets objectives for enhancing multiple functions of employees and reducing occupational accidents, and constantly improves talent development through occupational trainings. By embedding ESG to the organization, we implement human rights protection to fulfill corporate social responsibility. Looking forward to the future, Grand Pacific not only addresses stakeholders' concerns through this report, but also continues to develop new products and expand new markets for revenue growth. Additionally, we will stand side by side with business partners to put environment coexistence into practice, fulfilling social responsibility and becoming an outstanding corporate citizen.



2. Corporate Social Responsibility Commitment and Organizational Structure

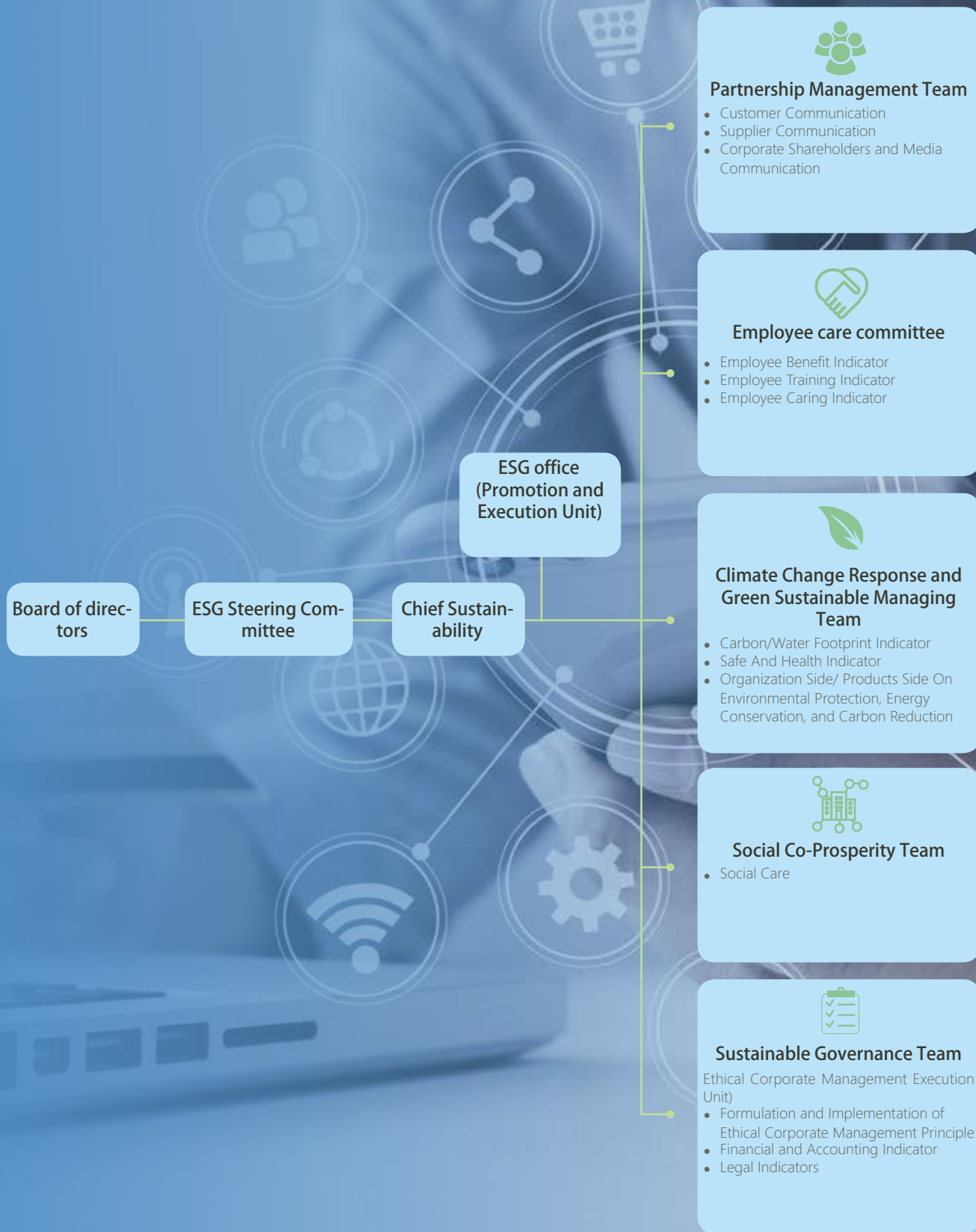
The ESG project organizational structure of Grand Pacific Petrochemical consists of the ESG Steering Committee, led by the Chief Sustainability Officer, which regularly holds meetings to review and evaluate the effectiveness of ESG initiatives. Under the ESG Steering Committee, the "ESG Office" has been established to act as a part-time unit for sustainable development affairs and the five implementation teams of "Sustainable Governance," "Employee Care," "Climate Change Response and Green Sustainable Management," "Partnership Management," and "Social Co-Prosperity" to promote and execute the management indicators for the economic, environmental, and social dimensions of corporate social responsibility and ensure the implementation of performance management indicators for the Economic, Environmental, and Social aspects.



The Corporate Sustainability Office operates management model.

The ESG Office operates based on the "P-D-C-A" (Plan-Do-Check-Act) management model. It regularly identifies stakeholders, collects and reviews stakeholders' concerns and ESG performance, and submits the ESG report (including the SDGs Objectives) annually to the ESG Steering Committee for review prior to the publish date of the ESG Report. The ESG Steering Committee then presents relevant performance and resolution plans to the Board of Directors during annual meetings. The Board of Directors formulates relevant risk management policies and strategies and provides necessary resources based on these reports. The Company' s ESG policies are ethical corporate management, continuance in improvement of environmental protection, and care for vulnerable groups. The ESG vision is to implement risk management mechanisms, shape a low-carbon value system, respect human rights, and fulfill social responsibilities in order to achieve sustainable management.

Grand Pacific Petrochemical’s ESG implementation framework (GRI 2-9) is as follows:



Grand Pacific Petrochemical has established the ESG Steering Committee as the highest governing body responsible for decision-making and oversight of the organization's impacts on the economy, environment, and society. The organizational responsibilities are as follows: (GRI 2-9)

organizational responsibilities



Board of Directors

- Overseeing the implementation of ESG sustainable development principles
- Appointing the Chairperson of the ESG Steering Committee to conduct due diligence investigations on ESG negative impact events (GRI 2-12)
- Ensuring the implementation of ESG sustainable development policies
- Appointing the Director of the ESG Committee (GRI 2-13)
- Responsible for reviewing and approving significant themes and performance in the ESG report on an annual basis (GRI 2-14) (GRI 2-18)



ESG Steering Committee (GRI 2-9)

- Reporting to the Board of Directors annually on significant ESG issues and the effectiveness of implementation as identified by stakeholders (GRI 2-13)
- Led by the Chief Sustainability Officer, the ESG Office to coordinate the implementation of ESG policies and activities
- Serving as the decision-making body for ESG activities and policies, reviewing and approving ESG reports
- Regularly convening meetings to review ESG goals and the effectiveness of activity implementation to ensure the implementation of sustainable policies



Sustainable Governance Team (GRI 2-9)

- Establishing a culture of integrity, governance, and compliance
- Strengthening employees' awareness of ethical and moral behavior



Employee Care Team (GRI 2-9)

- Assisting in planning and implementing diversified and friendly workplace programs
- Enhancing employee attraction and retention, strengthening talent training and development



Climate Change Response and Green Sustainability Management Team (GRI 2-9)

- Managing environmental risks
- Ensuring compliance with environmental regulations and reducing environmental burdens
- Implementing energy-saving and carbon reduction initiatives



Partnership Management Team (GRI 2-9)

- Assisting in constructing the ESG value chain
- Establishing diverse communication channels and implementing transparent disclosure mechanisms



Social Co-Prosperity Team (GRI 2-9)

- Assisting in ESG communication with stakeholders
- Expanding industry-academia-research collaborations, strengthening community engagement and social welfare



Office under the Corporate ESG Steering Committee

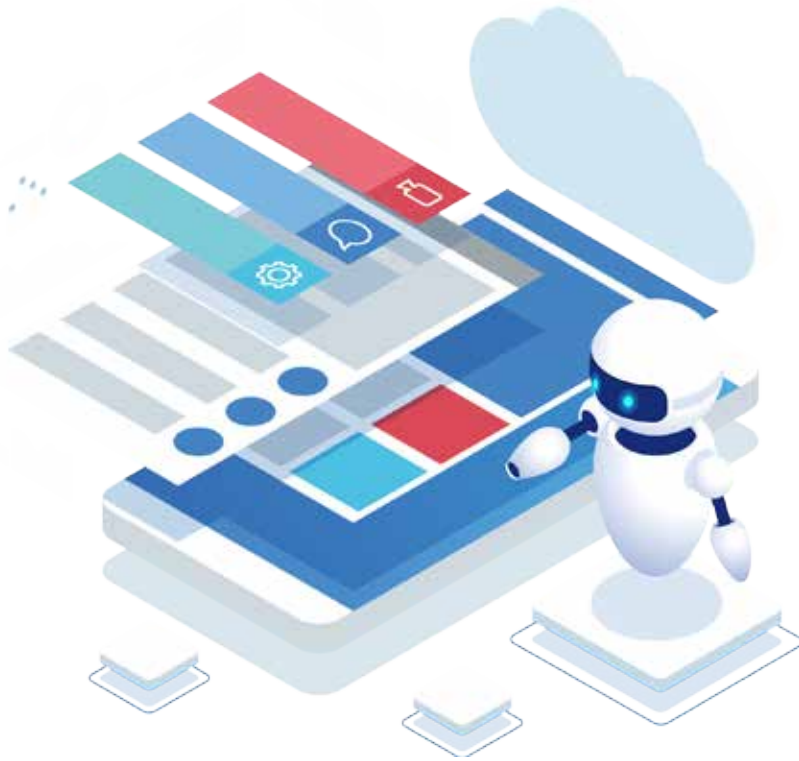
- Assisting in the selection process of stakeholders and significant ESG issues
- Assisting the corporate ESG Steering Committee in screening and formulating ESG programs and data collection.
- Assisting the corporate ESG Steering Committee in ESG communication.

3.Stakeholder Negotiation and Sustainable Issue Management

Analysis Procedure of Material Consideration Aspects

This report uses the material consideration analysis process to identify the sustainability issues of concern to stakeholders as a reference basis for information disclosure, to achieve the goal of effective communication, and to serve as an important basis for future planning of corporate social responsibility.

Communication and selection of stakeholders and material issues in corporate social responsibility are of utmost importance. Understanding the issues of concern to relevant stakeholders and disclosing them through the ESG report allows stakeholders to comprehend the efforts and achievements of our company in corporate social responsibility in 2023.

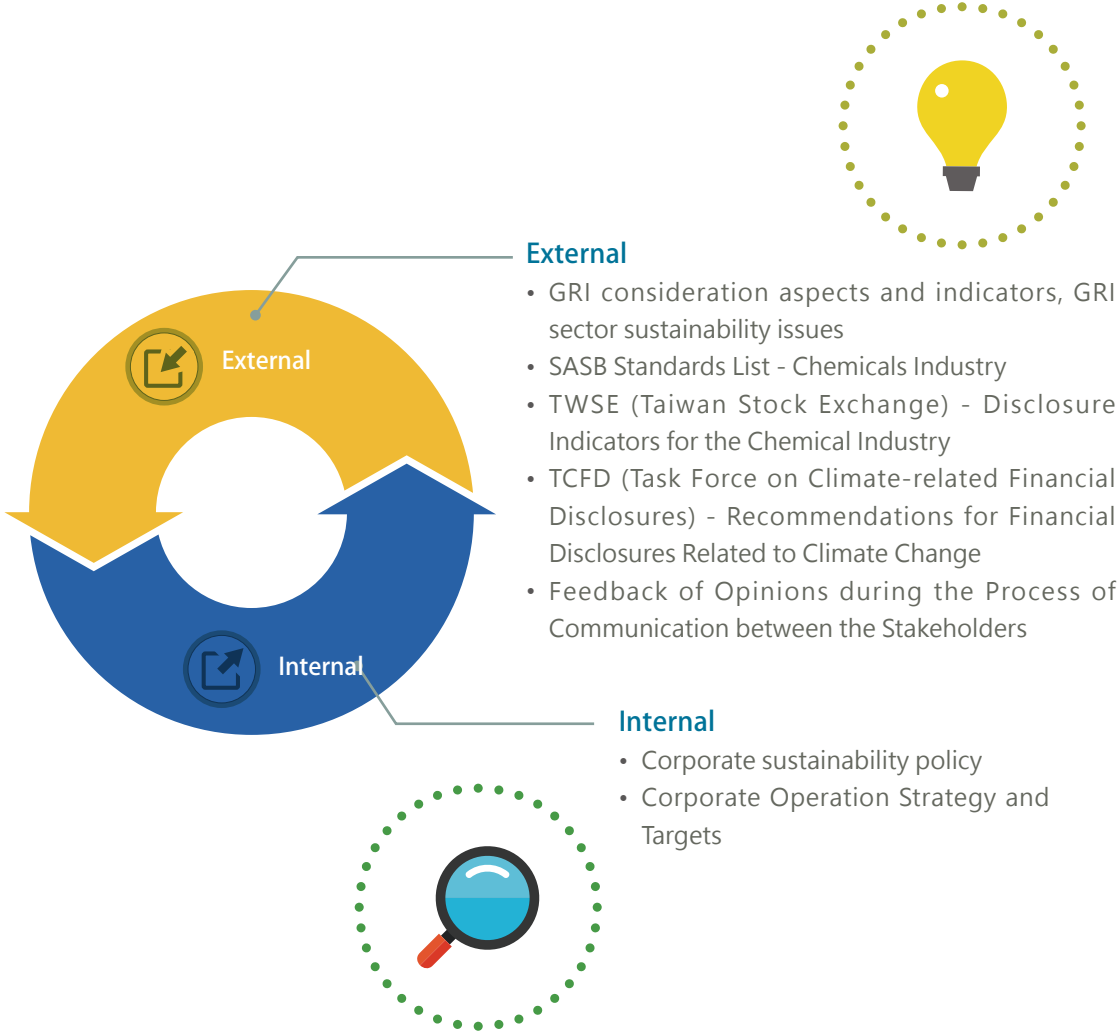


The ESG Steering Committee, based on the daily operations of relevant departments and external business communications, follows the substantial issue selection mechanism. The ESG office convenes members of the respective teams to facilitate organizational operations and stakeholder inclusiveness. Through stakeholder identification, priority communication targets are selected, and responses are provided regarding the issues they care about (stakeholder communication management policy). This process helps identify key stakeholders and their areas of concern. The identified stakeholders include customers, employees/unions, investors, media, suppliers, communities, and government, totaling seven categories of stakeholders. The ESG Steering Committee’s teams distribute questionnaires to stakeholders and collect survey responses, which are then compiled by the ESG office to identify significant indicators and carry out disclosures.








Recognizing that stakeholder engagement is an integral part of our sustainable issue management, we maintain interaction with stakeholders through various means, including daily business interactions, telephone communication, meetings, satisfaction surveys, site visits, and participation in associations. The concerns raised by stakeholders are addressed in this report as identified significant considerations.

Grand Pacific Petrochemical's Source of Sustainability Issues

The process for identifying significant considerations in our company is based on the reporting principles and content guidelines of the GRI (Global Reporting Initiative) Standards framework. Due to the wide range of sustainability issues, we collect and organize relevant topics from the following sources.



Stakeholders of GRAND PACIFIC PETROCHEMICAL (GRI 2-29) (RT-CH-210a.1)

Stakeholders	Concerned issues	Communication methods of GRAND PACIFIC PETROCHEMICAL	Communication frequency	Sections of Response in the Report
 <p>Employee</p>	<ul style="list-style-type: none"> Occupational health and safety Educational training Labor relations Labor-employer relations 	<ul style="list-style-type: none"> Employee Welfare Committee (quarterly) Union representative conference Employee handbook Labor-Management Council meetings 	<ul style="list-style-type: none"> Quarterly Annually On-demand Quarterly 	CH4. Labor Human Rights and Social Care
 <p>Government (including FSC/environmental agencies)</p>	<ul style="list-style-type: none"> Emissions Water and waste Materials and energy Supplier sustainability management Labor rights and occupational health and safety 	<ul style="list-style-type: none"> ESG report Reports and inspection of waste/wastewater/air pollution Government regulations and advocacy ESG mailbox set up on the Company' s website Labor condition inspections 	<ul style="list-style-type: none"> Annually Random Annually On-demand Random 	CH1. Strategy and Vision CH2. Operational Review CH3. Environment Sustainability
 <p>Community/local people</p>	<ul style="list-style-type: none"> Local community Water and waste Occupational health and safety training 	<ul style="list-style-type: none"> Proactive meetings/visits Industrial Park Service Center Industrial zone business association/industry association 	<ul style="list-style-type: none"> Random Random Annually 	CH3. Environment Sustainability CH4. Labor Human Rights and Social Care
 <p>Customer</p>	<ul style="list-style-type: none"> Privacy management and safety Child labor Product services and labeling Anti-corruption 	<ul style="list-style-type: none"> Annual customer satisfaction survey Customer ESG audit Exhibitions Material Safety Data Sheets ESG report 	<ul style="list-style-type: none"> Annually Random On-demand On-demand 	CH2. Operational Review CH3. Environment Sustainability CH4. Labor Human Rights and Social Care
 <p>Shareholders/Investors</p>	<ul style="list-style-type: none"> Economic performance Water Waste Emissions Anti-corruption 	<ul style="list-style-type: none"> Mailbox for Investors Market Observation Post System Dedicated phone number for the spokesperson ESG report ESG section on the website 	<ul style="list-style-type: none"> Random Annually Random Annually Random 	CH1. Strategy and Vision CH2. Operational Review CH3. Environment Sustainability CH4. Labor Human Rights and Social Care
 <p>Suppliers</p>	<ul style="list-style-type: none"> Supplier environmental assessment Customer health and safety Product service and labeling 	<ul style="list-style-type: none"> Supplier ESG promotion Supplier ESG assessment Supplier carbon emission inventory and reduction (TCFD) Safety Data Sheets (SDS) 	<ul style="list-style-type: none"> Annually Annually On-demand 	CH1. Strategy and Vision CH2. Operational Review CH4. Labor Human Rights and Social Care
 <p>Media</p>	<ul style="list-style-type: none"> Economic performance Occupational health and safety Customer health and safety 	<ul style="list-style-type: none"> Market Observation Post System Random telephone communication ESG report website information disclosure 	<ul style="list-style-type: none"> Annually Random Annually 	CH2. Operational Review CH3. Environment Sustainability CH4. Labor Human Rights and Social Care

Note: In response to the initiation of sustainable management within the organization in 2023, we have established a "Corporate Sustainable Development Mailbox" (ESG@gppc.com.tw) for communication and feedback from various stakeholders. A dedicated person is assigned to handle communication and responses.

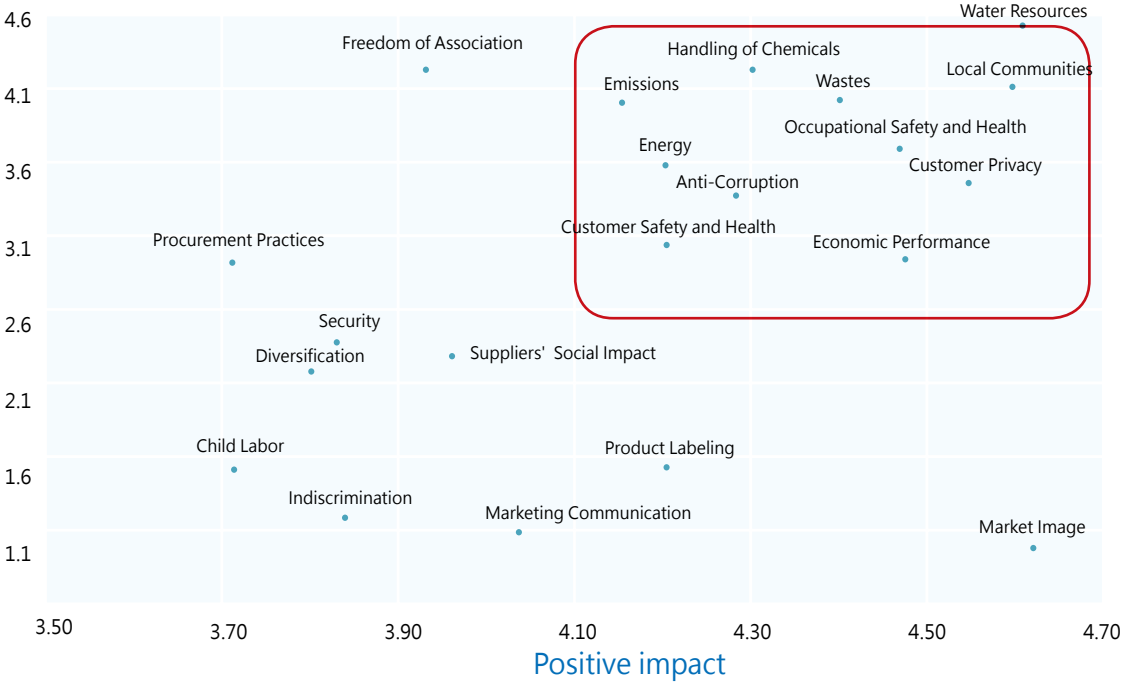
Ranking of Materiality Issues

Based on the results of the 2023 substantial issue selection, our company utilizes the following process to assess the degree of stakeholder engagement with the Company based on the AA 1000 principles. We calculate the weighted average of the attention scores and engagement levels for each issue to understand the stakeholders' concerns. For each issue, after confirmation by our company's ESG Steering Committee and input from internal and external experts, we incorporate the SASB (Sustainability Accounting Standards Board) criteria for the Chemicals industry and the FSC (Financial Supervisory Commission) disclosure indicators for the chemical industry in Taiwan to supplement our assessment of the Company's economic, environmental, and social impacts in 2023. We disclose ESG issues of high concern and high impact in relevant sections of this report. The following are the steps involved in this process (GRI 3-1):

Understanding Organizational Background 	Step1 Organizational Context	Identify industry themes and set boundaries	Based on the SASB (Sustainability Accounting Standards Board) standards for the chemical industry and the FSC (Financial Supervisory Commission) disclosure indicators for sustainability, identify the relevant themes within the chemical industry applicable to our company, and determine the boundaries.
	Identifying Actual and Potential Impacts 		
Evaluating the Degree of Impact 	Step2 Identify positive and negative impacts	Evaluate the positive and negative impacts of ESG issues	Based on the reporting principles and content guidelines of the GRI (Global Reporting Initiative) Standards framework and the 34 categories of ESG sustainability issues related to sustainability (United Nations Sustainable Development Goals SDGs), assess the actual and potential positive and negative impacts.
	Step3 Level of Concern	35 Questionnaires	Design questionnaires based on the positive and negative impacts of ESG issues on our company and distribute them to internal and external stakeholders. Survey the level of stakeholder concern to various sustainability issues. After receiving a total of 35 valid questionnaires, conduct interviews with EHS (Environment, Health, and Safety) verifiers and representatives from the labor side of the Labor-Management Council to confirm the results.
Sort and Disclose in the Report 	Step4 Degree of Impact	7 ESG Steering Committee reports	Based on the 2023 ESG Steering Committee questionnaire, assign scores to the level of impact each issue has on the Company's sustainable development.
	Step5 Priority	GRI Top 9 annual significant issues	Multiply the results of the "Level of Concern" and "Degree of Impact" questionnaires and rank them from high to low. Select the top one-third of the items, resulting in 9 significant themes. Sort and disclose in the report.
Sort and Disclose in the Report 	Step6 Disclosure	Set 15 topics for disclosure	Based on the ESG questionnaire, select 9 significant issues, along with 4 additional themes from SASB and 2 additional themes from the FSC disclosure indicators, as the focus of disclosure in this report. Provide detailed explanations of strategies and performance outcomes in response to these issues, corresponding to the SDGs (Sustainable Development Goals).
	Step7 Reporting	Report issuance Before August 31st	Review the report to ensure the comprehensive presentation of company performance and sustainability impacts, and seek repeated confirmation of stakeholder concerns in relevant sections. Submit the report for review by the ESG Steering Committee and the Board of Directors. Publish it publicly and gather stakeholder feedback for the next report.

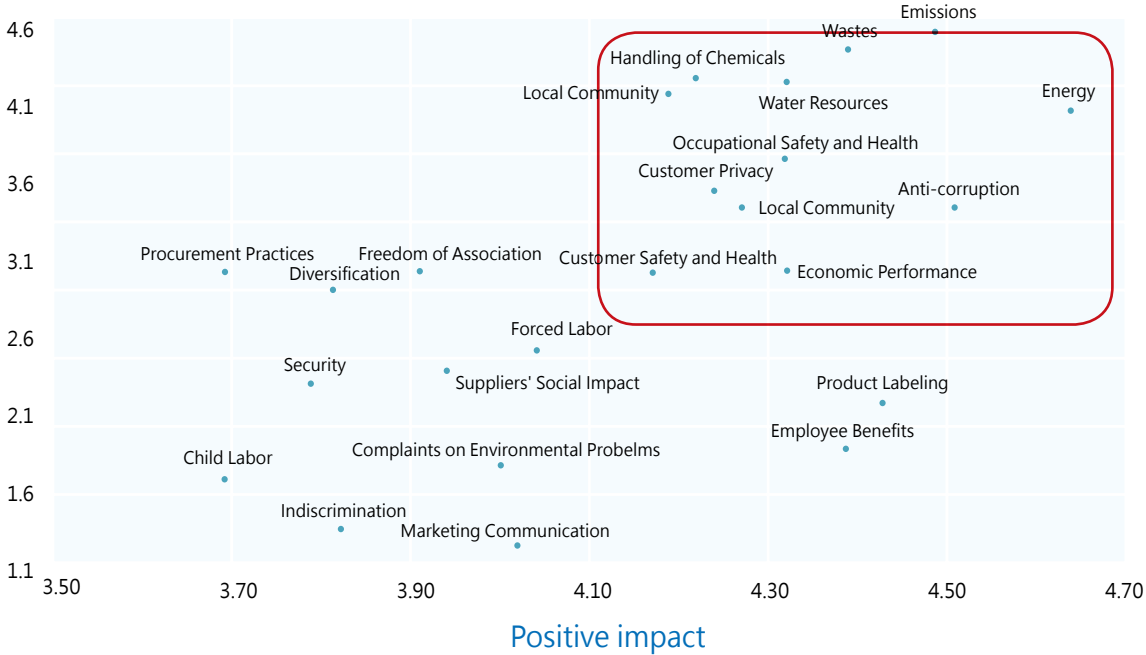
Analysis of major consideration aspects (negative impact)

Negative impact

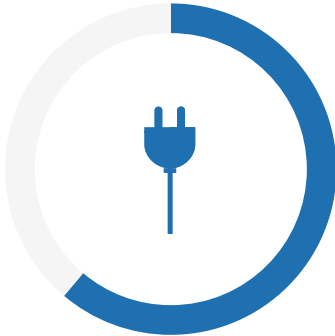


Analysis of major consideration aspects (positive impact)

Negative impact



The 15 significant consideration aspects responded to in this Report (GRI 3-2)



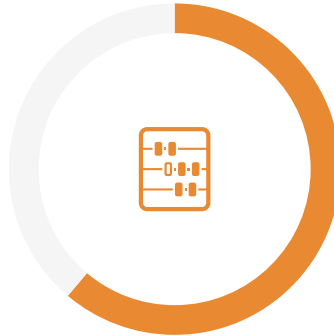
Environmental consideration aspect

- Energy
- Emission
- Water
- Waste
- Materials (Financial Supervisory Commission)
- Product Design for Use Phase Efficiency (SASB New)



Social consideration aspect

- Employment
- Occupational health and safety
- Anti-corruption
- Customer privacy
- Local community (SASB New)
- Chemical Safety and Environmental Management (SASB New)
- Genetically modified food (SASB New)
- Supplier Sustainability Management (Financial Supervisory Commission)



Economic consideration aspect







- Economic performance

Compared with the previous period, the list of major topics in this annual report has more requirements for sustainable disclosure indicators from SASB and FSC (GRI 3-2)



Material Topic Boundary

For each identified material topic, we assess its impact and determine whether the topic has an impact on key stakeholders upstream and downstream in the value chain.

