



台塑企業
FORMOSA PLASTICS GROUP

20 CSR Report 20

Nan Ya
Plastics
Corporation



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About This Report

This is the 7th Corporate Social Responsibility (CSR) Report (hereinafter "this report") of Nan Ya Plastics Corp. (hereafter referred to as "the Company"). The information is disclosed based on the editorial principle of presenting the data of the most recent 4 years. And it is expected to be published once a year to communicate with our stakeholders through this report.

Publication Overview

Publication date of the first edition:

December 2015

Publication date of the previous edition:

June 2020

Publication date of the current edition:

June 2021

Publication date of the next edition:

June 2022



2017 CSR Report



2018 CSR Report



2019 CSR Report

Boundaries of the Report

- The reporting boundaries of this report focuses on the Company and the data of its subsidiaries in Taiwan, including Nan Chung Petrochemical Corp., Nan Ya Printed Circuit Board Corp., and PFG Fiber Glass Corp. (hereafter referred to as "subsidiaries in Taiwan". Among the subsidiaries, Wen Fung Industrial Co., Ltd, Wenling Technology Corp., and Formosa Plastics Group Investment Corp. have a very low impact on the consolidated revenue. Therefore, relevant information from these subsidiaries is not disclosed). Overseas reinvestments are also excluded. The reporting boundaries of this report have not been changed from the previous year.
- The financial data is mainly based on the publicly disclosed financial report. Going forward, the reporting boundaries will be gradually expanded to be more consistent with that of the financial reports.

Preparation Principles

The Company has prepared this report in accordance with the "Procedures for Preparation and Filing of Corporate Social Responsibility Report of TWSE Listed Companies" developed by the Taiwan Stock Exchange. The structure of this report is based on the guidelines and framework structures of the "core" option of GRI Standards (GRI Sustainability Reporting Standards). It elaborates on the Company's main sustainability topics, strategies, goals, and measures.

- GRI Standards (GRI Sustainability Reporting Guidelines)
- Sustainability Accounting Standards Board (SASB) Comparison Table
- Materiality, Inclusivity, Responsiveness and Impact of AA1000 Accountability Principles Standard 2018
- Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies
- ISO 26000 Social Responsibility Guidance
- United Nations Global Compact Cross Reference List

Disclosing Period

The information disclosed in this report shows the specific actions and performance of the Company in environmental protection (E), social welfare (S), and corporate governance (G) from January 1, 2020 to December 31, 2020.

Third-Party Assurance

To ensure the transparency and credibility of this report, the disclosed information has been independently verified by the British Standard Institute (BSI), a third-party international assurance authority, in accordance with the AA1000 Accountability Type 1 assurance and the core options of GRI Standards for independent assurance. BSI's independence assurance statement is also included in this report.

Contact Information

Thank you for reading this report. Should you have any concerns or suggestions regarding this report, please feel free to give us your feedback. Our contact information is:

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Nan Ya Plastics
Corp. official website
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From the Chairman

The Company has always adhered to the business philosophy of "diligence, perseverance, frugality and trustworthiness" as well as "to aim at the sovereign good" to reinforce corporate governance, implement corporate social responsibility, and create a safe and happy working environment. In 2020, while facing a severe external environment, the Company worked together with all personnel to continue improving various management operations, and was not only awarded with "Top 50 of the Largest Corporations in Taiwan Award" from China Credit Information Service, Ltd., the Company was also selected as a constituent of the "FTSE4 Good TIP Taiwan ESG Index". In addition, the Company also scored "Leadership Level (A-)" in both the climate change sector and the water security sector in Carbon Disclosure Project (CDP). Going forward, we will continue to strive toward our goal of "perpetual business operation", and "dedication to the society".

In the face of the ever-changing operating environment, we continue to promote the Company's four management strategies, including "actively expanding the market and increasing productivity", "strengthening research and development skills and to develop high-value and differentiated products", "fully promoting process optimization and enhancing product competitiveness by introducing artificial intelligence (AI) systems", and "implementing circular economy to realize the economic benefits of low-energy consumption, low-emissions and high-utilization" to create the Company's business values and enhance overall operating performance.

To respond to global climate change and achieve our goals of energy conservation and carbon reduction, the Company is committed to the long-term promotion of environmental protection. Besides continuing to implement operations such as energy conservation, emission reduction, waste reduction and recycling, we are also striving to reuse and utilize waste in recent years. By reducing resource consumption through multiple resource cycling efforts, economic benefits can also be maximized. In 2020, the Company scored "Leadership Level" rating in CDP. Moreover, our Kung San site was named as an "Industrial Greenhouse Gas Voluntary Reduction Manufacturer" by the Ministry of Economic Affairs. These efforts all demonstrated the effectiveness of the Company's specific actions and efforts.

Additionally, we are also actively researching and developing high-value green products to provide consumers with more choices of environmentally friendly products. Some of these products have also obtained the Green Mark, Green Building Materials label, or the Global Recycled Standard certification. Take the production and sales of 71 kilotons recyclable bottle in 2020 as an example, approximately 138 kilotons of greenhouse gas emissions can be reduced, which is equivalent to the amount of carbon sequestration of 353 Daan Forest Parks.

In terms of creating a safe and happy working environment, "all-around security" is our constant core value. Only a safe and happy workplace can attract the best talents, enhance the Company's core competitiveness, and become a good foundation for sustainable development. Therefore, we forge a positive industry safety culture by continuously improving standard operating procedures, implementing safety actions, preparing safety tools, educating safety awareness and cultivating safety attitudes. Moreover, we provide employees with competitive salaries and benefits, solid training, and good promotion channels. We also care about employees' physical and mental health and workplace environment. Going forward, we will continue to implement ISO 45001 and TOSHMS occupational safety and health management systems through encouraging full participation in industrial safety activities, and strive to provide employees with a safe and secure working environment.

In terms of social care, through various large-scale welfare activities, including local performances from artistic groups have been halted in line with the government's epidemic prevention rules in 2020, we continued to participate in activities organized by local communities and disadvantaged groups in the spirit of "what is taken from the society is used in the interests of the society". We also encourage our employees to provide warmth and assistance to the community with empathy and support, in order to bond with the community. In addition, the seven foundations and charitable trusts established by the two founders have long been contributing resources and efforts to various fields including education, medical and health care, disadvantaged groups, cultural, and sports promotions. For example, for a few years we have been helping children with developmental delays and improved the quality of service provided to institutions that take care of the disabled. Moreover, we have also assisted rehabilitating drug addicts to acquire skills that would help their reintegration with society. It is our wish to bring happiness and hope to every corner of society.

Striving to become an excellent corporate citizen, the Company has integrated sustainable development into its operational strategies. In 2020, we continued to implement the UN's Sustainable Development Goals (SDGs) and identified and corresponded 6 relevant SDGs based on our core business. Going forward, we will continue to implement the business philosophy of "diligence, perseverance, frugality and trustworthiness," "to aim for the sovereign good," "perpetual business operation," and "dedication to the society" through promoting corporate governance, building a sustainable environment, and actively engaging in social welfare activities. We will listen and respond to the needs of the environment and society, and use the feedback to redirect our effort. Through positive interaction and continuous improvement, the Company can make more contributions to the environment and society. Social responsibility is integrated into our business philosophy while we strive for sustainable development. We hope to protect our planet along with our stakeholders by caring for the environment and society to create a happier and more beautiful future.

Nan Ya Plastics Corporation
President

CHIA-CHAU WU

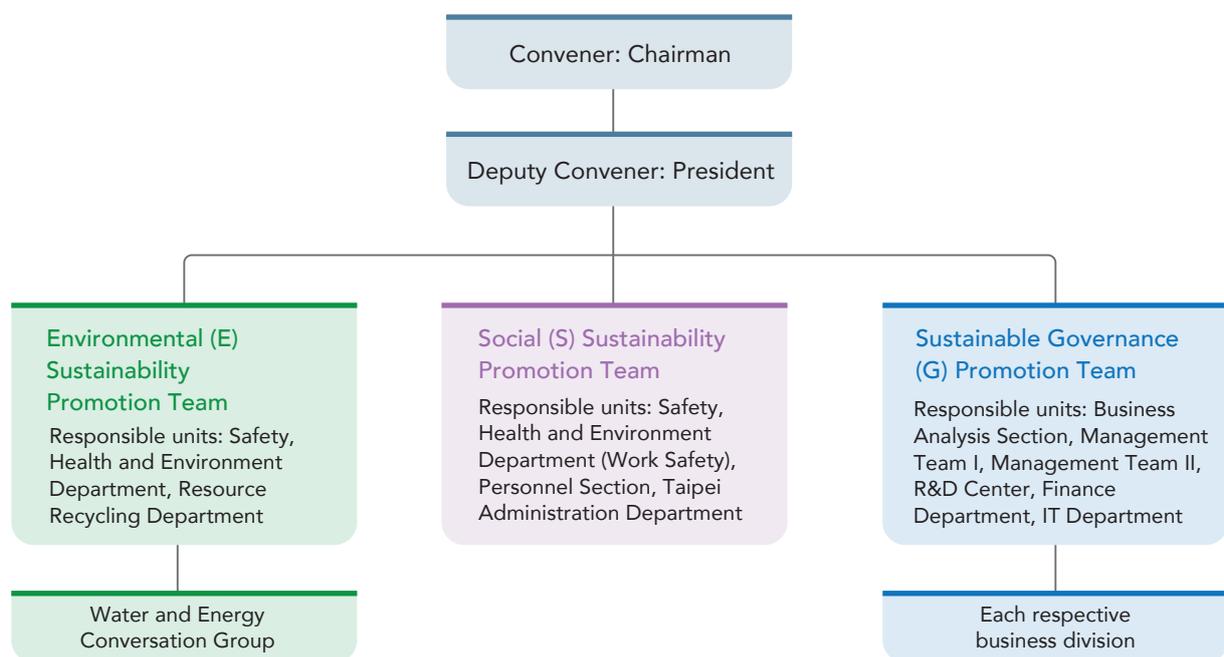
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The Report and Management of Sustainable Issues

The Structure of CSR Organization and Report Preparation Process

In order to effectively integrate and promote social responsibility tasks, the Company has set up an "ESG Promotion Organization", which is responsible for formulating company-wide strategies for environmental protection (E), social welfare (S), and corporate governance (G). The organization actively promotes the execution of various businesses, regularly conducts performance monitoring, and timely adjusts relevant strategies and goals through continuous communications with stakeholders. We hope to foster an environment of synergistic growth with our stakeholders, and to achieve the long-term goal of sustainable development of the Company while remaining dedicated to the society.

Organizational Chart of ESG Work Promotions



The Writing Process of CSR Report



Stakeholder Engagement

The ESG promotion team takes into consideration the five major principles of AA1000 Stakeholder Engagement Standard (SES) announced in 2015: Dependency, Tension, Influence, Responsibility, and Diverse Perspectives. Upon confirmation from the convener, 8 stakeholders that are highly important to the Company's sustainable development have been identified, so as to communicate with them and respond to their needs and expectations. Through the process of stakeholder engagement, the Company's accountability to the stakeholders has been enhanced, while internal sustainable strategies have also been reinforced.



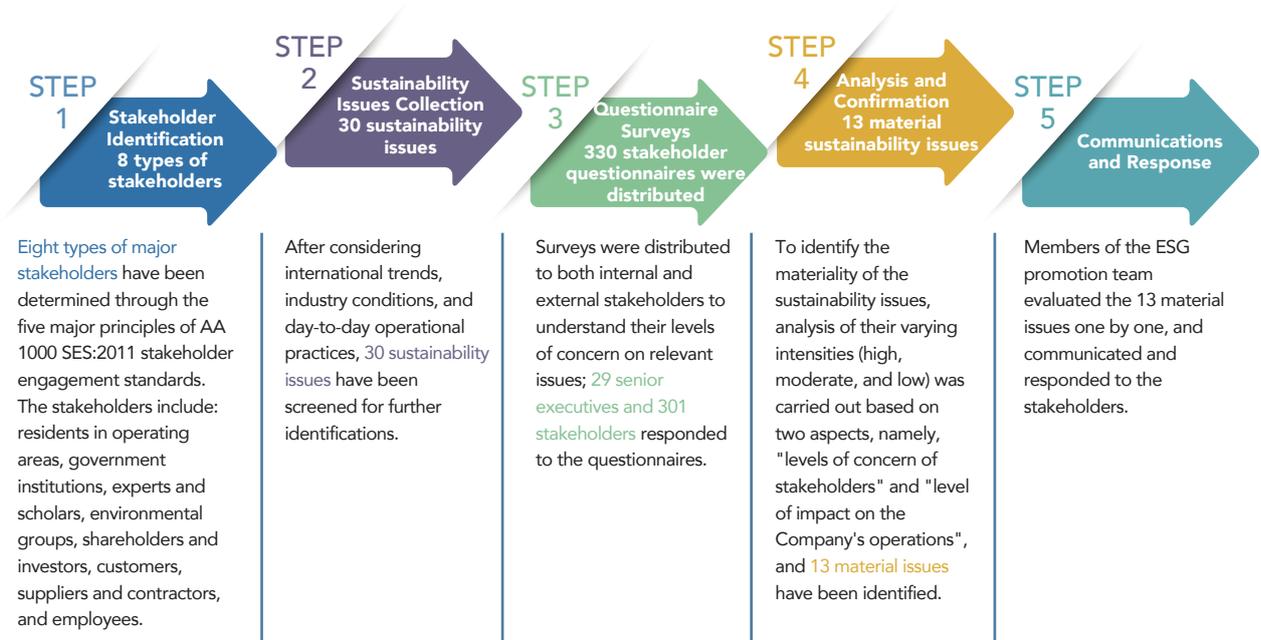
Communications with Stakeholders

Stakeholders	Significance to NPC	Frequency and Methods of Communication	Major Topics of Concern	Corresponding Chapter
 Residents in the Operating Areas	Creating co-prosperity with the community has been a long-term commitment in the Company's operations. Caring for local residents and the society are considered while setting our annual strategic goals	Regularly - monthly <ul style="list-style-type: none"> Special visits Occasionally <ul style="list-style-type: none"> Meetings - village (Li) meetings, factory construction (expansion) briefings, symposiums, observation tours, conferences, etc. Email/telephone 	<ul style="list-style-type: none"> Air pollutants management Ethical business management Industrial and public safety Water resource management 	1.2 Corporate Governance 2.3 Supplier and Contractor Management 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace 5 The Pursuit of Co-Prosperity and a Better Homeland
 Government Institutions	Government Agencies formulate relevant policies, therefore, besides complying with relevant regulations, we also communicate with the government to promote the sustainable development of the industry	Occasionally <ul style="list-style-type: none"> Meetings (e.g., public hearings, seminars, etc.) Official correspondence Special visits Email/telephone 	<ul style="list-style-type: none"> Ethical business management Industrial and public safety Regulatory compliance Occupational health and safety 	1.2 Corporate Governance 2.3 Supplier and Contractor Management 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace
 Experts and Scholars	We attach importance to suggestions from academic theories concerning sustainability issues and aspire to apply such theories to practice to collectively enhance Taiwan's industrial competitiveness and environmental sustainability	Occasionally <ul style="list-style-type: none"> Meetings (such as EIA review meeting for new (expansion) construction and the EIA conclusion implementation supervisory meeting) Email/telephone 	<ul style="list-style-type: none"> Air pollutants management Ethical business management Industrial and public safety 	1.2 Corporate Governance 2.3 Supplier and Contractor Management 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace
 Environmental Groups	Besides attaching importance to academic theories on sustainability issues, we also attach the same importance to environmental sustainability issues just like environmental groups. We aspire to apply such theories to practice to collectively enhance Taiwan's industrial competitiveness and environmental sustainability	Occasionally <ul style="list-style-type: none"> Meetings (such as EIA review meeting for new (expansion) construction and the EIA conclusion implementation supervisory meeting) Email/telephone 	<ul style="list-style-type: none"> Ethical business management Industrial and public safety 	1.2 Corporate Governance 2.3 Supplier and Contractor Management 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace

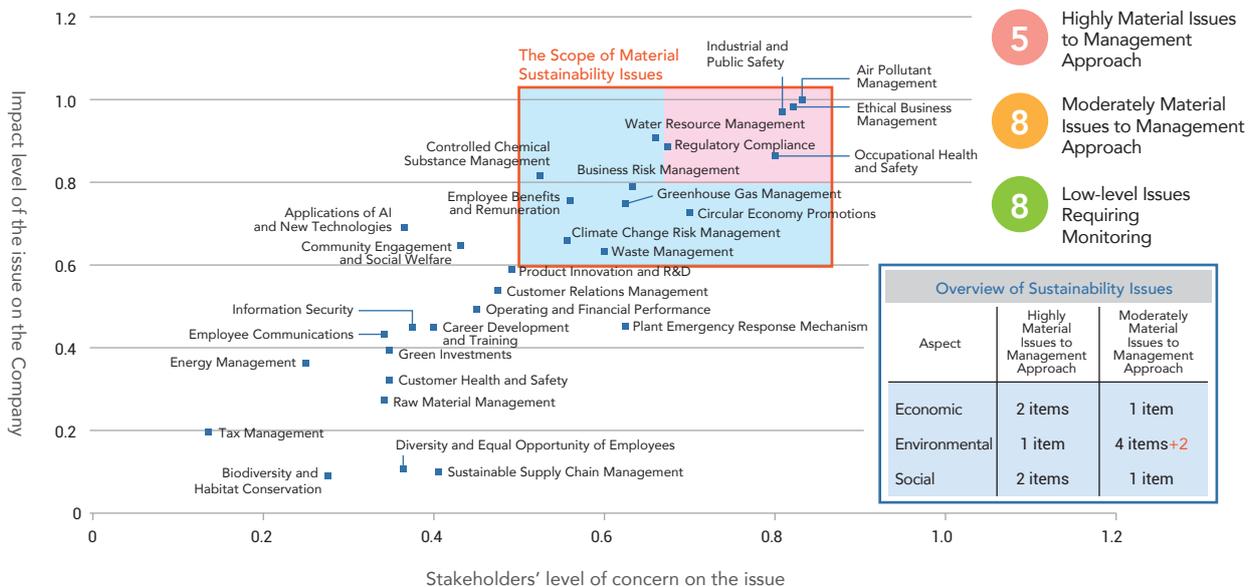
Stakeholders	Significance to NPC	Frequency and Methods of Communication	Major Topics of Concern	Corresponding Chapter
 Shareholders/ investors	Shareholders and investors are owners of the Company, and non-financial information disclosure has gradually become a factor for investors in screening investment targets	Annually <ul style="list-style-type: none"> Shareholders' Meeting Quarterly <ul style="list-style-type: none"> Board of Directors meetings Occasionally <ul style="list-style-type: none"> Market Observation Post System (MOPS) "Investor Section" of the Company's website Investor Conference Email/telephone 	<ul style="list-style-type: none"> Industrial and public safety Ethical business management Occupational health and safety 	1.2 Corporate Governance 2.2 Collaborative Business Model 4 Creating a Happy and Safe Workplace
 Customers	Earning the customers' support is the value of the Company, and customer feedback is the driving force for our progress	Annually <ul style="list-style-type: none"> Dealer meetings Occasionally <ul style="list-style-type: none"> Product exhibitions Special visits Customer satisfaction survey, customer complaint form Customer complaints Email/telephone 	<ul style="list-style-type: none"> Ethical business management Occupational health and safety Controlled chemical substances Regulatory compliance Industrial and public safety 	1.2 Corporate Governance 2.2 Collaborative Business Model 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace
 Suppliers and Contractors	Collaboration and support from strategic partners are one of the key factors in the Company's pursuit of success and sustainable development	Annually <ul style="list-style-type: none"> Supplier briefing 24/7 Customer service of Formosa Technology E-market Place Occasionally <ul style="list-style-type: none"> Supplier/contractor grievance channels Email/telephone Contractor mediation meeting 	<ul style="list-style-type: none"> Air pollutants management Ethical business management Industrial and public safety Water resource management Regulatory compliance Controlled chemical substances 	1.2 Corporate Governance 2.3 Supplier and Contractor Management 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace
 Employees	Employees are the foundation of the Company in strengthening its competitiveness. By providing sound education and training and a friendly workplace environment, the Company can enhance the employees' cohesion, thus creating a good foundation for sustainable management.	Annually <ul style="list-style-type: none"> Employee satisfaction survey Quarterly <ul style="list-style-type: none"> Occupational Safety and Health Committee meetings Every 2 months <ul style="list-style-type: none"> "FPG" bimonthly magazine Daily <ul style="list-style-type: none"> Morning meetings Set up online/offline suggestion boxes (Notes, Outlook) Factory "799" hotline Occasionally <ul style="list-style-type: none"> Direct communications between senior executives and union representatives Labor union (labor-management meetings), Welfare Committees, etc. Management system feedback form 	<ul style="list-style-type: none"> Air pollutants management Ethical business management Occupational health and safety Water resource management 	1.2 Corporate Governance 3 Green Environment Management Promotion 4 Creating a Happy and Safe Workplace

Identification and Analysis of Sustainability Issues

Identification of stakeholders and sustainability issues is the core of ESG implementation. In preparing the CSR Report each year, the Company convenes meetings involving members of the "ESG promotion team" to communicate, discuss, and gain consensus on current stakeholders and topics of their concern. This will be an important reference in the content disclosure in the CSR report. The Company's 2020 analysis process is as follows:



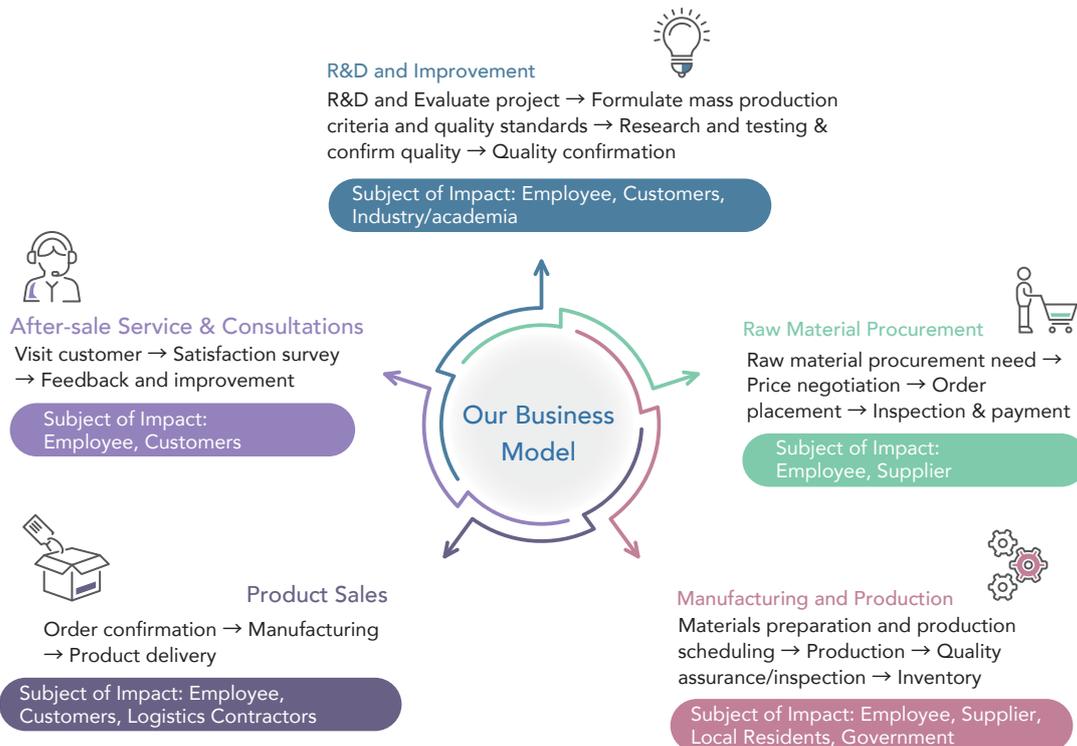
Sustainability Issues Matrix



Items	Materiality in 2020	Materiality in 2019	Changes in ranking	Reasons for change	Corresponding page number
Legal Compliance	Highly material issue	Moderately material issue	Increase	All business activities of the Company should meet the basic regulatory requirement at their respective locations.	2.2、3.6
Climate Change Risk Management	Moderately material issue	Issue requiring constant monitoring	Increase	Climate change has become an international topic of concern, and the Company has made energy conservation and carbon reduction one of its long-term commitments.	3.2
Circular Economy Promotions	Moderately material issue	Issue requiring constant monitoring	Increase	Besides bringing a virtuous circle for the environment, promoting circular economy could also effectively reduce operating costs, bringing mutual benefits for both the environment and the Company.	3.5
Product Innovation and R&D	Issue requiring constant monitoring	Moderately material issue	Decrease	Innovation and R&D drive the Company's growth, and the Company is also committed to long-term R&D investments. However, external parties have been more focused on the Company's performances in other ESG aspects.	2.1
Operating and Financial Performance	Issue requiring constant monitoring	Moderately material issue	Decrease	Besides focusing on the Company's operating profitability, there is a contemporary international trend of placing more emphasis on the Company's ESG actions and performance.	1.1

We will properly disclose the content of these issues of concern in this report to pursue constant improvement. Going forward, we will continue to communicate with stakeholders and list the shortcomings as key points for improvement, and strive to maintain positive interactions and partnership with our stakeholders.

The Value Chain of NPC



Type	Value Chain					Subject of Impact	Description of Impact	Corresponding Chapter
	R&D and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales	After-sale Service & Consultations			

Economic Aspect

Ethical business management	●	★	●	●	★	 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Adhere to the principles of integrity, fairness and transparency while carrying out business transactions Prevent any form of fraud Formulate an equal and friendly workplace to improve employee cohesion 	1.2 ∙ 4.1 ∙ 4.2
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Corresponding GRI Chapters: GRI 102 General Disclosures, GRI 205 Anti-corruption, GRI 405 Diversity and Equal Opportunity

Legal compliance	●	★	●	●		 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> The most fundamental goal of every business promotion is to comply with regulatory requirements and to help the Company maintain stable and sound operations. 	2.2 ∙ 3.6
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Corresponding GRI Chapters: GRI 419 Socioeconomic Compliance

Business risk management*	●	★	●	●		 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Implement internal and external risk identification and management to reduce the impacts of contingent events Reduce impacts of risks on business management Identify potential opportunities in risk incidents 	1.3
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Corresponding GRI chapters: -

Environmental Aspect

Climate change risk management	●	★	●	●	★	 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Reduce the external costs for the Company due to legal violations and reduce the impacts of operations on the environment In response to the impacts of climate change, the Company should continuously update its transportation and storage methods of raw materials and finished products Climate change affects product market trends, the Company's production costs, and its choice of plant construction site 	3.2
	Greenhouse gas management							

Corresponding GRI chapters: GRI 305 Emissions

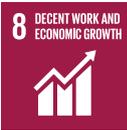
Type	Value Chain				Subject of Impact	Description of Impact	Corresponding Chapter
	R&D and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales			
Air pollutants management	●	★	●	●	 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Strive to manage air pollutants to ensure compliance with environmental regulations and environmental assessment requirements to maintain a positive corporate image Raw material procurement and the production and transportation process of finished products need to comply with environmental regulations to maintain operational stability 	3.3
Corresponding GRI chapters: GRI 305 Emissions							
Water resource management	●		●		 Employee  Supplier  Local Residents  Industry/academia  Government  Customers	<ul style="list-style-type: none"> Ensure the stability of water sources in the plant, strive to optimize water management to reduce costs and maintain operational stability Strive to manage wastewater and effluents to ensure compliance with environmental regulations and environmental assessment requirements so as to reduce external costs and to maintain a positive corporate image 	3.4
Corresponding GRI chapters: GRI 303 Water and Effluents, GRI 306 Waste							
Waste management	●	★	●		 Employee  Supplier  Local Residents  Industry/academia  Government  Customers	<ul style="list-style-type: none"> Reduce waste generated from operations to reduce relevant disposal costs and mitigate environmental impacts Purchase suitable raw materials of good quality and strengthen the process of waste recycling and reuse to reduce waste 	3.5
Circular economy promotions							
Corresponding GRI chapters: GRI 306 Waste							
Controlled chemical substance management*	●	★	●	●	 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Properly manage the logistics, manufacturing, and storage processes related to controlled chemical substances produced or used in the production process to avoid public hazards 	3.5
Corresponding GRI chapters: -							
Social Aspect							
Occupational health and safety		★	●	●	 Employee  Supplier  Local Residents  Customers  Government  Logistics Contractors	<ul style="list-style-type: none"> Create a safe workplace to enhance employee cohesion and production efficiency while reducing costs for addressing abnormalities To ensure a stable supply of raw materials and services, suppliers and contractors shall provide a healthy and safe working environment for their employees 	2.3 、 4.4
Corresponding GRI chapters: GRI 403 Occupational Health and Safety							

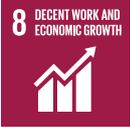
Type	Value Chain				Subject of Impact	Description of Impact	Corresponding Chapter	
	R&D and Improvement	Raw Material Procurement	Manufacturing and Production	Product Sales				After-sale Service & Consultations
Industrial and public safety			●	●	 Employee  Supplier  Local Residents  Customers  Government  Logistics Contractors	<ul style="list-style-type: none"> Ensure processing safety, reduce the impact on the safety of local residents and the environment, reduce external costs and maintain a positive corporate image Fulfill industrial and public safety management to enhance the trust of government agencies and customers, which can benefit product promotions 	2.3、4.4	
Corresponding GRI chapters: GRI 403 Occupational Health and Safety								
Employee benefits and remuneration	●	★	●	●	★	 Employee  Supplier  Local Residents  Industry/academia  Government  Customers  Logistics Contractors	<ul style="list-style-type: none"> Create a happy and secure workplace, enhance employee cohesion and ensure stable operations Provide employees with competitive benefits and salaries, as well as unimpeded promotional channels to attract high-performing talents to join the Company and to build the foundation for perpetual business operation 	4.1、4.2
Corresponding GRI chapters: GRI 202 Market Presence, GRI 401 Employment, GRI 405 Diversity and Equal Opportunity								

Note: (1) Sustainability issues marked with "*" represent issues that are important to the Company but do not correspond to the GRI Standards.
(2) Level of involvement: Direct relations (●), Indirect relations (○), Business relations (★)

The Company's Sustainable Development Strategies (SDGs)

■ Core connection:

SDGs	Detailed Goals and Descriptions	Corresponding Sustainability Issues	Sustainable Vision	2020 Actions
	3.9 Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution, and other contamination	Controlled chemical substance management	Research and develop green chemical substances	<ul style="list-style-type: none"> Continue to develop environmentally-friendly plasticizers
		Air pollutants management	Continue to promote air pollution reduction measures	<ul style="list-style-type: none"> Install gas boilers in place of coal-fired boilers Install air pollution prevention devices
		Waste management	Continue to promote waste reduction	<ul style="list-style-type: none"> Encourage application for waste reuse projects to increase the ratio of resource cycling
	8.1 Sustain per capita economic growth per annum 8.5 Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	-	Promote local employment opportunities and enhance the safety of the workplace environment so as to lead industry-wide value-added development	<ul style="list-style-type: none"> The Company will continue to yield profits and to drive domestic and foreign investment projects
		Employee benefits and remuneration		<ul style="list-style-type: none"> Provide safe and secure livelihood to employees

SDGs	Detailed Goals and Descriptions	Corresponding Sustainability Issues	Sustainable Vision	2020 Actions
	8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular, women migrants, and those in precarious employment	Occupational health and safety	Promote local employment opportunities and enhance the safety of the workplace environment so as to lead industry-wide value-added development	<ul style="list-style-type: none"> The Company has installed protective measures including interlocking devices, security alarm devices, and buzzers based on the specific characteristics of the manufacturing processes Promote public safety drills
		Industrial and public safety		
	12.2 Achieve sustainable management of natural resources and efficient use of water resource management by 2030	Water resource management	Enhance the efficiency of water consumption	<ul style="list-style-type: none"> The Company and its subsidiaries have completed a total of 75 water-saving improvements in 2020 with a cumulative investment of NT\$50 million and an annual benefit of approximately NT\$6 million
	12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycles, and significantly reduce their release into the air, water and soil	Controlled chemical substance management	Ensure that controlled chemical substances have not leaked into the environment	<ul style="list-style-type: none"> Regularly organize emergency drills to strengthen employees' emergency response capabilities Install air pollution prevention devices to reduce emissions of SOx/NOx
		Air pollutants management	Continue to promote air pollution reduction measures	
12.5 Substantially reduce waste generation through prevention, reduction, recycling, and reuse	Waste management Circular economy promotions	Apply for waste reuse projects to increase the ratio of resource recovery	<ul style="list-style-type: none"> Evaluation on convert grit blasting waste, which used to be disposed of by landfill, into cement product additives upon careful treatment 	

■ Secondary Connection:

SDGs	Detailed Goals and Descriptions	Corresponding Sustainability Issues	Sustainable Vision	2020 Actions
	6.3 Improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials	Water resource management	Properly treat wastewater and conserve the water ecosystems	<ul style="list-style-type: none"> Discharge from all plants has complied with relevant discharge standards and no abnormality has occurred in 2020 Regularly test and calibrate the leakage detection and warning system; no abnormality involving leakage of controlled chemical substances has occurred in 2020
		Controlled chemical substance management	Ensure that controlled chemical substances have not leaked into the environment	
	6.5 Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	Water resource management Circular economy promotions	Enhance water consumption efficiency, properly treat wastewater and protect the water ecosystems	<ul style="list-style-type: none"> The Company and its subsidiaries have completed a total of 75 water-saving improvements in 2020 with a cumulative investment of NT\$50 million and an annual benefit of approximately NT\$6 million
	9.4 Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency	-	-	Strengthen research and development competencies and increase the ratio of differentiated and high-value products
9.5 Enhance scientific research, upgrade the country's technological capabilities of the industrial sector				
	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning	Greenhouse gas management Climate change risk management	Continue to promote energy-saving and low-carbon processes with the goal of reducing GHG emissions by 3% by 2022 from the 2015 emissions	<ul style="list-style-type: none"> The Company completed 596 improvements in 2020; water consumption was reduced by 0.5%, gas consumption by 0.5%, and power consumption by 5.1%, compared with 2019 data

Sustainability Performance



Financial Performance

-  The Company was selected as a constituent of the "FTSE4Good TIP Taiwan ESG index", "FTSE TWSE Taiwan 50 Index", and "TWSE CG 100 Index"
-  The Company's R&D expenses amounted to over NT\$1 billion in 2020, which showed a 1.4% growth over the 2019 figures (increased for four consecutive years)
-  2020 customer satisfaction survey results indicated an overall score of 4.4 points, accounting for 88% of the total score
-  No major violations occurred in 2020.



Non-financial Performance

-  The Company scored "Leadership Level (A-)" in both the climate change sector and the water security sector in the 2020 Carbon Disclosure Project (CDP)
-  Kung San site was named as an "Industrial Greenhouse Gas Voluntary Reduction Manufacturer" by the Ministry of Economic Affairs
-  The Company completed 596 improvements in 2020; water consumption was reduced by 0.5%, gas consumption by 0.5%, and power consumption by 5.1%, compared with 2019 data
-  Compared with 2019 air pollutant emissions, the Company's 2020 emissions decreased by 7.2% for SOx, 7.3% for NOx, 7% for VOCs, and 13.5% for TSP.
-  Employee hiring of the Company and its subsidiaries: more than 93% are full-time employees, and 93% are Taiwanese citizens.
-  In 2020, the average monthly voluntary resignation rate from the Company and its subsidiaries was 0.06%.
-  A total of 34 environmental protection volunteering activities were held by sites in northern Taiwan with 1,405 participants.
-  A total of 27 activities designed to care for disadvantaged groups were held in 2020 with 744 participants.

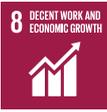


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Ongoing Sustainable Governance Strategy

- 1.1 About Nan Ya Plastics
- 1.2 Corporate Governance
- 1.3 Risk Management
- 1.4 Issues Concerned by the Society
- 1.5 Response to COVID-19

NPC complies with legal regulations, adheres to the principle of ethical standards, and continues to strengthen corporate governance and risk control mechanisms, as well as enhance the ethical business awareness of all employees. The Company aims to become the most trusted corporation with the business philosophies of "diligence, perseverance, frugality and trustworthiness" and "to aim at the sovereign good".

Strategy	United Nations Sustainable Development Goals (SDGs)	Sustainability issues
<ul style="list-style-type: none"> Sustainable development - Continue to expand businesses and promote high-value products Ethical business management - Sound corporate governance and ensure the rights and interest of shareholders Implement operational risk management - Control operational risks and develop risk response measures 		Ethical business management, operational risk management

2020 Goals	2020 Implementations (○ Did not meet the goals ✓ Goals met ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Sustainable Development

<ul style="list-style-type: none"> Carry out domestic investment plans to develop high-value copper foil, polyester film, and advanced synthetic paper Carry out overseas investment plans including the EG plant in the US and the copper clad laminate and glass fabric plants in China 	<ul style="list-style-type: none"> ✓ Domestic copper foil investment project has begun production ○ Domestic investment projects for polyester film and advanced synthetic paper are still ongoing ✓ US-based EG plant has begun production ○ Copper clad laminate and glass fabric investment projects in China are still ongoing 	<ul style="list-style-type: none"> Continue to execute domestic investment plans to develop polyester film and advanced synthetic paper Continue to execute copper clad laminate and glass fabric plant investment projects in China 	<ul style="list-style-type: none"> Continue to enhance the competitiveness of existing products and to develop high-value and differentiated products, and look for new investment/development opportunities to ensure the Company's sustainable development
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Ethical Business Management

<ul style="list-style-type: none"> Formulate "Regulations Governing the Evaluation of the Board of Directors" Participation in 4 or more investor conferences of at least once per quarter Information announcement in both Chinese and English Continuously improve various internal control systems in line with legal and practical needs Offer stable return on equity for shareholders No major violations (with penalties exceeding NT\$1 million) 	<ul style="list-style-type: none"> ✓ The Board of Directors approved the "Regulations Governing the Evaluation of the Board of Directors" in the 4th Board meeting in 2020 ✓ Attended 4 investor conferences in 2020 ✓ In 2020, 55 material messages were announced in Chinese and English ✓ Completed 51 audits based on the "2020 Audit Plan" and all abnormalities found have been improved ✓ 2020 earnings per share reached NT\$3.24 ✓ No major violations occurred in 2020 	<ul style="list-style-type: none"> Regularly conduct performance evaluation of the Board of Directors on an annual basis Participation in 4 or more investor conferences of at least once per quarter Information announcement in both Chinese and English Continuously improve various internal control systems in line with legal and practical needs Offer stable return on equity for shareholders No major violations (with penalties exceeding NT\$1 million) 	<ul style="list-style-type: none"> To protect the rights and interests of shareholders, the Company shall ensure that all of its operations comply with legal requirements, continue to strengthen corporate governance, and properly disclose material Company information
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Implement Operating Risk Management

<ul style="list-style-type: none"> Formulate "Risk Management Procedures" Identify risk events and draft responsive measures accordingly 	<ul style="list-style-type: none"> ✓ "Risk Management Procedures" approved by the 6th Board of Directors meeting in 2020 ✓ 21 risk events including climate change have been identified in 2020, and response measures have been drafted accordingly 	<ul style="list-style-type: none"> Identify risk events and draft responsive measures accordingly Report to the Board of Directors in regards to the status of "risk management" implementation at least once in every year 	<ul style="list-style-type: none"> The Company shall identify internal and external risks on a timely basis and draft countermeasure policies to mediate the hazard of risks and to strengthen operational flexibility
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CSR Achievements at a Glance

- The Company was selected as a constituent of the "FTSE4Good TIP Taiwan ESG index", "FTSE TWSE Taiwan 50 Index" and "TWSE CG 100 Index"
- The Company placed in the top 6%~20% in the 7th Corporate Governance Evaluation
- No major violations** occurred in 2020



1.1 About Nan Ya Plastics

1.1.1 Company Introduction

Established in 1958, Nan Ya Plastics Corporation (hereinafter referred to as "the Company" or "NPC") initially focused on plastic secondary processing products, including PVC pipes, PVC leather, and PVC sheeting. The Company gradually expanded to the fields of chemical engineering products, polyester fibers, electronic materials, and electrical engineering projects, and has been expanding overseas to the United States, China, and other foreign markets since 1979. To date, the Company has established itself as an international and diversified business. (For the Company's development history, please refer to the "Company History" section on NPC's website.)



"Company History" on
NPC website



Nan Ya Plastics Corporation

Date of establishment	August 22, 1958
Major Operations	Plastic processing, chemical engineering products, polyester fibers, electronic materials, and electromechanical engineering
Capital	NT\$79,308,215,890
Number of employees in 2020	31,740 employees (for the purpose of this Report, only 17,573 employees from Nan Ya Printed Circuit Board Corp., PFG Fiber Glass Corp., and Nan Chung Petrochemical Corp. are taken into consideration. The number does not include domestic and overseas subsidiaries included in the consolidated financial statements)
2020 Revenue	NT\$273,353,806 thousand
Global Locations	Taiwan, China, the United States (6 of the subsidiaries listed in the consolidated financial statements are from Taiwan, and 22 are based overseas)
Operating Locations	Registered address: 101, Shuiguan Road, Renwu Dist., Kaohsiung City 814, Taiwan Taipei Branch: 3F, 201 Dunhua North Road, Taipei (front building)

Note 1: The source of employee number comes from the 2020 Annual Report (as of December 31, 2020, including the subsidiaries in the consolidated financial statements)

Note 2: The revenue, location of global operations, number of subsidiaries are based on the data in the 2020 consolidated financial statements



Locations of Global Operations

China

Hong Kong

Nan Ya Plastics (Hong Kong) Co., Ltd.
PFG Fiber Glass (Hong Kong) Co., Ltd.
Nan Ya Printed Circuit Board (Hong Kong) Co., Ltd.

Kunshan

Nan Ya Printed Circuit Board (Kunshan) Co., Ltd.
Nan Ya Electronic Materials (Kunshan) Co., Ltd.
Nan Ya Draw-Textured Yarn (Kunshan) Co., Ltd.
PFG Fiber Glass (Kunshan) Co., Ltd.

Nantong

Nan Ya Plastics (Nantong) Co., Ltd.
China Nantong Huafeng Co., Ltd.
Nantong Huafu Plastics Co., Ltd.
Nan Ya Electric (Nantong) Co., Ltd.