Annual Material Topic		GRI/ SASB/ FSC	Grand Pacific Petrochemical Value Chain (GRI 2-6)					SDGs	
			Upstream		Grand Pacific Petrochemical		Downstream		Impact on Major Stakeholders
			Supplier	Contractor	Kaohsiung Factory	Taipei Office	client		
Energy saving and emission reducing	Energy	GRI 302	--	---	●	●	--	Government	
	Product Design for Improving Efficiency	SASB	●	---	●	●	--	Government, society and investors	
	Emissions	GRI 305	●	---	●	●	--	Government, society and investors	
Green production	Water	GRI 303	--	---	●	●	--	Government, media, society	
	Materials	FSC	●	---	●		--	Government, supplier	
	Waste	GRI 306	●	---	●	●	--	Media, society	
Sustainable environmental protection	Supplier sustainability management	FSC	--	---	●	●	--	Government, Supplier	
	Local communities	SASB	--	---	●	●	--	Community	
Ethical management	Economic Performance	GRI 201	--	---	●	●	--	Investors, employees	
	Anti-corruption	GRI 205	●	●	●	●	●	Customers, investors, employees	
Equal right of labors	Employment	GRI 401	●	●	●	●	--	Employee	
Safe manufacturing	Occupational Health and Safety	GRI 403	●	●	●	●	--	Government, employees	
	Chemical safety management	SASB	●	--	●	●	--	Supplier, employees	
Customer-oriented	Customer privacy	GRI 418	--	--	●	●	●	Government, customers	

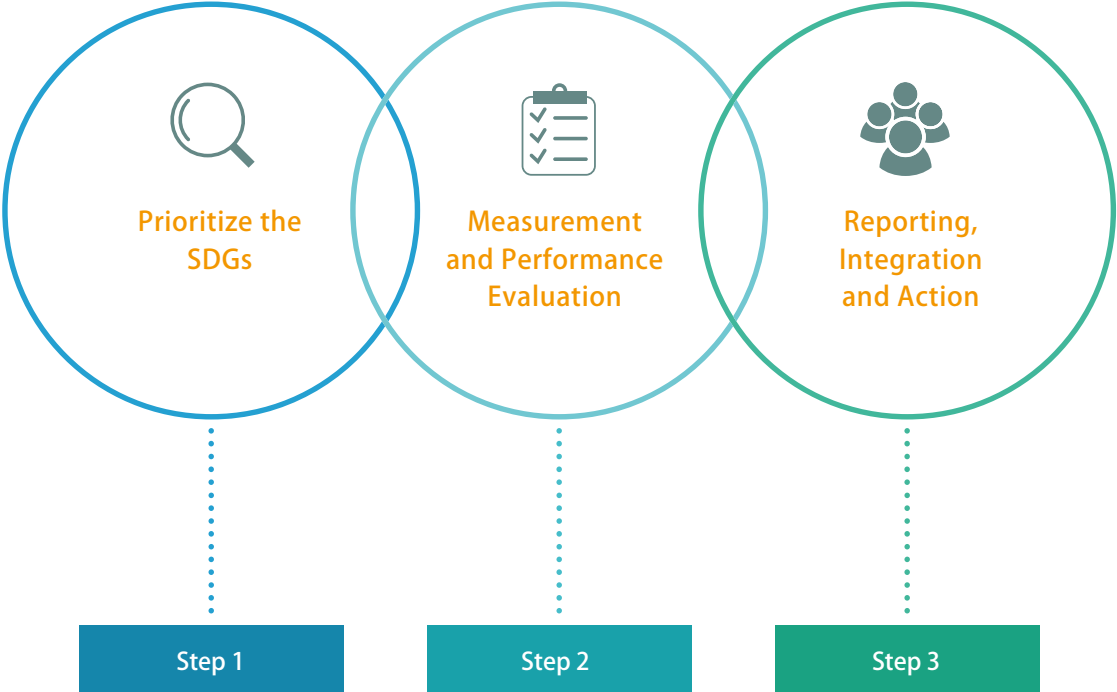
Note: Genetically modified products are not applicable to our company, so they are not included in the above table

Diagram	Illustration	Diagram	Illustration	Diagram	Illustration
NA	Not applicable	●	The following is fully disclosed in the Report	--	Information unavailable





The Company reduces negative impacts on the environment or society in accordance with the “Code of Compliance” and “Supplier Assessment Procedures” . (Financial Supervisory Commission. 6)



4. Grand Pacific's Material Topic and the Response to United Nation Sustainable Development Goals

In 2015, the United Nations announced the SDGs, which have become the common language of international sustainable development. SDGs are not only a global trend, but also an important business opportunity for companies in the future. The Company identifies the most important contributions to the SDGs based on the GRI Standards for evaluating significant themes, in terms of risks to people and the environment and the provision of effective products, services or investments, to identify the sustainability objectives linked to the SDGs.



Grand Pacific strengthens its sustainability strategy to promote economic growth, social equality and progress, and environmental protection in a holistic manner, thereby demonstrating the Company' s long-term value. Starting in 2022, Grand Pacific defines and prioritizes the Sustainable Development Goals (SDGs), and we will transform our sustainability performance from echoing the SDGs to realistic action plans through the product lifecycle and value chain stages. By integrating these goals into our daily activities, we will continue to review and revise the priorities of our sustainability goals to win the recognition of our investors and stakeholders and to create sustainable value. Topics and sustainability practices and goals are disclosed in each chapter.

Topics of the Company	Response to SDGs Item	United Nation SDGs Notes	Grand Pacific Petrochemical Sustainable Development Practices and Targets
Energy saving and emission reducing		<ul style="list-style-type: none"> Ensure affordable, stable and sustainable modern energy for all people. 7.3_Double the rate of improvement in global energy efficiency by 2030. 	<ul style="list-style-type: none"> Continuously promote ISO 50001 energy management system to produce products in a more energy-efficient way and reduce energy-intensity rate. [Target] Average annual energy saving percentage of 1% or more.
		<ul style="list-style-type: none"> Take emergency measures to address climate change and impacts. 13.2_Integrate climate change measures into policies, strategies and plans. 	<ul style="list-style-type: none"> Continue to implement greenhouse gas management and reduction, in accordance with the national greenhouse gas reduction policy. [Goal] Achieve the national policy of net-zero greenhouse gas emissions by 2050.
Green production		<ul style="list-style-type: none"> Ensure that all people have access to water resources and sanitation facilities with sustainable management. 6.3_Improve water quality through various means and significantly increase global waste recycling and safe reuse by 2030. 	<ul style="list-style-type: none"> We are actively promoting water conservation measures by increasing the process wastewater recycling ratio and production capacity deployment, and regularly discussing wastewater reduction targets [Goal] Increase water recycling ratio.
Sustainable environmental protection		<ul style="list-style-type: none"> Ensure the implementation of sustainable consumption and production models 12.5_ Reduce waste generation significantly through prevention, reduction, recycling and reuse by 2030. 	<ul style="list-style-type: none"> We managed waste reduction and resource recycling to ensure environmental sustainability through the ISO 14001 environmental management system. [Goal] Compliance and Implementation.
Ethical management		<ul style="list-style-type: none"> Promote inclusive and sustainable economic growth, achieve full employment, and create productive and quality jobs. 8.2_Increase the productivity of the economy through diversification, technological upgrading and innovation. We created peaceful, inclusive societies, promoted sustainable development, provided access to justice for all, and built effective, accountable, and inclusive institutions at all levels. 	<ul style="list-style-type: none"> We continue to increase our revenue and economic our economy' s productivity through proprietary R&D and innovation. Exercise sound corporate governance and risk management mechanisms. [Goal] Increase company revenue year by year and maintain a fine system of corporate governance through internal control system.
Equal right of labors		<ul style="list-style-type: none"> Promote inclusive and sustainable economic growth, achieve full employment, and create productive and quality jobs. 8.8_Protect labor rights and promote a safe and secure work environment for all workers, including immigrant workers, especially female immigrants and those without stable employment 	<ul style="list-style-type: none"> Through the ISO 45001 occupational safety and health management system and the ILO requirements, we are able to control emerging issues such as psychosocial hazards in the workplace and forced labor, and promote collective bargaining to protect labor rights. [Goal] Continuously increase employee retained rate.

Topics of the Company	Response to SDGs Item	United Nation SDGs Notes	Grand Pacific Petrochemical Sustainable Development Practices and Targets
Safe manufacturing		<ul style="list-style-type: none"> Promote inclusive and sustainable economic growth, achieve full employment, and create productive and quality jobs. 8.8_Protect labor rights and create a safe and secure working environment for all workers. 	<ul style="list-style-type: none"> We formulated the "Safety and Health Policy" through the ISO 45001 Occupational Safety and Health Management System, in which we disclose our core values as people-oriented, and we pursue the goal of zero disasters and zero injuries through the principles of "technology", "safety and health culture", "responsibility" and "communication". [Goal] Pursue targets of zero accidents and zero injuries.
Customer-oriented		<ul style="list-style-type: none"> Ensure the implementation of sustainable consumption and production models. 12.6_ Encourage companies to adopt sustainable practices (publish sustainability reports), especially for large and multinational companies. 	<ul style="list-style-type: none"> Based on the information security policy to ensure that customer information is not leaked. [Goal] Safeguard customer privacy through continuous measures on information security and risk management.



Ethical management, Quality, Innovation and Respect

CHAPTER 02

To enhance the value of our customers and meet their needs as well as our competitive role in the international market, our technical service team selects experienced and talented engineers to provide technical and product application services to our customers at all times.

Operational Review

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1. Company History and Financial Performance

Company Profile (GRI 2-1)

Date of Incorporation: September 25, 1973

In addition to the head office, each operating base (GRI 2-1):

Taipei Office Address: 1F, No. 10, Sec. 4, Nanjing E. Rd., Songshan Dist., Taipei City

Taichung Office Address: 10F.-3, No. 1055, Guanqian Rd., West Dist., Taichung City

Tel.: (02) 8770-4567

Total Employees: 377 persons (GRI 2-7)

Total number of non-employee workers: 129 persons

The Company's governance structure consists of a shareholders' meeting with all shareholders as the highest governing body. The directors elected by the shareholders shall constitute the Board of Directors as the executive body of the Company. Independent directors are elected to form an Audit Committee to supervise the execution of the Company's business. The Chairman of the Board is the chairperson of the Board of Directors and represents the Company externally as the top of the Company and does not work concurrently in any other administrative positions.

Our directors participate in relevant corporate governance and ESG education trainings from time to time, which are held by the Securities



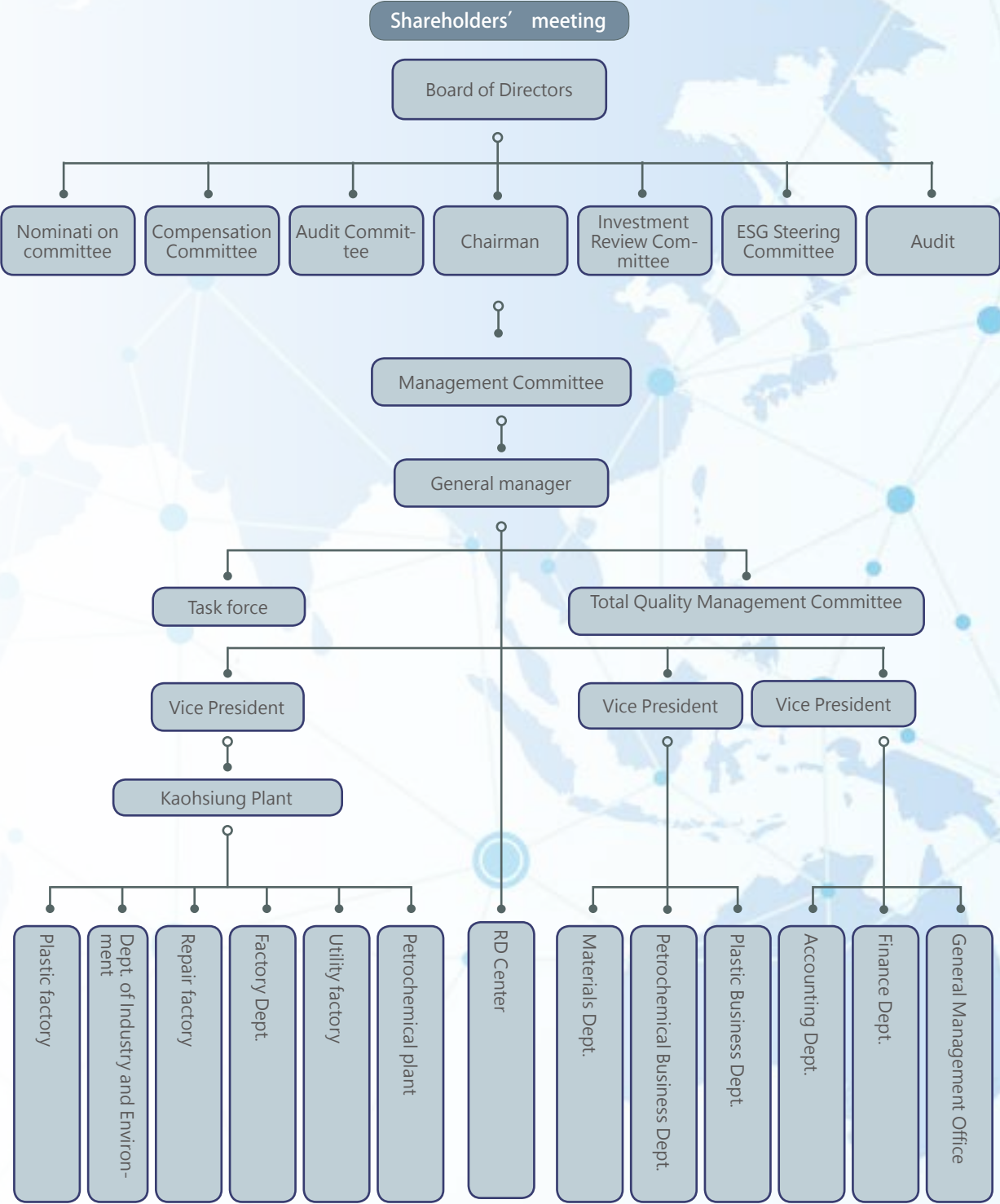
and Futures Institute (SFI) and the Taiwan Corporate Governance Association (CGA). (GRI 2-17) ◦

The corporate governance structure of the Company is as follows (GRI2-1) ◦



Ethical management, Quality, Innovation and Respect

Grand Pacific Petrochemical Organizational Chart



Company History

- 1973 ○ Grand Pacific was first established as Da Dechang Petrochemical Co., Ltd.
- 1974 ○ The Styrene Plant I was officially completed, which was the first company in Taiwan to produce styrene monomer.
- 1981 ○ The Styrene Plant II was completed.
- 1984 ○ Dadechang Petrochemical Co., Ltd. was reorganized and renamed as Grand Pacific Petrochemical Co., Ltd.
Completed the first ABS/SAN plant, which is the first step towards diversified products and vertical integration.
- 1987 ○ ABS/SAN Plant was expanded to increase annual production capacity.
- 1988 ○ Grand Pacific Petrochemical Corporation was officially listed. (Public Issuance Code 1312, TW) •
- 1990 ○ HIPS manufacturing company GPPC DEVELOPMENT CORP. was being merged to Grand Pacific.
- 1991 ○ HIPS/GPPS manufacturing company FORMOSA VIVATEX CO., LTD. was merged to Grand Pacific.
Established Grand Pacific (Thailand) and acquired a local ABS plant in Thailand.
- 1992 ○ ABS/SAN production capacity was expanded.
Established Key Crown Technology in Malaysia to engage in the plastic dyeing and processing industry.
- 1994 ○ ABS/SAN production capacity was expanded.
Modified the second SM plant process.
- 1995 ○ Acquired the hydrogen business of Dedechang Gas Co.
- 1996 ○ Established Zhenjiang Guoheng Company in Jiangsu Province.
Expanded ABS annual production capacity at Grand Pacific (Thailand).
- 1997 ○ Received ISO9002 and ISO14001 from the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs.
Actively diversified our investments outside of our business.
- 1999 ○ SM-3 Plant was built.
- 2000 ○ Extended HIPS annual production capacity of Formosa Vivatex Co., Ltd.
Expanded SAN/ABS annual production capacity of Zhenjiang Guoheng Company.
- 2001 ○ Received ISO 9001 2000 certification from the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs.
- 2002 ○ Expanded SAN/ABS annual production capacity in Zhenjiang Guoheng Company.
- 2003 ○ Obtained Sony "Green Partner" certification and SGS OHSAS 18001 accreditation registration.
- 2004 ○ Officially dismantled the first styrene plant and held a grand ceremony to mark the end of the first Styrene Plant in Taiwan.
- 2005 ○ Obtained ASUS "Green Environment Management System" certification.

- 2006 Formosa Vivatex Co., Ltd. converted the original GPS production line was converted to SAN; Grand Pacific expanded its annual ABS production capacity and added ABS R&D grades for customer needs.
- 2007 Promoted the integration of ISO system, ISO-9001:2000 and ISO-14001:2004 to SGS Taiwan Limited for certification. Expanded SAN/ABS annual production capacity of Zhenjiang Guoheng Company. Began construction of a steam and power co-generation plant.
- 2008 Completed the integration into the German SAP information system operation. In April, the Company entered into a merger agreement with CHIMEI Corporation to merge its subsidiary, Zhenjiang Company, and the Company held 30.4% shareholding of the surviving company after the merger. The Specialty Chemicals Division was established in August.
- 2009 Grand Pacific (Thailand) was dissolved in August by the Ministry of Commerce of Thailand. Trial production was successfully conducted for the steam production facility of the cogeneration plant in October.
- 2010 Completed the construction of a steam and power co-generation plant, which was officially put into operation in May. Zhenjiang Guoheng Company and Zhenjiang CHIMEI Company were officially merged on July 1. SM-3 Plant completed debottlenecking expansion project in December and increased annual SM production.
- 2011 Strengthened corporate governance by adding more than two independent directors.
- 2012 Establishment of the Remuneration Committee. Established Nylon Business Office in January and began production in July. Completed ABS capacity expansion and increased annual production. Our subsidiaries, Guoheng Chemical and Vivatex Chemical, were merged with Guoheng Chemical as the surviving company.
- 2013 An Audit Committee was established to replace the functions of Supervisors in order to strengthen corporate governance.
- 2014 Our nylon 66 products have passed UL's high temperature RTI certification.
- 2016 The second production line of Nylon 66 started production smoothly, making the Company entering the engineering plastics and industrial silk industry.
- 2018 Established Zhangzhou CHIMEI Chemical Co., Ltd. as a joint venture with CHIMEI Corporation whose main business is the production of ABS products, in which the Company held 30.4% shareholding.
- 2020 Established Quanzhou Guoheng Chemical Co., Ltd. as a wholly-owned subsidiary in Fujian Province, mainly engaged in the manufacture of propylene, polypropylene and hydrogen products through propane dehydrogenation.
- 2023 Cash capital increase through issuance of 200,000 thousand new shares. The paid-in capital amount was recorded at NT\$11,266,203,280.

2. Major Brands/Products/Service Market

Grand Pacific has sales offices in Taipei, Taichung and Kaohsiung. Our plant is located in the Dashe Petrochemical Industrial Park in Dashe District of Kaohsiung City. The environmental impact assessment has been considered during the construction of the plant, so the operation has not caused any environmental impact to the area. In order to achieve sustainable operation, Grand Pacific is actively moving toward the goals of increasing production capacity, reducing production costs, increasing sales competitiveness and expanding market share, seeking corporate alliances, improving industrial structure and developing new products with high added value. We will continue to develop new products, new customers, and adjust our production and sales mix to meet the needs of our customers in both sides of the Taiwan Strait and in the three regions to enhance the added value of our products. There have been no major changes in related services and value chains in recent years (GRI 2-6). Following with styrene as the Company's core niche, we extend our reach upward to nylon 66, a crystalline engineering plastic, and downward from the fundamentals to optimize the quality of ABS as our annual working strategies.

The following tasks will be carried out on an ongoing basis: (Economic Performance Management Approach)

01



- We will actively optimize the attachment of PBL large particle latex, and further improve ABS dyeing, actively develop high temperature nylon engineering plastics, and working towards energy saving and waste reduction as the three major indicators.

02



- Since the PBL rubber attached to the large particle latex, we are able to further improve ABS dyeing quality, the plating grade, tube grade, flame retardant grade and automotive battery materials and high impact high rigidity ABS products.

03



- The development of post-consumer recycled plastic PCR ABS can reduce plastic waste, reduce energy consumption, reduce carbon emissions and implement circular economy

04



- We will expand the market of nylon industrial yarn and develop the derivative high temperature nylon, develop engineering plastics such as super nylon, heat resistant super nylon, soft, water transparent grade and PPO doped compound, in order to create high performance, high quality and high price nylon 66 plastic products.

05



- In line with our long-term diversification strategy, we will invest in a new propane dehydrogenation and polypropylene project in Quanzhou, China and expand our reach from SM (styrene) series to propylene series.

To enhance the value of our customers and meet their needs as well as our competitive role in the international market, our technical service team selects experienced and talented engineers to provide technical and product application services to our customers at all times. In the future, Grand Pacific will continue to seek other better opportunities to make our competitiveness strong and firm.



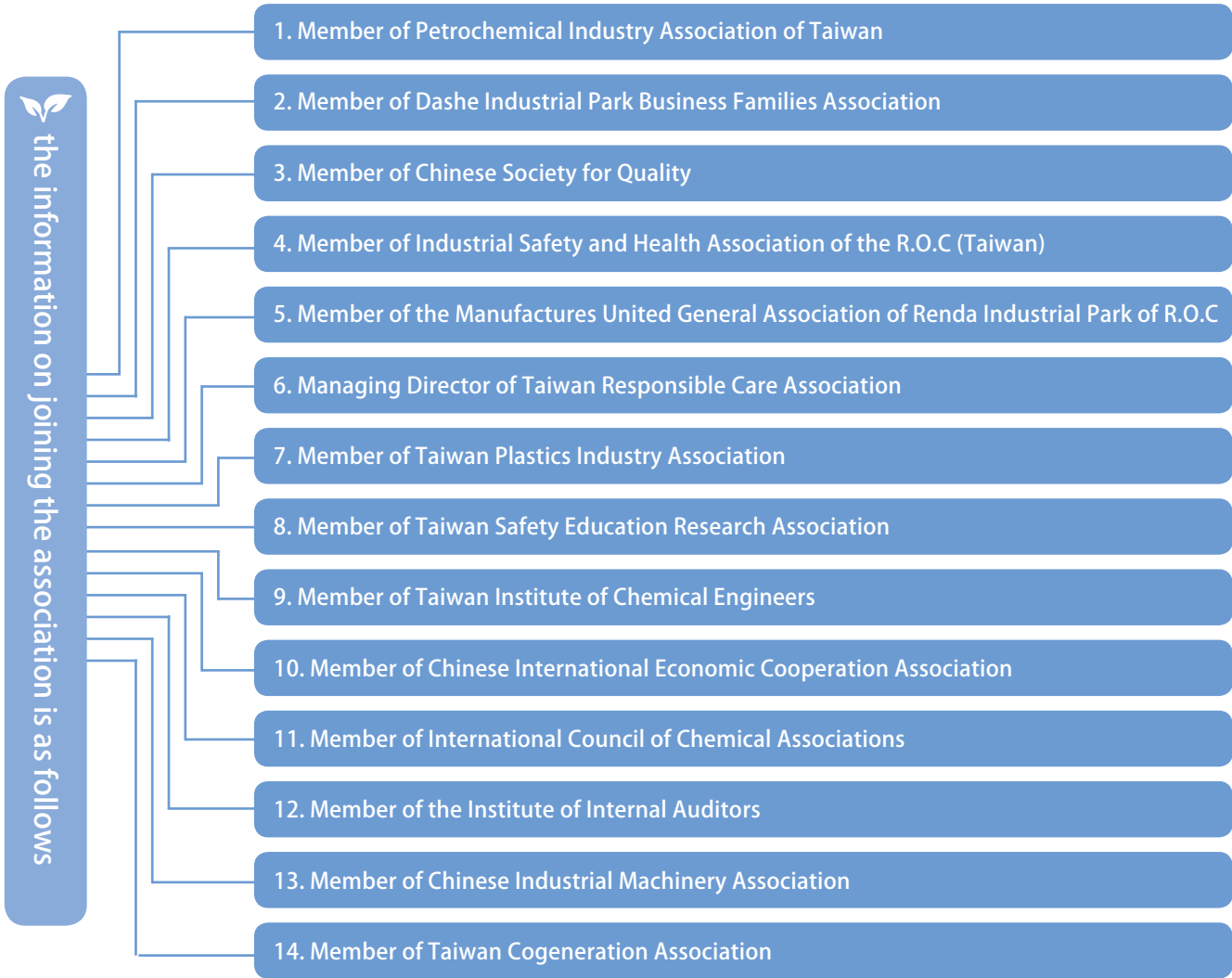
Grand Pacific's products comply with the government regulations of various products and services, and comply with the EU RoHS/REACH regulations, without any hazardous substances. We provide customers with stable product quality through strict quality management. In order to ensure the quality of customer service and enhance customer satisfaction, we have set up a customer service hotline and a communication website, and regularly take the initiative to conduct customer service satisfaction surveys every year to strengthen the cooperative relationship with customers. The mutually beneficial relationship with our customers is the cornerstone of our corporate sustainable development.