Huizhou

Nan Ya Plastics (Huizhou) Co., Ltd.
Nan Ya Electronic Materials (Huizhou) Co., Ltd.
Nan Ya Trading (Huizhou) Co., Ltd.

Ningbo

Nan Ya Plastics (Ningbo) Co., Ltd.

Guangzhou

Nan Ya Plastics (Guangzhou) Co., Ltd.

Xiamen

Nan Ya Plastics (Xiamen) Co., Ltd.

USA

Nan Ya Plastics Corp. USA
Nan Ya Plastics Corp., America
Nan Ya Plastics Corp., Texas
Nan Ya Printed Circuit Board (U.S.A.) Co., Ltd.

Taiwan

Taipei City

NPC - Taipei Branch

Shulin District, New Taipei City

NPC-Shulin Site
NPC-Dyeing Site

Taishan District, New Taipei City

NPC-Linkou Site
Wenling Technology Corp.
Wen Fung Industrial Co., Ltd.

Guishan Dist., Taoyuan City

NPC-Kung San Site

Luzhu Dist., Taoyuan City

NPC-Jinxing Site
Nan Ya Printed Circuit Board Corp.

Mailiao

NPC-Mailiao Branch
Nan Chung Petrochemical Corp.

Hsinkang Township, Chiayi County

NPC-Hsinkang Site
PFG Fiber Glass Corp.

Taibao City, Chiayi County

NPC-Chiayi Site

Kaohsiung City

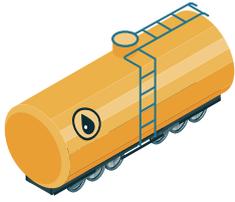
NPC-Linyuan Site
NPC-Renwu Site

Source:
2020 Consolidated
financial statements



Formosa Plastic Group Product Relationship Diagram

The Company is a subsidiary of Formosa Plastics Group (FPG). In addition to horizontal development in the petrochemical industry, we also actively engage in the vertical integration of upstream and downstream industries in order to reduce production costs, meet the customers' needs for raw materials, and enhance corporate competitiveness through achieving economies of scale. FPG has achieved an integrated supply chain in terms of oil refinement, petrochemical raw materials, plastics, fibers, and electronics.



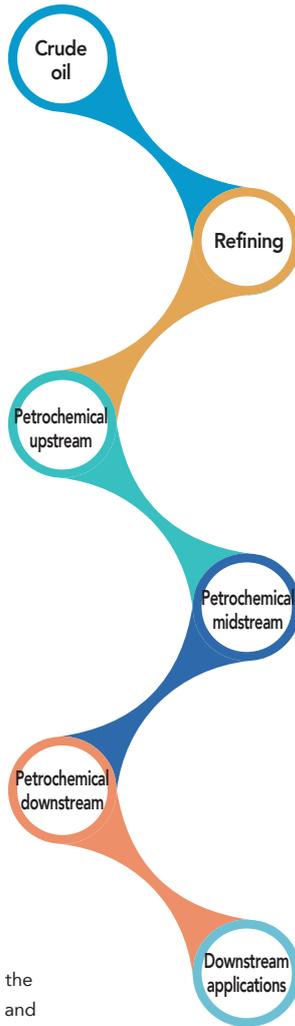
Basic raw materials (Alkenes: Ethylene/ Propylene/Butadiene, BTX: Benzene/Toluene/ PX/ OX/ MX)

FPPC, FCFC

Yarn spinning (polyester/nylon/rayon/modacrylic/spandex/carbon fiber/fiber glass);
 plastic processing (PVC sheeting/PVC leather/rigid film/POM door and windows/synthetic paper);
 specialty chemicals/additives;
 electronic materials (glass yarn/copper clad laminate/printed circuit board);
 synthetic leather

FPC, NPC, FCFC

Note: Please refer to the Annual Report for details on the "Raw Material Consumptions" and "Production and Sales Volume".



Naphtha, Gasoline, Diesel, Kerosene, Fuel Oil, Base Oil, LPG

FPPC

Raw materials of artificial fibers (EG/PTA/AN); chemically engineered products (ECH/AE/1,4BG/SAP/NBA/BPA/DOP);
 plastic raw materials (general plastics: PVC/PE/PP/PS/ABS; engineering plastics: PC/PBT/POM/Nylon);
 synthetic resins (epoxy/PU resins/ phenolic resins)

FPC, NPC, FCFC

Green energy, biotech industry, medical and health care, semiconductor industry, printed circuit board industry, mechanical/steel, transportation

1.1.2 Business Philosophy

The Company's business philosophy is to pursue the rationalization of all things with the attitude of "diligence, perseverance, frugality and trustworthiness", and to work toward the ultimate goal of "to aim at the sovereign good". While pursuing "perpetual business operation", the Company also strives to achieve the purpose of "dedication to the society", and to become a model leader and a benchmark that brings happiness to employees, a sense of security to investors, and trustworthiness to the society.

Diligence is the use of wisdom to maintain a work ethic of being down-to-earth in a practical and realistic way, in order to inquire into the root of the matter to seek constant improvement and to rationalize corporate management.

To improve the quality and efficiency of work, all operations comply with statutory requirements. We strengthen our long-term profit potential through rationalizing corporate management, and achieve a mutually beneficial and strong partnership with customers by providing them with high-quality and low-cost raw materials.



Due to the rapid changes in the external environment, the rationalization of corporate management must improve continuously to stay current and to seek innovation and development.

The Company adheres to the purpose of "what is taken from the society is used in the interests of the society", focusing on the development of medical and educational public welfare. We contribute corporate resources to the benefit of all humanity.

1.1.3 Operating Performance

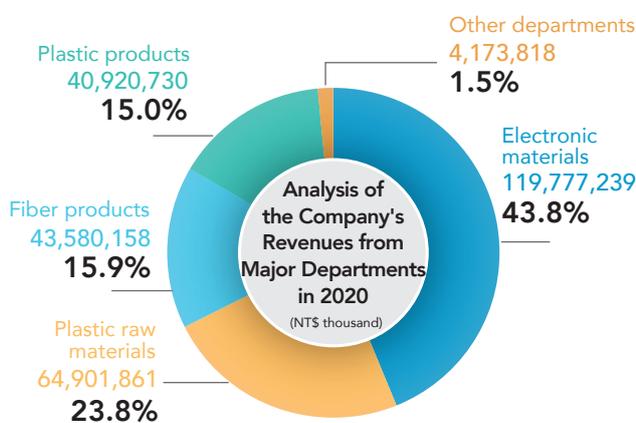
Though impacted by the COVID-19 pandemic and reaching a NT\$273.354 billion consolidated revenue in 2020, or a 4.5% decrease of NT\$286.303 billion in 2019, our consolidated profit before tax was NT\$30.438 billion, a growth of 14.1% from the NT\$26.689 billion in 2019. Going forward, the Company will continue to actively promote the four key management targets in "market expansion", "research and development", "circular economy", and "process optimization", and aspires to maintain stable growth and profits in the face of complex international situations.

The Company's Operating Performance

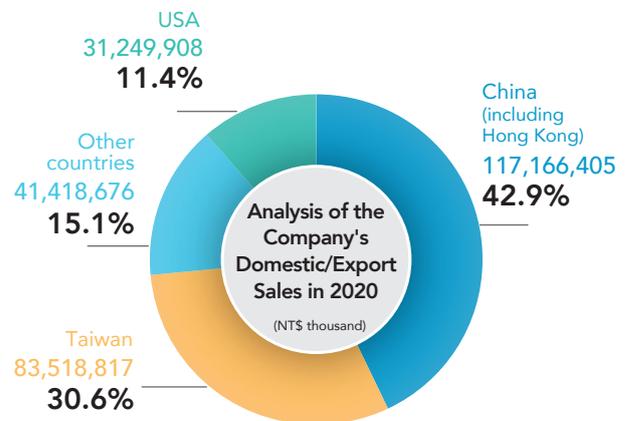
Unit: NT\$ thousand

Item	2017	2018	2019	2020
Operating revenue	306,139,952	333,061,560	286,303,059	273,353,806
Operating costs	256,172,821	283,997,975	258,165,832	233,757,892
Profit before tax	62,776,174	61,525,186	26,689,030	30,437,740
Retained earnings	208,480,444	220,788,020	204,105,146	212,630,726
Earnings per share, EPS (NT\$)	6.87	6.65	2.91	3.24
Return on equity (%)	15.03	13.97%	6.25%	7.55%
Total tax paid (excluding business tax)	2,240,766	2,817,655	2,781,360	932,021

Source: consolidated financial statements and Annual Report from each year



Source: NPC's 2020 consolidated financial statements



Source: NPC's 2020 consolidated financial statements

1.1.4 External Associations Participation

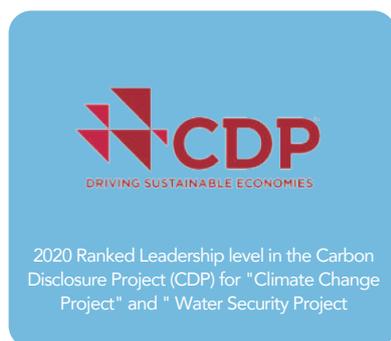
To improve the management foundation of Taiwanese industries, the Company is actively involved in various industrial associations, and also serves in important functions ranging from directors and representatives for certain associations. By sharing our management experiences with peers, as well as sharing the latest market trends, changes in supply and demand and technological news with the industry via these associations, we hope to contribute to the overall industry.

External Association Name	Position	Company Manager
New Taipei City Industrial Development Advisory Committee	Advisory Member	Chairman Chia-Chau Wu (Representative of Nan Ya Technology Corp.)
Taiwan Synthetic Resins Manufacturers Association	Standing Director	Chairman Chia-Chau Wu
Petrochemical Industry Association of Taiwan	Director	President Ming-Jen Tzou
	Director	Senior Vice President Chung-Yueh Shih (Nan Chung Petrochemical Corporation Representative)
Taiwan Man-made Fiber Manufacturing Industries Association	Standing Director	Senior Vice President Sin-Yi Huang
	Director	Consultant Zo-Chun Jen
Taiwan Textile Printing, Dyeing & Finishing Association	Director	Senior Vice President Sin-Yi Huang
Taiwan Accreditation Foundation	Director	Senior Vice President Fong-Chin Lin

Other external associations: Taiwan Responsible Care Association, Taiwan Printed Circuit Association, Taiwan Association of Machinery Industry, etc.

Note: The Company has also become new member of associations including the Institute of Antenna Engineers of Taiwan and Taiwan Association of Information and Communication Standards etc. in 2020

1.1.5 Awards



1.2 Corporate Governance

1.2.1 Organizational Framework

The Company's organizational structure has a clear division between rights and responsibilities. To ensure the independence of the Company's operations, the current Chairman does not concurrently serve in a managerial position at the Company. In addition, the Company is divided into 10 business divisions according to their respective business product categories, and indirect departments are also set up based on different functional attributes. All business divisions and indirect departments are under the President's jurisdiction. Please refer to NPC's website on "Company Organization" for the organizational chart.



"Company Organization" on NPC's website.

1.2.2 Board of Directors

(1) Members of the Board

The election of the Company's directors is based on nomination of candidates system. Upon resolution from the Board of Directors, the shareholders will select from a roster of candidates. All those selected serve a three-year term and Board meetings will convene at least once every quarter. Currently, the Board has 15 directors, of which 3 are independent directors. Please refer to the Company's website (<https://www.npc.com.tw>) and the Annual Report for details on the list of directors and their respective educational and work experiences.

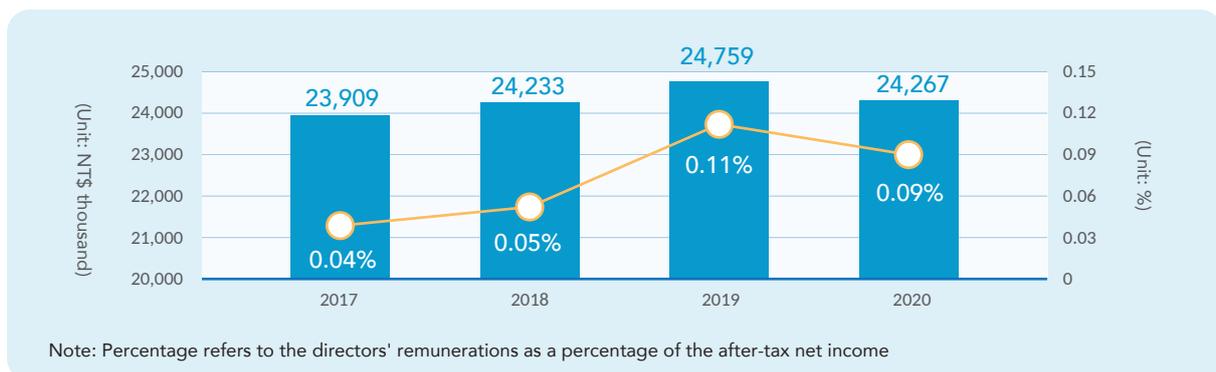
Overview of the Board's Composition



(2) Remuneration of Directors and Managers

The current remuneration standards and structure for the directors and managers are evaluated and approved by the Remuneration Committee and submitted to the Board of Directors for approval. The performance evaluation of the managers is assessed by the Chairman according to the overall performance of the manager's responsibilities and the individual "annual performance goals" to ensure the managers understand and achieve the Company's strategic goals. It is also an incentive system which connects the manager's performance with the Company's overall performance.

The Company's Annual Directors' Remunerations as a Percentage of the After-Tax Net Income



(3) 2020 Directors' Training

Every year, the Company provides or assists in arranging continuing studies courses for directors to facilitate the directors in staying on top of the latest international trends. The 2020 directors' continuing studies courses included "2021 Economic Forecast and Industry Trends", "Roles that Institutional Investors Play in Enhancing Corporate Governance", and "Corporate Social Responsibility and Sustainable Management" and more. Please refer to the Company's Annual Report for detailed information on the directors' continuing studies.



1.2.3 Functional Committees

To strengthen the supervisory function of the Board of Directors, two functional committees, namely the "Audit Committee" and the "Remuneration Committee", have been set up under the Board's jurisdiction. Both committees are composed of independent directors. The Audit Committee convened 5 times in 2020, and the Remuneration Committee twice. The main functions of the committees and the attendance of the members are as follows:

Major Functions of the Committees

Committee Name	Audit Committee	Remuneration Committee
Major Functions	<ol style="list-style-type: none"> 1. Ensure fair presentation of the Company's financial statements 2. The appointment (or dismissal) of Certified Public Accountants (CPA), and evaluation of the CPA's competency, independence, and performance 3. The effective implementation of the Company's internal control system 4. Ensures that the Company follows the relevant laws and regulations and controls both existing or potential risks 	Evaluate the Company's directors and managers' compensation policies and systems, make recommendations to the board of directors for decision-making
Major Resolutions in 2020	<ol style="list-style-type: none"> 1. Approved the 2019 financial statements 2. Amended the Internal Control System and Internal Audit Implementation Details 3. Formulated loan provision plans for each quarter 4. Adjusted the investment structure regarding Formosa Ha Tien Steel Corp. 5. Increased investment to Formosa Plastics Construction Corporation by NT\$500 million 6. Formulated the "Regulations Governing the Evaluation of the Board of Directors" and "Risk Management Procedures" 	<ol style="list-style-type: none"> 1. Formulated the "Regulations Governing the Evaluation of the Board of Directors" 2. Amended the Remuneration Committee Charter 3. Adjusted salary for managers in 2020

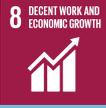
2020 Meeting Attendance

Title	Name	Audit Committee			Remuneration Committee		
		Actual Attendance	Attendance by Proxy	Attendance Rate	Actual Attendance	Attendance by Proxy	Attendance Rate
Managing Director (Independent Director)	Chih-Kang Wang (Convener)	5	0	100%	2	0	100%
Independent directors	Yi-Fu Lin	5	0	100%	2	0	100%
Independent directors	Yun-Peng Chu	5	0	100%	2	0	100%

Note: For matters regarding the communications between independent directors, CPAs, and internal audit supervisors, please refer to the Corporate Governance section of NPC's website (<https://www.npc.com.tw/j2npc/zhtw/investor/Board%20of%20Directors>)

1.2.4 Integrity Management and Anti-corruption

Material Issue

Management Approach	Corresponding GRI Standards: Anti-corruption Sustainable Issue: Ethical Business Management	
Commitment and Policies	The Company sees ethical business management as the highest guiding principle for all business activities and continues to strengthen its corporate governance. We enhance employees' awareness for "anti-corruption, malpractice prevention, and strict discipline" through three major aspects of "setting of institution and norm", "self-discipline document signing" and "educational training implementation", and have computerized the management of various operations and uses technology to achieve management purposes. Last but not least, the Company implements audit operations as an aid to eliminate fraud and reduce relevant risks.	
Responsibilities and Goals	The Company formulates relevant ethical business management policies, the President's Office promotes related operations, and computerizes the management operations of various businesses to reduce human error in intervention and judgment. The audit office conducts audits according to the annual plan. Additionally, external and internal grievance channels are also provided to ensure the implementation of ethical business management as well as to prevent the occurrence of personnel frauds.	
Resources	Formulate relevant ethical management policies and computerize management of various operations to reduce human error in intervention and judgment.	
Grievance channel	Provide internal and external channels for reporting illegal activities in accordance with the "Employee Grievance Procedures" and "Internal and External Reporting of Unlawful and Unethical Behaviors."	
Performance evaluation methods and results	<ul style="list-style-type: none"> ■ No incident related to corruption occurred in 2020. ■ The Company ranked in the top 20% of 905 listed companies that were evaluated in the 7th Corporate Governance Evaluation in 2020. 	
Specific actions	<ul style="list-style-type: none"> ■ Standards and regulations: An internal real-time query channel for regulations such as "Ethical Corporate Management Best Practice Principles", the "Corporate Social Responsibility Best Practice Principles", the "Corporate Governance Best Practice Principles", and the "Personnel Management Rules." ■ Grievance mechanism: Internal and external reporting channels have been specified in the "Employee Grievance Procedures" and the "Internal and External Reporting of Unlawful and Unethical Behaviors." ■ Internal control: The management of various operations has been computerized. Each department conducts independent business inspections on a regular basis, and the independent audit department also performs inspections from time to time. 	

The Company has formulated rigorous ethical and relevant standards. We expect that our employees' speech and conduct must meet the ethical requirements and the Company's reputation and regulations, whether in the workplace or their daily lives.



(1) Code of Conduct and Preventing Conflicts of Interest

The Company has formulated 17 important standards and rules including "Corporate Governance Best Practice Principles" and "Ethical Corporate Management Best Practice Principles", all of which are disclosed in the "Investor" section on NPC's website.

(2) Anti-corruption Policies and Actions



■ Whistleblowing Channels

The Company provides internal whistleblowing channels for reporting illegal activities through the systematic "Employee Grievance Procedure". When the Company and the designated investigators are handling the reported incidents, principles of fairness and impartiality shall be upheld during investigations and case reporting. The whistleblower shall not receive retaliation, and the process shall remain confidential to avoid potential punishment (see 4.2.4 Emphasis on Employee Opinions for details on internal communication channels).

■ Implementation Status

The Company has conducted corruption risk evaluation on all operational sites in 2020, and no material corruption risk has been found.

1.2.5 Internal Control Mechanism

The Company has established an efficient and complete internal control mechanism. Through interconnecting personnel, finance, business, production, resource and materials, and engineering functions by technology, the Company has implemented overall computerization of operational management. The computer system automatically checks the data and debugs through preset logic. Once an abnormality is found, the relevant personnel are immediately prompted so they could understand and handle it accordingly. Additionally, the Company has also established an Audit Office under the Board of Directors. Dedicated internal auditors will carry out the auditing tasks based on the annual audit plan, as well as participate in audit-related courses organized by professional training institutions every year to continuously improve their professional capabilities.

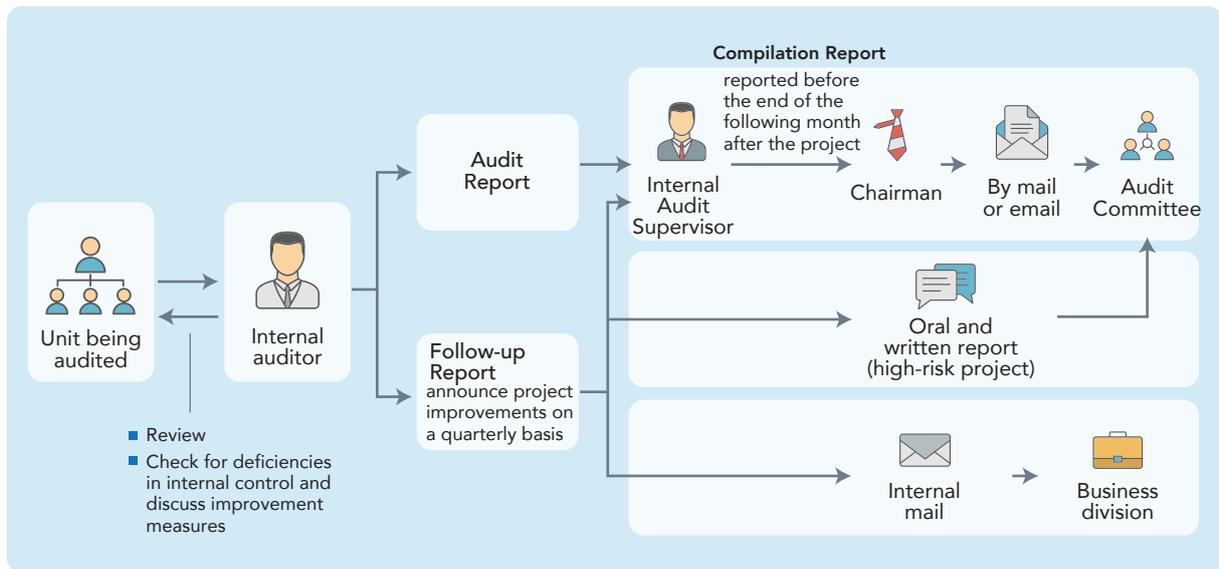
The Scope of Internal Audit



Internal Auditor Training in 2020

 Persons trained 22 persons	 Name of major courses 1. How Should an Auditor Understand Financial Information and Analysis on Finding Financial Frauds 2. Unveiling Corporate Frauds	 Total training hours 264 hours
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Implementation Procedure of Internal Audit



Statistics of Internal Audit

Item	2017	2018	2019	2020
Number of audit items performed	48	48	48	51
Number of abnormalities found	12	10	10	11 ^(Note)
Abnormality improvement rate	100%	100%	100%	100%

Note: 11 abnormalities were found in 2020, in which 2 were production and sales abnormalities; 2 were material engineering abnormalities; 4 were personnel and administrative abnormalities; 1 was training; and 2 were finance. None of which was material, and all have been improved.





1.3 Risk Management

Material Issue

Management Approach

Corresponding GRI Standards: None
Sustainable Issue: Operational Risk Management

Commitment and Policies	The Company has formulated "Risk Management Procedures" that specify management measures ranging from risk identification, risk control and supervision, and risk management performance and improvement, and hopes to enhance the risk awareness of all employees through these Procedures. This will allow the Company to maintain risk at tolerable levels and ensures the completeness and reasonableness of risk management and maximize benefits.
Responsibilities and Goals	The Company's "ESG Task and Risk Management Promotional Team (Risk Management Team)" can execute timely mitigation measures and invest manpower and resources in response to specific risks.
Resources	The Company has taken out property and fire insurance to safeguard its assets. Emergency response measures have also been established at all plants. In addition, system maintenance personnel have been set up at the President's Office and for all functions of all businesses, in order to cope with specific risks and to undertake timely mitigation measures, which may involve manpower and resources as needed.
Grievance channel	Please refer to "Stakeholder Engagement".
Performance evaluation methods and results	<ul style="list-style-type: none"> ■ The Company's Risk Management Procedures were approved by the Board of Directors on December 16, 2020. ■ The implementation of CSR matters including environmental sustainability and risk management were reported to the Board meeting on June 12, 2020.
Specific actions	On top of implementing general risk management processes, various risk management projects including labor safety, COVID-19 response measures, information security, exchange rate fluctuations, and changes in the legal environment, were also carried out in 2020.

Risk Management Promotional Organization and Identification Process

To achieve sound operations and sustainable development, the Company has formulated comprehensive risk management culture to carry out risk management in practice. The "ESG Task and Risk Management Promotional Team (Risk Management Team)" has been established, which reports to the Board of Directors on the status of risk management at least once per year. In addition, on December 16, 2020, the Board of Directors meeting approved the "NPC Risk Management Procedures" in order to formulate the Company's risk management policies. The levels of risk that the following issues pose to the



"Risk Management Promotional Organization" on NPC's website



Company were determined based on the levels of their respective impact on stakeholders, and risk policies that are used to effectively identify, evaluate, supervise, and control the risks have also been formulated. The Company hopes to enhance the awareness of all employees through these procedures. This will allow the Company to maintain risk at tolerable levels and ensures the completeness and reasonableness of risk management and maximize benefits.

Operational Risk Evaluation and Response Measures

The Company's "risk management" has identified 21 risks, including "climate change," in 2020 (6 risks in environmental aspect, 4 risks in social aspect, and 11 risks in governance). Please refer to "Risk Management" on NPC's website for the management strategies, mitigation measures, and management departments for risk.



"Risk Management" on NPC's website





Note: Risks that are also material CSR issues of the Company are denoted with an "★"

1.4 Issues Concerned by the Society

FPC Gets Hacked: Security Alert on Petrochemical Data

■ Explanation of the Incident:

The Company found that the e-mail system was unavailable at 10:15 on May 5, 2020. As CPC's system was attacked by a malicious program on May 4, the Information Department determined that our system might be under the same attack, so the Company immediately commanded all computers within NPC to be shut down and to disconnect the network to prevent further damage. After a comprehensive inspection of various systems, it is confirmed that the email system had been attacked, rendering it cannot be used. Nevertheless, the other systems were operating normally, and Taiwan Microsoft and Symantec Corporation are invited to the Company for assistance in tracing the source of the malicious program, and removing it. The Company sent out a company-wide announcement at 3:30 pm that day informing that computers could be booted up and that the Internet could resume service.

Regarding the e-mail system, the northern sites returned to normal at 8 am on May 6, and the central and southern sites returned to normal at 8 am on May 7.

■ Future preventive mechanisms:

The information department has once again reiterated the e-mail usage norms to all Company employees, and required all units to strictly review the rationality of their colleagues' application for e-mail accounts. To strengthen the prevention mechanism against malicious external mail attacks, an advanced continuous e-mail threat defense system was also introduced in September to work in line with the existing e-mail anti-virus system.

Major Power Users Clause - Concerns from Environmental Protection Groups

■ Explanation of the Incident:

The amendment to the "Renewable Energy Development Act" (also referred to as "Major Power Users Clause") was enacted on January 1, 2021. Pursuant to its regulations, users that have signed power consumption contracts with public power businesses of capacities over 5,000kW, shall set up renewable energy generation devices or storage devices that reaches 10% of the contracted power capacity within 5 years (or 8% capacity if it can be achieved in 3 years), or to purchase renewable energy power and certificates (RECs). In the absence of the aforementioned measures, these major power users shall pay additional fees. In addition, Taiwan Renewable Energy Alliance (TRENA) has cited this law to question the Company's lack of efforts toward promoting renewable energies in October 2020.

■ Response from NPC:

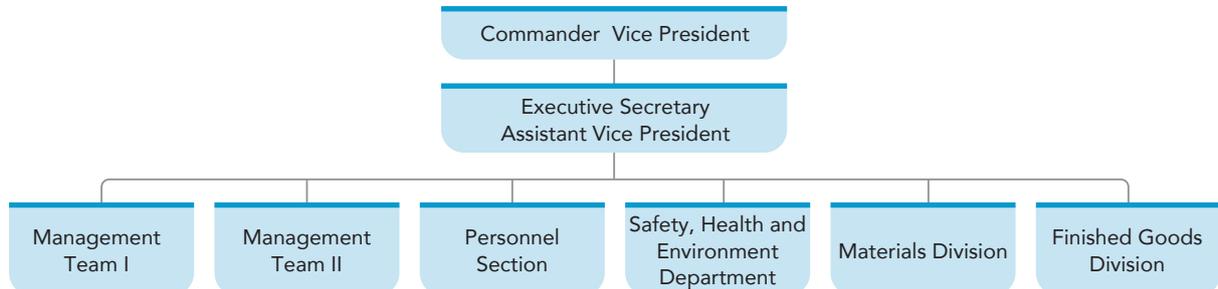
In response to climate change risks and the trend for energy transformation, the Company has not only planned to build one set of solar power generation device at the Rigid Film Site at Hsinkang, but we have also set up the "Renewable Energy Promotional Taskforce" in 2020 to comprehensively take inventory of, plan, and promote internal energy transformation. The Company sees "set up renewable energy device or storage device amounting to 8% of contracted power capacity by 2023, or to purchase renewable energies and certificates (RECs)" as its goal, and continues to stay on top of international carbon reduction trends as well as the demand of low-carbon market. We will expand the boundaries of internal energy transformation on a timely basis.

In addition, the Company is committed to long-term promotions of improvement measures aimed at energy conservation and carbon reduction, and has completed 4,391 energy conservation projects, which cumulatively saved 74,028 kWh/hour of power and reduced CO₂ emissions by 519,345 tons/year since 2006. In 2020, NPC implemented 394 energy-saving and carbon reduction improvement projects, which cumulatively saved 3,368 kWh/hour of power. Going forward, we will continue to actively promote various energy-saving and carbon-reduction activities to contribute toward environmental sustainability.

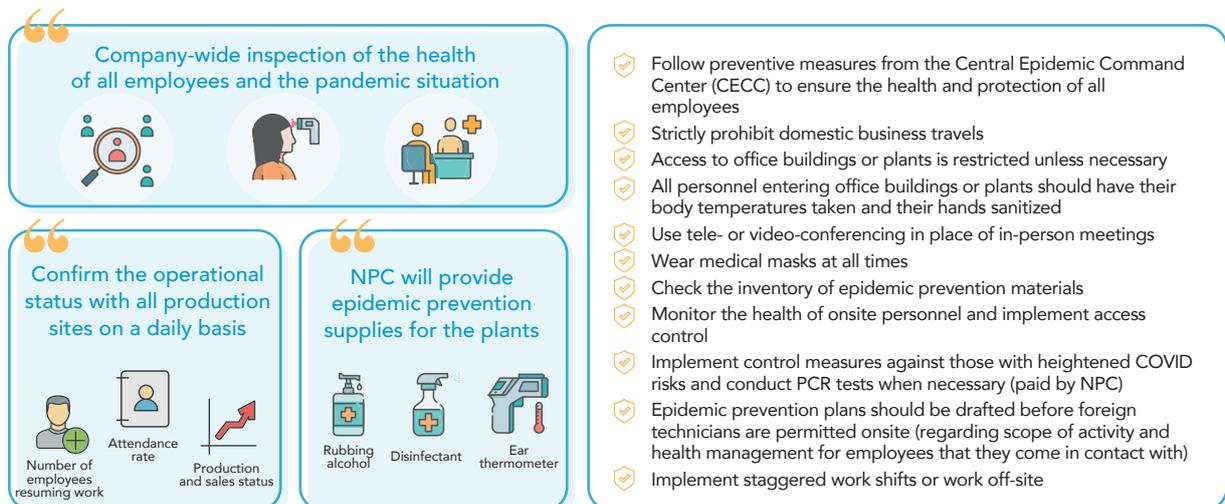
1.5 Response to COVID-19

On February 11, 2020, the Company set up a "COVID-19 Response Unit". The unit is headed by the Vice President from the President's Office, and the Assistant Vice President serves as its secretary, while it oversees the Management Team I, Management Team II, Personnel Section, Safety, Health and Environment Department, Materials Division and Finished Goods Division. The unit regularly convenes COVID-19 pandemic prevention meetings.

To control the spread of the COVID-19 pandemic, which may lead to various business interruptions, the pandemic prevention meeting has drafted response measures corresponding to varying levels of epidemic prevention in Taiwan. The measures target various aspects ranging from general practices to personnel, production and sales, materials, finished products, and engineering. At the same time, the response unit also stays up to date on the health conditions of employees, contractors, and relevant personnel.



Major Epidemic Control Measures





2 Product Value Expansion

- 2.1 Diversified Product Application
- 2.2 Positive Customer Relations
- 2.3 Supplier and Contractor Management

NPC is committed to providing diverse and high-quality products to customers. We are continuing to invest in research and development and innovations, as well as using new technologies, including artificial intelligence (AI) and digital transformation, to strengthen our corporate competitiveness and product quality. Moreover, we are also committed to practicing supply chain management in the hopes of generating a positive circle and contribute toward the industry's sustainable development.

Strategy	United Nations Sustainable Development Goals (SDGs)	Sustainable issues
<ul style="list-style-type: none"> Reinforce R&D and innovation and enhancing customer service Promote sustainable supply chain management 		Legal Compliance

2020 Goals	2020 Implementations (○ Did not meet the goals; ✓ Goals met; ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Reinforce R&D and innovation and enhancing customer service

<ul style="list-style-type: none"> Strengthen research and development, increase the ratio of differentiated and high-value products Carry out customer satisfaction survey, and review and improve in a timely manner No major violation regarding product labeling, customer privacy, etc. (with penalty exceeding NT\$1 million) 	<ul style="list-style-type: none"> ✓ The Company's R&D expenditure in 2020 exceeded NT\$1 billion, showing a 1.4% growth from 2019 (increased for 4 consecutive years) ✓ Overall customer satisfaction survey result in 2020 reached 4.4 points, accounting for 88% of the total score (higher than 2019 results) ✓ No major violation regarding product labeling, customer privacy, etc. occurred in 2020 	<ul style="list-style-type: none"> Strengthen research and development, increase the ratio of differentiated and high-value products Carry out customer satisfaction survey, and review and improve in a timely manner No major violation regarding product labeling, customer privacy, etc. (with penalty exceeding NT\$1 million) 	<ul style="list-style-type: none"> Maintain customer relations via innovation and R&D, helping the Company to seize market trends and develop potential niche market
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Implementing sustainable supply chain management

<ul style="list-style-type: none"> Increase "CSR Commitment" response rate to 85% and "CSR Survey" response rate to 75% 	<ul style="list-style-type: none"> ○ "CSR Commitment" response rate reached 81% in 2020 and "CSR Survey" reached 72%; will continue to request for vendor cooperation 	<ul style="list-style-type: none"> Increase "CSR Commitment" response rate to 85% and "CSR Survey" response rate to 75% 	<ul style="list-style-type: none"> Strengthen sustainable supply chain management to set the foundation for sustainable industry development
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CSR Achievements at a Glance

- The Company's R&D expenditure in 2020 exceeded **NT\$1 billion**, showing a **1.4%** growth from 2019 (increased for 4 consecutive years)
- Overall customer satisfaction survey results in 2020 reached **4.4 points**, accounting for **88%** of the total score (higher than 2019 results)

2.1 Diversified Product Application

The Company produces diverse products, ranging from plastic products, chemical products, polyesters products, electronic materials, to switchboards. The main product market position (global rankings) are as follows. For detailed products, please refer to "Product Overview" on NPC's website.



"Product Overview" on NPC's website

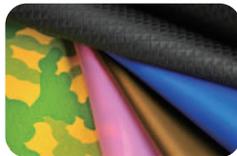
Main Product Market Positions (Global Rankings)



2.1.1 Major Brands

Most of the products are marketed globally under NPC's own brand. After years of diligent effort, a good industry reputation has been achieved.



<p>Major brands</p> <p>南亞保鮮膜 NAN YA WRAP 南亞塑膠工業股份有限公司</p> <p>Jiemei Film</p> <p>Product Image</p>  <p>Product</p> <p>PVC cling film</p> <p>Applications</p> <p>Packaging</p>	<p>Major brands</p> <p>台麗綾 TAIRILIN</p> <p>TAIRILIN (Dec. 1, 2007)</p> <p>Product Image</p>  <p>Product</p> <p>Polyester fiber</p> <p>Applications</p> <p>Garment</p>	<p>Major brands</p> <p>Neuma 節能氣密窗</p> <p>Neuma (Dec. 16, 2000)</p> <p>Product Image</p>  <p>Product</p> <p>Energy-saving airtight POM window Entrance fire door SMC door</p> <p>Applications</p> <p>Interior and outdoor construction materials</p>	<p>Major brands</p> <p>舒麗 SPLENDID</p> <p>Splendid (Feb. 2, 2002)</p> <p>Product Image</p>  <p>Product</p> <p>PU artificial leather</p> <p>Applications</p> <p>Sofas, office chairs, car upholstery</p>
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<p>Major brands</p> <p>珠光 PEPA</p> <p>Pearlescent Paper (PEPA) (May 1, 2010)</p> <p>Product Image</p> <p>Product</p> <p>Synthetic paper</p> <p>Applications</p> <p>Printing, tags and labels</p>	<p>Major brands</p> <p>南亞 舒活</p> <p>ECO (Jul. 16, 2011)</p> <p>Product Image</p> <p>Product</p> <p>Panel and decking, decorative panels</p> <p>Applications</p> <p>Interior and outdoor construction materials</p>	<p>Major brands</p> <p>華麗</p> <p>Deluxe (Nov. 16, 1997)</p> <p>Product Image</p> <p>Product</p> <p>Hollow tiles, plastic flooring, hollow foamed plates</p> <p>Applications</p> <p>Flooring, furniture board, door panels</p>	<p>Major brands</p> <p>NAN YA ICE COOL</p> <p>Nan Ya ICE COOL insulation films</p> <p>Product Image</p> <p>Product</p> <p>Energy-saving films</p> <p>Applications</p> <p>Insulation for glass panels in vehicles and buildings</p>
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Note: For detailed product information, please go to the websites listed below:



"Product Overview" on NPC's website



NPC's PVC cling film website



NPC's energy-saving airtight POM windows website



NPC synthetic paper and compound paper website

2.1.2 Product Development and Innovation

Three Major Innovation Policies

The Company is one of the major subsidiaries of Formosa Plastics Group (FPG) and is mostly committed to products in the fields of plastic, chemical, electronics, fiber, etc. In recent years, in line with the Company's policy, R&D layout is carried out in terms of process optimization, developing high-value products and circular economy.

R&D Layout of Management Policy

<p>Process Optimization Benefit maximization</p> <p>Key points of optimization</p> <ul style="list-style-type: none"> ■ Increase production capacity ■ Material consumption reduction ■ Improve quality ■ Energy saving and waste reduction <p>Methods</p> <p>Experiment with simulation software and use AI to optimize process parameters</p>	<p>Increase Product Value Increase product value and profitability</p> <p>Development direction</p> <ul style="list-style-type: none"> ■ Develop new technologies/new functional products ■ Expand new applications and markets ■ Create new fields and businesses <p>Methods</p> <p>Develop new technologies and new markets by integrating internal and external resources based on customer's feedback</p>	<p>Circular Economy Low energy consumption, high profitability, low emission</p> <p>Purpose</p> <ul style="list-style-type: none"> ■ Reduce ■ Reuse ■ Recycle <p>Methods</p> <p>Reduce waste and energy consumption at the source, and separate, purify, and regenerate waste to increase added value</p>
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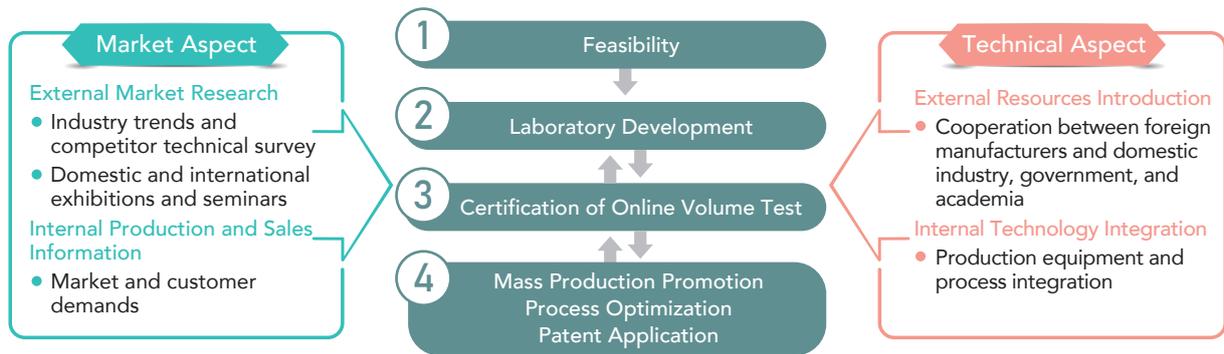
Management Processes for R&D and Innovation

1. R&D Organization

A development team in the management office, technical department and technical group have been set up for each of the Company's divisions, which are responsible for new products/development/production/quality assurance and so forth. An independent R&D Center for high-end products has also been set up to integrate inter-departmental resources, assist departments in breaking through technical obstacles and expanding into new niche markets.

2. R&D Operational Model

- (1) Integrate technical and market aspects, hold regular production, sales, and technical meetings, and develop high-value products with development potential that meet the short-, medium- and long-term needs of the market.
- (2) Join hands with domestic and foreign partners, including peers, raw materials suppliers, equipment manufacturers, customers, universities, and research institutions to jointly develop products and markets to create synergistic growth.