Ethical management, Quality,
Innovation and Respect

3. The Company Participates in Environmental and Social Issues (RT-CH-530a.1 Legal and Regulatory Environment Management) (GRI 2-28)

Grand Pacific participated in the public hearings and seminars on environmental laws and regulations related to the chemical industry and the co-production industry of steam and electricity, and also participated in the following associations to share management technology and practical experience; the information on joining the association is as follows:



The Company simply participates in the above associations, and there are no additional collective agreements or external public affairs initiatives.

4. Financial Performance

Material Topic	Measurement Indicator	Plan in 2023	Result in 2023	Mid- to Long-term Target
Economic Performance/ Corporate Governance	Investor relation maintenance	Investor conferences and maintaining Investor Relations & Stakeholder Engagement areas on the Company website.	Full information is disclosed on the website.	To increase company revenue year by year and maintain a fine corporate governance system through internal control system.
Market Position	Reservation for local senior job opportunities	Prioritizing the hiring of residence in Taiwan as senior management	All managerial officers are Taiwanese.	To continuously create job opportunities.
Anti-Corruption	Relevant trainings on Guidelines for the Adoption of Codes of Ethical Conduct.	Strengthening ethical awareness, emphasizing anti-corruption policies as well as relevant procedures, and extending trainings to governance levels.	Fine corporate governance and risk management systems are implemented to ensure zero occurrence of corruption.	To constantly implement ESG educational trainings.

Grand Pacific Group' s consolidated revenue for the fiscal year of 2023 was NT\$15.72 billion, a decrease of NT\$2.46 billion from the fiscal year of 2022, and consolidated net loss before income tax was NT\$1.75 billion, an increase of NT\$1.74 billion from the fiscal year of 2022. The consolidated net loss after tax was NT\$1.46 billion, and consolidated net loss after tax attributable to the Company' s owners was NT\$1.44 billion. (GRI 201-1)



Grand Pacific Petrochemical Corporation

Consolidated Statements of Comprehensive Income

For the Years Ended December 31, 2022 and 2023

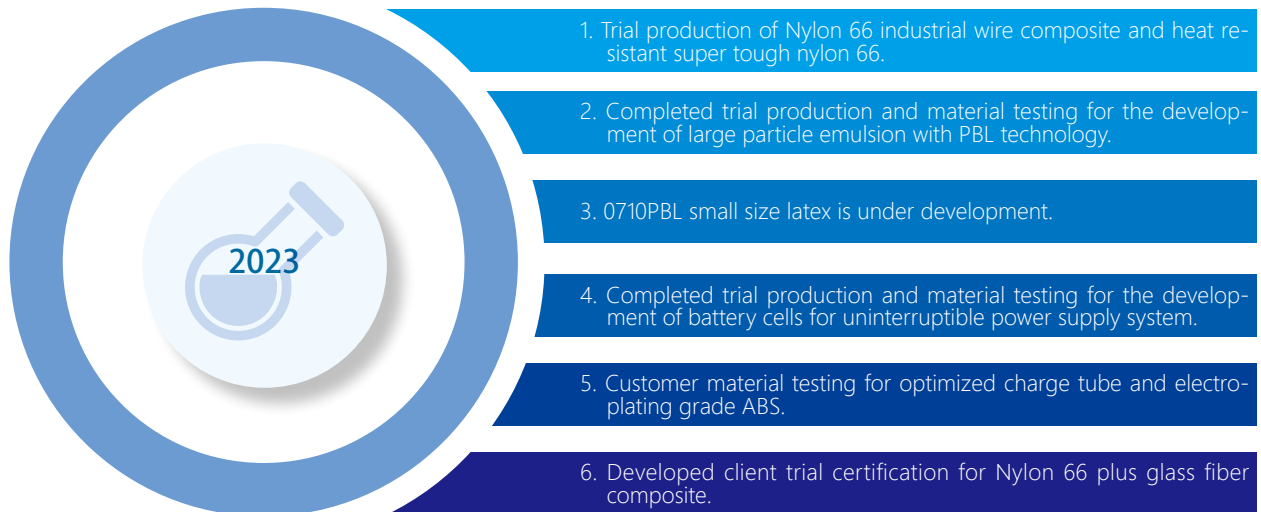
Unit: NT\$1,000

Item	2022	2023
Operating revenue	18,176,626	15,719,189
Operating gross profit	871,267	448,299
Operating gain or loss	(787,086)	(1,092,004)
Non-operating income and expenses	771,476	(662,976)
Income before tax	(15,610)	(1,754,980)
Current net income from continuing operations	(454,388)	(1,456,876)
Loss from discontinuing operations	0	0
Current income (loss)	(454,388)	(1,456,876)
Other current comprehensive income or loss (net after tax)	(678,117)	(478,407)
Total comprehensive income	(1,132,505)	(1,935,283)
Net profit attributable to owners of the parent company	(493,812)	(1,438,027)
Net profit attributable to non-controlling equity	39,424	(18,849)
Total comprehensive income attributable to owners of the parent company	(843,371)	(1,891,225)
Total comprehensive income attributable to non-controlling equity	(289,134)	(44,058)
Earnings per share	(\$0.56)	(\$1.59)

Main sales areas:

Main products	Major markets	Distribution method
Main products	Major markets	Distribution method
Styrene Monomer (SM)	Domestic	Direct marketing
Acrylonitrile-butadiene-styrene copolymer resin (ABS)	Taiwan (domestic), Mainland China, Hong Kong, USA, South Africa, Southeast Asia, etc.	Direct marketing, distributing
Hydrogen (H2)	Domestic	Direct marketing, distributing
Steam and power	Domestic	Direct marketing
Nylon 66	Taiwan (domestic), Mainland China, Hong Kong, USA, South Africa, Southeast Asia, India, etc.	Direct marketing

Technology or products developed in the recent year and up to the publication date of the annual report are as follows:



Please refer to the Annual Report for research and development expenses.

5. Corporate Governance

The management team of Grand Pacific Petrochemical Company has been implementing the transparency of operation and financial information for a long time, with the goal of good corporate governance with ethical corporate standards and commitments, and the business philosophy of “modesty and harmony, integrity and trust” : modesty is the key; honesty is the inside to create business opportunities; give back to the public, continue to develop the manufacturing technology of our products; be absolutely stringent on quality; provide timely and thoughtful after-sales service; be in harmony with colleagues; trust and believe in the Company; and full of vigorous ambition in any position. Grand Pacific has been striving to win the confidence of investors with its steady pace and active vigor, and to build up the image of the Company with the spirit of integrity and public welfare. We abide by the laws and regulations, and attach importance to the openness and transparency of information in order to gain the recognition of relevant stakeholders and the public. Articles of Incorporation of the Company require consideration of diversity and independence and ensuring no conflict of interest (GRI 2-10), and regularly submit nominations of candidates for directors to the board of directors and elect the chairman based on the candidates (GRI 2-10); The names/positions of the directors and key managerial officers of the Company for the year 2023 are listed below (GRI 2-11). There are no representatives of socially vulnerable groups and stakeholders, and the Chairman of the board of directors is female (GRI 2-7).

The directors and supervisors are listed below.

Title	Name (Gender)	Major academic background and work experience
Chairman	Zhong Guan Investment Co., Ltd. Representative: Qiu, De-Xin (Female)	M.S. in Accounting, Case Western Reserve University
Director	Jing Guan Investment Co., Ltd. Representative: Yang, Pin-Zheng	M.S. In Chemical Engineering, National Cheng Kung University
Director	Hong Wen Investment Co., Ltd. Representative: Tian, Zhen-Qing	Department of Law, Fu Jen Catholic University
Director	Chao Feng Investment Co., Ltd. Representative: Zhou, Yu-Kai	Master in Finance, Golden Gate University
Independent Director	Chen, Mu-Xian	M.A., California State University, the USA
Independent Director	Xie, Zhi-Hong	J.D., National Chengchi University M.L., Waseda University

Major managerial officers are listed below.

Title	Name	Major academic background and work experience
General Manager	Zeng, Jia-Xiong	M.S. in Chemical Engineering, National Taiwan University
Deputy General Manager	Zhou, Zhen-Ming	M.S. in Chemical Engineering, National Taiwan University
Deputy General Manager	Chen, Jing-Fu	B.A., Soochow University
Factory Director	Lin, Wen-Hui	M.S. in Safety, Health and Environmental Engineering, National Kaohsiung First University of Science and Technology
Assistant Manager and Deputy Factory Director	Xue, Hong-Min	M.S. in Environmental Engineering, National Cheng Kung University
Assistant Manager	Zhang, Cong-Ming	M.S. In Chemical Engineering, National Cheng Kung University

In addition, to implement the equality of remuneration, the Company has established the Remuneration Committee Chapter and elected the Remuneration Committee Members to perform their duties and responsibilities. The members of the Committee shall faithfully exercise due care of a good administrator and be accountable to the Board of Directors, and submit their proposals to the Board of Directors for discussion: (GRI 2-20)

The infographic consists of four vertical panels, each with a circular icon at the top and a large number at the bottom. Panel 01 shows a scale of justice and a dollar sign. Panel 02 shows a group of people in a meeting. Panel 03 shows a gear, a dollar sign, and a clock. Panel 04 shows a handshake, a dollar sign, and a document. Each panel has a progress indicator at the bottom consisting of four small circles, with the circle corresponding to the panel number filled in.

In accordance with the Company's Articles of Incorporation, the remuneration of directors and supervisors shall be based on the Company's annual net income after tax and distributable earnings and shall be prepared annually by the Board of Directors and submitted to the shareholders' meeting for resolution. For details of the remuneration ratio of directors, please refer to the section on remuneration of directors in the description of dividend policy in the annual report. In 2023, the members of the board of directors and the management have not issued resignation pay or happened any reclaim circumstances. (GRI 2-19)

For the ratio of the annual total compensation per board member to the median annual total compensation of all employees and the ratio of the ratio of the percentage increase in total compensation to the median percentage increase in total annual compensation of all employees; please refer to annual report and Market Observation Post System. (GRI 2-21)

Moreover, the "Compliance Management Code" and "Measures for the Whistleblowing on Illegal and Immoral Behavior" have relevant procedures for reporting, disciplinary, and appeals. The grievance mechanism for employees/communities/suppliers/investors is as follows (GRI 2-16) (GRI 2-24) (GRI 2-26).

Related Party	Responsible Unit	Grievance Mechanism
Community	Industrial Environment Team	ESG Hotline for this report
Investor	General Management Office	Spokesperson/Acting Spokesperson Hotline in Annual Report
Supplier	Procurement Team	ESG Hotline for this report
Employees	General Management Office	Employee Appeal Email
Customer	Business Department	Customer Complaint Email

For detailed information please refer to <https://www.gppc.com.tw/gppc/Investment-2.asp>

6. Internal Audit and Internal Control System (GRI 2-12)

In order to implement a quality corporate culture and maintain the Company's image and corporate ethics, the Company has established "Ethical Corporate Management Best Practice Principles" and "Compliance Management Code" in accordance with the Company Act, the Securities and Exchange Act and the Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies and promises to conduct due diligence on violations and promises to protect named whistleblowers. (GRI 2-23) ; In the conduct of business and procedural standards, we avoid using our position to obtain improper benefits for ourselves and our relatives (GRI 2-15) and we strictly prohibit the disclosure of customer privacy. The "corporate mission, vision, and values" and "core functions" and "management functions" are regularly reviewed and required to be followed by the relevant personnel and implemented in the annual performance appraisal form for employees, and if there is any violation of the relevant regulations, the relevant disposition will be made according to the "Reward and Punishment Practice" .

The Company has also established the "Code of Conduct for Official Business Performance" and requires fair trade and anti-corruption clauses to integrate this code into the Company's operating procedure, and through the advocacy and training to make ESG requirements can be run through the Company's overall internal and external operations and business activities. (GRI 2-24) (Anti-corruption management approach) The Company also implements the "Environmental, Safety and Health Communication Operation Procedures" to ensure that various stakeholders can provide ESG-related grievance communication and feedback mechanisms to confirm the effectiveness of remedial measures. (GRI 2-25) We also encourage employees to submit opinions related to the Company's business activity through unions or labor-management meetings in the "Code

of Conduct for Official Business Performance" . In 2023, all labor representatives participated in collective bargaining, but did not raise any specific resolutions. (GRI 2-30)

In accordance with the "Regulations Governing Establishment of Internal Control Systems



Core functions



Management functions



Corporate mission, vision, and values

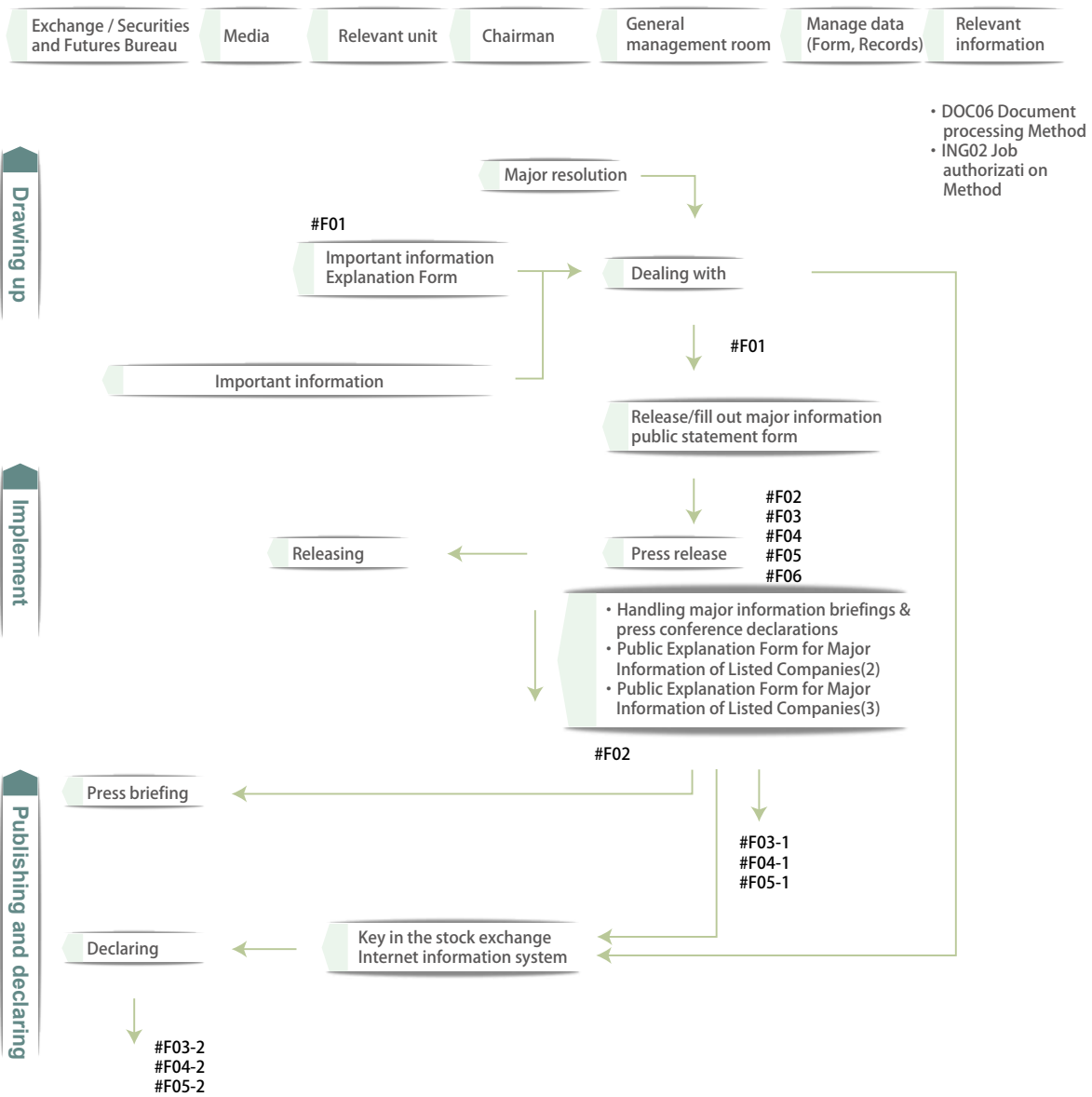
by Public Companies" and related laws and regulations, issued by the Financial Supervisory Commission, Executive Yuan, Grand Pacific Petrochemical has established an internal control system for the Company, which has been approved by the Board of Directors for implementation in all operating standards to promote sound operation of the Company and to ensure

that the Company's policies and regulations are effectively implemented to achieve the three main objectives of operational effectiveness and efficiency, reliability of financial reporting, and compliance with laws and regulations. The scope of this internal control system covers all daily operational activities such as the eight transaction cycles, information management and other man-

agement controls, and is integrated with international standards such as ISO 9001, ISO 14001 and ISO 45001 in the daily operational processes.

Grand Pacific Petrochemical Company has set up an internal audit unit, which is directly under the Board of Directors, to assist the Board of Directors and the management in checking and reviewing the internal systems and processes and providing timely suggestions for improvement to ensure the continuous and effective implementation of the Company’s internal control system. In addition, the Board of Directors shall conduct due diligence on discovered violations in accordance with the timing specified in the Company’s “Compliance Management Code” to ensure compliance.

(GRI2-25) (GRI2-26)(GRI2-12)



7. Overview on Services for Investors

Information disclosure is one of the most important aspects of our investor services. Over the years, we have invested many resources in meeting the principles of completeness, accuracy, timeliness and reliability of information disclosure. In addition to the immediate posting of announcements and material information on the Market Observation Post System, all financial reports, annual reports, dividends, material information and other information can be accessed on the Grand Pacific's website and the Market Observation Post System.



8. Operational Risk Management and Future Prospect

With reference to the results of the aforementioned stakeholder negotiations, most of the stakeholders are concerned about the Company's business performance/market image and even corporate governance. In this regard, the Company's management will consider more closely the impact of market risk, credit risk, important domestic and international policy and legal changes, and technological and industrial changes on the Company's financial operations and responses. In response to market risks, we collect information on changes in exchange rates, interest rates and inflation, establish forward contracts to hedge exchange rate risks, maintain close contact with banks to obtain favorable borrowing rates and reduce capital costs through multiple funding sources. The Company's policies on high-risk, high-leverage investments, lending of funds to others, endorsement and guaran-

tee, and derivative transactions are all conservative and implemented in accordance with the Company's regulations. In 2023, no funds were loaned to others and no derivatives were traded.

In the future, we will focus on the long-term prospect and sustainable development of financial performance. In terms of credit risk, we need to go through credit verification procedures before entering into transactions with customers, set up information system control, continuously evaluate the collection status of accounts receivable, and set up an allowance for doubtful accounts based on the collection status. We keep a close eye on domestic and international political and economic developments, legal changes and industry changes, and evaluate and discuss them in our management meetings as appropriate.

Future Prospect

1. Management Approach



Survival

Make Grand Pacific stronger and implement sustainable development.



Winning

Strengthen crisis awareness and secure the survival niche.



Stabilization

Conduct annual survey and renovation works in a proper manner and stabilize the profitability from our marketing foundation.



Practicality

Be able to stabilize and extend our existing competitive position and pursue continuous growth of the Company.



Excellence

Enhance the added value of individuals and teams.

Such as focusing on our main base of SM, ABS, hydrogen and nylon

66, optimizing cost, efficiency and quality, and trying to develop sales

channels for niche products and create profits by constantly pursuing

steady growth in quality and quantity and grasping the opportunities

of high boom spreads

Ethical management, Quality, Innovation and Respect

2. Mid-term and Long-term Business Development Blueprint

Grand Pacific continue to strengthen the competitiveness of our core business, such as focusing on our main base of SM, ABS, hydrogen and nylon 66, optimizing cost, efficiency and quality, and trying to develop sales channels for niche products and create profits by constantly pursuing steady growth in quality and quantity and grasping the opportunities of high boom spreads. In addition, we are in the process of starting up and designing the future project of our carbon III industry chain, including 660,000 tons/year propane dehydrogenation and 450,000 tons/year polypropylene, in Quanzhou City, Fujian Province, and will aim to complete the business transition approximately by 2024 and further expand the market in China. Moreover,



the R&D center has been deployed in advance through the industry innovation plan to actively develop and test high value diversified products such as high functional nylon fibers and engineering plastics, so as to lay the foundation for the Company to move forward to a new potential territory.

CHAPTER 03

To achieve the environment policy of "Efficient use of resources, prevention of pollution, and continuous improvement"

Environment Sustainability

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2. Climate-related Financial Disclosures (TCFD) and Governance	43
3. Environment Management and Environ- mental Protection Activities	53





Efficient use of resources
Prevention of pollution
continuous improvement

1. Environmental Management Strategy Disclosure

Material Topic	Measurement Indicator	Plan in 2023	Result in 2023	Mid- to Long-term Target
Energy Conservation and Carbon Reduction	Greenhouse gases inventory	Construct ISO14064-1 Greenhouse Gases Inventory mechanism to assess environmental costs	Completed the greenhouse gases inventory	To propose Task Force on Climate-Related Financial Disclosures (TCFD)
	Carbon footprint reduction	Improve administrative and factory energy-saving measures	Achieved over 1% of average annual energy-saving rate	To obtain ISO50001 third-party accreditation to specifically assess energy saving performance
Clean Production	Pollution intensity reduction	Identify and control risks on wastes and water consumption	Reduced wastes and water consumption intensity	To continuously implement the performance of industrial wastes reduction and clean production
Sustainable Environmental Protection	Number of penalties by the laws and regulations of environmental protection	Inquire on a regular basis about the latest laws and regulations of environmental protection and ensure regulatory compliance	No material penalties by the laws and regulations of environmental protection	To constantly reduce environmental pollution through environmental protection expenditure

Implement “Efficient use of resources, prevention of pollution, and continuous improvement”

For the sustainable development spirit, Grand Pacific Petrochemical has continuously improved environmental pollution issues such as wastewater, air, noise, solid waste, and underground water pollution. To achieve the environment policy (Wastewater and waste management strategy) of “Efficient use of resources, prevention of pollution, and continuous improvement”, the Company continuously builds the environmental protection facilities and actively operates CO2 inspection and operating the industry waste

reduction procedure (Emissions and energy management policy). Besides, the Company has also implemented ISO-14064-1 Greenhouse emission inspection plan. The newly established cogeneration plant in 2011 has adopted the Best Available Control Technology (BACT) and equipment to mitigate pollution generated during production, transportation, and storage processes. Simultaneously, it enhanced equipment operation experience and operational skills to achieve environmental protection goals.

Building an environment management system and getting the certification

Kaohsiung plant has got the certification of ISO 14001. Besides operating with P.D.C.A principal, the Company has implemented the 3-in-1 integrated ISO system here now. Whereas Grand Pacific Petrochemical Kaohsiung plant has got the ISO 14001 environment management system certification and it has also got the ISO9000, ISO45001, SONY GP (Sony green partnership), and Asus' green environment system certification to reward the Company' s effort on efficient use of resources, prevention of pollution, and continuous improvement. In the long term, the Company will produce environment, low-pollution, high-added value products in accordance with the government goals.

Implement environment management training

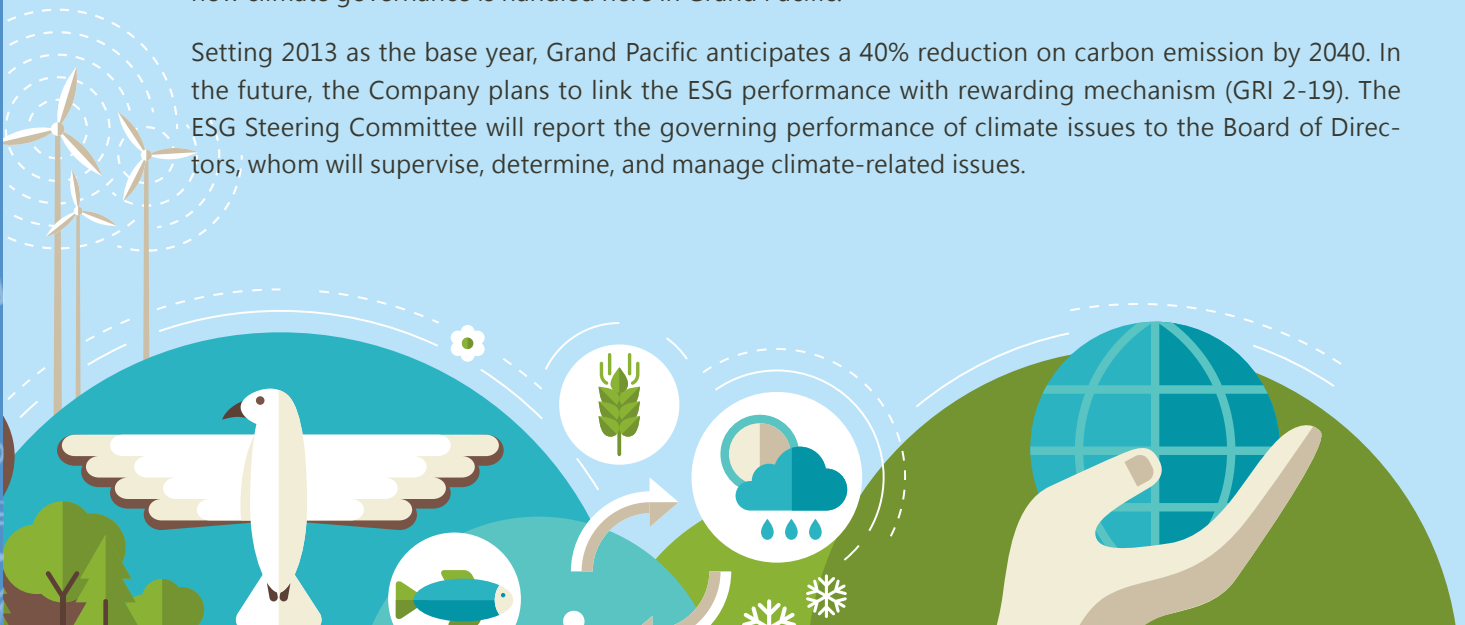
Environment management is complicated and has a variety of interactions. For the site and the environmental personnel, the only way to increase the working efficiency is continuously being trained to get new knowledge. Grand Pacific Petrochemical has operated lots of training courses in environmental protection for years. There are no major violations in 2023.

2. Climate-related Financial Disclosures (TCFD) and Governance (GRI 202-2)

Grand Pacific focuses on climate risk and adheres to the relevant references of the "Recommendations of the Task Force on Climate-related Financial Disclosures" (TCFD) published by the Financial Stability Board (FSB) in June 2017 to build the "Climate Risk Management Procedures." In compliance with the TCFD structure, we identify and manage transition risks as well as physical risks of climate change and evaluate the financial impact of high-risk factors. The Company has also included climate change in the risk management structure for long-term tracking to ensure better governance results on climate issues.