R&D Investment

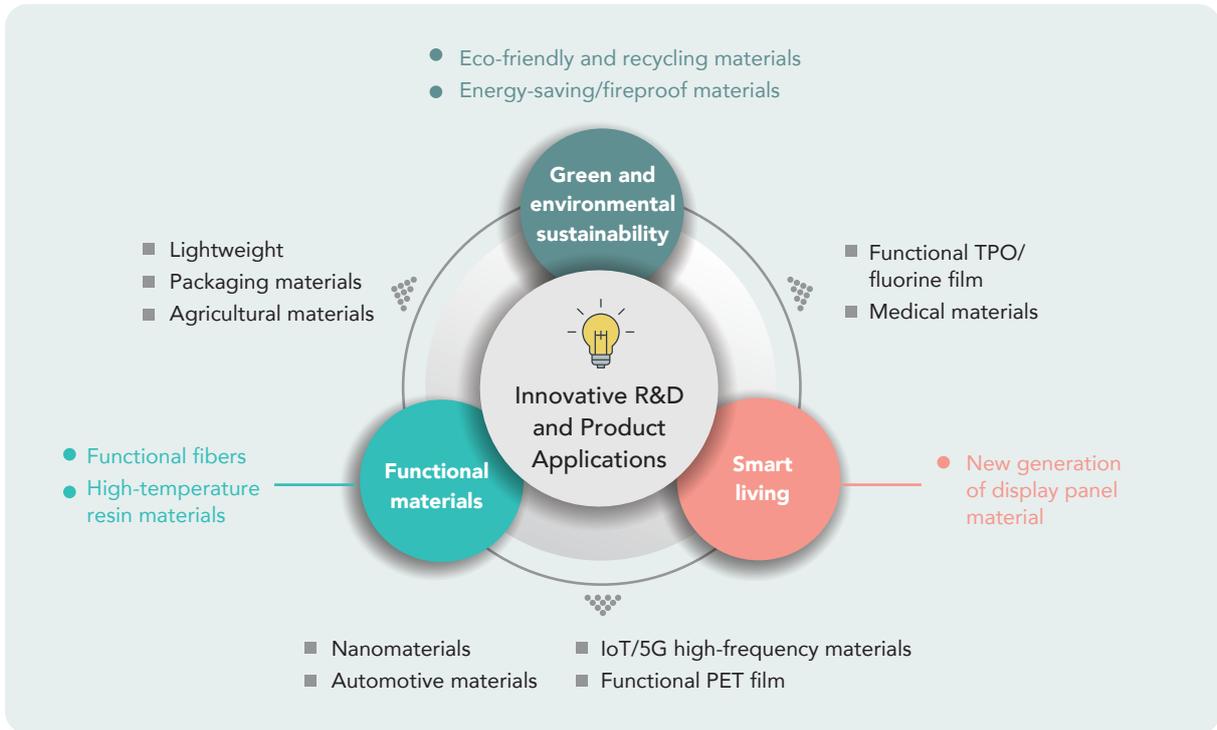
To reduce raw material costs from directly producing new products, the Company has purchased various trial and mass production equipment and precision analytical instruments. This also enables the Company to provide small-batch samples for customers to evaluate, thereby shortening the development schedule. R&D expenses in the past four years are as follows:

Trend of NPC's R&D Expenditure Over the Years



Innovative R&D and Product Applications

The Company's products span the fields of plastic, chemical, electronics, and fiber, etc. In terms of product categories, they can be divided into plastic products, chemicals, electronic material, fibers and textiles, machinery and switchboard, etc. On top of promoting the Industrial 4.0 intelligent chemical plants in the product line in recent years, the Company has also committed to the R&D of innovative products in line with government policies. These efforts include 14 innovative R&D fields, such as recycling and environmentally friendly materials, energy-saving/fireproof materials, IoT/5G high-frequency materials and automotive materials. For future R&D projects, which the Company expects to invest, please refer to the Company's Annual Report.

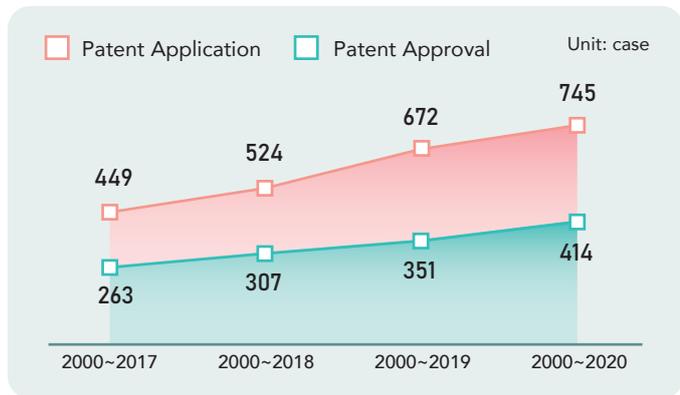


Innovative R&D Patents & IP Rights Protection

To encourage innovation and strengthen the protection over intellectual property (IP) rights, the Company has formulated "R&D Management Procedures" and "R&D Personnel Incentive Measures" and introduced a knowledge management platform to enhance R&D and innovation competencies. Moreover, various measures have been implemented to protect patents, trademarks, and trade secrets. The Company uses a digitized management system to mitigate hazards and risks, and reports the status of IP rights management to the Board of Directors at least once a year. Please refer to "IP Management" on the Company's website for further details. Innovation and R&D patents over the years are listed in the image below:



"IP Management" on NPC's website



2020 Major R&D Results

Development of insulation coating, aluminum plastic film and materials, material for quantum coating of new generation display panel, long-fiber reinforced engineering plastic, preprocessing/chemical recycling processing of PET woven products, and high-frequency substrate for 5G telecommunications and more.

Boosting the Excellent Performance of Innovation and R&D Team

In order to boost R&D, Formosa Plastics Group has set up various R&D incentives to reward patent proposals, certifications, and key products or patents that derive major benefits. All departments are regularly invited to convene the FPG Technological Application Seminar to select innovative works for competitions and to announce relevant results. Divisions with superior research results are publicly praised and awarded bonuses to inspire the exchange of ideas and to further stimulate research and innovation within the Group.

2.1.3 Green and Environmentally Friendly Products

From raw material procurement to product sales, the Company attaches great importance to the health and safety of our customers. Therefore, the production process is continuously improved (such as reducing harmful formulas, energy saving, carbon reduction, and green product development). To follow market trends and meet customer needs, we have shifted our focus to produce non-toxic and environmentally friendly products with improved production processes as well as green energy products. The Company's major green and environmentally friendly products include the following:

Green and Environmentally Friendly Solutions	Major Products	Description of Green Benefits
Energy efficiency	Thermal Insulating Coating	1. Verified by National Taiwan University of Science and Technology to conserve 31.8% of air conditioning energy consumption in summer 2. Actual coating of solvent tankards in Mailiao has been verified that VOC effusion can be reduced by 60%
	ICE COOL (Insulation Film)	Non-toxic, anti-scattering, highly transparent and high IR with UV resistance, allowing users to reduce energy consumption while ensuring internal spatial safety
	Dry type transformer	Energy efficiency ratio of 99.2; a 4% competitive edge over the CNS standard of 98.8
	Energy-saving airtight POM window	Low heat conductivity; insulation is 1/1250 of aluminum steel, allowing users to save energy consumption by more than 20%
Emissions reduction	Water-based treatment agent Water-based ink Water-based PU leather Non-VOC anti-corrosion coating	Reduces VOC emissions
Waste reduction	Eco-friendly plasticizers (DHIN, DHEH, DOTP)	Reduces emissions of phthalate-containing wastes
Water conservation	Natural color yarn	Saves up to 94% of water consumption in comparison with traditional dyed yarns
Toxicity	PVC leather, PVC sheeting, PU leather, TPU leather PP construction material sheeting Green building resin (waterproof material, IAAF runway)	NPC can produce products that meet REACH and RoHS regulations
	Titanium catalyst	Replaced traditional antimony catalysts with titanium catalysts to avoid emissions of heavy metals during the dyeing process of polyester products, or waste antimony coming into contact with the soil
	Eco-friendly plasticizers (DHIN, DHEH, DOTP)	DHIN and DHEH have low toxicity; their PVC products have passed the biocompatibility tests for acute toxicity, skin irritation, skin sensitivity, hemolysis, and cell toxicity
	Epoxy resin surface coating Epoxy resin primer	NPC's epoxy flooring coat adopts a self-flattening form that adheres to the surface of the floor and forms a smooth and seamless epoxy coated flooring. Provides good adhesion, anti-abrasion, withstands pressure, insulation, water-resistance, oil resistance, and durable against generic drugs. And meets relevant standards for low toxicity and has achieved the "Green Building Material" label, and comes with benefits including low toxicity and low formaldehyde effusion
Health	Mold-resistant and bacterial-resistant PVC leather, PVC sheeting, PU leather, and TPU leather	NPC can produce anti-mold and anti-bacterial (Staphylococcus, E. coli, pneumonia) products
	Eco-friendly plasticizers (DHIN, DHEH, DOTP)	Does not contain reproductive toxicity and can be used for manufacturing yoga mats, respiratory masks, baoding balls, food packaging materials, sports and recreational flooring, toys, and medical products

Green and Environmentally Friendly Solutions	Major Products	Description of Green Benefits
Recycled products	Non-woven fabric from PET fibers PU synthetic leather from PET fibers Recycled PET polyol Waterproof PVC sheeting PP water tank panels R-PET	<ul style="list-style-type: none"> Recycle PET bottles, reproduce them as fibers and reuse them in production Use recycled materials in the surface raw materials of PU and TPU Use recycled scraps
	Recycling of PET bottles	Recycle used PET bottles and reproduce them as fibers or PET bottles to significantly reduce the environmental impacts from PET bottles
Safety	Fire-retardant wallpaper Automotive PVC leather/PU leather Fire blanket	Prevents fire and protect personal safety
	SMC Fire Doors	Shock-resistant, fireproof, and smoke control, to protect property and asset

■ Environmental Labels and Certificates



Global Recycle Standard, GRS)
Version 3.0



Singapore Green Building
Product (SGBP) Label



Green Mark



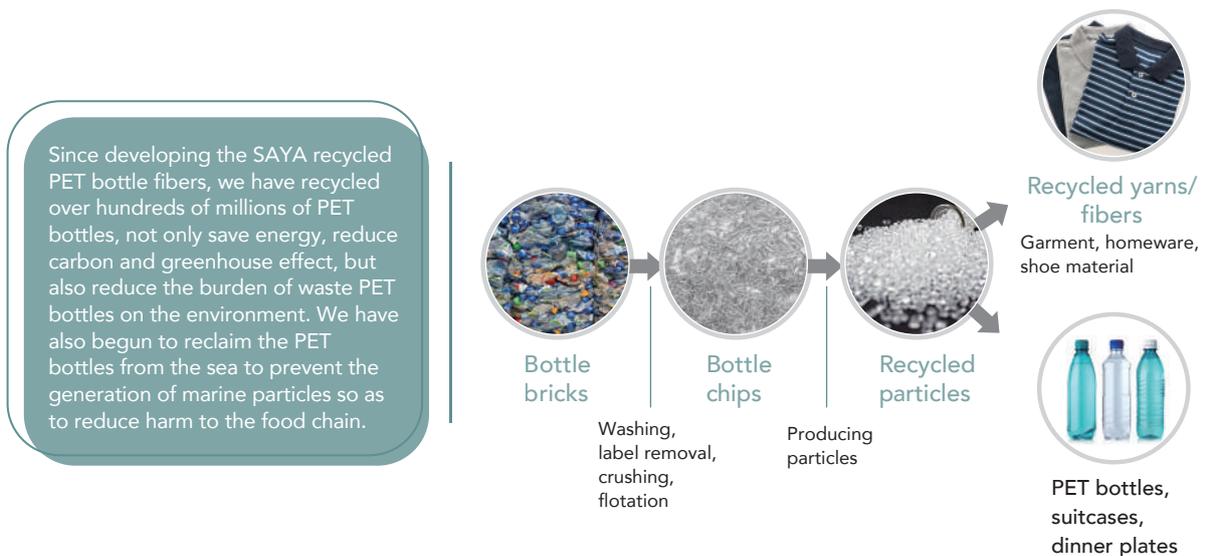
Green Building
Material Label



Low Carbon
Building Alliance
(LCBA) Label

Example of An Environmentally Friendly Product

■ Recycled PET Bottles



■ Recycling Plastic Pallets

Pallets can be used in automated warehousing (product shelving). It is also used repeatedly both within and outside of the production plant, in product shipping and low-temperature storage. Pallets with different loading capacities are also supplied to meet customers' needs. The plastic pallets have been certified by laboratories from Taiwan Accreditation Foundation (TAF), showing NPC's rigorous quality control over the pallets we produce.

Product characteristics and applications:

It has outstanding qualities such as being resistant to acids and alkali, free of nails, humidity-resistant, mold-resistant, termite-resistant, and does not require fumigation for export. These qualities greatly enhance product storage safety, hygiene, and quality.

Green Mark Certification received in June 2000



Plastic pallets are made from 100% recycled waste plastics, which helps to prevent environmental pollution from corroded waste plastics and contributes toward environmental protection.

2.1.4 Artificial Intelligence (AI) Applications

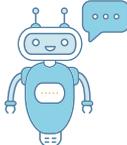
Artificial intelligence (AI) has set off a digital revolution worldwide. Since 2018, the Company has organized and trained an internal AI promotions team to develop relevant technologies used in image flaw detection, virtual instrument establishment, and other application fields. Through process optimization and AI technology introduction, the Company hopes to enhance factory automation, digitalization and intelligence to gradually construct smart factories.

Promotional Organization

The President is appointed by the Chairman of the Board of Directors to act as the general convener of the Company's AI promotions. The President's Office, the manager's office and the data scientists of each factory (department) and the process field experts jointly form the AI promotion team. With the division of labor between the President's Office and the manager's office AI promotion team, AI projects can be accelerated.

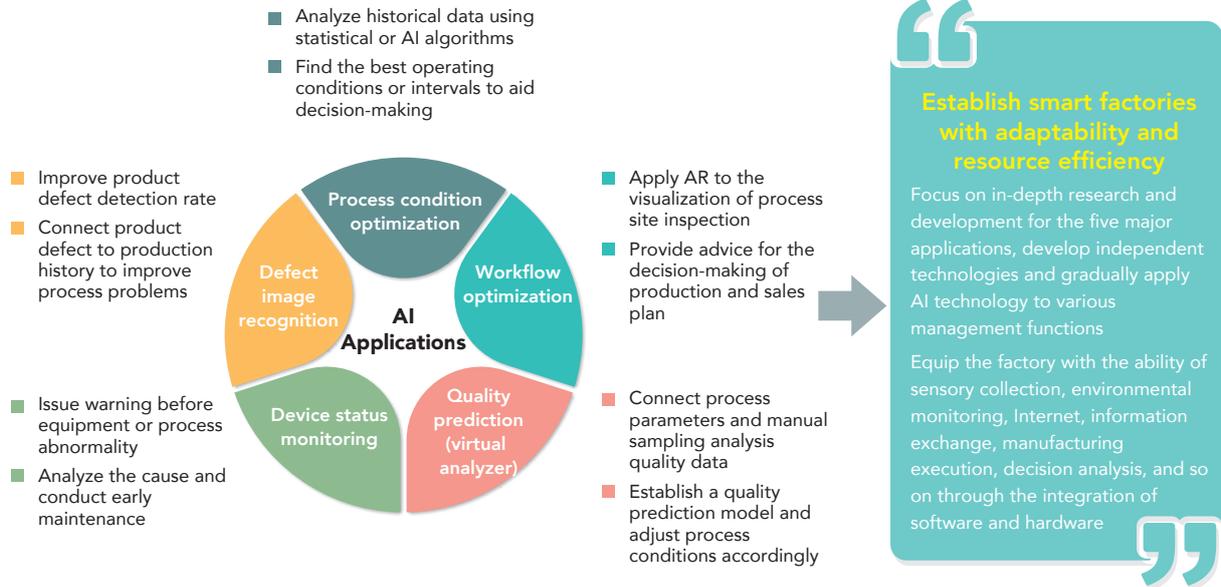
Professional Training for AI Talents

To train AI professionals and strengthen the ability to develop AI applications internally, the Company develops relevant personnel using three major approaches including "external training at Taiwan AI Academy," "internal AI training," and "industry-academic cooperation." The key points are as follows:

External Training at Taiwan AI Academy	Internal AI Training	Collaboration Between the Industry and Academia
<ul style="list-style-type: none"> ■ Personnel have been sent to participate in Technical Professionals or Manager Program at the Taiwan AI Academy since January 2018. ■ At present, 106 persons have finished training and 3 are being trained. More personnel will be assigned to be trained 	<ul style="list-style-type: none"> ■ To accelerate the development of AI applications in the Company, internal AI education and training are being continuously organized ■ The curriculum includes courses such as "Basic Statistical Quality Management", "Advanced Statistical Quality Management", "Introduction to Artificial Intelligence", "AP Taiwan AI Academy", "Data Preprocessing", and "Image Recognition Practicum" 	<ul style="list-style-type: none"> ■ NPC engages in technical exchange with professional vendors, such as Microsoft and Amazon, to strengthen data preprocessing and module development competences ■ NPC has engaged in industry-academic cooperation with academic institutions, including Yuan Ze University, Chang Gung University and Ming Chi University of Technology to develop AI applications, such as "defect image recognition" and "rotary equipment life expectancy prediction"

AI Applications and Development Goals

The Company is presently focused on the following five AI applications:



AI Implementations and Overview

As of the end of 2020, the Company has implemented 229 AI projects (both completed and ongoing). Estimated investment is NT\$481,366 thousand, while expected annual benefits is NT\$1,524,384 thousand. The highlights are as follows:

	2019	2020	2021
Officially launched AI application projects	52 projects	72 projects	105 projects
Investments	NT\$91,464 thousand	NT\$145,803 thousand	NT\$244,099 thousand
Expected annual benefits	NT\$591,576 thousand	NT\$352,704 thousand	NT\$580,104 thousand

2.2 Positive Customer Relations

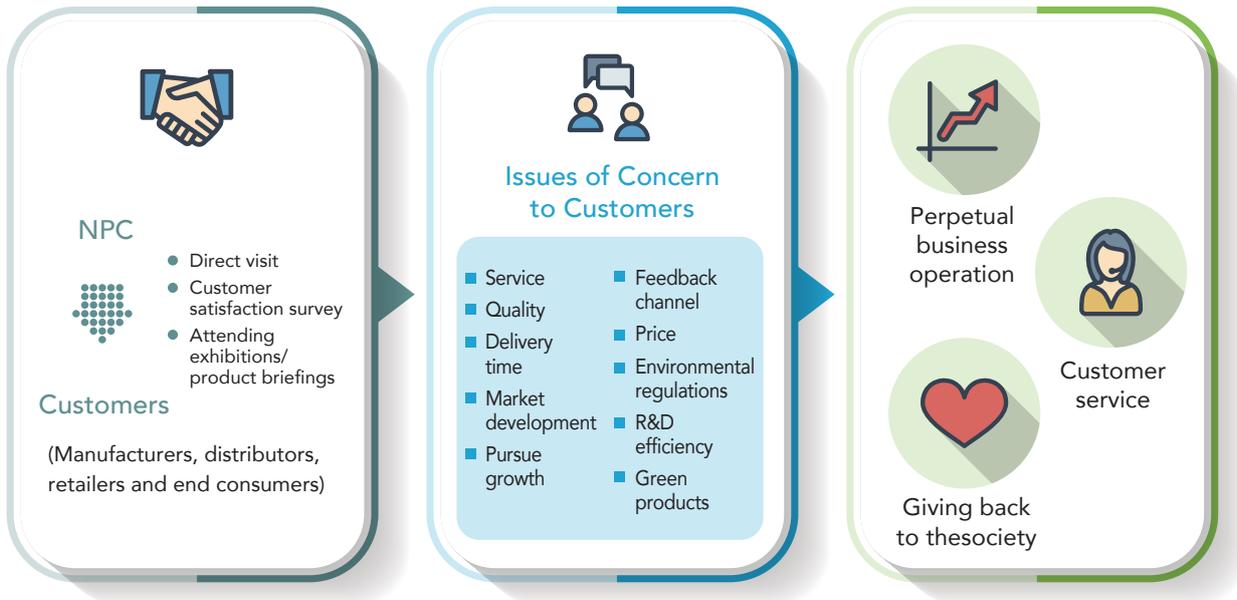
The Company puts great emphasis on customer rights and feedback. Enhancing customer satisfaction does not only fall on the sales divisions, but the collective goal of all NPC employees. When the downstream customers' business expands, it is an affirmation and support for the Company. The Company hopes to form a virtuous circle and grow with our customers, to achieve a win-win relationship.

2.2.1 Collaborative Customer Relations

Mutually-benefiting Interactions

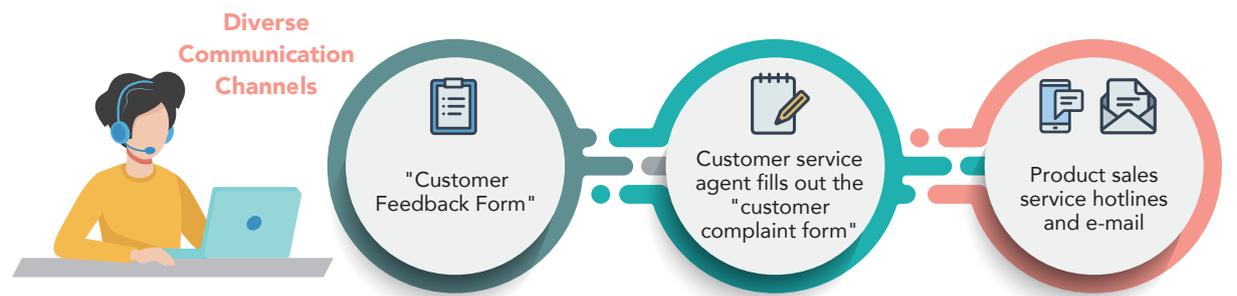
To strengthen customer relationships, the sales divisions regularly visit customers, exchange opinions on existing or new products, and establish an interactive and timely communication channel. Through attending product exhibitions, we can talk face-to-face with the customers about market information as well as integrate customer feedback as important reference for the Company's operations and future improvements.

Stakeholder Communication and Feedback Mechanism



Responding to Customer Feedback

Customer relationship management is an important part of the Company's perpetual business operation. To understand the valuable opinions of customers, NPC has clearly specified the following customer complaints channel, return, refund, and compensation application procedures:



2.2.2 Customer Satisfaction Survey

To understand whether our products and services meet our customers' needs and expectations, we collect customers' feedback and suggestions as a reference for the improvement of internal operations. The survey includes eight major topics, such as product characteristics, product quality, product delivery time, product price, service attitude, technical service, brand image, and overall satisfaction. The survey topics will be adjusted based on the customers' concerns.

Customer Satisfaction Survey Model

According to the results of the 2020 customer satisfaction survey, the overall satisfaction was 4.4 points, accounting for 88% of the total score. Seven performance indicators were above "satisfactory" though some product pricing failed to meet customer expectations. This was mostly attributed to the fact that customers perceived that the Company did not adjust prices of certain products when their raw material prices had decreased. The Company will continue to pursue cost reduction and share profits with our customers while maintaining product quality.



Year	Technical research	Service attitude	Brand image	Product delivery time	Product quality	Product characteristics	Product price	Overall satisfaction
2017	4.3	4.4	4.3	4.1	4.2	4.2	3.6	4.2
2018	4.3	4.5	4.4	4.2	4.3	4.3	3.7	4.3
2019	4.3	4.4	4.3	4.2	4.3	4.3	3.7	4.3
2020	4.4	4.5	4.4	4.3	4.4	4.4	3.8	4.4

Note: 5 points indicate extremely satisfied; 4 indicates satisfied; 3 indicates neutral; 2 points indicate dissatisfied, while 1 point means the customer is extremely dissatisfied.

2.2.3 Legal Compliance

Management Approach

Corresponding GRI standards: Socioeconomic Compliance
Sustainable Issue: Legal Compliance

Commitment and relevant policies	Compliance with regulations and standards is the Company's most fundamental principle, and it is also the foundation of the Company's philosophy of "to aim at the sovereign good, and perpetual business operation." We will strictly abide by the local laws and regulations of each operation, and use this as the foundation to improve each business and reduce the occurrence of external risks.
Responsibilities and goals	Legal compliance is a basic requirement for stable operation of the Company. The President's Office keeps abreast of the changes in various laws and regulations, formulating corresponding countermeasures, which are then implemented by each business division. Audit operations are also conducted to ensure that no major violations of regulations occur.
Resources	Formulate corporate governance, risk management, and internal control system, and projects promoted in line with statutory requirements.
Grievance channel	Please refer to the chapter on "Stakeholder Communications".
Performance evaluation methods and results	<ul style="list-style-type: none"> ■ All production sites have been certified with ISO 9001, ISO 14001, and ISO 45001. ■ The audit office has completed the 2020 Audit Plan and no major abnormality was found. Abnormalities found have been improved.
Specific actions	<ul style="list-style-type: none"> ■ Regular monitoring of legal and policy compliance. ■ Regularly conduct audit operations to avoid legal violations. ■ Training related to legal compliance.

Environmental Regulations

The Company's production and sales operations are conducted in accordance with the laws and regulations. We continue to develop environmentally friendly products that comply with EU's RoHS, REACH and other environmental regulations, and either meet Green Building materials standards or can be used as Green Energy applications. The Company hopes to safeguard the health and safety of customers while contributing to the sustainable development of the environment.

Product Labeling

The labeling of the Company's product information meets statutory requirements and the requirements from the Industrial Development Bureau, MOEA. The label "Not fit for human and animal consumption" is marked on the outer packaging and product delivery note of specific products that are non-food additives.

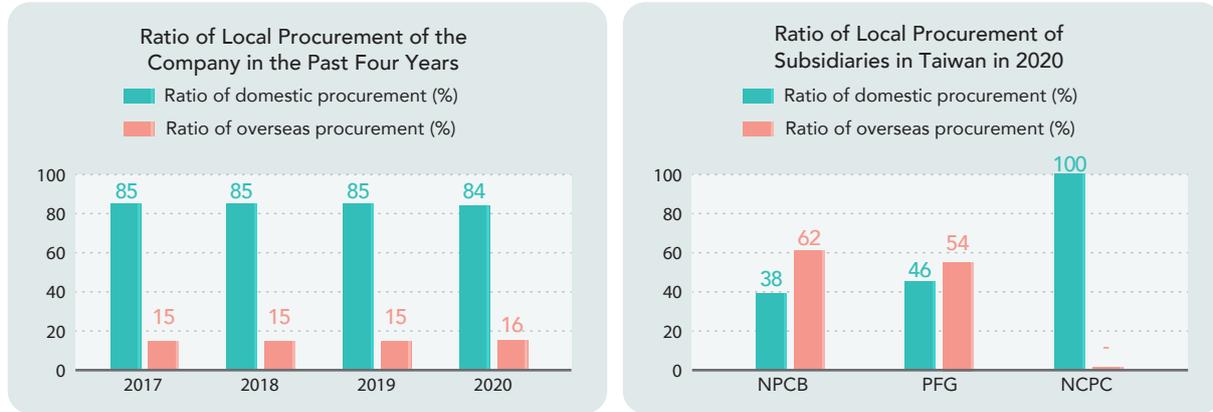
Data Protection

NPC has established the "Regulations Governing Personal Information Management", which requires all relevant departments to list personal data management as a self-inspection item. Only authorized personnel are allowed to browse employee or customer information. Any personnel that wishes to access such information due to business needs must sign the "Application Form for Personal Information Collection, Processing and Use", while verification has to be carried out to ensure that such application complies with the regulations before access may be granted. The method of such access is also strictly regulated.

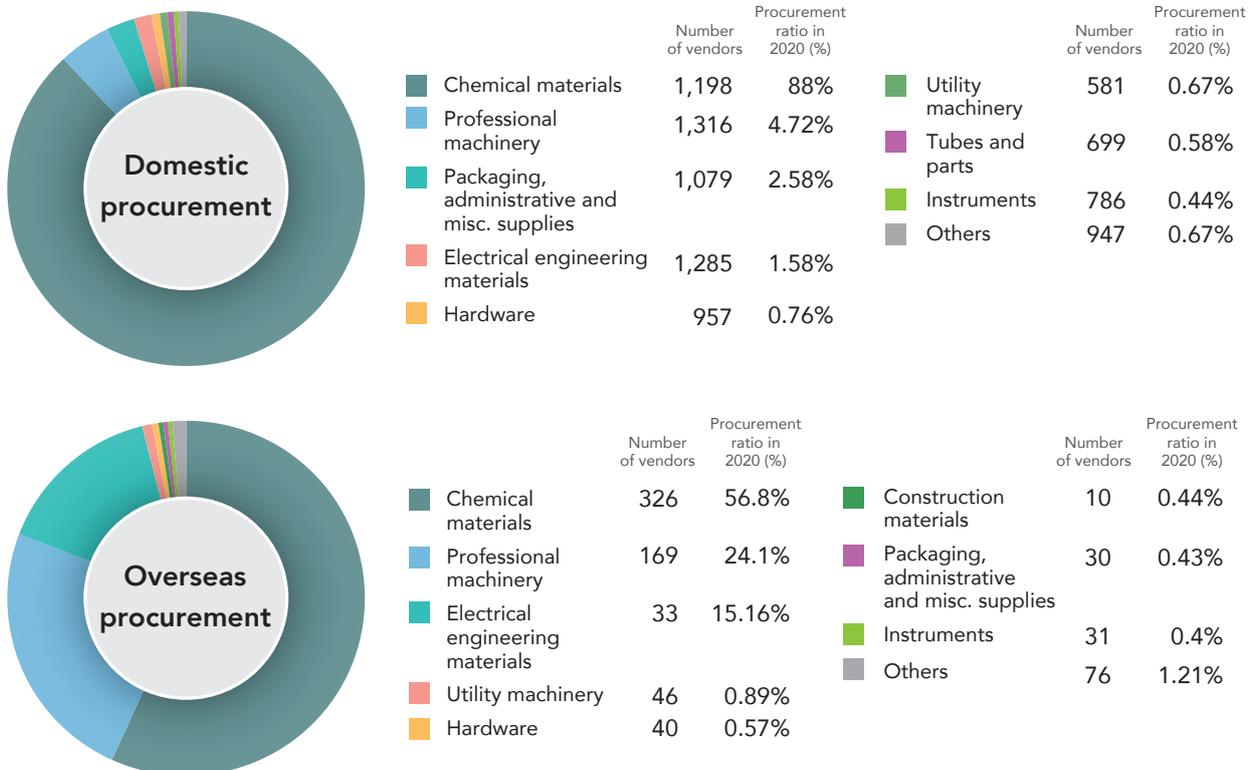
2.3 Supplier and Contractor Management

Prioritizing Local Procurement Principle

The Company's procurement and contracting policies prioritize local procurement and contracting. Procurement and tender only occur abroad in the absence of local options. The domestic procurement ratio during the past four years is as follows:



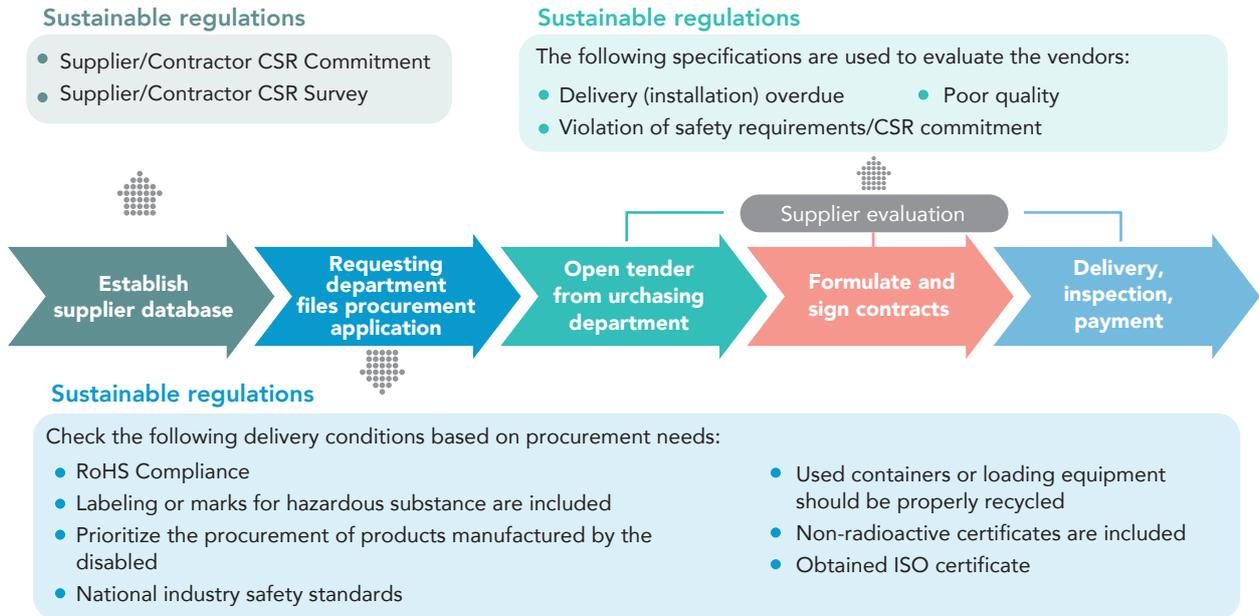
Moreover, relevant operations will continue to use electronic transactions to establish a harmonious relationship between both parties and to achieve the goal of building an open, fair, and just procurement and contracting mechanism. Eliminate inferior contractors while fostering ties with long-term partners through the sound contractor management mechanism. The distribution of the supply chain of the Company and its Taiwan subsidiaries in 2020, including professional machinery, chemical materials, packaging and business supplies, and other items, the procurement ratio is as follows:



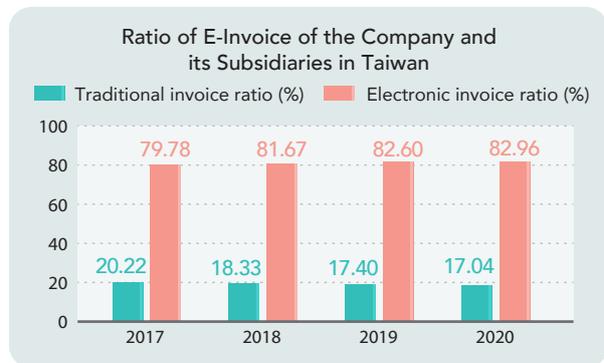
2.3.1 Vendor Management

Supplier Sustainability Issues

During procurement processes, the Company adheres to the principle of perpetual business operation and fair trade. The Company is committed to requiring vendors to comply with environmental protection, work safety, and human rights requirements. If a vendor fails to meet such requirements, their products will be rejected and the offending vendor will be included in the vendor evaluation. The procurement process is as follows:



In addition, traditional invoices have been replaced with e-invoices to reduce costs and increase management efficiency. Thus far, over 80% of suppliers have adopted e-invoices, which has significantly reduced the time and costs of manual labor from both parties as well as costs of stamps and paper.



Contractors Sustainability Issues

To reinforce safety management, control the quality of contractors, improve the contractors' occupational safety standards, and prevent injuries for their employees, a contractor ranking system has been set up.

Contractor Ranked Management System



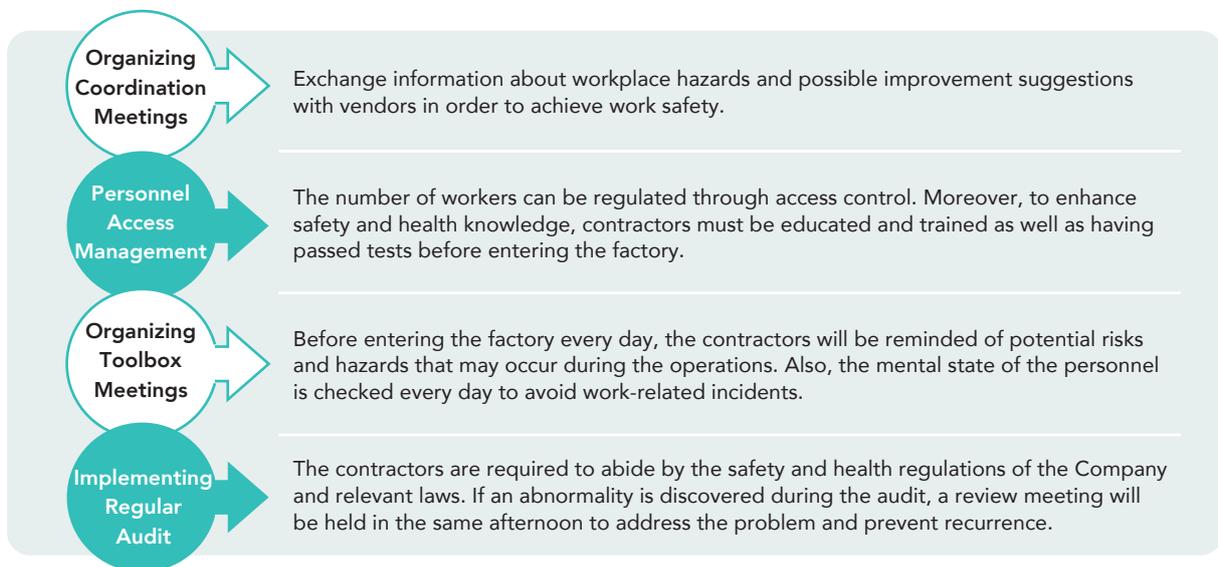
The contractor ranking system is used as a reference by the contracting department in the tender process. In addition, the Company has stipulated safety and health management expenses as a required budget expense for the outsourced business. Besides including contract specifications and computer control, the Company also reviews safety and health management expenses during the tender process. To avoid contractors from sacrificing safety and health management for pricing concerns, the amount of the management expenses cannot be lower than the budget.

2020 Supply Chain Management Practices

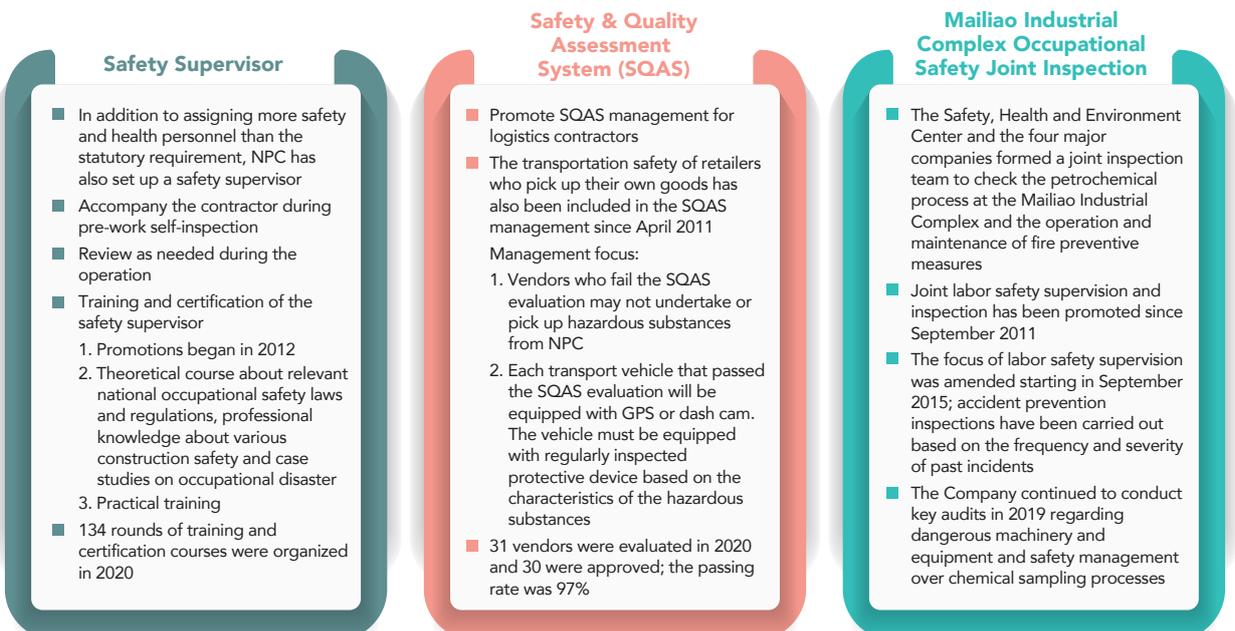
Starting from October 1, 2019, the "Supplier/Contractor CSR Commitment" and "Supplier/Contractor CSR Survey" have been formulated one by one, and are sent to the vendors once they log into the Formosa Technology E-Market Place or complete an order. Vendors are asked to sign and respond to the forms and to abide by relevant rules. The response rate of CSR Commitment was 81% in 2020, while the response rate of the CSR Survey reached 72%. To ensure that all transacting vendors are fulfilling their corporate social responsibilities in line with the Company's requirements, vendor evaluations will be arranged in 2020 as needed based on the vendor feedback.

2.3.2 Contractor Safety Management

To ensure the safety of the workplace environment, the Company requires contractors to comply with laws and regulations regarding occupational safety and health, and safety and health management personnel have also been set up. The contractors must pass safety and health education and hazard identification training before entering the factory. The Company also promotes autonomous management among contractors to achieve zero disaster goals through mutual trust and cross supervision. To establish a platform that promotes positive, bilateral communications and coordination, the Company has adopted the following management practices:



In addition, in order to strengthen the safety management of contractors and ensure workplace safety, the Company also promotes the following operations:



3

Green Environment Management Promotion

- 
- 3.1 Commitment to Environmental Protection
 - 3.2 Risks and Opportunities of Climate Change
 - 3.3 Air Pollution Prevention
 - 3.4 Water Resource Management
 - 3.5 Waste Management and Circular Economy
 - 3.6 Environmental Compliance

To pursue sustainable development of the environment, NPC actively manages all environmental impacts from its operations. The Company is committed to implementing energy and water conservation projects and integrates the circular use of raw materials, energies, resources, and waste throughout all plants to prevent or mitigate the risk of environmental impacts. In addition, the Company has also formulated goals to examine the effectiveness of sustainable performance so as to fulfill the responsibilities of green production.