Grand Pacific takes ESG sustainable organization structure as a climate governance organization and discloses the climate change impact information in accordance with the "Climate Risk Management Procedures." Through mechanisms such as identifying climate-related risks and opportunities and setting carbon reduction targets, the Company improves its climate risk and opportunity management and continues to respond to the government' s and stakeholders' attention as well as expectation regarding how climate governance is handled here in Grand Pacific.

Setting 2013 as the base year, Grand Pacific anticipates a 40% reduction on carbon emission by 2040. In the future, the Company plans to link the ESG performance with rewarding mechanism (GRI 2-19). The ESG Steering Committee will report the governing performance of climate issues to the Board of Directors, whom will supervise, determine, and manage climate-related issues.



Grand Pacific's responsibilities of climate management organization are shown below, where the Climate Change Response and Green Sustainable Management Team is the TCFD operating team.



Partnership Management Team

- Customer Communication
- Supplier Communication
- Corporate Shareholders and Media Communication



Employee care committee

- Employee Benefit Indicator
- Employee Training Indicator
- Employee Caring Indicator



Climate Change Response and Green Sustainable Managing Team

- Carbon/Water Footprint Indicator
- Safe And Health Indicator
- Organization Side/ Products Side On Environmental Protection, Energy Conservation, and Carbon Reduction



Social Co-Prosperty Team

- Social Care




Sustainable Governance Team

- Ethical Corporate Management Execution Unit)
- Formulation and Implementation of Ethical Corporate Management Principle
 - Financial and Accounting Indicator
 - Legal Indicators

Board of Directors

The Board of Directors acts as the highest level of decision-making unit in terms of climate management, supervises the Company's governance performance as well as achievement status of climate-related issues, and annually reviews corporate performance on sustainable governance. The current governance status and the achievement status relevant to climate issues are also included.


The Company has conducted an annual review on the climate-related targets such as energy-saving, carbon-reducing, and water-saving in 2023. Simultaneously, the Company will also include climate-related topics when reviewing significant capital expenses, risk management, annual budgets, and business plans.



ESG Steering Committee

The Company has established the ESG Steering Committee under the Board of Directors as the highest advisory unit to develop and implement sustainable operations. The Directors take up the roles of Committee members and report the management performance of climate-related risks and opportunities to the Board of Directors annually. Team members are united by each commissioner, among which the risk management team is responsible for collecting and compiling domestic and foreign trends of climate issues and regularly executing and formulating the overall climate risk and opportunity management policies and responding strategies of the Company to ensure its direction and appropriateness on climate management.

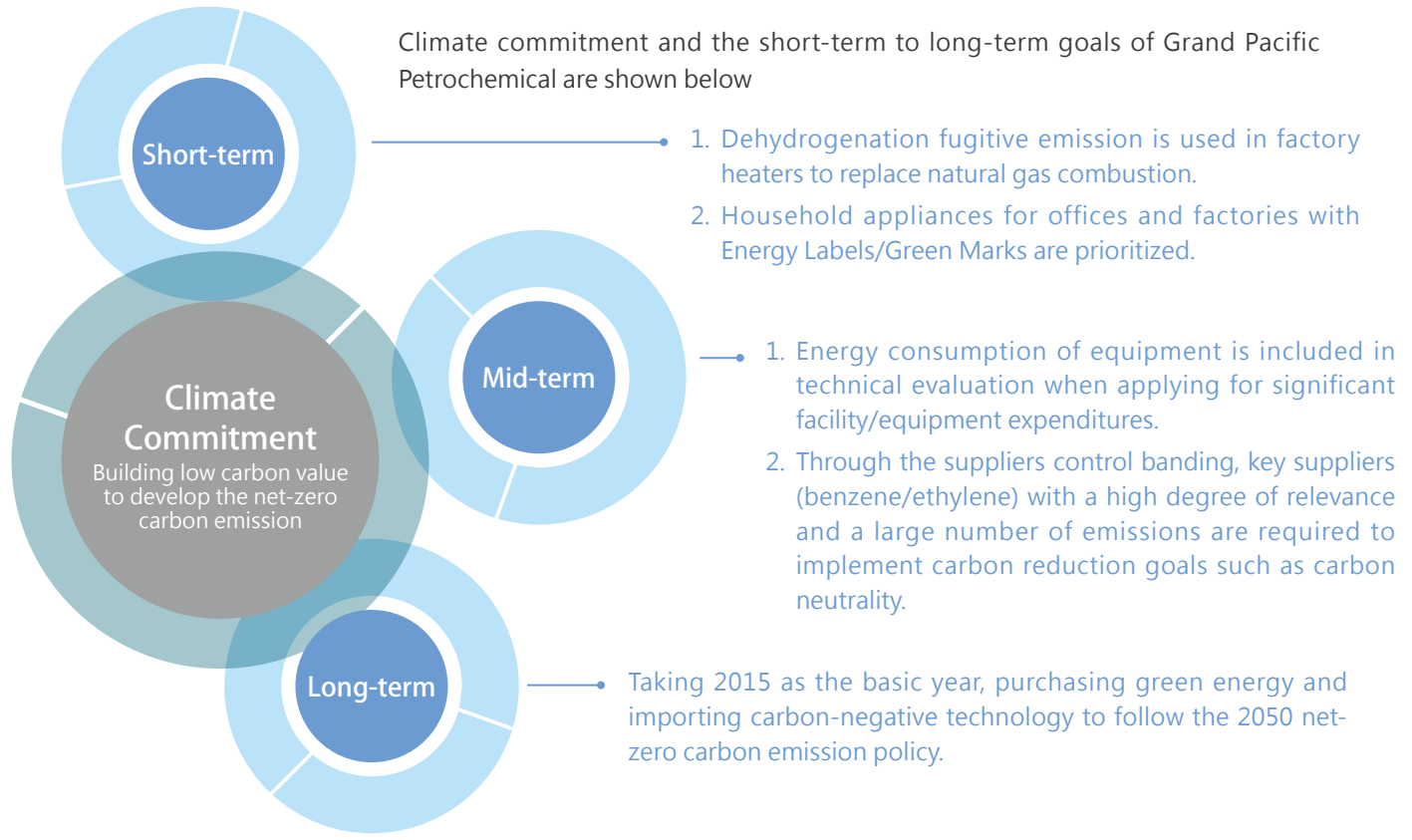
The Committee will report the operating results regarding climate issues and the net-zero carbon emission plans to the Board of Directors on an annual basis in 2023.



Operating office governed by the Committee

A concurrent unit for ESG implementation. The Office collects and implements the identification and evaluation on climate-related risks and opportunities, monthly analyzes the resource usage status and the carbon emission indicators and targets, and assists in adjusting and stipulating climate managing strategies.

In 2023, the sustainable performance such as the responding measures of climate risks and opportunities was reported to the ESG Steering Committee and was disclosed to stakeholders via proper channels.

Impact for Grand Pacific Petrochemical on different climate risk situation

Risk	Climate Scenario/ Temperature Increase by 2040	Impact on Grand Pacific	Financial Impact	Countermeasures
Transition Risk – Regulations	IPCC AR6 SSP1-1.9 (Increase 1.2 to 1.7° C in 2040)	The Company should transform at the trend where the temperature increases by 1.7° C. The Company will not be able to meet the requirements of 2030 carbon neutral and 2050 zero carbon emission if it fails to make a transition and will lead to additional carbon fees.	*At least USD 5,300,000 /year of future carbon fees.	Evaluate the addition of co-generation power or set-up of green energy equipment.
Physical Risk – Droughts	IPCC AR6 SSP5-8.5 (Increase 1.3° C to 1.9° C in 2040)	Climate abnormality will affect the material storage quality of styrene monomer and will cause heavy rainfall as well as droughts, which could interrupt the production.	Heavy rainfall or droughts will reduce onsite production by 70%, at least.	Implement emergency response, strengthen disaster prevention facilities, and purchase property insurance.

Note: *Analysis based on a carbon fee of USD10/Ton CO₂e.

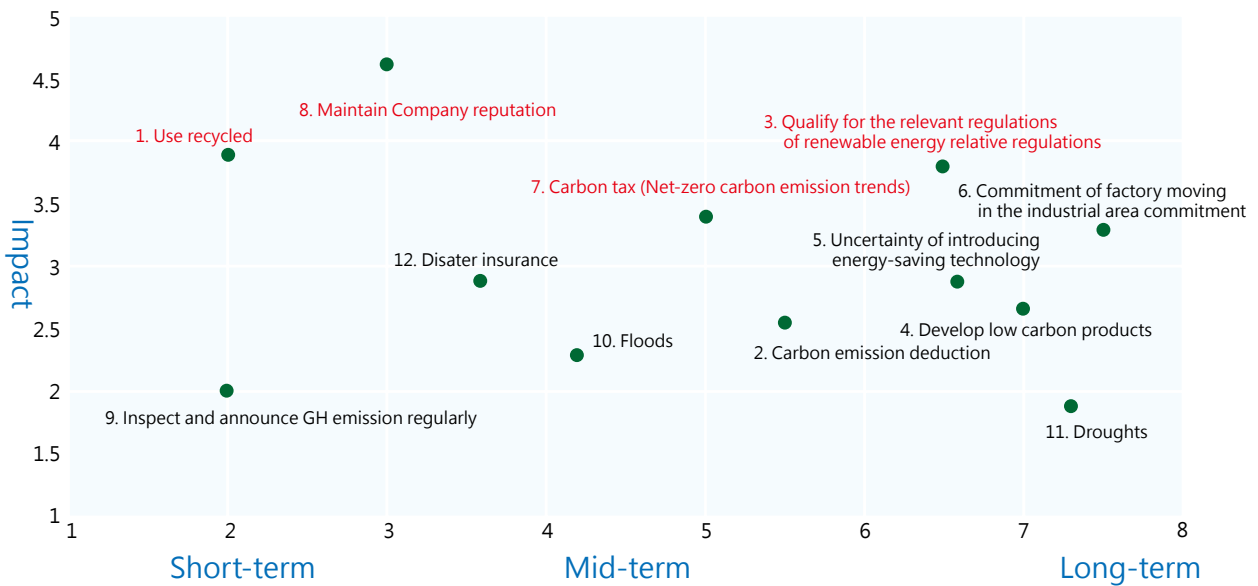
Grand Pacific’s identification process of climate risks and opportunities are shown below:



Grand Pacific has narrowed down the climate risk and opportunity factors, which are identified by ESG Steering Committee, into 14 risk opportunity factors according to their risk characters, impact on the Company’s chemical industry and supply chains, and the relevant researching functions. Furthermore, the results of materiality and benchmarking enterprises identified by internal experts

are then compared, reviewed, and confirmed regarding their impact on supply chains for material adjustments. Based on the evaluation results, Grand Pacific has a total of 4 high-priority climate factors. 1 is distributed in the short-term (2023 to 2025), 1 in the mid-term (2023 to 2030), and 2 in the long-term (2030 to 2050). The distribution detail is shown in the figure below.

Climate topics scatter plot



In response to climate issues, a resilience analysis was conducted considering the risks and capacity of our company (including the supply chain and research and development functions). The assessment resulted in the identification of 14 climate risk and opportunity factors and the list is as follows. Risk management strategies will be subsequently deployed to address high-risk issues:

NO	Grand Pacific Petrochemical Risk Factors	Type	Duration	Priority
1	Uncertainty of importing energy saving technology	Transition risk- Policy and Regulation/Low Carbon trend	Long-term	
2	Moving factory area commitment	Transition risk-Policy and Regulation/Low Carbon trend	Long-term	
3	2050 Net-zero carbon emission policy	Transition risk-Policy and Regulation/Low Carbon trend	Long-term	Y
4	Upholding of Company reputation	Opportunity	Mid-term	Y
5	Inspect and announce GH emission regularly	Transition risk-Policy and Regulation/Low Carbon trend	Short-term	
6	Grand Pacific Petrochemical Floods (The severity of short-term extreme weather events)	Physical risk - Extreme climate shocks (acute)	Mid-term	
	Supplier Floods (The severity of short-term extreme weather events)-	Physical risk - Extreme climate shocks (acute)	Mid-term	

NO	Grand Pacific Petrochemical Risk Factors	Type	Duration	Priority
7	Grand Pacific Petrochemical Drought (The severity of long-term extreme weather events)	Physical risk - Extreme climate shocks (acute)	Long-term	
	Supplier Drought (The severity of short-term extreme weather events)	Physical risk - Extreme climate shocks (acute)	Long-term	
8	Disaster insurance	Transition risk-Client expectation	Mid-term	
9	Sea-level rise	Physical Risk - Extreme climate shocks (acute)	Long-term	
10	Recycling water resources	Transition risk-Policy	Short-term	Y
11	Reward by the government for carbon emission reduction	Opportunity-Technology	Long-term	
12	Reward by the government for renewable energy regulation	Opportunity-Technology	Long-term	Y
13	Develop low-carbon products for green consumption trend	Opportunity-Technology	Mid-term	
14	Supply stopped due to the climate issue	Physical risk - Extreme climate shocks (Chronic)	Long-term	

Physical Risk: Floods/Droughts risks caused by extreme weather.

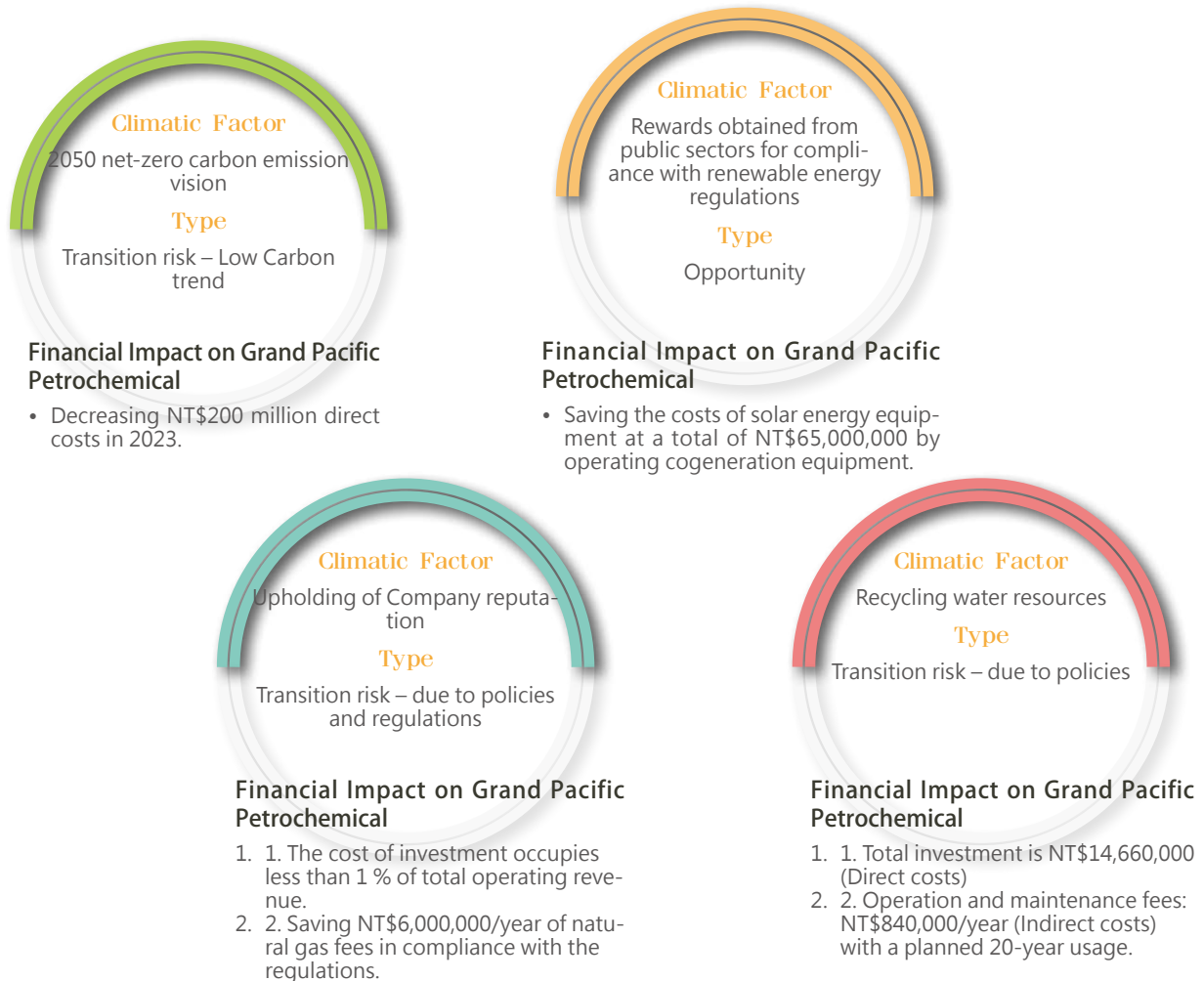
Transition Risk: Financial risks brought by an operational transition due to noncompliance with policies, laws, or customer expectations, which impacts the Company’s investment and profit-earning capability.

Grand Pacific Petrochemical follows the above climate risk evaluation process. Below further describes the risk implications as well as financial impacts of high-priority climate factors and the responding measures taken by the Company:

Climatic Factor	Type	Influence on Grand Pacific Petrochemical	Duration	Countermeasures	Target Indicator/TCFD Scope
Compliance with policies/regulations and 2050 net-zero carbon emission vision	Transition risk – due to policies	Complying with energy laws and regulations that require major energy consumers to averagely and annually save 1% of energy by 2024.	Short	Conducting energy checking and declarations in compliance with the laws and regulations, and achieving the requirement of 1% annual energy-saving rate.	According to the 10 energy-saving plans in 2023 (Details in section 4.2), a total of 3,374 tons CO ₂ /tons was saved.
	Transition risk – Low Carbon trend	Evaluating the replacement of co-generation coal firing boilers with natural gas boilers.	Long	Plans of Carbon reduction for cogeneration plants (Natural gas substitution)	By 2040, all coal firing boilers are to be replaced with natural gas boilers to reduce 280,000 tons of CO ₂ -eq GHG emissions

Climatic Factor	Type	Influence on Grand Pacific Petrochemical	Duration	Countermeasures	Target Indicator/TCFD Scope
Upholding of Company reputation	Opportunity	Developing various green energy plans such as hydrogen economy	Short	Replacing natural gas combustion with dehydrogenation fugitive emission in factory heaters.	By 2050, 12,000 cubic meters of natural gas consumption and 24,700 tons CO2-eq/year of greenhouse gas emissions are to be reduced.
	Opportunity	Complying with the "Volatile Air Pollutant Emissions and Control Standards" by the EPA.	Mid	Carbon reduction plans of adding pilot light energy-saving burner to combustion towers.	Approximately 70,000 cubic meters of natural gas consumption and 1,750 tons CO2-eq/year of greenhouse gas emissions are to be reduced.
Recycling water resources	Transition risk – due to policies	Avoiding impacts of droughts caused by extreme climate	Short	Plans of recycling water resources	The recycled water amount is to be increased from 100 CM3/day to 270 CM3/day (Scope 1)
Rewards obtained from public sectors for compliance with renewable energy regulations	Opportunity	Maintaining the operation of cogeneration facilities, and avoiding the "Regulations for the Management of Setting up Renewable Energy Power Generation Equipment of Power Users above a Certain Contract Capacity" to construct renewable energy equipment.	Long	Plans of supervision and continuous improvements on cogeneration operations.	Continuous exemption from setting up renewable energy equipment through the operation of cogeneration equipment. (Scope 2)

To evaluate the potential impact of climate risk factors on Grand Pacific more systematically, the Company used the high-priority climate factors above to analyze the scope of potential impact imposed by different climate risk factors on the Company. Below is the description of the analysis result. (GRI 202-2)



Grand Pacific manages greenhouse gas reduction using the reduction targets in Scope 1, 2, and 3 of ISO14064-1. The Company has also fostered the management performance of climate topics referring to GRI and SASB-related indicators, including energy resources usage, for measuring the management indicators of climate risk impact:

To manage climate indicators and goals more effectively, the Company plans to include the above performance management related to the climate indicators in one of the measurement indicators of the Company's compensation evaluations. The Company also plans to further expand the risk management to the supply chains management and collects energy-saving and carbon-reducing data as well as the ESG implementation status to optimize supply chains managing measures and set the Company's sustainable procurement standards.

Recently, the Company has moved from a traditional petrochemical industry to a low-carbon circular economy to qualify government policies that emphasize gradual reduction on coal dependence. To respond to the government's planning of social green energy transition in the big picture, Grand Pacific has launched 62 projects since 2017, saving a total of 1.3 million kWh in five years and averagely 1.5% in electricity consumption. The Company has also built a smart electrical grid to ensure supply stabilization and increase energy efficiency management by digitalization. The Company will also work with green energy companies to build roof solar panels, increase self-generated green energy within the factories, enhance land utilization, and move towards green energy self-sufficiency.

Greenhouse Gas Emissions Intensity

(GRI 302-1 Internal energy consumption + GRI 302-3 Energy density) (FSC.1) (RT-CH-130a.1)

2023

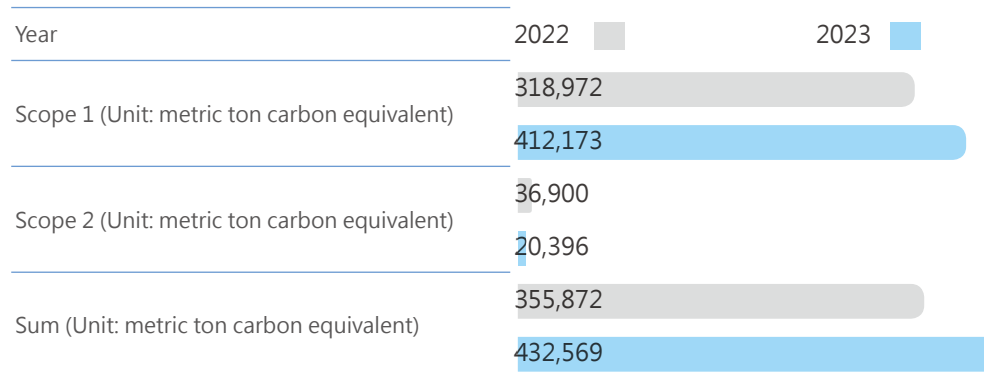
Electricity Consumption Generated by Cogeneration in Plants (MWh)	39,224.080
1. Electricity Consumption Generated by Cogeneration in Plants (MWh)*	100,438.000
2. Electricity Consumption Purchased Externally (MWh)*	42,203.200
Total Energy Consumption 1, 2 (MJ)	513,508,320
Number of Employees in Kaohsiung plant	330
Indirect Energy Intensity per Capita (MJ/ Employee)	1,556,086
Energy Consumption of Unit Output Value [(Amount of Self-usage in Plants + Total Energy Consumption Purchased Externally)/Output Value](GJ/NT\$ million)	40,194
Electricity Percentage of Electrical Grids	100%
Renewable Energy Consumption	0%

Note:

1. Investigating Grand Pacific Petrochemical Kaohsiung plant
2. 1kWh = 1kWh (KW/H) 1W=1 Joule /Second (J/S) 1=1000W*3600S/H=3,600,000J=3.6 MJ
3. 1MWh =3,600MJ =3.6GJ(GJ)

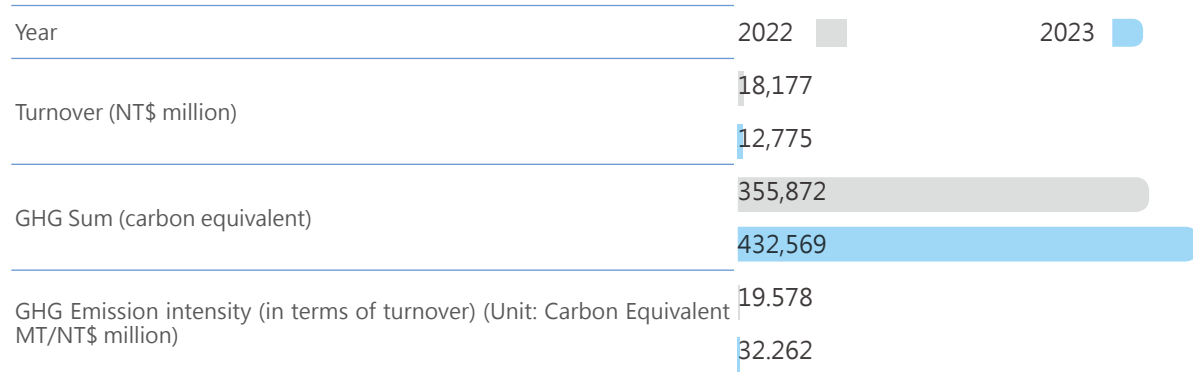
To exert the power of the local petrochemical industry to assist the Kaohsiung’s vision of 2050 net-zero carbon emission, the Company joined the “Industry Net Zero League” last year, and planned to develop the green petrochemical symbiosis by combining upstream and downstream supply chains. Focus on the key performance of carbon reduction in research and development to develop high-quality, standardized, and scale products which are expected to focus on five aspects, including “Renewable Energy”, “Low-carbon Energy”, “Carbon Capture Storage and Utilization”, “Biofuel Raw Material”, and “Plastic Recycling” to conduct practical discussions, and at the same time to start the Carbon Footprint Verification and relevant industry experience sharing. In accordance with 14064-1: 2006, the following tables summarize the greenhouse gas emissions calculation using GWP of IPCC AR4 under the operating control method.

Total Greenhouse Gas Emissions (GRI 305-1, 305-2, 305-4 Greenhouse Gas Emission Intensity)



*In 2022, the global price of coal mine skyrocketed, resulting in the reduction in the operating hours of cogeneration equipment. In 2023, the coal price dropped and the operating hours of cogeneration equipment was extended in consideration of energy efficiency, resulting in an increase of emissions.