Strategies	United Nations Sustainable Development Goals (SDGs)	Sustainable issues
<ul style="list-style-type: none"> Promote circular economy - circular use of raw materials energies, resources, and waste Mitigate climate change risks - promote energy conservation and carbon reduction improvement projects, reduce greenhouse gas (GHG) emissions, and respond to energy transformation policies Strictly comply with environmental laws and regulations - manage controlled chemical substances and air pollutants and achieve zero environmental legal violations 		Climate change risk management, greenhouse gas management, water resource management, controlled chemical substance management, air pollutant management, waste management, circular economy promotions

2020 Goals	2020 Implementations (○ Did not meet the goals; ✓ Goals met; ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Circular Economy Promotions

<ul style="list-style-type: none"> Continue to promote energy conservation and water conservation projects; reduce total water consumption, gas consumption, and electricity consumption from the 2019 figures Reduce water consumption per unit product by 2%, energy consumption per unit product by 3%, and waste generation per unit product by 1% from the consumption per unit product of the previous year at Mailiao site on an annual basis Increase rainwater collection and wastewater reuse at Mailiao site 	<ul style="list-style-type: none"> ✓ 596 improvement projects were completed in 2020; compared with 2019, consumption of water, gas, and electricity were reduced by 0.5%, 0.5%, and 5.1%, respectively ★ Compared with 2019, water consumption per unit product was reduced by 2.8%, gas consumption by 6%, electricity consumption by 4.3%, and energy consumption by 3.7% at Mailiao site ✓ Rainwater collection rate in 2020 increased by 1.3% from 2019 at Mailiao site 	<ul style="list-style-type: none"> Continue to promote energy conservation and water conservation projects; reduce total water consumption, gas consumption, and electricity consumption from the 2020 figures Reduce water consumption per unit product by 2%, energy consumption per unit product by 3%, and waste generation per unit product by 1% the consumption per unit product of the previous year at Mailiao site on an annual basis Increase rainwater collection and wastewater reuse at each business division 	<ul style="list-style-type: none"> Continue to promote water conservation, energy conservation, carbon reduction, and waste reduction as well as increase rainwater storage and utilization Install wastewater recycling facility and improve rainwater collection progressively
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Mitigate Climate Change Risks

<ul style="list-style-type: none"> Complete internal audit and external third-party verification on GHG inventories Reduce GHG emissions Reduce energy consumption per unit product by 3% from the previous year at Mailiao site on an annual basis Discuss response policy to the government's "Major Power Users Clause" Complete identification and appraisal for risks and opportunities based on TCFD Maintain "leadership level" on the "climate change" and "water security" sectors in 2020 Carbon Disclosure Project (CDP) 	<ul style="list-style-type: none"> ✓ External verification on GHG inventories expected to be completed by July 2021 ✓ GHG emissions in 2020 were reduced by 2.80% compared with 2019 ★ Compared with 2019, electricity consumption per unit product was reduced by 4.3% and energy consumption was reduced by 3.7% ✓ Thorough review on the feasibility of installing photovoltaic facilities at each site ✓ Identification and appraisal for risks and opportunities based on TCFD have been completed ✓ Maintained the "leadership level" on the "climate change" and "water security" sectors in 2020 Carbon Disclosure Project (CDP) ★ Kung Sang site was awarded "Excellent Enterprise for Voluntary Industrial GHG Reduction" 	<ul style="list-style-type: none"> Complete internal audit and external third-party verification on GHG inventories Reduce GHG emissions and to reduce GHG emission intensity by 3% per unit of turnover Reduce unit energy consumption by 3% from the previous year at Mailiao site on an annual basis Plan to gradually install photovoltaic devices at sites in the South, which receive ample sun exposure Maintain "leadership level" on the "climate change" and "water security" sectors in 2021 Carbon Disclosure Project (CDP) 	<ul style="list-style-type: none"> Continue to promote energy conservation and carbon reduction improvements and to engage in external assurance to enhance energy-saving technologies and effectiveness Reduce 2022 GHG emissions by 3% compared with 2015 Set up renewable energy facility or energy storage device with 8% of contracted capacity of electricity by 2023, or purchase renewable energy and certificate (REC) Continue to fill and submit CDP surveys to understand the international trends on response to climate change
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2020 Goals	2020 Implementations (○ Did not meet the goals; ✓ Goals met; ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Strict compliance with environmental laws

<ul style="list-style-type: none"> ▪ Air pollutant emissions in 2020 to be lower than 2019 ▪ Reduce the number of penalty for environmental violations to less than 50% of 2019 (less than 1) 	<ul style="list-style-type: none"> ★ Compared with 2019, the Company's air pollutant emissions in 2020 decreased by 7.2% for SO_x, 7.3% for NO_x, 7% for VOC, and 13.5% for TSP ○ The Company was penalized 3 times for environmental violation in 2020, 1 more than 2019, and we will continue to strengthen internal management 	<ul style="list-style-type: none"> ▪ Air pollutant emissions in 2021 to be lower than 2020 ▪ Reduce the number of penalty for environmental violations to less than 50% of 2020 (less than 1) 	<ul style="list-style-type: none"> ▪ Complete documentation of production and preventive equipment parameters at each site and to be integrated into and managed by "real-time production management system (RTPMS)" before 2022 ▪ Use more rigorous standard in the supervision and management of the plants' environment and install additional air pollution prevention equipment ▪ Continue to reduce pollutant emissions ▪ No environmental violation
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CSR Achievements at a Glance

- Compared with 2019, the Company's air pollutant emissions in 2020 decreased by **7.2%** for SO_x, **7.3%** for NO_x, **7%** for VOC, and **13.5%** for TSP
- The Company received "**leadership level**" on the "climate change" and "water security" sectors in the Carbon Disclosure Project (CDP)
- Kung Sang site received "**Excellent Enterprise for Voluntary Industrial GHG Reduction**" from the Industrial Development Bureau (IDB) in 2020



3.1 Commitment to Environmental Protection

The Company has always been equally committed to environmental protection and industrial development, and also adheres to the goal of "zero accidents in environmental safety and health and ensuring perpetual business operation". Besides pledging to protect the environment and maintain community safety, all employees are required to enrich their professional skills and to treat safety, health, and environmental protection as their priority. Everyone should lead by example and regard safety, health, and environmental protection as a part of their responsibility. Please refer to the "Commitment to Environmental Protection" section on NPC's website for the Company's environmental protection policy.



"Commitment to Environmental Protection" on NPC's website

3.1.1 Safety, Health, and Environmental Protection Policy

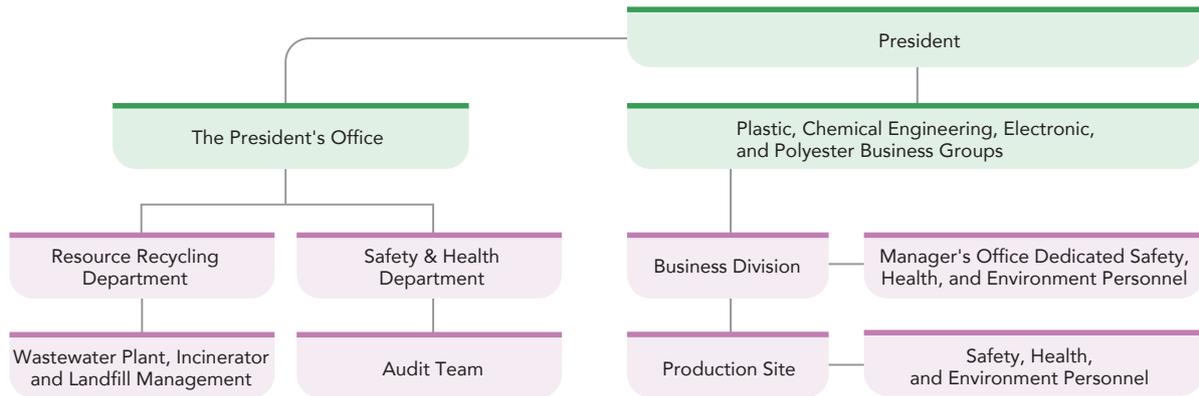
The Company implements environmental protection policies and actively carried out measures such as "volume reduction and waste reduction at source", "introduction of clean production", and "strengthening environmental protection system management" to achieve the goal of zero pollution.



3.1.2 Organization and Promotion of Safety, Health, and Environmental Protection

Formosa Plastics Group established the "Energy Conservation, Carbon Reduction and Pollution Control Organization" in 2006 to integrate and promote water and energy conservation, as well as pollution prevention at each company. In addition, the "Safety and Health Department" and "Resource Recycling Department" have also been set up at the President's Office to coordinate the safety, health, and environmental protection tasks throughout the Company. An audit team has also been set up to audit and follow-up on improvements at the plants; meanwhile, safety, health, and environment management personnel have also been assigned to each division and site to supervise and coordinate various relevant tasks.

The Safety, Health, and Environment Organization



NPC has received the following certificates for environmental management systems:

Name of Certificate	Received by Site/Product
ISO 14001: 2015 Environmental Management System	Shulin, Linkou, Kung San, Jinxing, Mailiao, Haifeng, Hsinkang, Chiayi, Renwu ,and Linyuan sites
ISO 50001 Energy Management System	Shulin Site II, Hsinkang CCL Site I, Hsinkang CCL Site III
Green Factory Label	Shulin Site II, Hsinkang CCL Site I, Hsinkang CCL Site III
Green Building Label	Linkou Film Site II (Silver Grade); Shulin Site II, Hsinkang CCL Site I, Hsinkang CCL Site III
Responsible Business Alliance (RBA)	Shulin Release Film Site
Water Footprint	The Company



3.1.3 Environmental Expenditure

Environmental Accounting

The total amount of environmental costs invested by the Company in 2020 was NT\$1.552 billion, of which pollution prevention and control expenses was approximately NT\$0.924 billion, accounting for 59.5% of environmental costs.

 NPC's Environmental Costs in 2020

Unit: NT\$ thousand

Item	2020	Item	2020
Operational costs	1,441,032	Social engagement costs	17,855
Costs associated with supply chain and customers	14,439	Loss and remediation costs	1,698
Management activity costs	34,284	Fees, taxes, energy taxes, and others	42,776
Research and development costs	0		
Total: 1,552,084			

Note 1: Source: FPG's environmental accounting database

Note 2: The "Operational costs" includes FPG's derivative costs from green procurement, product recycling and reproduction costs, and expenses derived from product services for environmental protection



Green Procurement

We prioritize purchases from products with environmental protection labels signifying that they are made from renewable materials, recyclable, pose low pollution, and conserve energy, as well as Type II environmentally preferable products. We also prefer to purchase products that add social value, reduce social costs with the same or similar performance (e.g. energy saving label, water saving label, and Energy Star label). According to statistics, in 2020 the green product procurement amounted to NT\$91.36 million and NT\$7.94 million for NPC and subsidiaries in Taiwan, respectively.



3.2 Risks and Opportunities of Climate Change

Material Issue

Management Approach

Corresponding GRI Standards: 305 - Emissions



Commitment and policies	To reduce possible impacts from climate change, the Company has formulated short-term, medium-term, and long-term GHG reduction goals based on the "Greenhouse Gas Reduction and Management Act" and in line with national policies.
Responsibilities and goals	The ESG Task and Risk Management Promotional Team is in charge of identifying and evaluating relevant risks, drafting preventive measures, supervising the implementation of such measures by dedicated personnel at each site, reducing possible risks from climate change, and formulating the Company's carbon reduction goals.
Resources	<ul style="list-style-type: none"> Collection, analysis, and coordination of information related to risks and opportunities of climate change and energies: identify and evaluate risks and opportunities related to climate change based on the ISO 14001 risk identification process, which is incorporated into the ISO 14001 risk management system. The Company has formulated an "ERP information management system for GHG emissions", and promotes GHG inventories in line with the "ISO 14064-1 standard".
Grievance channel	Please refer to the chapter on "Stakeholder Communications".
Performance evaluation methods and results	<ul style="list-style-type: none"> To examine and enhance the Company's energy conservation and carbon reduction actions to fulfill GHG emissions management and to achieve reduction goals, an impartial third-party institution has been commissioned for this task. Continue to promote process optimizations, energy and water conservation improvements, and to regularly convene "water/energy conservation review meetings" to inspect response measures and to review the effectiveness of relevant practices.
Specific actions	<ul style="list-style-type: none"> Promote circular economy and conduct inter-company and inter-plant resource and energy integration within FPG. Participate in Carbon Disclosure Project (CDP) "climate change" questionnaire and maintain "leadership level". Encourage employee creativity and promote IE improvement proposals by offering bonuses and incentives.

3.2.1 Identifying Risks and Opportunities Associated with Climate Change

The Company's specific strategies for climate change management focuses on identification and response measures on risk and opportunity by promoting low-carbon manufacturing technologies, enhancing energy conservation and improvement benefits, and formulating preventive measures against climate change. We have been participating in the CDP climate change disclosure questionnaire since 2017, so that global investors can better understand our achievements in responding to climate change.

Moreover, the Company has been identifying and managing risks and opportunities associated with climate change based on the Task Force on Climate-related Financial Disclosures (TCFD) framework from the Financial Stability Board (FSB) since 2020.

Governance	Strategies	Risk Management	Indicators and Targets
Management Strategies and Action Plan			
<ul style="list-style-type: none"> The Board of Directors regularly reviews risks and opportunities related to climate change, and 3 teams that evaluate climate change, energy risks, and opportunities have been set up: <ol style="list-style-type: none"> Environmental (E) Risk Management Team and Promotion Team Social (S) Risk Management Team Governance (G) Risk Management Team 	<ul style="list-style-type: none"> Climate-related risks and opportunities are discussed and identified through cross-functional teams. The impacts from risks and opportunities related to climate risk on sales, strategies, and financial planning. Implement scenario analysis and evaluate Science Based Targets (SBT). 	<ul style="list-style-type: none"> Build the Company's climate risk identification process by using the TCFD framework. Identify and rank climate risks based on the ISO 14001 Risk Management Procedure, and propose response measures accordingly. 	<ul style="list-style-type: none"> Formulate climate change management indicators. Promote GHG inventories based on "ISO 14064-1 standard". Draft climate change management goals and review the implementation status.

Governance	Strategies	Risk Management	Indicators and Targets
Implementation Status			
<ul style="list-style-type: none"> The Company has formulated the ESG Task and Risk Management Promotional Team in 2020. 13 water-saving and energy-saving projects were executed, and an additional 366 energy-saving improvement measures were implemented in 2020. EG plant heat exchanger improvement project was awarded the "Low-carbon Application Technology Grant" from the Industrial Development Bureau. 	<ul style="list-style-type: none"> After discussing climate risks and opportunities among members of the cross-functional teams, a total of 3 opportunities and 3 risks were identified Promote execution of energy conservation and carbon reduction activities by using carbon pricing mechanism. Analyze climate risks during operating processes and draft relevant mitigation measures by using the global 2°C temperature rise scenario from Intergovernmental Panel on Climate Change (IPCC). 	<ul style="list-style-type: none"> The risk management teams will identify and rank climate-related risks and opportunities and evaluate their financial impacts. Report results of climate-related risks and opportunities and financial impacts to the convener of the ESG Task and Risk Management Promotional Team and implement response measures. 	<ul style="list-style-type: none"> Reduce GHG emissions by 3% in 2022 compared to 2015 standard in 2022, and reduce emissions by 6% in 2030 compared to the base year 2015. Use carbon pricing as a tool for managing operating costs and carbon risks to respond to opportunities and risks under future legal environment or carbon trading framework.
Related Links			
<ul style="list-style-type: none"> NPC's ESG Task and Risk Management Promotional Team 	<ul style="list-style-type: none"> CDP "Climate Change" questionnaire 	<ul style="list-style-type: none"> NPC's Risk Management Policy and Procedures 	<ul style="list-style-type: none"> "Short-, Medium-, and Long-term goals for Material Issues" CDP "Climate Change" questionnaire

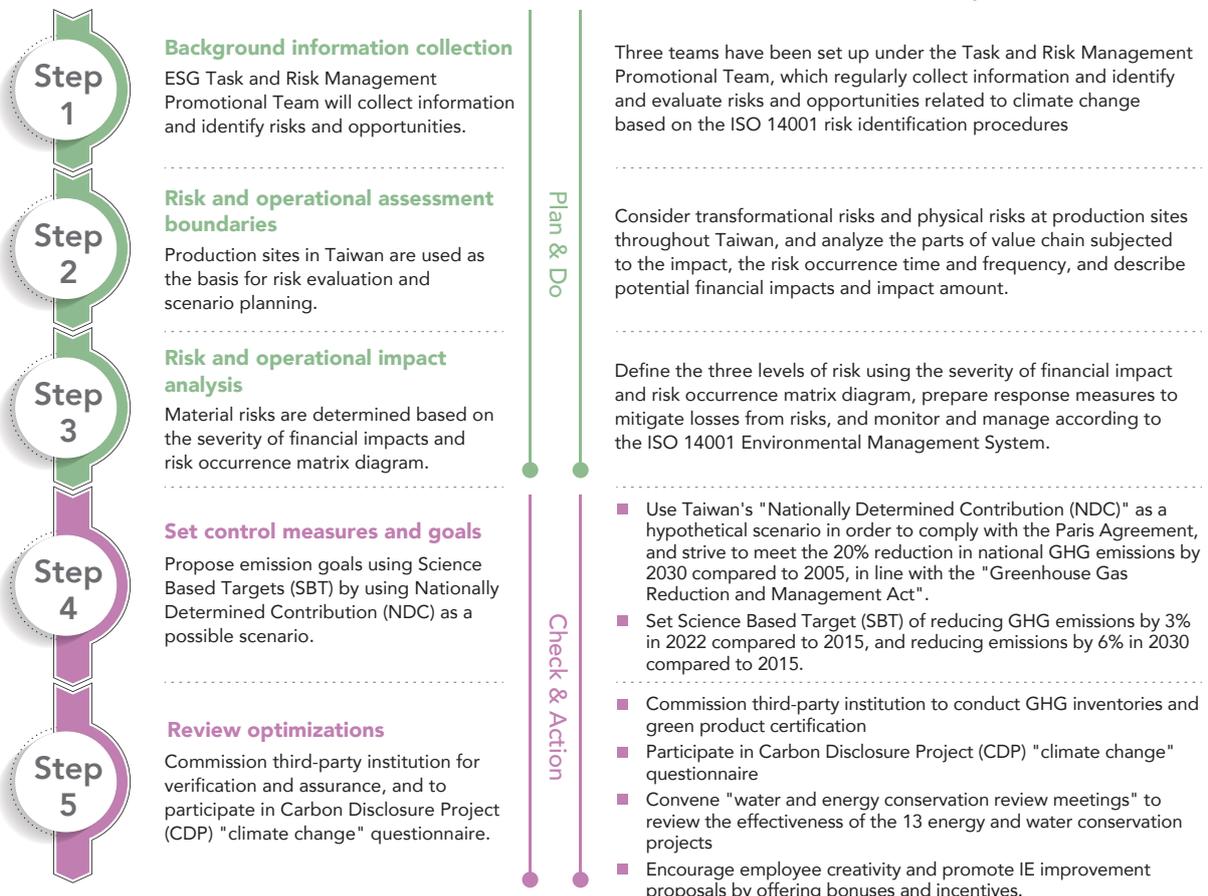
Governance Body and Supervisory System

Please refer to NPC's ESG Task and Risk Management Promotional Team

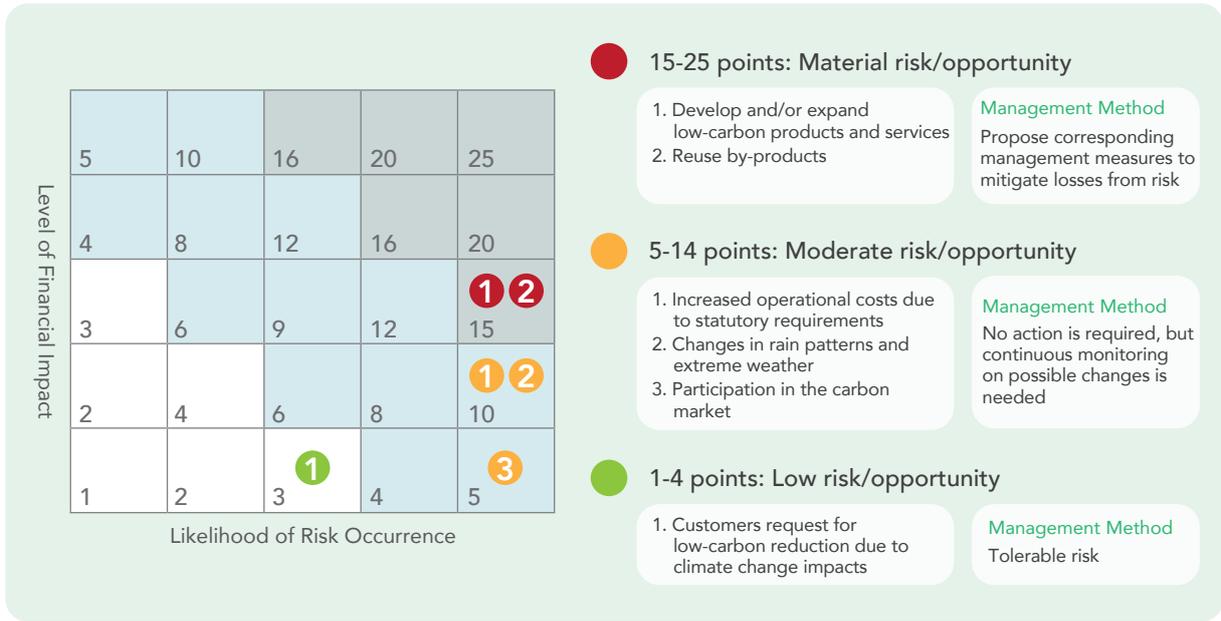


"Risk Management Promotional Organization" on NPC's website

Climate Risk Identification and Management Process



Climate Change Risk and Opportunities Matrix



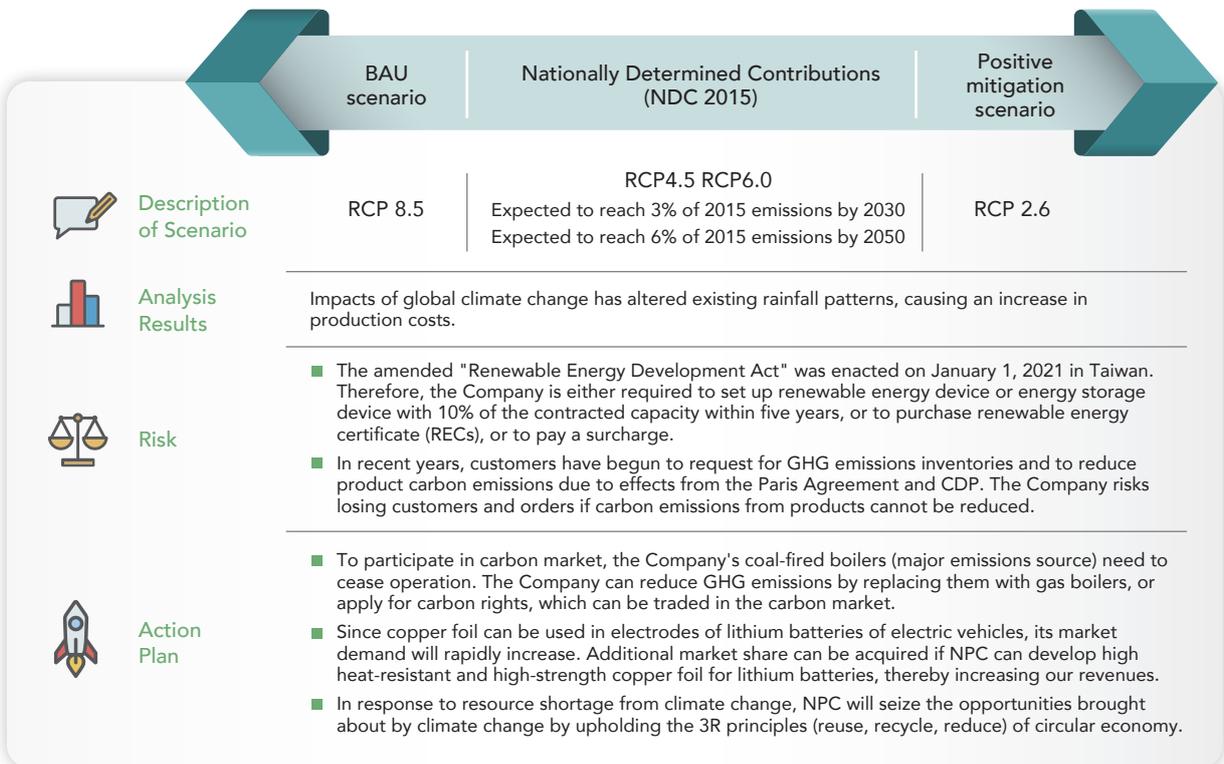
3.2.2 Managing Risks and Opportunities Related to Climate Change