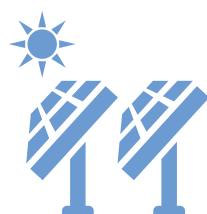
Greenhouse Gas Emission Intensity (in terms of turnover)



* The survey was conducted on Grand Pacific Kaohsiung factory

Additionally, we replace the air ends, chillers, and parts of high-efficient light bulbs of inefficient air compressors and improve the process to stop recirculation pumps. It is estimated to save 1,700 MWh of electricity. From 2015 to 2023, 20,516 MWh of electricity has been saved with a 1.54% of annual electricity-saving rate. (GRI 302-4)(RT-CH-110a.2)

Energy saving performance in 2023



Reduction target percentage 1.00%

Actual reduction percentage %

1.06%



2023 Energy-Saving Program (GRI 302-4) (RT-CH-110a.1)

2023	Implemented Energy Saving Measures	Implementation Period (month)	Annual Energy Saving (KWh)	Annual Energy Saving (MJ)	Investment Amount (thousand)
Full Plant	1. Phase II air-conditioning replacement for Grand Pacific Petrochemical Kaohsiung Plant (13 units)	Jan. ~ Jun.	9,087	32,713	813
	2. Phase III air-conditioning replacement for Grand Pacific Petrochemical Kaohsiung Plant (4 units)	Jun. ~ Dec.	2,750	9,900	240
Cogeneration Power Plant	3. Replacement of the cold pipeline of the old boiler HB-301B air preheater	Jan. ~ Aug.	Saving 9,600 NM ³ of natural gas	385,920	2,360
Plastic Plant	4. Replacement of the chiller K-301C	Jan. ~ Jan.	46,200	166,320	6,500
	5. Addition of a steam recycle system to line II of the nylon factory	Jan. ~ Oct.	Saving 7,540 MT of steam	21,154,978	12,500
	6. Replacement of K-802H air compressor	Oct. ~ Dec.	112,800	406,080	2,500
Petrochemical Plant	7. Reduction of the amount of benzene feed for Benzene feed pump PP-103	Jan. ~ Mar.	24,006	86,422	0
	8. The motor of the High-pressure water supply pump PP-312S changed to frequency conversion control	Jan. ~ Mar.	38,483	138,539	1,700
	9. Replacement of energy-saving pilot light musket head for the SM-2 plant	Jan. ~ Nov.	Saving 65,450 NM ³ of natural gas	2,631,090	2,467
	10. Activation of the TURBINE in PP-312A and PP-313A, suspension of PP-312S and PP-313S electric motors, and steam transfer from SM3 2.8K to SM2	Apr. ~ Dec.	1,292,445	4,652,802	0
Total			1,525,771 KWH	29,664,764 MJ	29,080 thousand

備註：

1. 1 degree = 3.6 mega joule (MJ)

2. 1 NM³ natural gas = 9,600 kcal/NM³*4,187.6 J/kcal = 40.2 MJ

3. 1 MT steam = 670 kcal/kg*1,000kg/MT*4,187.6 J/kcal = 2,805.7 MJ

4. According to the aforementioned strategies, 3,374MT CO₂/MT are saved.

3. Environment Sustainability Management and Environmental Protection Activities

Environmental products

When marketing ABS/SM related products, Grand Pacific Petrochemicals also evaluated the competitive advantages and disadvantages of the products in terms of health and safety in the industry trend. Our products do not contain environmentally hazardous substances regulated by customers and regulations (e.g. RoHS). The product specifications and performance and precautions for use are listed in the COA and SDS so that customers can understand the safe use of the product. In addition, SM has completed registration with the European Chemicals Agency (ECHA) to meet the requirements of REACH registration in the EU.

Environmental Protection Costs and Effectiveness

In order to reduce the environmental hazards caused by waste in the production process, Grand Pacific Petrochemicals strives to promote pollution prevention and industrial waste reduction. In addition to the establishment of the "Industrial Waste Reduction Implementation Procedures", the Company also strengthens the management of waste reduction and thermal energy recovery (GRI 306-2 Management of significant waste-related impacts) through the construction of a sludge incinerator with an hourly capacity of 390 kg. All other wastes that cannot be handled are entrusted to off-site qualified removal and treatment vendors for cleaning. A three-part form will be created to control the waste and comply with the regulations. The following table summarizes the amount of waste to be cleaned up and the amount of waste to be disposed of by Grand Pacific Kaohsiung Plant from 2022 to 2023 (GRI 306-1). There was no leakage in 2023 (GRI 306-3 Significant Spills). In addition, Grand Pacific has requested for a 5% annual reduction on general trash wastes from 2020 onwards.

Outsourcing of Kaohsiung Plant (in tons):

Year	2022	2023
Waste plastic mixture	38.83	32.84
Waste insulation material	13.45	0
Mixtures of waste glass, ceramic, brick, tile and clay	81.46	0
Organic sludge	243.58	118.8
Inorganic sludge	317.14	276.88
Incinerator fly ash	12.05	4.8
Incinerator bottom slag	95.33	47.97
Non-hazardous waste catalysts or mixtures thereof	240.22	104.8
Domestic refuse	72.65	69.9
Waste sludge	0	0
Waste sponge	0	0
Activated carbon	0.61	0
Coal-fired fly ash	12825.02	15406.23
Coal-fired bottom ash	772.72	868.22
Waste wood	0	0
Waste fiberglass	0	0

Our company conducts annual audits of waste removal and disposal companies by submitting manifests. (GRI 306-2)

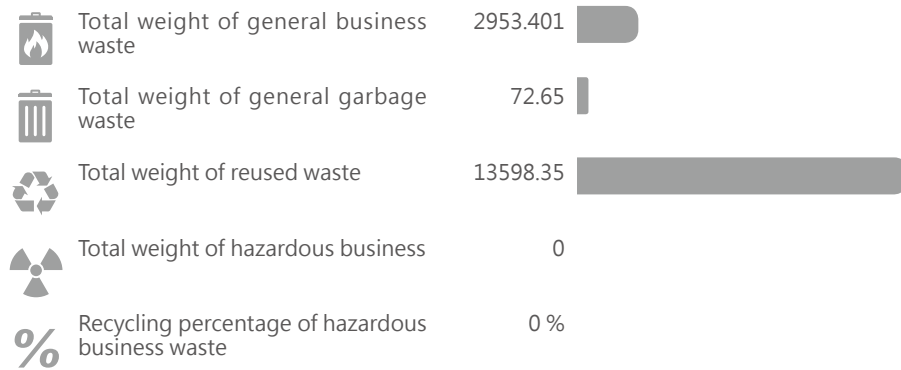
Self-handling of Kaohsiung Plant (in tons):

Year	2022	2023
Organic sludge	1497.5	1540.592
Waste plastic mixture	182.824	125.456
Non-hazardous organic wastes or waste solvents	230.407	149.022

The organic sludge is treated and recycled into compost by a professional manufacturer, while the inorganic sludge is thermally treated and used as a concrete blending material.

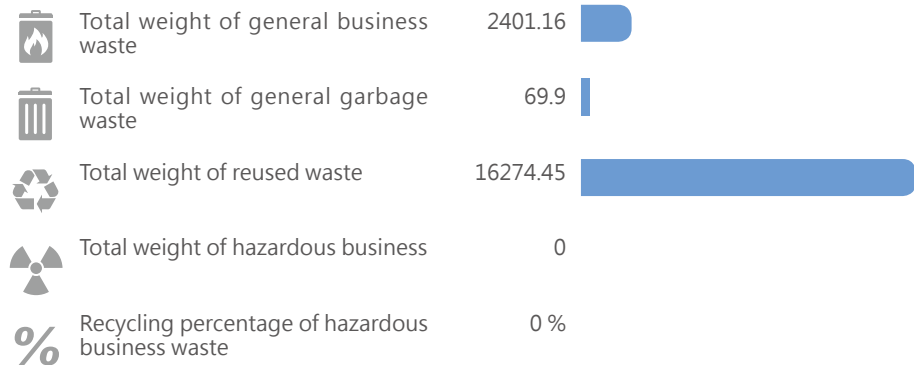
Weight of waste generated in recent year (FSC III) (RT-CH-150a.1)

2022 Weight of various types of waste products (unit: metric tons)



* The survey was conducted on Grand Pacific Kaohsiung Plant

2023 Weight of various types of waste products (unit: metric tons)



* The survey was conducted on Grand Pacific Kaohsiung Plant

The Company exerts enterprise influence and cooperates with manufacturers in the industry park to enhance environmental influence through investment in emission-reduction equipment and performance improvement. Meanwhile, we also seize the trend of circular economy and focus on the recycling of waste to make high-value applications of by-products such as hydrogen, sludge bacteria, and fly ash from steam power plants. Practice resource recycling, implement carbon reduction targets, and promote the transformation of petrochemical industries to low carbon to create sustainable development business opportunities. "Hydrogen," for example, is an important by-product that can be used as fuel for heaters or sold to gas suppliers, which can then supply to advanced technology electronic manufacturers as high purity hydrogen after purification and directly engage in the supply chain of the S route in semiconductor industry. Hydrogen is also an important clean green energy in the world, which can be supplied to hydrogen fuel cell manufacturers as raw materials. In addition, the steam generated by the cogeneration plant can be supplied to other manufacturers in the nearby area for heat integration and reduction of various pollutants produced by multiple combustion pollution sources, which acts as a typical example of the Company actively participating in the circular economy.

Air Pollution Control (GRI 305-7 Nitrogen oxides(NOx) \ sulfur oxides(SOx) \ and other significant gas emissions)

In order to accelerate the realization of the sustainable vision, the Company particularly focuses on air governance. Since 2012, two units of fuel oil heater were removed successively and the fuel of coal-fired boilers has been changed from oil to natural gas in whole plant. Also, the Company invested NT\$100 million for the installment of Regenerative Thermal Oxidizer (RTO). In 2023,

more than NT\$80 million was invested in the setup of a Regenerative Thermal Oxidizer (RTO); whereas more than NT\$40 million was invested later in the setup of the second RTO. Each RTO can process 1,600 cubic meters of waste gases per minute. The volatile organic compounds contaminants generated by fabrication facilities, storage tanks, oil separators, and sewage treatment plants are collected to RTO for processing through a closed system, significantly decreasing pollutant emissions and odorous gas effusion. The operating mode of the two RTOs is that one is for use whereas the other is for backup. This is to avoid environmental pollution in case of RTO failure or maintenance and the removal efficiency is more than 95%. At the same time, the Company also tightens the monitoring of "invisible" and "odorless" components effusion, invests a great deal of manpower in exhaustive detection and maintenance every quarter, and connects with environmental protection units for audits to further protect the health of employees and residents around the plant. A total of 29 emission reduction projects have been implemented in the past ten years, with a total investment of nearly NT\$200 million. Grand Pacific is fully aware of the risks associated with the VOC in petrochemical processes to residents. Currently, all the pollution prevention measures in the plant have adopted the announced Best Available Control Technology (BACT) and equipment. To defend the safety and health of the residents nearby the plant, an air monitoring system has been setup within the plant and connected to the monitoring center to keep track of the fugitive status in the plant and enhance the life quality of the residents.

In order to maintain the safety and health of employees and residents around the plant, Grand Pacific Petrochemical has set up a gas monitoring system in the plant and connected it to the monitoring center to keep track of the emission situation in the plant and established continuous automatic monitoring facilities in the steam and

power boiler chimney, connecting to the Department of Environmental Protection to maintain the ambient air quality around the plant. The other chimneys are regularly inspected to keep track of the source emissions. The condition of each discharge pipeline and the frequency of inspection at the Kaohsiung factory of Grand Pacific Petrochemical Corporation are listed below:

Area	Equipment Name	Emission Outlet No.	Outsourced Analysis Items and Frequency	Approximate Month of Inspection
SM2 plant, Zone 300	BA-301 Heater	P402	Particulate matter. NOX. SOX/semi-annually	Apr., Oct.
Steam and Power Team	HB-301A/B and HB-302A/B	P701	RATA/quarterly	Jan., Apr., Jul., Oct.
SM ³ field	HS-201/219 Heater	PB01	Particulate matter. Nox,x, SOX, THC / semi-annually	Apr., Oct.
Occupational Safety Office	Incinerator	PG01	Dioxin/biennial: Particulate matter, NOX, SOX, heavy metals, THC, hydrogen chloride, carbon monoxide/annually	Oct.
Cogeneration	Coal-fired boilers	PF01	RATA/quarterly: Particulate matters/semi-annually Dioxin/biennial	Jan., Apr., Jul., Oct.

* The survey was conducted on Grand Pacific Kaohsiung Plant

Air pollution emissions information is summarized in the following table (RT-CH-120a air quality):

Nitrogen Oxides (NOx)	128725.81
Sulfur Oxides (SOx)	33078.96
Volatile Organic Compounds (VOCs)	17204.68
Hazardous Air Pollutants (HAPs)	0.0028032
Particulate Matter (PM)	7774.38

* The survey was conducted on Grand Pacific Kaohsiung Plant

Calculation of Emissions Disclosure :

- (1) The calculation of air pollution emissions is based on the reporting and review of "Control Fees and Emissions Reporting Integrated Management System" .
- (2) The calculation coefficient adopts the detection method, and the Company commission a third-party laboratory approved by the Environmental Protection Agency to conduct pipeline emission data.

Description of raw material use conditions (RT-CH-000.A Operating Activity Indicator)

The amount of AN, BD, Benzene, and Ethylene can be inquired from the declaration of air pollution fee with the following information:

Raw materials and energy usage in 2023

Benzene	ton/year	230,317.21
Ethylene	ton/year	78763.214
Acrylonitrile	ton/year	11,516.537
Butadiene	ton/year	9866.200
Electricity consumption	degree/year	41,203,200
Fuel oil	kilolitre/year	614.017
Coal	ton/year	137,443.00
Water	ton/year	2,052,732
Natural gas	M3/years	32,654,720

* The survey was conducted on Grand Pacific Kaohsiung Plant

Major product output in 2023 (FSC VII) (RT-CH-000.A)

Ethylbenzene	ton/year	314,972.43
Styrene	ton/year	291,679.67
ABS plastic	ton/year	52,298.60
Nylon plastic	ton/year	12,036.34
Power generation	kWh	214,548,400.00

Waste water pollution prevention and control measures

Waste water from petrochemical plants contains organic pollutants. Therefore, the main focus of effluent monitoring is on chemical oxygen demand (COD) and suspended solids (SS). The focus of prevention and control is to implement waste water source reduction, to implement measures such as waste water reduction and recycling, storm water diversion treatment, installation of storm water interception facilities, effective maintenance of existing waste water treatment systems and implementation of waste water recycling and reuse. Grand Pacific Petrochemical Kaohsiung Factory is located in Dashe Industrial Park. There is a joint sewage treatment plant in the industrial area to collect the sewage of each factory for treatment. The current wastewater plant acceptance standards are COD: 400 ppm, SS: 240 ppm, PH: 5-9, and the wastewater discharge, COD discharge and SS discharge for the past three years are listed below. (GRI 303-4)

Year	Waste Water Discharge (tons/year)	COD Emissions (tons/year)	SS Emissions (tons/year)
2021	1,044,771	99	39
2022	821,398	76	29
2023	902,110	81	28

* The survey was conducted on Grand Pacific Kaohsiung Plant.

Water management measures (Water Management Approach)

In view of the rapid changes in the water environment caused by climate change in recent years and the increasing frequency of alternating floods and droughts, external stakeholders are increasingly concerned about water resources issues. The Company has identified and responded to water risk factors and implemented water recycling in accordance with the water resource Management Approach and commitments in order to respond to the complex water resource issues early and effectively integrate the management concepts of prevention and conservation. The Company's water comes from the surface water of Gaoping River, and the water source area is not a water volume

sensitive area (GRI303-1). Relevant wastewater effluents complied with the standards for industrial parks. Total water consumption volume is shown in the table below.

Grand Pacific's total water consumption Unit: thousand tons (GRI 303-5 Water Consumption) (FSC II)

Total Water Consumption	Grand Pacific Petrochemical	Water Consumption of Unit Output Value
2021	2,469 (thousand tons)	0.193 (thousand tons/NT\$ million)
2022	2,004 (thousand tons)	0.157 (thousand tons/NT\$ million)
2023	1,973 (thousand tons)	0.154 (thousand tons/NT\$ million)

Grand Pacific's practical measures of water recycle in 2022 and 2023 are as follows:

Item	Recycled Water Volume (T/D)_2022	Recycled Water Volume (T/D)_2023
Steam condensation recycle	1,646	1,540
Steam engines condensation recycle	678	1,368
SM-3 Plant steam condensation recycle	193	243
GT-303 TO GT-302 recycle	241	225
GT-801 cooling water tower discharge to the absorption tower recycle	37	64
The recycling water from ultra-pure water reclamation system was transferred to GT-801 or GT-601	97	129
The recycling water from old district pure water reclamation system was transferred to GT-601	0	0
GT-302 cooling water tower discharged water to the wastewater hydro extractor to clean the filter cloth	37	66
Total	2,929	3,635

The Company’s recycled water volume has been gradually increased from 100 tons/day in 2020 to 270 tons/day in 2025 (Please refer to Section 4.1 for details on Grand Pacific’s climate change responding strategies). The wastewater discharge volume has also been decreased to 6.27% every year.

The recycled water volume was 1,326,775 ton/year with a recycling rate of 40.21% in 2023. The carbon reduction volume was 125.778 ton CO₂e.

*Note:
 $3,635 \text{ ton/day} \times 365 \text{ day/year} \times 0.0948 \text{ kgCO}_2\text{e/m}^3 = 125.778 \text{ tonCO}_2\text{e}$ of carbon emissions (Correspond with the Emission Factor of 0.0948 kgCO₂e/m³ in the Carbon Footprint Information Platform)

The information on the indicators of water resources management by SASB in 2023 is summarized in the following table (RT-CH-140a.1) :

SASB Index Code	SASB Index	Targets or Description in 2023
RT-CH-140a.1	Total quantity of water intake	1,973 thousand m ³
	Total water consumption (excluding recycled water)	1,973 thousand m ³
	Total water consumption (including recycled water)	3,299 thousand m ³ (estimated)
	Water intake/consumption from areas with water stress	0 thousand m ³
RT-CH-140a.2	Number of cases in violation of emission permits, standards, and regulations related to water quality	In 2023, Grand Pacific did not have any situation in violation of emission permits related to water quality.
RT-CH-140a.3	Description of risks and strategies of water resources management	The description of the relevant risks of water resources management and the responding strategies: Grand Pacific’s water source is originated from the hyporheic flow of Gaoping River. No water was taken from areas of water stress. A water resources management plan and water-saving measures have been proposed.
	Measures for risk reduction	Short-term and long-term strategies/plans for mitigation of water resources management: 1. Short-term strategy: Three-step anaerobic biological wastewater treatment systems are used to implement waster resources management. The recycled water after treatment is used to clean filter clothes of sludge dewatering machines, which is equivalent to reducing 100 tons of tap water consumption and effectively implements water recycle and reuse. 2. Mid/Long-term strategy: The Company’s internal and external resources are to be integrated to develop reclaimed water technology and continuously implement water-saving process and reclaimed water utilization.
	Targets of water resources management	By 2025, the water recycle rate will be larger than 65%.
	Mechanisms for achieving targets	Water recycle plans are to be executed on ultrapure water system for cogeneration power plants. The reclaimed water after backwashing and forward-washing is to be recycled to the operating areas of GT-601 and GT-801 to increase the water recycle ratio.

The water source of Grand Pacific Petrochemical is all from the underflow water of Gaoping River, without taking from the water resource stress area. The water resources management plan and water saving measures are formulated as follows: (RT-CH-140a.3)

1. Short- term:

Implementation of water resources management in two stages with anaerobic biological wastewater treatment system; the treated recycled water is used to clean the filter cloth of the belt filter dewatering machine in the plant, which is equivalent to reducing the consumption of tap water by 100 tons each time, and effectively implements the recycling and reuse of water resources.

2. Mid-term/long-term strategy

Integrate internal and external resources of the Company, develop recycled water technology, and continue to implement process water saving and recycled water utilization.

The Company uses the GT-302 Blowdown for the reuse of dewatering machine in the wastewater area in 2023 to save water and wastewater discharge volume which can recycled 270 tons water per day for cooling tower and pure water processes. The total investment is NT\$ 14.66 million (direct cost), the trial run and performance test were completed in December 2023. In addition, the Company also implements recycled water planning for ultra-pure water systems in steam and power plants, and recycles backwash and forward wash regeneration water to GT-601 and GT-801 operating areas, which can provide water recovery ratios.

The aforementioned measures are expected to achieve the following water resource management objectives:

1. Short- term (2022): The daily water saving is 270 metric tons.
2. Medium and long term (by 2025): Water recovery rate exceeds 65%.

Soil and groundwater pollution prevention measures

In order to prevent and control soil and groundwater pollution, Grand Pacific Petrochemical has completed groundwater surveys and set up groundwater monitoring well systems in all process areas and tanks to provide early warning functions; various preventive measures are taken for underground pipelines, oil tanks and equipment that may cause soil and groundwater contamination, such as installing cathodic anti-corrosion systems, changing oil-water isolation ponds to stainless steel and underground pipelines to prevent organic liquid leakage due to corrosion of equipment; and the delineation of responsibility areas and inspection of underground pipelines and related facilities and pipelines are carried out to achieve the purpose of soil and groundwater pollution prevention.

Legal compliance with environmental regulations

Grand Pacific had no records of significant penalties in the reporting period (GRI 2-27). Currently, there is no environmental pollution affecting the organization' s earnings and competitive position. Grand Pacific Petrochemical is actively dealing with various environmental protection issues, and is doing its best to protect the environment by following the laws and regulations to carry out improvement work. The following table shows the overall environmental protection spending and investment by Grand Pacific in 2023.

Environmental costs - pollution prevention and reutilization fees

Item	Amount (NT\$)
Maintenance and repair costs for continuous automatic air pollutant monitoring facilities (instrumentation maintenance costs)	1,094,000
VOC detector maintenance and repair costs (Dept. of Industry and Environment)	164,793
Other air pollution prevention equipment maintenance and repair costs (incinerator/ABS/steam and power maintenance costs)	2,472,364
Maintenance and repair costs of wastewater treatment facilities (Dept. of Industry and Environment)	2,847,666
Soil and groundwater remediation costs (Dept. of Industry and Environment)	30,000,000
Planting and greening expenses (General HR)	450,000
Waste water separation pond submerged plastic recycling cost (Dept. of Industry and Environment)	155,000

Environmental costs - operating costs and upstream and downstream associated costs

Item	Amount (NT\$)
ISO 14001, ISO 45001 audit fee	224,970
Stationary source operation permit review and certificate fee	127,500
Toxicological and chemical operation permit review and certificate fee	3,300
Waste disposal plan review fee	6,000
Laws and regulations of environmental protection correction fee	1,250,000
Pollution control measures plan review and certificate fees	500
Tissue-type greenhouse gas inventory verification fee	403,960

Environmental costs - monitoring environmental impact fees

Item	Amount (NT\$)
Effluent and process wastewater testing fee	220,000
Relative accuracy audit RATA testing fee	340,000
Stationary source emission pipeline testing fee	554,000
Expenses for the disposal of hazardous business waste	0
Expenses for the disposal of general business waste	4,086,554
Waste composition testing fee	110,000
Handling premises of toxic chemicals labeling fee	0
Equipment component testing fee	1,148,108
Groundwater inspection fees	148,000

Environmental costs - processing fees and taxes

Item	Amount (NT\$)
Third party liability insurance for toxic chemicals	850,000

* The survey was conducted on Grand Pacific Kaohsiung Plant.

CHAPTER 04

While continuously striving to improve production efficiency, Grand Pacific Petrochemical also pays attention to promoting labor market employment, creating a quality working environment, and providing long-term stable employment.

Labor Human Rights and Social Care

1. Labor-employer Harmony and Employee Care	64
2. Occupational Health and Safety Management	77
3. Customer Service and Supplier Management	86
4. Social Care	90



1. Labor-Management Harmony and Employee Care

Material Topic	Measurement Indicator	Plan in 2023	Result in 2023	Mid to Long-term Target
Labor Relations	Implementation of an equal and friendly workplace	Responding to the "Gender Equality in Employment Act" by implementing the plan of unpaid parental leave for raising children	Protected each employee's right of unpaid parental leave for raising children	Complying with the relevant requirements by the International Labor Organization (ILO) and optimizing employee benefits
Trainings and Education	Industry-academia collaboration	Setting out the plan of industry-academia collaboration and corporate internship to disperse a layout of outstanding talents in advance	Supported the industry-academia collaboration program in Renwu Senior High School	Continuing to boost industry-academia collaboration programs and attract outstanding talents

The protection of employees' labor rights and interests will help to retain talents and increase productivity.

In accordance with the R.O.C. government regulations regarding all human rights, the Company is committed to adhere to the relevant international convention on human rights by ILO. Through the propaganda measures of ISO45001 Occupational

Safety and Health Management System against workplace bullying and misconduct, Grand Pacific conveys our adherence to NU's "Universal Declaration of Human Rights" and our upholding of the fundamental principle in "Respecting Human Rights" in order to create a workplace in communion of diversity, equality, and friendliness and to promote gender equality. The Company's labor equality policies are as follows:



Prohibit forced labor

Establish communication mechanism

Sound salary and benefits

Pursue continuous improvement

Please refer to human rights area on the Company website for Grand Pacific's relevant policies and trainings in regards of human rights protection.

The screenshot shows the website header with navigation links: HOME, 繁體中文, ENGLISH. The main navigation bar includes: 公司簡介, 產品介紹, 人力資源, 永續發展, 投資人專區, 國際電子報. A sidebar on the left lists: 永續發展, 最新永續報告書, 人權政策與管理方案, 聯絡我們. The main content area features a large image of an industrial facility and a section titled '人權政策與管理方案' (Human Rights Policy and Management Plan). Below the image, there is a paragraph of text in Chinese.

為落實人權保障並善盡企業社會責任，茲參考國際人權法典（International Bill of Rights）與國際勞工組織【關於工作中的基本原則與權利宣言】（Declaration on Fundamental Principles and Rights at Work）等國際公認之人權標準，制定適用於本公司及各關係企業之人權政策，以杜絕侵犯及違反人權的行為，除提供合理安全之工作場所，並使公司現職同仁獲得合理與有尊嚴的對待。



GRAND PACIFIC PETROCHEMICAL CORPORATION HUMAN RIGHTS POLICY

To fulfil corporate social responsibilities and implement human rights protection, Grand Pacific Petrochemical Corporation formulates this Human Rights Policy in accordance with the human rights standards of the "International Bill of Human Rights" and the International Labor Organization's "Declaration on Fundamental Principles and Rights at Work and its Follow-up" to prevent any abuses and violations of human rights and to ensure the existing colleagues a reasonable and respectful treatment.

This Policy applies to Grand Pacific Petrochemical Corporation and its subsidiaries.

Implementation Approach

1. Comply with the relevant laws and regulations to provide a safe and healthy workplace.
2. Strive to safeguard a workplace without violence, harassment, and threat and respect employee privacy as well as dignity.
3. No hiring of child labors.
5. Prevent illegal discrimination and ensure equal opportunity in reasonable employment and promotion.
6. Respect employees' organization and participation in legally approved labor unions to defend their rights and interests at work.

The number of participants and the total hours of trainings related to trainings on promoting human rights protection in 2023

Name of Training/Activity	Total Number of Participants	Total Hours of Training
[Courses on providing a safe and healthy workplace]		
Refresher training for medical practitioners	1	6
Security supervisors	8	72
Radiation safety session	24	72
Low carbon and hydrogen energy technology development in the petrochemical industry	2	6
Toxic chemical substances personnel	2	48
Health risks evaluation personnel	1	8
Firefighting management personnel	2	18
Hazard communication	13	39
Anti-corrosion training	11	44
Firefighting training	320	960
Firefighting training on industrial fire	4	96
First aid personnel	14	74

Name of Training/Activity	Total Number of Participants	Total Hours of Training
Supervisor in charge of hypoxia operations	1	18
Me Too movement – prevention and handling of sexual harassment in workplace	62	124
Hazard prevention on high-pressure gas operations and processes	3	12
Technician level of toxic and concerned chemical substances emergency responder	1	40
Chemical hazard propaganda	11	11
Response to net-zero emissions of petrochemical industry	37	74
Industrial pipelines emergency response training (commanding level)	5	60
Hypoxia operations knowledge	13	39
Sleep tight – sleep disorders and management	45	45
Class A waste disposal personnel	1	152
Risks and opportunities of climate change and net-zero emission policies on corporate management	1	3
Toxic dust atmospheres and wearing of SCBA protective clothing	28	84
Regional classification and standards of explosive atmospheres	31	93
Class A dedicated air pollution control specialist	2	132
Annual examination on environmental protection and occupational safety and health	294	588
[Lectures on integrity]		
Ethical business and criminal breach of trust: theory and practice	1	3
Ethical corporate management best practice principles for TWSE/TPEX listed companies and employee private domains	58	116
Case analysis on patterns of money-laundering and insider trading	1	3
Case analysis/securities finance regulations of “whistleblowers” liabilities in economic crimes and financial statements fraudulence	1	4
Total	998 persons	3044 hours

Grand Pacific believes that talent diversification is the foundation of corporate competitiveness and that a competitive salary and benefit system can reward and retain employees as well as attract external talents. The employee composition according to gender and age in 2023 is as follows:

Grand Pacific’s manpower statistics

Total Number of People		End of 2023					End of 2022				
		Male	Male %	Female	Female %	Total	Male	Male %	Female	Female %	Total
		340	90%	37	10%	377	357	92%	32	8%	389
Title	Managerial Positions	33	70%	14	30%	47	34	74%	12	26%	46
	Specialist Positions	296	99.9%	1	0.1%	297	313	99.7%	1	0.3%	314
	General Administrative Positions	11	33%	22	67%	33	11	38%	18	62%	29

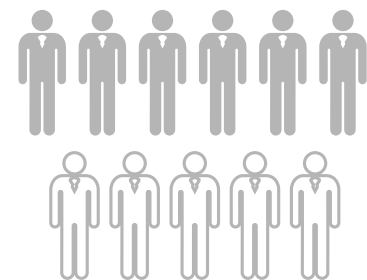
Employee Relations: Employment, Dedication, and Enjoyment

At the end of 2023, Grand Pacific Petrochemical had 377 employees. The basic wages of both male and female employees meet the requirement of National Labor Laws. In addition, the Company provides long-term commitments to employees in order to provide stable care for their lives. In order to protect the working rights of local workers, the Company does not employ foreign workers and gives priority to local workers.

While continuously striving to improve production efficiency, Grand Pacific Petrochemical also pays attention to promoting labor market employment, creating a quality working environment, and providing long-term stable employment. Our years of hard work have paid off, with more than half of our colleagues having more than 10 years of experience. All employees are protected by the collective bargaining agreement through the union. We hope that they will recognize the Company’s dedication and make Grand Pacific their lifelong ambition.

Total Number of People

377



The Company Offers Employee Benefit Plan Obligations and Retirement Plans (GRI 401-2)

We provide insurance coverage superior than the regulations, such as group insurance / dependents' group insurance, to protect the work and life safety of our employees. The Company provides many benefits such as meal subsidies, year-end dinners, annual health checkups, annual trips, employee longevity awards, and wedding, childbirth, injury, illness, and funeral gift subsidies, etc. The Company also provides discretionary subsidies to employees in need during the New Year holidays. Employees are the most important asset of the Company. Hence, we established recreation room in the production plant zone with built-in sports equipment. We also provided a complete entertainment facility to enhance interpersonal interaction among employees, so that they can develop interpersonal relationships and make a positive impact while working. (GRI 401-2)

In accordance with Article 29-1 in Articles of Incorporation, Grand Pacific shall distribute 1% of profits in the current year as the remuneration to employees. Please refer to the Annual Reports for details. The Remuneration Committee regularly supervises and provides proper feedback regarding operating performances to employees. The specific benefit plan obligations are as follows:

01



Stable and long-term cooperation

Grand Pacific is committed to taking care of its employees and values its long-term commitment to them. The average length of service of our employees is about 14 years. Under the stable working environment, Grand Pacific pursues a long-term relationship with each of our colleagues.

02



Annual salary and reward that are better than or equal to competitors

The Company formulates and implements annual salary, reward, and employee benefit measures with diversification and competitiveness that are better than or equal to competitors. The appointment of talents such as salary approval, salary raise, or promotion is primarily based on competence, not on gender, age, race, or nationality. The Company also properly reflects operating performances on employee remunerations. As stipulated in the Articles of Incorporation, the Company shall distribute 1% of profits in the current year as employee remunerations and shall contribute a fixed percentage to year-end bonus based on the business profits. The methods of bonus distribution shall be made in light of employee performance and contribution. The Company adjusts salaries on an annual basis according to profit status, market pay level, price index, and employees' annual performance as well as potential to maintain the salary competitiveness as a whole. The average salary adjustment range in 2023 was 3%.

Under the belief of "Taking from the Society and Giving Back to the Society", and taking good care of the employees' life, the Company also provides competitive salary, hoping that the employees can create value for the Company without worrying about the support.

Grand Pacific Petrochemicals has more male employees due to more physical effort required for on-site work. However, in terms of executive positions, the number of women reaches

30% and 67%



The Company’s retirement schemes are as follows:

1. In accordance with the Labor Standards Act, the Labor Retirement Act and its implementing regulations, and the accounting standards for pensions, the Company makes monthly contributions to the personal accounts of employees at the Bank of Taiwan and the Labor Insurance Bureau, and establishes the Labor Pension Fund Supervisory Committee, which meets regularly to review the use of pension funds to protect the retirement rights of employees. The amount of employee pension recognition account can be referred to in the publicly issued annual report.
2. The amount of new and old pension contribution applicable to the Company’s employees is summarized in the table below.

Item	Labor Pension	
	Old	New
Source of Law	3% of the total monthly wages of employees shall be appropriated to labor pension reserve funds and the Supervisory Committee of Labor Retirement Reserve shall be established to supervise thereof.	6% of the monthly average wages of employees shall be submitted to pension. (Refer to Monthly Contribution Classification Table)
Pension Contribution Accounting for Salary	Bank of Taiwan	MOL
Unit of Income/Expenditures and Storage	Employers shall pay the pension when employees are retired from associated units and qualified for the conditions of claiming retirement benefits in accordance with the Labor Standards Act	A worker who is 60 years or older may claim for the cumulative amount in individual retirement account from MOL.
Conditions and Methods of Claiming Retirement Benefits	100%	100%
Employees’ Participation level in Retirement Schemes	2023/12/31 Amount of reserve funds	2023 contribution amount
Contribution Amount	\$560,335,376	\$10,341,318

Note:

- (I) Retirement Conditions
 - (A) Voluntary Retirement: (1) When the worker has worked in the Company for fifteen years and attains the age of fifty-five. (2) When the worker has worked in the Company for more than twenty-five years. (3) When the worker has worked in the Company for ten years and attains the age of sixty. (4) When the worker’s seniority and age attained reach fifteen years, however subject to the Company’s approval.
 - (B) Forced Retirement: (1) When the worker attains the age of sixty-five. (2) When the worker is unable to perform his/her duties due to mental or physical disability, pursuant to the level one to six of disability stipulated in Labor Insurance.
- (II) The Standards of Retirement Benefits: (1) Apply to the seniority before and after the application of the Labor Standards Act, and the seniority, in accordance with the Labor Pension Act, continued to be covered by choice by the pension regulations of the “Labor Standards Act” and to be reserved prior to the application of the Labor Pension Act. The standards of retirement benefit for seniority accumulated shall be calculated in accordance with Article 84-2 and Article 55 of Labor Standards Act. (2) An employee with the seniority in the preceding paragraph and who is forced to retire as set forth in Subparagraph 2 of Paragraph 1 of Article 35. As set forth in Subparagraph 2 of Paragraph 1 of Article 55, an additional 20% shall be given to workers forced to retire due to disability incurred from the execution of their duties. (3) The Company shall on a monthly basis contribute 6% of an employee’s salary, who is covered by the retirement mechanism in the Labor Pension Act, to individual labor pension account.
- (III) Pension Benefit: The Company shall pay the pension to employees within 30 days from the day of retirement.

Additionally, the Company has set up an Employee Welfare Committee to regularly (monthly) contribute a certain proportion of employee welfare funds based on the revenue status/trash return. The Employee Welfare Committee plans the deployment of employee welfare funds. Apart from providing employees holiday bonus (May Festival, Moon Festival, and Spring Festival) and birthday bonus, it is also responsible for carrying out activities such as annual trips, educational subsidies, subsidies for marriages, celebration, or funeral services, emergency assistance, club activities, and meal allowance. (GRI 201-3 Defined Benefit Plan Obligations and Other Retirement Plans)

Gender Equality

Grand Pacific Petrochemicals has more male employees due to more physical effort required for on-site work. However, in terms of executive positions, the number of women reaches 40%, which shows that the Company selects talents based on ability rather than gender.

Basic Salary Ratio for Male/Female Employees

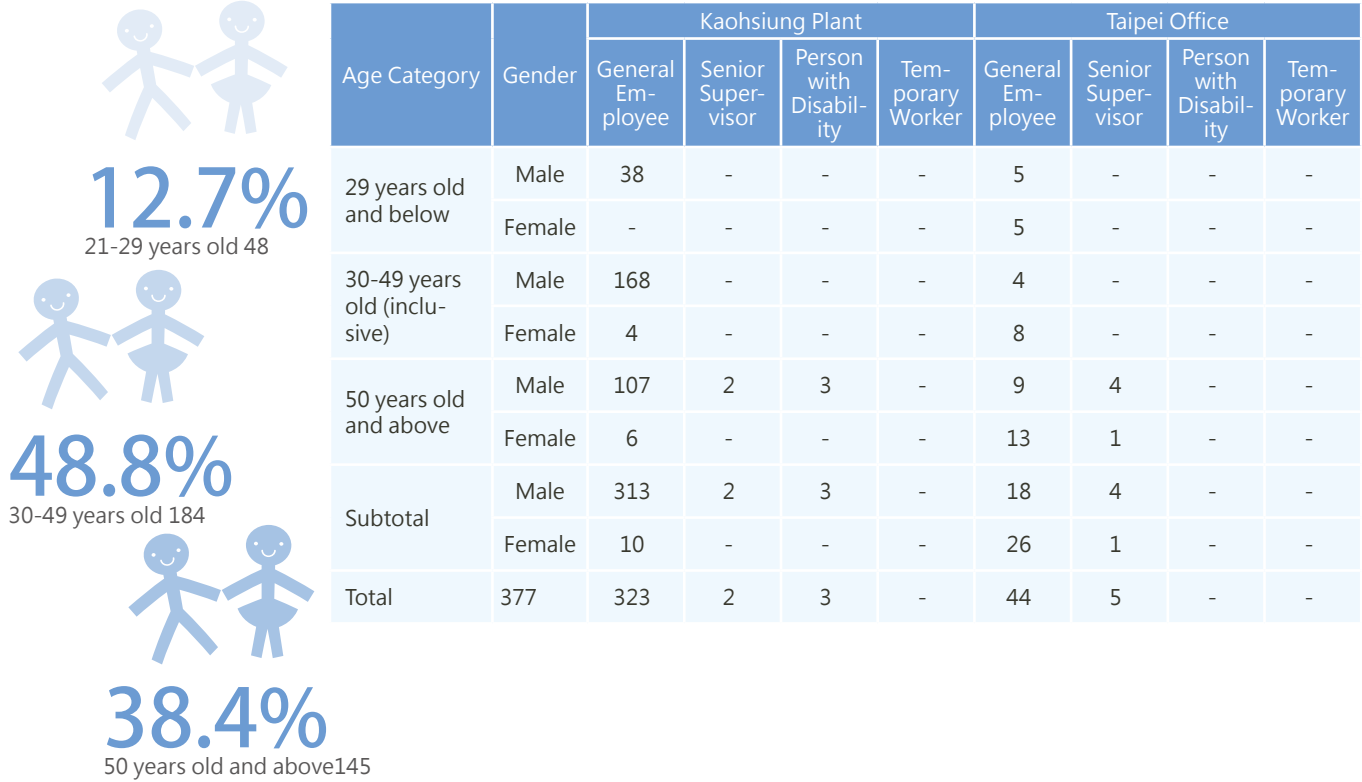
Grand Pacific insists on equality between men and women. Our salary is approved according to the individual’s ability and job requirements. We uphold the principle of reasonableness and fairness without any differential treatment based on gender. (GRI 402 Labor/Management Relations)

Grand Pacific’s Salary Statistics Table

	2022	2023
Number of full-time employees not in supervisory positions	369	366
Average salary of full-time employees not in supervisory positions	NT\$ 878 thousand	NT\$ 891 thousand
Median salary for full-time employees not in supervisory positions	NT\$ 774 thousand	NT\$ 798 thousand

For the age distribution of all Grand Pacific Petrochemical employees, we have 24 years old as the youngest, 66 years old as the oldest, and most employees fall between 30 to 39 years old, followed by 50 to 59 years old, which shows that Grand Pacific Petrochemical is in its young and strong age and has no record of child labor. The following table shows Grand Pacific Petrochemical’s human resources status in 2023. (GRI 102-8)

2023 Employee Age, Gender, and Regional Structure Weighting (GRI 402 Labor/Management Relations) (GRI 2-7 Employees)



2023 Employee Age, Gender, and Regional Structure of Grand Pacific's New, Resigned, and Retired Employees (GRI 401-2)

Age Category	Gender	Retired			Resigned			New		
		Kaohsiung	Taipei	Diverse	Kaohsiung	Taipei	Diverse	Kaohsiung	Taipei	Diverse
29 years old and below	Male	-	-	-	10	-	-	14	-	-
	Female	-	-	-	-	-	-	-	1	-
30-49 years old (inclusive)	Male	1	-	-	20	-	-	11	-	-
	Female	-	-	-	1	-	-	1	3	-
50 years old and above	Male	10	1	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-	-
Subtotal		12			31			30		
Total		44						30		
Turnover Rate		Turnover rate 11.7%						New employment rate 11.7%		



According to Grand Pacific’s comparison table of employee turnover rate and new employment rate for recent years, there was no material difference between the employee turnover rate in 2023 and in 2022 (11.3%), which represents a stable employee and management relation. The new employment rate in 2023 being slightly higher than that in 2022 (12.9%) was due to the

business cycle in the petrochemical industry.

Grand Pacific’s Employee Turnover Rate and New Employment Rate

	2022	2023
Turnover Rate	11.3%	11.7%
New Employment Rate	12.9%	8%

2023 Non-Employee Age, Gender and Regional Composition Table (GRI 2-8 Non-Employee Workers)

Age Category	Gender	Kaohsiung Plant				Taipei Office			
		Security	Industrial Catering	Cleaner	Engineering Contractor*	Security	Industrial Catering	Cleaner	Engineering Contractor*
29 years old and below	Male	0	0	0	42	0	0	0	0
	Female	0	0	0	0	0	0	0	0
30-49 years old (inclusive)	Male	0	0	0	40	0	0	0	0
	Female	0	0	0	0	0	0	0	0
50 years old and above	Male	2	0	0	44	0	0	0	0
	Female	0	0	1	0	0	0	0	0
Subtotal	Male	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0
Total		2	0	1	126	0	0	0	0

Note:

* Using FTE (Full-Time Equivalent) with the averagely trained persons of 1009 for average allocation.

Unpaid Parental Leave (GRI 401-3)

During the reporting period, there were 25 colleagues in Grand Pacific having children under the age of three at home, and two of them applied for unpaid parental leave. The reinstatement rate was 100% and the retention rate was 67% for the unpaid parental leave in 2023.

2023 Grand Pacific’s Information on Unpaid Parental Leave

Colleague with children under the age of three				Application for unpaid parental leave			
Gender /Region	Kaohsiung	Taipei	Subtotal	Gender /Region	Kaohsiung	Taipei	Subtotal
Male	20	2	22	Male	1	0	1
Female	1	2	3	Female	0	2	2
Total			25	Total			3

We bear the unshirkable responsibility of staff training

Grand Pacific places great emphasis on employee education and training. In our Management Approach, we clearly stated that the key objective is to “enhance the added value of individuals and teams by continuously strengthening education and training” . In view of this, Grand Pacific Petrochemical has established the education and training regulations, specifying the categories of education and training, which are as follows:



01

Professional Courses

There are four categories: Statutory, General, SOP/WI evaluation and Professional English, which are organized by the supervisor of each unit.



02

Environmental Safety and Health Course

Refers to the course on basic environmental safety and health concepts and knowledge that Kaohsiung plant employees should be equipped, which is organized by the Dept. of Industry and Environment.



03

Seminars on special topics

Refer to seminars aiming to enhance the efficiency, quality, and potential of our employees, which are organized by the Human Resources Team and the General Human Resources Team.



04

General skills test

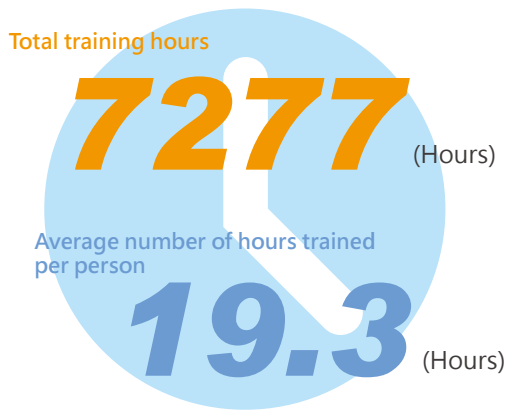
We held two kinds of tests, English proficiency and computer application, which are organized by the Human Resources Team.

Grand Pacific also reinforces ethical awareness and emphasizes anti-corruption policies as well as procedures in its employee handbook and recruiting training. (GRI 205-2) (Anti-Corruption Management Approach)

2023 Grand Pacific’s Training information table (GRI 402 Employee/Management Relations)

Course type	Internal training by the Company		Internal training by external parties		External training by external parties		Total		Hours
	Session	(Number of) participants	Session	(Number of) participants	Session	(Number of) participants	Session	(Number of) participants	
Professional Courses - General	70	1109	40	324	44	75	154	1,508	3,512
Professional Courses - Statutory			6	6	94	177	100	183	1,594
SOP/WI Evaluation	1	4					1	4	4
Environmental Health and Safety Courses			1	320			1	320	960
Environmental Health and Safety Trainings and Tests	1	294					1	294	588
Special Lectures (Hours)	7	295					7	295	590
Proof of English Proficiency	7	18					7	18	29
Total	86	1,720	47	650	138	252	271	2,622	7,277

The above-mentioned courses are conducted by the relevant units. The total number of courses conducted internally and externally in 2023 was 271, with a total of 2,622 attendees, a total of 7,277 hours, and an average of 19.3 hours of training per person.



Employee type	Number of persons	Total training hours	Number of training attendees	Hours %	Average number of hours trained per person
Senior supervisors	7	130	36	1.8%	18.5
First and second level supervisors	45	681	240	9.4%	15.1
Director labor	156	2,603	952	35.8%	16.7
Indirect labor	169	3,863	1,394	53%	22.6
All employees	377	7,277	2,622	100%	19.3

Grand Pacific Petrochemical focuses on the development of its own industry. The on-site production unit places more emphasis on education and training, accumulating 3,592 hours of education and training, accounting for 50% of the total training hours. We hope that through continuous learning, the Company can continue to move forward.

In addition to focusing on the development of the industry, the Company also attaches great importance to the environmental safety and health of the factory. Dept. of Industry and Environment has arranged 2,089

hours of environmental safety and health courses in 2023 (GRI 403-5 Worker training on occupational health and safety), demonstrating the spirit of Grand Pacific in pursuing safety and health first and giving priority to environmental protection, in order to continue to build a quality safety and health and environmental protection culture.

2023 Education and training statistics (by department)									
Department	Internal training by the Company		Internal training by external parties		External training by external parties		Total		Hours
	session	(number of) participants	session	(number of) participants	session	(number of) participants	session	(number of) participants	
General Management Office			3	3	16	16	19	19	60
Human Resources Team (Project Management)	2	120					2	120	285
Human Resources Team (English)	7	18					7	18	
Human Resources Team (Newcomer Training/Professional Course)			2	2	3	3	5	5	
Audits			4	4	2	2	6	6	36
Accounting Department	2	70	14	14	6	6	22	90	149
Finance Department			4	15	2	6	6	21	47
Procurement Department			1	10	3	5	4	15	41
Plastics/Petrochemical Business Department	1	29					1	29	87
Common Workshops	7	57			6	7	13	64	274
Nylon Factory	1	19	1	24	9	18	11	61	230
R&D Center, Enterprise Technology Team			1	10			1	10	40
R&D Center, R&D Team			1	1	1	1	2	2	6
Factory Department	4	50			3	6	7	56	154
General HR Team (Project Management)	6	211	3	57	3	3	12	271	681
Petrochemical Plant	22	258	2	15	20	40	44	313	699
Maintenance Workshop	19	379	7	111	13	21	39	511	1,195
Plastic Factory	6	147			32	56	38	203	984
Industrial Environment Department	5	44	2	35	13	35	20	434	2,089
Industrial Environment Team, Environmental Health and Safety Course	1	294	1	320			2	294	210
Hydrogen Workplace	4	53			6	27	10	80	
Total	87	1749	46	621	138	252	271	2,622	7,277

The total expenditure of educational trainings in 2023 was NT\$1,082,765.

The average expenditure of educational trainings per person was NT\$2,872.

2. Occupational Health and Safety Management

Material Topic	Measurement Indicator	Plan in 2023	Result in 2023	Mid to Long-Term Target
Occupational Safety and Health	Setup of health promotion and disease prevention system	Strengthen the business of employee health management	On-site services of dedicated medical nurses and doctors	Implementing the risk management evaluation of occupational safety and health and reducing accidents

Occupational Safety and Health Organization

Grand Pacific Petrochemicals constructed ISO45001 Occupational Safety and Health Management System. In addition to strengthening the concept of employee safety and health through education and training, a Labor Safety and Health Committee is formed according to the law, with a chairman and 13 representatives from the employer. And in accordance with Article 11, Paragraph 6 of the Labor Safety and Health Organization Management and Automatic Inspection Regulations, there are seven labor representatives, accounting for one-third of the total number of workers. (GRI 403-4 Worker participation, consultation, and communication on occupational health and safety)

Representative of labor



With a chairman and 13 representatives from the employer.



While being absorbed in the main business, the Company also attaches great importance to the environmental safety and health of the plants. The Department of Industry and Environment arranged an accumulative total of 16 hours of environmental safety and health courses in 2023 (GRI 403-5 Worker participation, consultation, and communication on occupational health and safety), demonstrating Grand Pacific Petrochemical's spirit in pursuing Safety and Health First, Environmental Protection Priority, and the continuous establishment of an excellent culture in safety, health, and environmental protection.

Occupational Safety and Health Policy and Promotion of Occupational Safety and Health Management System (GRI 403-1 Occupational Health and Safety Management System)

Grand Pacific Petrochemical uses and stores hazardous materials that meet the legal requirements due to the process and product features. In order to provide a better working environment for our employees and contractors, Grand Pacific Petrochemical has formulated the Safety and Health Policy: "In order to protect the lives and health of the employees of the Company and the contractors, the Company will strive to eliminate and prevent injuries and illnesses by continuously improving the operating environment and facilities, installing equipment that meets the laws and engineering standards, strengthening the education and training of employees, requiring and caring for the safety of contractors, and establishing a perfect safety and health system and operating procedures that can be operated to improve the safety and health standards of the entire Company and establish a quality safety and health culture." . We hope that the announcement of the safety and health policy will encourage all employees to improve occupational safety and health. (GRI 403 Occupational Health and Safety Management Approach)

In order to improve the overall corporate safety and health standards, Grand Pacific Petrochemical began to implement the OHSAS 18001 system in 2006 and officially obtained the ISO 45001 accreditation in 2018. We have been creating and implementing various occupational safety and health systems, and control the hazardous factors in all operations, in hope that it will become a set of institutionalized safety and health management standards for employees to follow, so that we can continue to make progress and will not stop before reaching the best. (GRI 403 Occupational Health and Safety Management Approach)

Emergency Response Measures of Public Health Emergencies

The Company' s emergency response measures of public health emergencies are as follows.

Establishment of an pandemic prevention response team

In response to the need for prevention and preparedness for COVID-19 outbreak, the Company established an epidemic preparedness team. With the CEO as the convener, each unit also set up an emergency response team to take measures to prevent the epidemic. We also cooperate with government authorities to develop epidemic prevention methods, assess and respond to epidemic impacts, purchase protective equipment, monitor and audit the effectiveness of implementation, conduct education, training and promotion, and keep abreast of the latest epidemic prevention information and review epidemic prevention measures to enable the Company to continue its operations.

Purchased sufficient supplies for pandemic prevention

For example, medical-surgical masks, hand sanitizer, 75% alcohol for medical use, ear thermometers, forehead thermometers, goggles, bleach, and non-contact garbage cans with lids are distributed to specific high-risk employees in accordance with the resolution of the Epidemic Prevention Conference.

Strengthened pandemic prevention and health education and promotion

- √ Posters are posted at the entrance of the factory or other obvious places to encourage employees to manage their health at home when they are sick, observe cough etiquette and maintain hand hygiene, teach employees to wear surgical masks and wash their hands properly, and update the epidemic information on the bulletin board and the Company' s intranet.
- √ Organized awareness seminars on pandemic prevention.

Initiated employee health management care mechanism

- √ Employees are strictly controlled to go on business trips and travel to epidemic areas, and employees, visitors, and contractors who return to Taiwan from epidemic areas must make honest and independent notifications.
- √ Conducted access control measures, temperature monitoring and abnormality care.



Ethical management, Quality,
Innovation and Respect

- √ Emergency response mechanism for employees with suspected or confirmed cases of COVID-19

Strengthened office environment cleaning

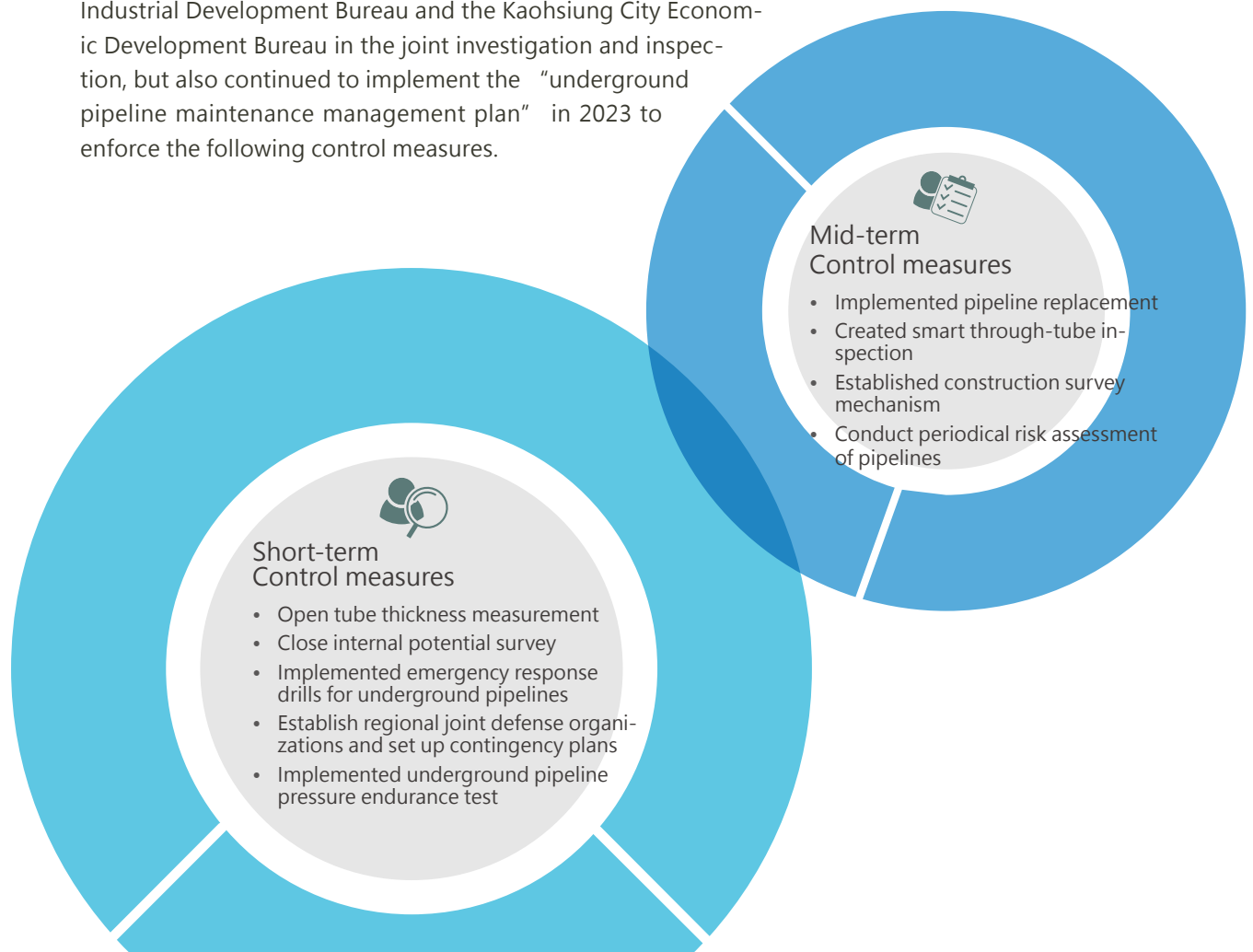
- √ Provision of alcohol disinfectant in common areas on each floor
- √ Cleaning and disinfecting all frequently touched surfaces in public areas with alcohol twice daily (morning/afternoon)
- √ Use disposable paper towels for staff to wipe surfaces after each disinfection of items, such as table and chair handles, computer equipment, elevator buttons, door handles and faucets

Highlights of occupational health and safety management

Manufacturing process safety management system

In order to implement the commitment of environmental safety and health policy, Grand Pacific Petrochemicals has evaluated the environmental safety and health aspects and critical operations resulting from production-related activities, products or services, and assessed their positive or negative impact on the environment, safety and health by collecting and checking regulations, evaluating environmental safety and health aspects of production processes, identifying hazards and risk assessment, and reviewing past incidents and fines. By taking into consideration the opinions of stakeholders, local requirements or industry conventions, we select the significant environmental safety and health considerations and critical operations for priority consideration in setting environmental safety and health objectives, targets and management plans.

Since the Kaohsiung August-first underground pipeline gas explosion incident, the Company has not only cooperated with the Industrial Development Bureau and the Kaohsiung City Economic Development Bureau in the joint investigation and inspection, but also continued to implement the “underground pipeline maintenance management plan” in 2023 to enforce the following control measures.



Health Promotion Systems and Disease Prevention (GRI403-3 Occupational health services + GRI 403-6 Promotion of worker health)


Our company constructed the occupational safety hazard identification and risk assessment system in the ISO45001 Occupational Safety and Health Management System (403-1) to perform major occupational safety and health risk assessment, and include the objectives and action plans for unacceptable risks and acceptable improvement opportunities to effectively control risks, and also construct the abnormal incident handling system to formulate the notification norms for different levels of safety and health events including false alarm events. (GRI403-2 Hazard identification, risk assessment, and incident investigation)




Pipeline risk assessment simulation

The Company attaches great importance to the physical and mental health of its employees, and the industrial and environmental unit follows the hazard identification and risk assessment management method to comprehensively assess the socially oriented occupational safety and health impacts such as workplace psychological discomfort, verbal violence, sex discrimination and sexual harassment, and take early countermeasures to protect the rights and interests of employees. (GRI403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships)

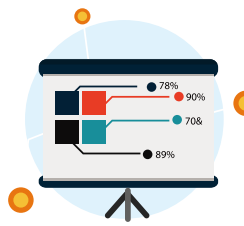
We are also committed to promoting tobacco prevention and health promotion in the workplace, actively implementing tobacco-free and health promotion measures in the workplace, and establishing an excellent and healthy work environment. In 2023, we carried out the following activities to promote worker health:

- 


01

Health screening programs for different age groups (over/under 40 years old) are planned annually according to the age, gender, and needs of the work environment of our employees, in order to detect health hazards and potential disease causing factors at an early stage.
- 

02

On-site visits by clinical service physicians once a month.
- 

03

The course on “Sleep Disorder and Management” was conducted based on the annual health examination report statistics and the needs of personnel working on shifts.
- 

04

“Me Too Movement – Prevention and Handling of Sexual Harassment in Workplace” was held to let colleagues and supervisors understand more about the behaviors and words that have touched off bullying or aggression in the workplace through real-life case sharing.

In terms of specific occupational diseases, we instill correct safety and health concepts in our employees on a regular basis, effectively promote information about occupational safety and health in our company, provide professional training on occupational health for our employees to develop good work habits and reduce human error, and arrange for personnel engaged in special hazard operations to be tested in accordance with legal requirements. In accordance with ISO 45001, we have established the "Safety, Health and Environmental Protection Education and Training Method", and set up occupational safety and health business supervisors, occupational safety (health) managers and operators of dangerous machinery and equipment, and require all kinds of specialized personnel, managers and operators to retrain regularly during the in-service education and training period. For general employees in the transfer of operations or change of duties, the new supervisor of the unit of duty will decide whether to arrange appropriate occupational safety and health on-the-job training. (403-5)

Issues on improving occupational safety and health in 2023 are as follows:



Factory

- Health examination and promotion
- Process and operation risk assessment
- Standardized management of safety production, in pursuit of zero disaster, zero injury planning activities and program safety
- Implementation of improvement measures for abnormal incidents
- Explanation of the management procedures on facilities for storage
- Advocacy on Article 21 of Standards Governing Prevention of Industrial Robots Hazards
- Advocacy on hearing protection stipulated in the Sub-paragraph 4, Paragraph 1, Article 300 of the Regulations Governing Occupational Safety and Health Facilities.
- Advocacy on thermal hazards stipulated in the Paragraph 9, Article 324-6 of the Regulations Governing Occupational Safety and Health Facilities.



Supplier

- Discussion on contractor safety management matters
- "Occupational safety and health management" is included in the weighting of annual supplier management evaluation.

Work safety audit system

Grand Pacific Petrochemical attaches great importance to the safety and health of employees and contractors, and actively promotes work safety audits, such as: senior supervisors' mobile management, pre-start safety audits and work safety classification audits of supervisors at all levels, etc. Any deficiencies found are tracked until improvement is completed to prevent accidents. Dept. of Occupational Safety has also established the criteria for work safety audits, conducted occupational safety and environmental performance evaluations, and conducted occupational safety audit training for supervisors to guide employees with the concept of behavioral safety, safety observa-



Intelligent tube detection process



Preparation before underground line inspection

tion procedures and items, and promote the establishment of safe behavioral work, with the aim of improving continuous improvement mechanisms and enhancing work safety performance.

Regularly hold labor safety committee and management review meetings

Grand Pacific Petrochemical has set up a Labor Safety and Health Committee, which is responsible for promoting work safety, preventing accidents, improving the working environment and maintaining the health of employees. The Committee meets quarterly and keeps track of the status of resolutions until they are completed. (GRI403-4)

In addition, Grand Pacific Petrochemical regularly holds management review meetings on a quarterly basis, with the expectation that all units will work together to improve and promote safety, environmental and health issues.

Contractor safety management

In order to improve the safety and health performance of the Company and reduce the unpredictable risks, Grand Pacific Petrochemical has formulated the “Contractor Safety and Health Management Procedures” and the “Safety Work Permit Procedures” , and adopted the same standards for the safety management of the contractors as the employees of the Company and strictly enforced them. In addition, we hold regular meetings of the mutual agreement organization to promote the concept of occupational safety and health to the contractor’ s staff, and our staffs perform the concept of “everyone should be aware of occupational health and safety” by going to the construction site from time to time to carry out unannounced inspections and perform corrective actions to reduce the risk of unsafe behavior of the contractor’ s staff.



Pipeline intelligent inspection instrument



Intelligent pipeline inspection



Night Pipeline emergency response exercise



Visited the Kaohsiung City Council to discuss pipeline safety measurement

Crisis and emergency response countermeasures

In order to control the accident situation, an “Emergency Response Plan” is formulated, and each unit then formulates crisis and emergency management organizations and countermeasures according to its own operation and environmental conditions, and regularly rehearses to familiarize itself with the response procedures in order to reduce the expansion of the disaster and minimize the loss of personnel and equipment in the event of an accident.

Incident investigation and handling

The following graph shows the trend of accidents of Grand Pacific Petrochemical in the past ten years. The number of accidents has been decreasing year by year. Since 2007, Grand Pacific Petrochemical has been encouraging its employees to report false alarms in the hope that they will become more aware of their own operational safety by reporting false alarms. The statistics of Near-Miss Frequency Rate (NMFR) by direct and indirect employees for the recent years are as follows.

Near-Miss Frequency Rate (NMFR) by direct and indirect employees for 2023

Year	Number of Incidents	Total Working Hours	Near-Miss Frequency Rate (NMFR)
2022	1	696,608	0.287
2023	1	687,104	0.291

Note: Near-Miss Frequency Rate (NMFR) = (Number of Near-Miss Frequency Rate X 200,000 / Total working hours)

Grand Pacific Petrochemical has also established accident investigation procedures. In case of an accident, apart from the incident unit, various professionals will also participate in the accident investigation and release the investigation results to the employees for their information, and conduct improvement tracking through various auditing and management review meetings to prevent recurrence.

Equipment and Fire Security Management

Due to the characteristics of the process, Grand Pacific Petrochemical has installed many dangerous machinery and equipment. In addition to regular primary maintenance, these process equipments are subject to non-destructive tests such as infrared inspection and ultrasonic inspection to predict the condition of rotating equipment. In addition to the regular inspection and reporting of fire safety equipment in accordance with fire safety regulations, Grand Pacific Petrochemical has established "Fire Safety Management Procedures" to ensure that all fire safety equipment is inspected regularly and kept in a state of readiness for use.

In 2023, there was 1 injured person in employee occupational accident, as detailed in the table below. There was no death as a result of performing duties. (GRI 403-9)

2023	
Employee - Male	1
Contractor Employee -- Female	0
Contractor Employee -- Male	0



Note
 1. Includes traffic accidents when commuting to work
 2. Statistics on the Company according to Occupational Safety and Health Act

Number of accidents



Emergency Response Drill Process

Total Recordable Incident Rate (TRIR) and mortality ratio of direct and contract employees (RT-CH-320a.1)

2023	
Total working hours	687,104 hours
Number of recordable occupational injuries	1 person
Recordable occupational injury rate (TRIR)	0.29%
Number of occupational injury and mortality	0 person
Occupational injury and mortality ratio	0%

Note: Total Recordable Incident Rate (TRIR) = (Number of recordable incidents X 200,000 / Total working hours)

Lost-day Rate and Injury Rate (GRI 403-1 Occupational injuries)

2023	
Work Injury Rate FR	0
Occupational Disease Rate (ODR)	0
Severity Rate SR	0
Number of occupational fatal accidents	0

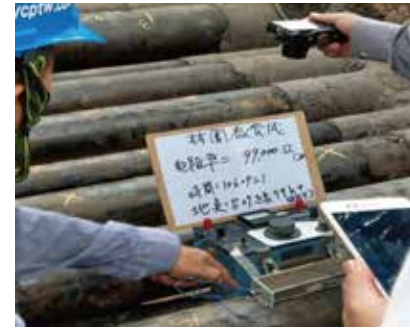
Note:

- Occupational Disease Rate (ODR) = (Total number of employees/Number of occupational disease cases) X 100,000
- Severity Rate (SR) = (Lost days / Total working hours) * 1,000,000. Lost days: "The number of days lost" when a labor is unable to perform his/her daily work duties due to occupational incidents or diseases. The lost days are not included when a labor engages limited duties or substitute works in the same organization.
- Frequency Rate (FR) = (Number of work injuries / Total working hours) * 1,000,000

2023 Grand Pacific's Process Safety Incident Cases (RT-CH-540a.1)

2023	
Process Safety Incidents Cases (PSIC)	1 case
Process Safety Total Incident Rate (PSTIR)	0.29%
Process Safety Incident Severity Rate (PSISR)	0.58%

The process safety incident case occurred in 2023 was a minor incident due to an ABS reaction. According to the regulations, no reporting was necessary as there was no injury or death. Nonetheless, such has been submitted internally for improvement on plans and prevention from occurrence. Our company is committed to providing a safe working environment for our employees. In addition to the industry-specific Responsible Care (RC) committee at the headquarters, there is a committee or special department in charge of occupational safety and health affairs, and



Soil and pipeline thickness analysis



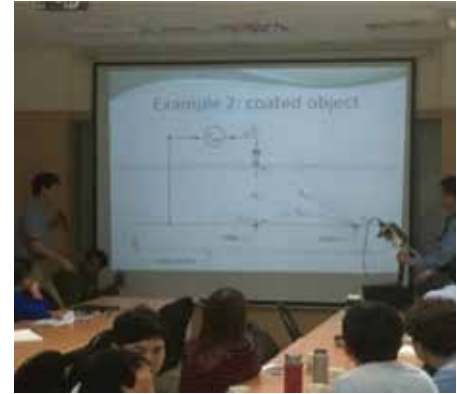
Intelligent tube detection process



Emergency Response Drill Process

regular meetings of occupational safety and health nature are held by the person in charge of the business operation or his agent. The labor representation accounts for more than 30%. (GRI 403-4 Worker participation, consultation, and communication on occupational health and safety) We implemented the occupational safety system that requires communication and supervision between employers and employees, from the ignition characteristics of raw materials to the life safety of the working environment during operation activities.

According to the ISO45001 management system and operating environment monitoring, Grand Pacific conducts chemical substance concentration tests every half year for butadiene and benzene workplaces, and noise measurement in compressor operating areas for styrene monomer plant No.3. Additionally, the jobs that require special physical examination are summarized as follows: (GRI 403-10 occupational disease + RT-CH-320a.2 Job Description for Health Risk Exposures)



Training of pipeline operators

No.	Post	Content of Special Physical Examination	Examination Result
1	Plastic plant	Exposure to N, N-dimethyl formamide	Passed
2	Petrochemical plant	Benzene intensity	Passed
3	Particular noise hazards	Hearing	Passed

The health examination results in 2023 of the Company did not show any occurrence of occupational disease.

Annual health examination for plastic factory workers (dimethyl formamide)

Annual health examination for personnel engaged in special hazards at petrochemical plants (benzene)

Annual health examination for personnel engaged in special hazards in the petrochemical/plastic/automotive/nylon business units (noise)

03

A list of jobs requiring special medical examinations

3. Customer Service and Supplier Management

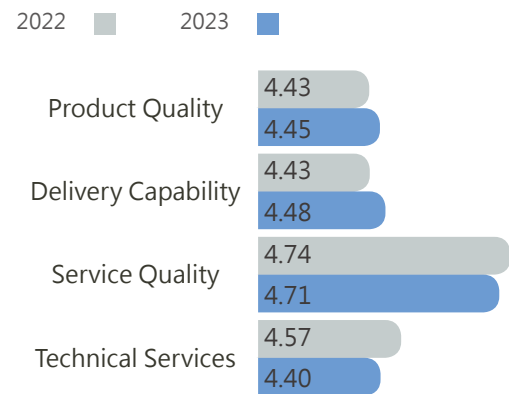
Material Topic	Measurement Indicator	Plans for 2023	Results for 2023	Mid and Long-term Target
Customer-oriented	Number of cases where customer privacy is violated	Fully protecting customer privacy through measures of information risk management and control	0 complaints of violation of customer privacy or loss of customer information	Constructing an obligation compliance culture of information security
Social Evaluation of Suppliers	Construction of the sustainable values chain	Conducting annual evaluations of environmental safety and health on critical suppliers	Advocating ESG to new manufacturers	Conducting ESG evaluations on new suppliers

Customer Relationship: Protecting Customer Confidentiality and Improving Quality

As a petrochemical company and a plastic pellet manufacturer, Grand Pacific Petrochemical Corporation has made it its mission to provide safe and secure products and to improve customer satisfaction, in addition to promoting the importance of customer privacy in its employee code of conduct and preventing product quality and PL (product liability) issues before they occur. In 2023, there were no complaints of invasion of customer privacy or loss of customer information. (GRI 418-1) For the information security management system of the Company, please refer to the Company website on [<https://www.gppc.com.tw/gppc/company-a.asp>]


Additionally, the Company listens to voice of customers. The results of the satisfaction survey in recent years are as follows.

Summary of customer satisfaction performance of the Company's Main Products for 2022 to 2023




Note: Full score is 5 points


Communication details of our products and services implemented through SDS are listed below.




Purchase method



Content



Safety instructions






Abandonment

 Information Provided
  Information Not Provided

It is clearly stated on our products that sustainability is taken into consideration in the following processes.



1.  The SDS must be attached to each customer's first shipment, clearly indicating information on banned substances, disposal methods, and conditions of use, and the SDS can be provided at any time upon request.
2.  Conduct HSF quality satisfaction surveys on customers at any time. We communicate with our customers on our website, during visits to customers, or in public (e.g., seminars, product launches, etc.) to emphasize our management philosophy of sustainable products.
3.  Currently, all of our products utilize the above-mentioned sustainable product descriptions, and no lawsuits have been filed in 2023 in which penalties were imposed for violations of product specifications, voluntary guidelines, or product labeling.

To ensure that our products reach our customers safely, we comply with the “Hazardous and Harmful Substances Labeling and Identification Regulations” of the Labor and Safety Bureau during the transportation of our chemicals, and perform 100% labeling according to the GHS (Global Harmonization System for Classification and Labeling of Chemicals).

In addition, our company is increasingly required to properly manage and disclose information on substances contained in various products throughout the product life cycle in accordance with the requirements of the European ELV Directive, RoHS Directive, and REACH regulations, and we are evaluating all new and existing suppliers to avoid the transmission of environmentally controlled substances. Our products comply with government regulations for products and services. Grand Pacific Petrochemical’s plastic ABS products are tested annually by SGS for compliance with EU RoHS regulations and are free of the 10 environmental hazards.

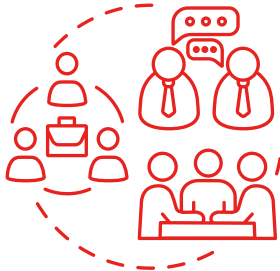


Grand Pacific’s business philosophy is a win-win situation with suppliers and customers, ensuring ethical and environmentally friendly suppliers and production principles at all times. In addition to regular audits of suppliers, we also regularly communicate with them and offer incentives such as shorter ticket periods to suppliers with excellent cooperation results, with the goal of achieving a win-win situation for both parties. Recognize the significant risk of child labor through supply chain awareness and corporate ethical practices by our operating sites and suppliers (408 Child Labor). The Company will also make it a supplier management objective to include human right clauses in the contractual agreement.

According to the safety management operation of the contractor, the contractor who enters the plant must not only arrange the safety and health education and training, but also sign the joint operation agreement to ensure that no additional waste and wastewater pollution will be caused in the plant. For all suppliers, this is done through executive advocacy. Grand Pacific’s suppliers are 100% local manufacturers, such as SINOPEC/CPC/FPCC. In terms of environmental management of suppliers, we have incorporated environmental protection and corporate social principles into our supplier management mechanism, and in accordance with the spirit of ESG, we have established a “Code of Conduct for Partners” ,

which requires our partners to comply with local laws and regulations and not to force/express labor, legal working hours and wages, environmental safety and health, and welfare, etc.

Currently, Grand Pacific’s management of all supplier selection indicators has included important indicators such as RoHS, ISO14001, ISO45001 and even corporate social responsibility. We require our suppliers to comply with norms such as freedom of association, prohibition of child labor, and even the elimination of labor-employer relations, in order to protect basic human rights. The aforementioned indicators are also included in the new supplier audit through the “New Supplier Evaluation Form” .

In addition, we are committed to ensuring that suppliers comply with the Principle of Impartiality from Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy of the International Labor Organization. Grand Pacific has implemented the management of suppliers and contractors (including security companies) through the procurement and general affairs units, and the overall management is summarized in the following table. The Company will gradually increase the proportion of suppliers that meet CSR-related requirements in the future.

2023 New Supplier	Existing Supplier	Existing Supplier
		
Implementation of CSR Review by signing the “Grand Pacific Petrochemical Partner Code of Conduct”	Completion of ESG evaluation through Grand Pacific’s “Operational Procedures of Supplier Evaluation” , evaluating various suppliers based on whether or not a violation of ESG spirit occurs during the evaluation periods (GRI 414-1)	Requirement for domestic suppliers of bulk chemical products to execute greenhouse gas inventories (in accordance with ISO14064-1 or GHG Protocol)
Ratio 100%	Average score of 89% or more	Completion percentage in 2024 100%
Value 100%	Average score of 80% or more	Completion percentage in 2024 100%
Management Objectives	Management Objectives	Management Objectives
Include the ESG clause in the commitment	Increase the proportion of on-site evaluation	Following up with the energy-saving targets on a regular basis
● ○ ○	○ ● ○	○ ○ ●

Taking the industry structures into consideration, Grand Pacific prioritizes greenhouse gas issues when formulating suppliers ESG management policies. The management directions and policies of the value chain are as follows and are made through suppliers ESG advocacy (necessary to include ISO14064-1 and GHG Protocol)

1. Level 1 (High relevance and high emissions) Benzene: Requiring GHG inventory certification and setting the reduction target of 1% annual energy conservation.
2. Level 2 (Medium relevance and medium emissions) Butadiene/Acrylonitrile: Completing GHG inventory and providing supporting information.
3. Level 3 (Low emissions or low relevance) Hexamethylenediamine/Australian coal: Completing the advocacy on GHG inventory.

Grand Pacific expects its partners to comply with the Supplier ESG Code of Conduct, which includes categories such as environmental protection, occupational safety and health, and protection of labor rights and ethics, and ensure that the products and services they provide comply with all national and other applicable laws and regulations. (FSC VI) In addition, there was no material change in the supply chain for the year of 2023.

01



Protecting Labor Rights

Grand Pacific's suppliers are required to commit to establish appropriate grievance mechanisms, prohibit child labor, provide reasonable benefits, prohibit workplace bullying, avoid employment discrimination, protect freedom of association, and continuously improve employee functions.

02



Health and Safety

Suppliers are required to follow ISO 45001 occupational safety standards to control potential hazards in the workplace that employees are exposed to through proper design, engineering and management controls, preventive maintenance and safe operating procedures. When the source of the hazard cannot be fully controlled by the above methods, employees should be provided with appropriate personal protective equipment. No disciplinary action shall be taken to raise the safety awareness of employees.

03



Environmental Protection

Grand Pacific's suppliers required to take responsibility for environmental protection. The manufacturing process should minimize the negative impact on the environment and natural resources while protecting the health and safety of the public.

04



Ethical Standards

Grand Pacific's suppliers are held to the highest standards of integrity in their business dealings, and corruption, extortion and bribery of any kind are strictly prohibited and no improper benefits are offered.

Grand Pacific Petrochemical understands that enterprises are public instruments of society. In addition to its efforts to grow its business, it must also comply with social regulations such as fair competition and anti-corruption, and do its part to improve the society.



The production plants of Grand Pacific are located in Dashe District, Kaohsiung, where the characteristics of the industrial cluster are distinct. We continuously communicate with the local community through Manufacturer' s Association and carry out environmental and social impact evaluations. Besides legal compliance, we have continually coordinated with Kaohsiung City Government in the execution of reduction on fugitive gas and coal. During the reporting period, there was no obvious environmental, social, and economic impact on the neighboring community and plants.

4. Social Care

Material Topic	Measure Indicator	Plan in 2023	Result in 2023	Mid and Long-term Target
Local Community	Social networks influence	Subsidization to primary and junior schools in the district	Subsidizing children from mid to low income households to attend international arts performances	Continuously implementing the spirit of sending charcoal in snowy weather and contributing to the society

There is no potential negative impact from Grand Pacific on the surrounding communities. Moreover, our staff members with a grateful mind spontaneously organized a volunteering group to visit charities and nursing homes during holidays, with 50 total participants in 2023, and give donations as well as supplies as an expression of sympathy. In addition, we also give priority to ordering mooncakes for charities to show our support for the New Year.

In view of the lack of educational resources for children from economically disadvantaged families, Grand Pacific assists social organizations in organizing academic counseling programs for disadvantaged children and subsidizing children from low- and middle-income families to attend international art performances and scholarships for the gifted and talented, of which the total amount in 2023 was NT\$3,750 thousand, in order to enhance their academic achievement, expand their horizons in life, and improve the sound development of their personalities.



Order Mid-Autumn Festival gift box with Down Syndrome Association

Additionally, Grand Pacific assisted in the industry-academia collaboration program in Renwu Senior High School with a total of 90 participants and donated NT\$2,140 thousand to temple activities of Qing Yun Temple at Dashe District through Manufacturers’ Association. The information is as follows.

2023 Grand Pacific’s List of Social Care

Aspect	Content	Donation Amount or Number of Participants	Remark
Provided by Grand Pacific	The volunteer group visits charities and nursing homes during holidays.	50 total participants	Spontaneous participation
Provided Through Manufacturers’ Association	The industry-academia collaboration program in Renwu Senior High School	90 total participants	Based on the engagement results of risk and opportunities from the Manufacturers’ Association and communities
	Local temple activities	NT\$2,140 thousand	
	Subsidy expenditures of books, insurance, tuition and miscellaneous, academic counseling, and scholarships for the junior high and primary schools in the local district.	NT\$3,750 thousand	
	Subsidizing children from low- and middle-income families to attend international art performances.		
	Subsidizing firefighting activities,	350 residential fire alarms	
	sponsoring various expenditures for the police and volunteer fire brigades in Renwu and Dashe	NT\$1,200 thousand of various sponsoring to the police and volunteer fire brigades.	

With gratitude in mind, our staff members have formed a Loving Heart Society to visit charitable organizations and nursing homes during holidays, and give donations and supplies to express their sympathy. In addition, we also give priority to ordering mooncakes for charity organizations to show our support for the New Year.

In view of the lack of educational resources for children from economically disadvantaged families, Grand Pacific assists social organizations in organizing academic counseling programs for disadvantaged children and subsidizing children from low- and middle-income families to attend international art performances, in order to enhance their academic achievement, expand their horizons in life, and improve the sound development of their personalities.

It is the responsibility of Grand Pacific to continue to care for the disadvantaged groups in society. We hope that we can use our modest efforts to care for the needy corners as much as possible.



Participate in local public welfare activities



Sponsor Renwu petrochemical industry Special Class

Has made every effort to co-organize various community activities and public welfare events to promote the development of the surrounding communities.

Social feedback and sponsorship (FSC Indicator V)

“Taking from the society and giving back to the society” is not only a slogan or mission for Grand Pacific; we make it as one of our core values. Grand Pacific continues to promote various social welfare activities and activities related to environmental protection issues to reduce VOC leakage and odors and advocate the importance of conserving the environment as well as keeping trash off the ground. Additionally, to prove our determination in giving back to the society, Grand Pacific supports the voluntary group in mountain cleanups, which attracted nearly one hundred employees and their families in participation, implementing corporate social responsibilities towards environmental protection and love for the earth. Our colleagues led family members to pick up, sort and pack by hand. This event poses educational meaning for the next generation and strengthens the concept of Go Green in the daily life of our employees. To implement the concept of giving back to the community, we actively sponsor and support the government and non-government organizations to deeply understand the needs of the society. For example, we

participated in the agricultural products cultural tourism season and the seasonal fruit subscription to support Taiwan’s agricultural industry with practical actions. In addition, for the disaster prevention system, Grand Pacific sponsored fire prevention equipment to Renda Fire Department and Renwu Volunteer Firefighters Association, and the community CPR and disaster prevention tour activities of Kaohsiung County Fire Department with a total of 350 residential fire detectors in 2023, to provide direct support to firefighting units and jointly build a safe community.

Maintain neighborly relationship

With deeply roots in Taiwan, Grand Pacific has actively established a symbiotic concept with residents of Kaohsiung Dashe Community to re-





The total amount of local public welfare expenditure in 2022 is about NT\$

63.9 million

duce the stereotypes of polluting industries (FSC Indicator V), and has made every effort to co-organize various community activities and public welfare events to promote the development of the surrounding communities.

Grand Pacific provides scholarships to help encourage outstanding local students to continue their studies, local folk celebrations, festive events, local school recreation and cultural activities, local cultural and arts associations, community summer talent classes, local hiking activities, environmental volunteer training camps, orphanage winter activities, underprivileged and ever-green organizations sponsorship, local sports activities participation, and assistance to government agencies in health promotion activities. (RT-CH-210a.1)

Grand Pacific and other companies in the Dashe Industrial Park give back to our neighbors through Manufacturers' Association (Under the operation of the Dashe Neighborly Feedback

Fund Review Team, the rebate is used to subsidize local residents' utility bills, scholarships for school children, nutritious lunches for the elderly living alone and low- and middle-income households, and to further subsidize the cost of books, insurance, miscellaneous school fees, and classroom aids for elementary and middle schools in the region, as well as to enhance the teaching of American as a foreign language.). The total amount of local public welfare expenditure in 2023 is about NT\$ 63.9 million, of which the neighborly activity fund is about NT\$ 6.55 million. (RT-CH-210a.1)

The shortage of talent is not only a crisis for the petrochemical industry but also a common predicament for Taiwanese industries at this stage. In order to expand talent recruitment channels, Grand Pacific continually recruits talent from universities and colleges such as Kaohsiung University of Science and Technology via special lectures since 2022 to recruit outstanding new employees. (FSC Indicator V)



In 2014, Grand Pacific completed a memorandum of understanding with Renwu High School through the Dashe Industrial Park Manufacturers' Association and established the "Kaohsiung Petrochemical Industry Specialized Program Renwu University Class", which targets students from Renwu, Dashe, Dashu, Niaosong, and Nanzih Districts. A fixed number of new students are enrolled each academic year. In addition to the general high school curriculum, the university also offers scholarships for the petrochemical industry, industrial safety and occupational ethics courses. Graduates with excellent grades will be given priority for future employment.

Note 1: Webpage for the feedback fund zone of Dashe District Office, Kaohsiung City: http://www.dsrtg.gov.tw/p06_07.aspx?type=5

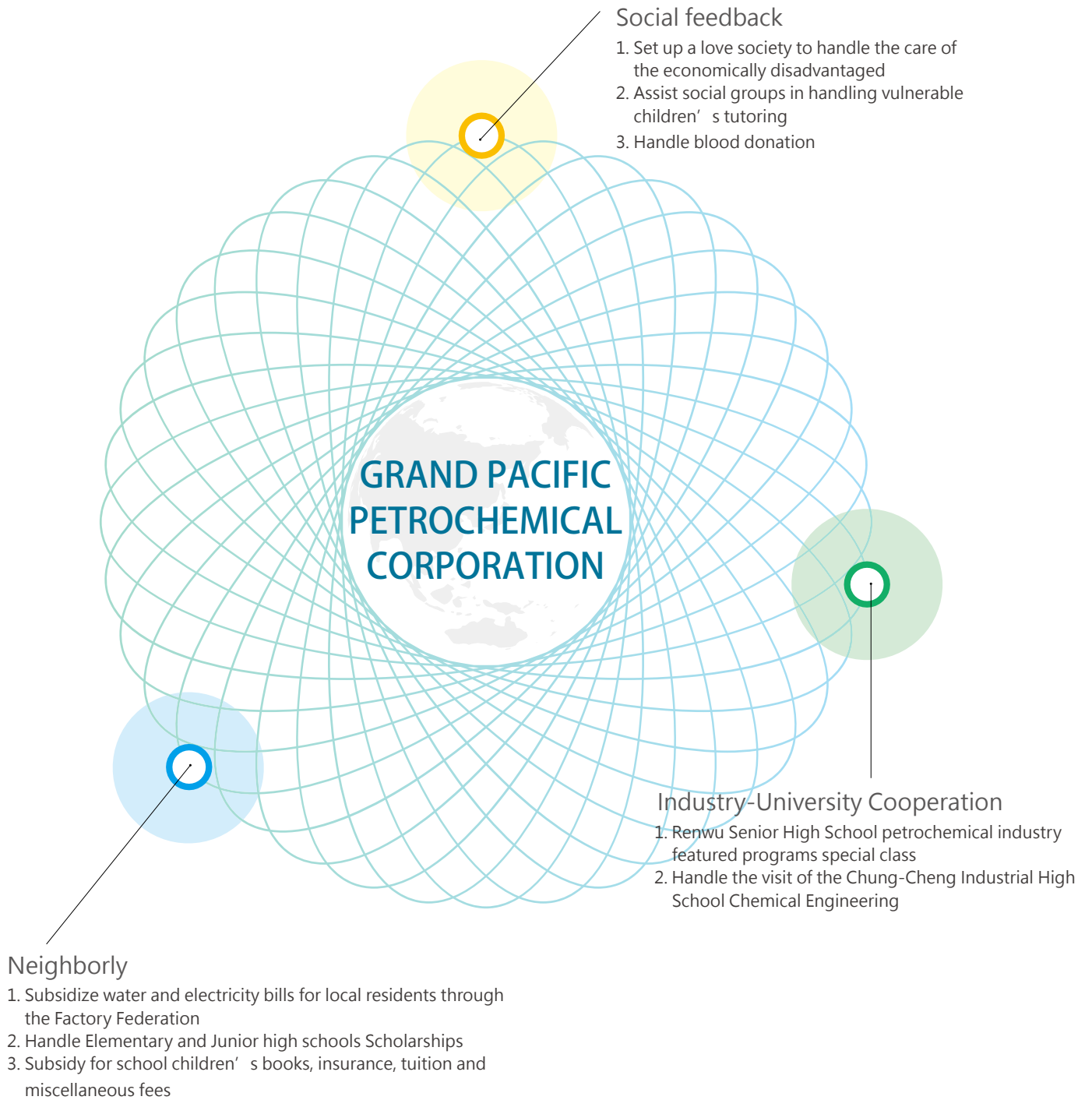
日期	金額	用途
102/08/01	10,000.00	贊助南梓國小音樂餐會
102/08/02	5,000.00	贊助南梓國小音樂餐會
102/08/03	5,000.00	贊助南梓國小音樂餐會

Sponsored Kaohsiung Nanzhi Elementary School Music Banquet



Taisha Kyoraku Academy, Vulnerable children after school program, Mid-Autumn Festival concern

Grand Pacific's social responsibility care promotion project and outcome



CHAPTER 05

Appendix

1. Table of GRI Standards /SASB/ Financial Supervisory Commission Specific Industry Indicator	97
2. Third-party Independent Verification	105



Comparison Table of GRI Standards

Statement of use	Grand Pacific reports the contents from January 1 to December 31, 2022 referring to the GRI Standard.
GRI used	GRI 1: Foundation 2021
Applicable GRI Industry Standards	None

GRI Standards / Source	Disclosure	Page No.	Remark			GRI Industry Standards No.
			Omit	Reason	Explanation	
General Disclosure						
GRI 2: General Disclosure 2021	2-1 Organization details	6,24,25				N/A
	2-2 Entities Included in Organizational Sustainability Reports	5				N/A
	2-3 Reporting period, frequency and contact	6				N/A
	2-4 Restatements of information	NA	V		No change	N/A
	2-5 External assurance	6				N/A
	2-6 Activities, value chains and other business relationships	6,19,28				N/A
	2-7 Employee	24,33,72				N/A
	2-8 Non-employee workers	24,73				N/A
	2-9 Governance structure and composition	11,12				N/A
	2-10 Nomination and selection of the highest governance organization	33				N/A
	2-11 Chairman of the highest governance organization	33				N/A
	2-12 The function of the highest governance organization in supervision impact	12,36,37,				N/A
	2-13 Delegation of responsibility for managing impacts	12				N/A
	2-14 The role of the highest governance organization in sustainable reporting	12				N/A
	2-15 Conflict of interest	36				N/A
	2-16 Material event for the key of communication	35				N/A
	2-17 Collective knowledge of the highest governance body	24				N/A
	2-18 Performance evaluation organization of the highest governance unit	12				N/A
	2-19 Remuneration policy	34,,35,43				N/A
	2-20 Process for determining remuneration	34				N/A
	2-21 Annual total remuneration percentage	35				N/A
	2-22 Statement of Sustainability Development Strategy	NA				N/A
	2-23 Policy commitment	8,36				N/A
	2-24 Incorporation of policy commitment	35,36				N/A

GRI Standards / Source	Disclosure	Page No.	Remark			GRI Industry Standards No.
			Omit	Reason	Explanation	
GRI 2: General Disclosure 2021	2-25 Procedures for remediating negative shocks	36,37				N/A
	2-26 Mechanisms for seeking advice and raising concerns	35,37			No ESG-related complaints were submitted by customers or suppliers during the reporting period	N/A
	2-27 Comply with laws and regulations	60				N/A
	2-28 Member association	30				N/A
	2-29 Approaches to stakeholder engagement	15				N/A
	2-30 Collective bargaining agreement	36			In 2023, the union did not agree with the management on	N/A
Material topic						
G3 : Material topic 2021	3-1 Process for determining material topic	16,37				N/A
	3-2 List of material topic	18,37				N/A
GRI 201: Economic performance 2016						
G3 : Material topic 2021	3-3 Material topic management	19,31				N/A
201-1	Direct economic value generated and distributed	31				N/A
202-2	Financial impacts and other risks caused by climate change	43,49				N/A
202-3	Definition of benefit plan obligations and other retirement plans	NA				N/A
202-4	Financial subsidies from the government	NA			No related subsidies in 2023	
GRI 205: Anti-corruption 2016						
G3 : Material topic 2021	3-3 Material topic management	19				N/A
205-1	Operation offices that have performed a corruption risk assessment	NA			Conduct advocacy to 100% employees	N/A
205-2	Communication and training about anti-corruption policies	75				N/A

GRI Standards / Source	Disclosure	Page No.	Remark			GRI Industry Standards No.
			Omit	Reason	Explanation	
205-3	Confirmed incidents of corruption and actions taken	NA			No related circumstances in 2023	N/A
GRI 302: Energy 2016						
G3 : Material topic 2021	3-3 Material topic management	19,42				N/A
302-1	Energy consumption within the organization	50				N/A
302-3	Energy intensity	50				N/A
302-4	Reduce energy consumption	52				
GRI 303: Water 2018						
G3 : Material topic 2021	3-3 Material topic management	53				N/A
303-1	Interactions with water as a shared resource	58				N/A
303-2	Management of drainage-related shocks	NA				N/A
303-3	Water intake	NA				N/A
303-4	Displacement	58				N/A
303-5	Water consumption	58				N/A
GRI 305: Emissions 2016						
G3 : Material topic 2021	3-3 Material topic management	19,42				N/A
305-1	Direct (Scope 1) GHG emissions	51				N/A
305-2	Energy indirect (Scope 2) GHG emissions	51				N/A
305-3	Other indirect (Scope 3) GHG emissions	NA	V		Information collected was incomplete.	N/A
305-4	GHG emissions intensity	51				N/A

GRI Standards / Source	Disclosure	Page No.	Remark			GRI Industry Standards No.
			Omit	Reason	Explanation	
305-5	Reduce GHG emissions	NA			The reduction has not been independently verified by a third party	N/A
305-6	Emissions of ozone depleting substances	NA			No related emissions	N/A
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	55				N/A
GRI 306 G3 : Material topic 2021: Waste 2020						
G3 : Material topic 2021	3-3 Material topic management	19,53,60				N/A
306-1	Waste generation and significant waste-related impacts	53				N/A
306-2	Management of significant waste-related impacts	53				N/A
306-3	Serious leakage	53				N/A
GRI 401: Employment 2016						
G3 : Material topic 2021	3-3 Material topic management	19,64				N/A
401-1	New and resigned employees	NA				N/A
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	69,72				N/A
401-3	Parental leave	73				
GRI 403: Occupational Health and Safety 2018						
G3 : Material topic 2021	3-3 Material topic management	19,77				N/A
403-1	Occupational health and safety management system	77,80,84				N/A
403-2	Hazard identification, risk assessment, and incident investigation	80				N/A
403-3	Occupational health services	80				N/A
403-4	Worker participation, consultation, and communication on occupational health and safety	77,82,85				N/A
403-5	Worker training on occupational health and safety	75,77,81				N/A
403-6	Promotion of worker health	80				N/A
403-7	Prevention and mitigation of occupational safety and health impacts directly related to business relationships	80				N/A

GRI Standards / Source	Disclosure	Page No.	Remark			GRI Industry Standards No.
			Omit	Reason	Explanation	
403-8	Workers covered by the occupational safety and health management system	NA			The staff under the control of the Company's rights and responsibilities can implement safety and health work through training and safety and health meetings	N/A
403-9	Work-related injuries	83				N/A
403-10	Occupational disease	85				N/A
GRI 418: Customer Privacy 2016						
G3 : Material topic 2021	3-3 Material topic management	19,64,86				
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	86				N/A

Appendix Sustainability Accounting Standards Board, SASB

Topic	Indicator Code	Property	Disclosure indicators	Page	Remark	External assurance
Greenhouse gas emission	RT-CH-110a.1	Quantitative	Scope 1 Greenhouse Gas Emissions;	52		●
		Quantitative	Percentage of Scope 1 greenhouse gas emissions subject to emission limitation regulations	52		●
	RT-CH-110a.2	Quantitative	Management of the long-term and short-term strategies or plans for Scope 1 emissions	NA		●
		Quantitative	Discussion on reduction target	NA		●
Air quality	RT-CH-120a.1	Quantitative	Nitrogen oxides (NOx)	NA		●
		Quantitative	Sulfur oxides (SOx)	NA		
		Quantitative	Volatile Organic Compounds (VOCs)	NA		
		Quantitative	Hazardous Air Pollutants (HAPs)	NA		
Energy management	RT-CH-130a.1	Quantitative	Total Energy Consumption	50		●
		Quantitative	Percentage of Grid Power	50		●
		Quantitative	Renewable Energy Consumption	50		●
Water resource management	RT-CH-140a.1	Quantitative	Percentage of total water intake and high-water consumption pressure area	59		●
		Qualitative	Percentage of total water consumption and high-water consumption pressure area	59		●
	RT-CH-140a.2	Qualitative	Cases of violations of water quality related discharge permits, standards and regulations	NA	No violation cases of wastewater regulations	●
	RT-CH-140a.3	Quantitative	Describe water resource management risks and strategies	60		●
		Qualitative	Practices to mitigate risk	60		●
Hazardous waste Management	RT-CH-150a.1	Qualitative	Hazardous waste generation	54		●
		Qualitative	Hazardous Waste Recycling Percentage	54	Hazardous Waste Recycling Percentage 0%	●
Community relations	RT-CH-210a.1	Quantitative	Discuss the process of participating in the management of risks and opportunities related to community interests	15,93		●

Topic	Indicator Code	Property	Disclosure indicators	Page	Remark	External assurance
Labor safety and health	RT-CH-320a.1	Quantitative	Total Recordable Incident Rate (TRIR) for direct and contract employees and the Near Miss Frequency Rate (NMFR) for direct & indirect employees.	83,84		●
	RT-CH-320a.2	Quantitative	Work instructions for assessing, monitoring, and reducing Long-term (chronic) health risk exposure of employees and contract workers	85		●
Product Design for Use-Phase Efficiency	RT-CH-410a.1	Quantitative	Revenue from products designed for use-phase resource efficiency	NA		●
Chemical Safety and Environmental Management	RT-CH-410b.1	Quantitative	Percentage of products containing Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Class 1 and Class 2 health and environmental hazard substances	NA	(1) Class 1: The Styrene Monomer products of Grand Pacific contains GHS health and environmental hazard substances, which account for the weight percentage of the whole product: 42% (2) No Class 2	●
		Quantitative	Percentage of such products that have conducted a hazard assessment	NA	Grand Pacific's products contain GHS health and environmental hazard substances, and the percentage of hazard assessment: 100%	●
	RT-CH-410b.2	Quantitative	1. Management of Concerned Chemical 2. Development strategies for developing alternative products that reduce human and environmental impacts	NA	The Kaohsiung plant has obtained SONY GP (Sony Green Partner) certificates, and implements the purpose of the environmental management mechanism with the aim of "making good use of resources, preventing pollution, and continuous improvement"	●
Genetically Modified Products	RT-CH-410c.1	Quantitative	Ratio of Genetically Modified Products (GMO) to Overall Revenue	NA	Grand Pacific has no genetically modified products	●
Management of Legal and Regulatory Environment	RT-CH-530a.1	Quantitative	On environmental and social issues, the Company's position on government regulation and policy planning	30		●
Operational Safety Emergency Preparations and Response	RT-CH-540a.1	Quantitative	Process Safety Incidents Cases (PSIC)	84		●
		Quantitative	Process Safety Total Incident Rate (PSTIR)	84		●
		Quantitative	Process Safety Incident Severity Rate (PSISR)	84		●
	RT-CH-540a.2	Quantitative	Traffic Incident Cases	NA	No related incident in 2023	●
Operating Activity Indicator	RT-CH-000.A	Quantitative	Production by department (expressed in m ³ /metric ton)	57		●

Appendix FSC Sustainability Disclosure Indicators - Chemical Industry

Chemical Industry Disclosure Index Number	Description	Property	Unit	Page
I	Total energy consumption, percentage of purchased electricity, utilization rate of renewable energy and total self-generated and self-consumed energy	Quantitative	mega-joule	50
II	Total water intake, total water consumption, waste (sewage) discharge according to legal requirements or voluntary disclosure	Quantitative	m ³	58
III	The total amount of hazardous waste produced in the production process and the recycling percentage according to legal requirements or voluntary disclosure	Quantitative	%	54
IV	Description of the number and rate of occupational accidents	Quantitative	%	
V	Operating activities that have significant actual or potential negative impacts on local communities.	質化	NA	92,93,94
VI	Specific and effective mechanisms and actions taken by the enterprise itself and its suppliers to reduce negative impacts on the environment or society	質化	NA	19,89
VII	Product productions by product category	Quantitative	metric ton	57

Independent Verification by a Third Party



Independent Assurance Statement

To the Management and Stakeholders of GRAND PACIFIC PETROCHEMICAL CORPORATION

DQS has been engaged by GRAND PACIFIC PETROCHEMICAL CORPORATION (GPPC) to provide independent assurance over the ESG Report 2023. The engagement took place in May, 2024.

The objective of this assurance engagement was to independently express conclusions on underlying reporting processes and validate qualitative and quantitative claims to limit misinterpretation by stakeholders and increase the overall credibility of the reported information and data.

Scope of assurance

The assurance encompassed the entire ESG report and focused on all figures, statements and claims related to sustainability during the reporting period January to December 2023.

The assurance engagement was performed in accordance with a Type I assurance of the AA1000 Assurance Standard (AA1000AS v3), which consists of:

- Evaluating the company's sustainability framework and processes using the inclusivity, materiality, responsiveness and impact criteria of the AA1000 AccountAbility Principles (AA1000APS 2018), and
- Evaluating the quality of the reported sustainability performance information.
- The scope of assurance is consistent with the scope of disclosure GPPC 2023 Sustainability Report, which covers the period from 1 January 2023 to 31 December 2023 related to GPPC Kaoshiung Factory and GPPC Taipei Office. In accordance with the requirements of GRI Standards 2021, Sustainability Accounting Standards Board (SASB) Chemical sector and TCFD climate related financial disclosure recommendation.

The report has been self-declared to be in accordance with requirements of the GRI Standards.

Level of assurance and limitations

A Type I, Moderate Level of assurance under AA1000AS v3 was provided for this engagement. Information and performance data subject to assurance is limited to the scope described above.

The assurance did not cover financial data, the data of GHG emission, technical descriptions of buildings, equipment and production processes or other information not related to sustainability.

The assurance engagement is not a compliance audit and does not assess or evaluate compliance with applicable laws and regulations.

Independence and Competences of the Assurance Provider

The DQS Group is an independent professional services firm that provides assurance on

DQS Taiwan Inc.
8F, 23, Yuan Huan West Road,
Feng Yuan Dist., Taichung City,
Taiwan 420014

document no.: TF-0065

 www.dqsglobal.com



sustainability disclosures under the Global Reporting Initiative (GRI), CDP and other specialized management and reporting mechanisms. Independent verifiers have not been involved in the development of the report or have they been associated with GPPC sustainability program, data collection or strategic processes.

DQS Group ensures that the assurance team possesses the required competencies, maintained neutrality and performed ethically throughout the engagement. Further information, including a statement of impartiality, can be found at: www.dqsglobal.com.

The management of GPPC was responsible for the preparation of the sustainability data.

Assurance Methodology

The assurance procedures and principles used for this engagement were drawn from the International Standard AA1000AS and methodology developed by DQS, which consists of the following steps:

1. Identifying statements and data sets, which are classified according to the relevant data owners and the type of evidence required for the verification process.
2. Reviewing the Sustainability Report to determine whether the material topics identified during our procedures have been adequately disclosed.
3. Carrying out interviews with key functional managers and data owners at GPPC office in No. 4, Hsing Kung Rd., Taichung Industrial District Kaohsiung 815, Taiwan, R.O.C.
4. Assessing the collected information and provide recommendations for immediate correction where required or for future improvement of the report content.

Evaluation of the adherence to AA1000 Accountability Principles

Inclusivity - People should have a say in the decisions that impact them

The stakeholder identification and engagement process are documented through the GPPC Sustainability program. For further report, GPPC could consider to keep implementing the stakeholders engagement in more depth to collect the materiality information.

Materiality - Decision makers should identify and be clear about the sustainability topics that matter

The sustainability data included in the scope of the assurance engagement consists of sustainability performance indicators for ESG topics that are considered material, through a materiality assessment. For further reporting, the information declaration in the risk assessment and management for critical suppliers could be more comprehensive.

Responsiveness - Organizations should act transparently on material sustainability topics and their related impacts

GPPC is responding to those issues that it has identified as material and demonstrates ESGs in performance indicators. The organization and its stakeholders can use the reported ESG



information as a reasonable basis for their opinions and decisions.

Impact - Organizations should monitor, measure and be accountable for how their actions affect their broader ecosystems

GPPC has implemented systems to monitor and measure its economic, environmental and social impacts through selected performance indicators based on the GRI standards. However, it was recommended that the further report could set up a comprehensive and robust sustainability data reporting approach on ecosystems.

Conclusion

On the basis of a moderate assurance engagement according to the above-listed criteria, nothing has come to our attention that causes us to believe that the disclosures within the scope of this assurance engagement are materially misstated. The processes for collecting and consolidating the data are structured in such a way as to enable independent verification.

On behalf of the assurance team

June 12, 2023

Taiwan

Bob Chen
Managing Director
DQS Taiwan Inc.



封面設計理念：

利用深藍色作為主視覺，它不僅僅是一種顏色，而是一種象徵，就像蔚藍的天空或深邃的海洋一樣。使用日常生活用品的圖案，來代表石化產品對於我們日常生活中發揮著重要作用，影響我們生活的方方面面，例如化學肥料和農業化學品的使用提高了稻米和家畜的產量，用於建築材料、家具、地板、壁面、塑膠地磚等。它們提高了居住品質和舒適度，運用在橡膠輪胎、塑膠零件、燃料等，使交通工具更安全、耐用，讓我們享受更多生活的美好。

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