Financial Impacts from Risks and Opportunities

Type of Risk/Opportunity	Description of Risk	Level of Impact	Description of Major Potential Financial Impact	Response Strategy/Example
Risk	Risk 1 Increased operational due to from statutory requirements	Moderate	In response to the enactment of the "Renewable Energy Development Act", major power users need to install renewable energy generation devices or energy storage devices amounting to 8~10% of their contracted capacity or purchase renewable energy certificates by 2023-2025, otherwise they will have to pay a surcharge.	Besides planning to build a solar power generation facility at Hsinking rigid film plant, the Company has also set up the "Renewable Energy Promotions Team" in 2020 to thoroughly take inventories, plan, and promote internal energy transformation with the goal of complying with relevant laws and regulations
	Risk 2 Changes in rain patterns and extreme weather	Moderate	Existing rainfall patterns have changed due to the effect of global climate change in recent years, resulting in increased production costs.	According to scientific report on climate change in Taiwan, rainfall is predicted to decrease by approximately 2% under the RCP2.6 scenario, and based on the dry season water consumption of 4,650,247M ³ at the Mailiao site, it is estimated that there will be a shortage of 93,004 M ³ . Water will need to be transported from other areas with abundant water resources, leading to increased water purchase and transportation expenses.
	Risk 3 Customers' request for low-carbon reduction due to climate change impacts	Low	In recent years, due to the influence of the Paris Agreement and CDP, customers have begun to request for GHG emissions inventory and to reduce product carbon emissions. The Company may lose customers and orders if product carbon emissions cannot be reduced.	In the case of polyester fiber products, if 10% of the customer orders are requesting low-carbon products, it is estimated that there will be a corresponding loss in revenues.

Type of Risk/Opportunity	Description of Risk	Level of Impact	Description of Major Potential Financial Impact	Response Strategy/Example
Opportunities	Opportunity 1 Develop and/or expand low-carbon products and services	High	Countries in Europe and the USA have set timelines between 2020~2040 to ban the sale of fossil fuels, and consumers from these countries can only choose to purchase electric vehicles or cars that run on hydrogen fuel cells. Copper foil can be used in the electrodes of the lithium batteries for electric vehicles, so its market demand will continue to rise.	If the electronics division can develop high heat-resistant and high-power copper foil to meet the need of lithium batteries, we can increase market share as well as the Company's revenues.
	Opportunity 2 Participation in the carbon market	Moderate	In case NPC wishes to participate in the carbon market, the coal-fired boilers in Shulin site will need to be shut down and replaced with gas-fired boilers. This will reduce GHG emissions and help the Company to apply for carbon rights, which may be traded in the carbon market.	Shulin site intends to replace the existing 120T/H coal-fired boiler and 35T/H heavy oil boiler with 50T/H gas boilers, which should reduce the GHG emissions. The carbon rights received may be either used toward plant expansion, future cumulative controlled emissions volume, or traded in the carbon market.
	Opportunity 3 Reuse by-products	High	In response to the resource shortage due to climate change, the Company upholds the 3R principles of circular economy (reuse, recycle, reduction), and seizes opportunities brought about by climate change.	The by-product from the ethylene glycol plant and 2EH plant, "carbon dioxide (CO ₂)", is sold to FPC's butanol plant, Simosa Oil, Chang Chun Petrochemical, and FCFC's acetic acid plant. Besides reducing carbon emissions, these transactions can also boost the Company's revenues.

Scenario Analysis and Strategic Goals

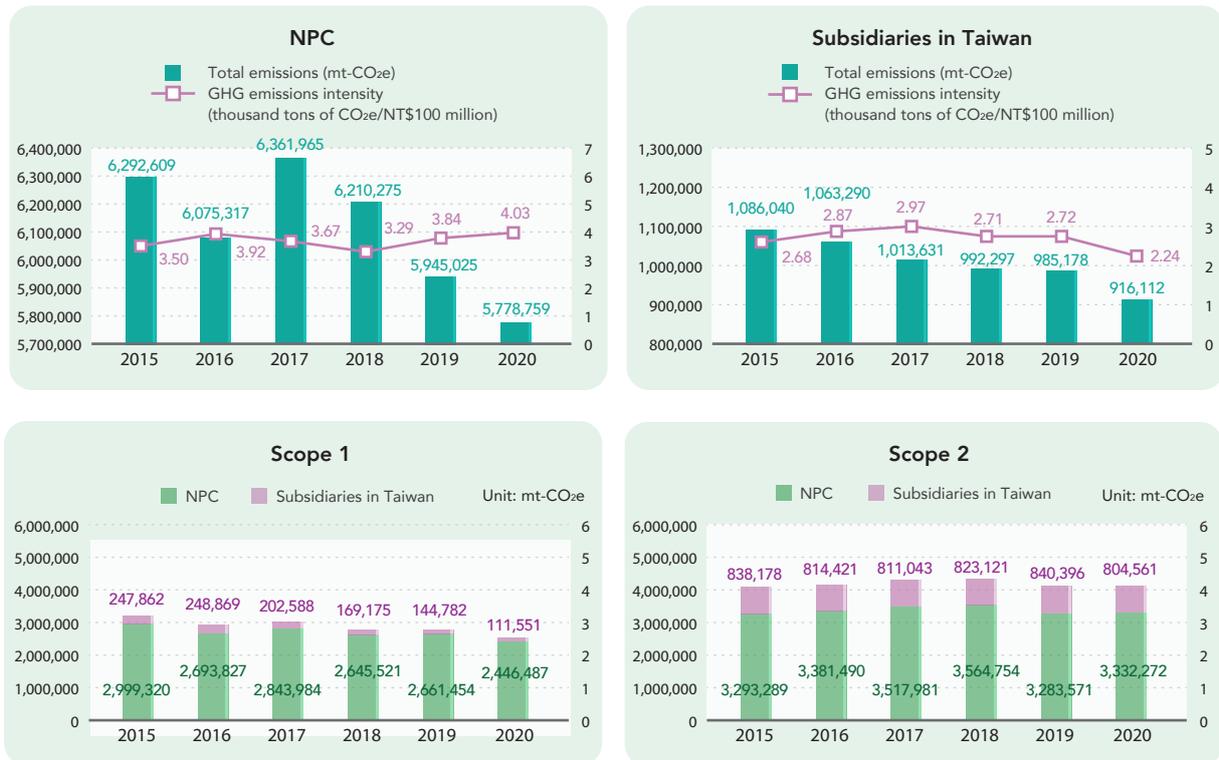


Greenhouse Gas Emissions and Energy Utilization

The Company commissions a third-party agency to conduct and verify greenhouse gas (GHG) inventories according to ISO 14064-1 standard each year. The GHG emissions in 2020 are still being verified. Additionally, internal audit results have indicated that the Company's Scope 1 emissions amounted to approximately 2.45 million mt-CO₂e, while Scope 2 emissions amounted to approximately 3.33 million mt-CO₂e. Though Scope 3 (supply chain) emissions are not compulsory; nevertheless, the Company has carried out both internal and third-party GHG inventories according to the emission standards.

Moreover, in 2020, the Company's revenues reached NT\$143.4 billion, and total emissions amounted to approximately 5.78 million mt-CO₂e, which shows a 2.80% reduction from 2019. GHG emissions intensity reached 4.03 thousand tons of CO₂e/NT\$100 million, which shows a 4.93% increase from the 3.84 thousand tons of CO₂e/NT\$100 million in 2019. This is mostly attributable to the impact of COVID-19 on the global economy, leading revenues to decrease by 7.36% and emission intensity to increase.

Greenhouse Gas Emission Status



Note 1: Scope 1 refers to direct GHG emissions.

Note 2: Scope 2 refers to indirect GHG emissions.

Note 3: The Company used SGS and BSI to verify its data from 2015-2019, and since 2020 emissions are still waiting to be verified, internal audited data (from the FPG database) is used.

Note 4: After 2016 (inclusive), the GWP announced in the IPCC Fourth Assessment Report (2007) is used as the basis for calculating the carbon dioxide equivalent of emissions according to the regulations of the Environmental Protection Administration.

Note 5: Regarding the emission factor, Scope 1 individual direct emission sources are calculated based on the "EPA Greenhouse Gas Emission Factor Management Table." (Version 6.0.3; version 6.0.4 was adopted for 2019). Scope 2 indirect emissions are based on the Taipower Power Coefficient published by the Bureau of Energy, Ministry of Economic Affairs. After BSI or SGS verification, the figures become the power and steam coefficient of each production site under Formosa Plastics Group (FPG).

In 2019, the total energy use of the Mailiao site and the plants other than the Mailiao site are shown in the table below. Based on the 2019 turnover of NT\$154.8 billion, the Company's energy intensity is approximately 276 kilojoules/NTD, and the scope 1 and 2 greenhouse gas emission intensity is 3.840 thousand metric tons of CO₂e/NT\$100 million.

NPC Major Emission Sources and Energy Consumption in 2019

Mailiao site					Plants other than Mailiao				
Emission source	Consumption (A)	Heating value (B)	Total energy consumption (A)*(B)	Ratio of CO ₂ e emissions	Emission source	Consumption (A)	Heating value (B)	Total energy consumption (A)*(B)	Ratio of CO ₂ e emissions
FPG internally purchased electricity	1,411,853 MWh	3.6 GJ/MWh	5.08*10 ⁶ GJ	40.0%	Coal	726,113 tons	26.78 GJ/ton	1.94*10 ⁷ GJ	54.1%
Fuel	30,713 kL	33.91 GJ/kL	1.04*10 ⁶ GJ	2.7%	Fuel oil	56,614 kL	38.46 GJ/kL	2.18*10 ⁶ GJ	11.2%
Fuel gas	19,896 tons	37.91 GJ/ton	7.54*10 ⁵ GJ	1.9%	Fuel gas	24,925 tons	121.57 GJ/ton	3.03*10 ⁶ GJ	2.0%
FPG internally purchased steam	3,111,542 tons	2.83 GJ/ton	8.80*10 ⁶ GJ	33.3%	Externally purchased electricity	678,611 MWh	3.6 GJ/MWh	2.44*10 ⁶ GJ	11.3%
Total			1.57*10 ⁷ GJ	78.0%	Total			2.71*10 ⁷ GJ	78.5%

Source 1: 2019 NPC GHG Inventories.

Source 2: The heating value of each emission source is calculated as an average value.

Source 3: This table mostly includes electricity and steam purchased by the Company's Mailiao site, as well as the GHG emitted from production of heating sources, including fuel oil and fuel gas. It does not include GHG emissions generated from production processes, exhaust, and waste recycling's incineration.

Reduction Goals and Performance

The Company's GHG Reduction Goals

Type	Description of Goal	Deadline	Achievement Status (Completed/In Progress/Not Achieved)
Short-term goal	Reduction of greenhouse gas emissions by 2% in 2020 compared with 2019.	1 year	Completed
Medium-term goal	Reduction of greenhouse gas emissions by 3% in 2022 compared with 2015.	2 years	In progress
Long-term goal	Reduction of greenhouse gas emissions by 6% in 2030 compared with 2015.	10 years	In progress

Energy Management Improvement Incentive Program

Rewarding Project Improvements

- Implementing reward system for project improvements; NT\$300~NT\$20,000 bonus will be given based on merits.

Encouraging Creativity

- Implementing a reward system for proposing IE improvements; NT\$300~NT\$20,000 bonus and administrative incentives will be given based on merits.

Publicizing Outstanding Improvements

- Submit outstanding improvement projects for internal evaluations on an annual basis.
- Organize ceremonies to applaud outstanding environmental protection, energy/water conservation projects.

Evaluations for Environmentally Friendly Enterprises

- Encourage all divisions/plants to participate in enterprise environmental protection, water/energy conservation evaluations/competitions organized by the government and to provide incentives for participation.

Energy Conservation Performance Management

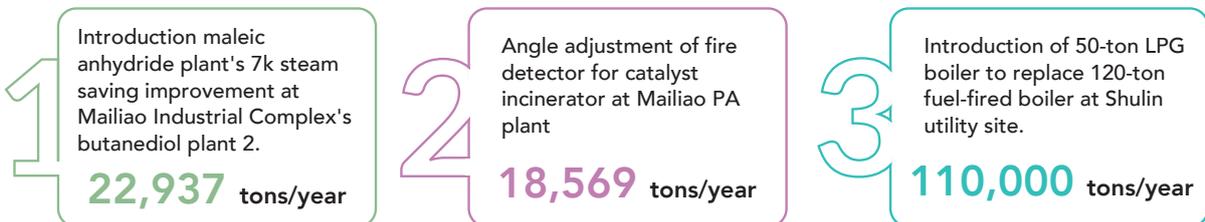
In recent years, the Company has continuously reviewed and strengthened the integration of resources across production sites and companies and actively promoted circular economy. As a result, the overall energy efficiency has been greatly improved. In 2020, the Company and its subsidiaries in Taiwan completed a total of 521 energy-saving improvement projects with an investment of NT\$660 million and an annual benefit of NT\$420 million. It is expected to reduce greenhouse gas emissions (CO₂e) by 177,000 tons/year. In addition, 272 energy-saving improvement projects are being promoted with an estimated investment of NT\$1.8 billion. This will further reduce greenhouse gas emissions (CO₂e) by approximately 368,000 tons/year.

Energy Conservation Practices from NPC and Subsidiaries in Taiwan

Item	Year	1999~2019 (A)	2020 (B)	In progress (C)	Total (D=A+B+C)
Improved Items		4,981	521	272	5,774
Steam saved (ton/hour)		715.0	52.4	91.6	859.0
Electricity saved (MWh/hour)		79.0	3.4	23.3	105.7
Fuel saved (ton/hour)		25.9	1.7	0.2	27.8
CO ₂ e reduction (10,000 tons/year)		24.7	17.7	36.8	79.2
Amount invested (NT \$100 million)		71.7	6.6	18.0	96.3
Investment benefit (NT \$100 million/year)		6.6	4.2	9.9	20.7

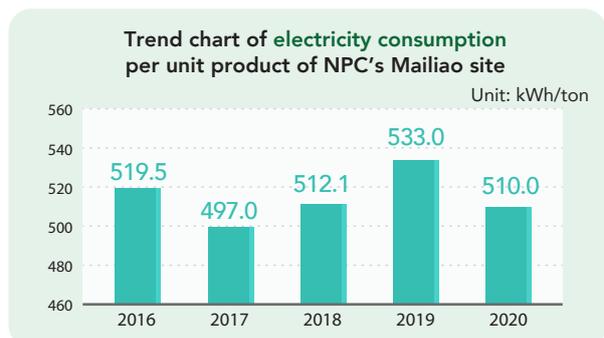
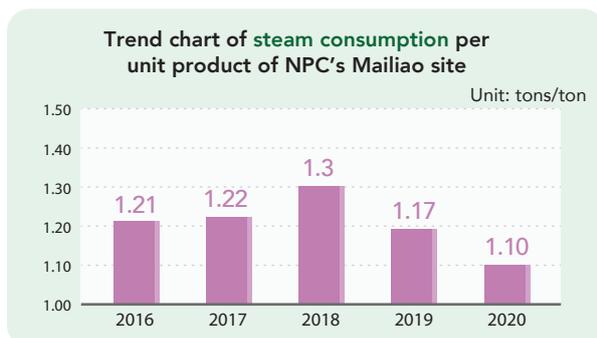
Source: FPG Energy and Water Conservation Improvement Database; in-progress projects are counted as ongoing improvement cases for January 2021 statistics.

2020 Energy-saving Projects and Performance



Each plant in the Company aims to reduce energy consumption per unit product by 3% compared to the previous year. However, due to the wide variety of products and different units of measurement, the energy consumption of the Mailiao site, which has the largest amount of consumption, will be used for the purpose of comparison.

In 2020, the steam consumption/unit at Mailiao site was 1.10 tons/ton, representing a 6% decrease from 2019. This is mostly attributed to the successful cross-site integrations at Mailiao, including the cross-site steam integration for the MA plant, 1,4BG plant, and INA plant, and the recycling and reuse of steam at the epoxy plant and 2EH plant. Additionally, the electricity consumption at Mailiao site was 185.6 MWh/hour, and the electricity consumption per unit for each product was 510.0 kWh/hour, representing a 4.3% decrease from 2019.





3.3 Air Pollution Management

Material Issue

3.3.1 Air Pollution Prevention

Management Approach	Corresponding GRI Standards: 305 - Emissions	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Commitment and policies	The Company adopts "effective reduction of source pollution and optimization of prevention equipment" practices based on the principle of best available control technology (BACT). Continuous improvement is made based on the specific characteristics of the processes. Equipment is regularly maintained to ensure optimal performance, while personnel are trained to familiarize them with system operations.	
Responsibilities and goals	<ul style="list-style-type: none"> Responsibilities: Management responsibilities are divided into plant divisions, manager's office, Safety, Health and Environment Department, and the President's Office based on respective roles and responsibilities. Goals: Continue to promote the reduction of air pollutants in the plants, and the execution of the white smoke abatement project (expected to be completed by June 2022). 	
Resources	<ul style="list-style-type: none"> Environmental protection personnel are set up at each division to undertake day-to-day management and relevant reductions. The Safety, Health and Environment Department is in charge of external coordination. 	
Grievance channel	Please refer to the chapter on "Stakeholder Communications".	
Performance evaluation methods and results	<ul style="list-style-type: none"> Evaluation method: <ol style="list-style-type: none"> Internal audit: Dedicated personnel will regularly conduct daily inspections at each plant. The management department will perform inspection tasks based on annual plans. External inspection: Qualified vendors will be commissioned to perform emission channel and component inspections based on the frequencies and items specified on the relevant permits. Results: Air pollutant emissions have been reduced by 304.6 tons in 2020 compared with 2019 (SOx were reduced by 55.9 tons; NOx by 103.1 tons; VOC by 130.4 tons, and TSP by 15.2 tons) 	
Specific actions	<ul style="list-style-type: none"> Regular review and reduction proposals are conducted by each plant. The Safety, Health and Environment Department will work with relevant units to review the implementation results and share good examples. 	

Air Pollution Prevention

The Company sets up prevention equipment according to the process exhaust characteristics to properly collect and treat the exhaust gas. Each discharge outlet is regularly commissioned for testing. The results are lower than the pollutant discharge standards stipulated by government regulations.

To reduce the environmental impact caused by coal burning, the Company adopts a closed coal bunker design (as shown in the right figure) for the coal storage, adopts low-nitrogen burners for the coal-fired boiler, and adopts electrostatic precipitators, flue gas desulfurization equipment (FGD) and selective catalytic reduction equipment (SCR) for the prevention equipment. These measures effectively reduce the emission concentration of sulfur oxides (SOx), nitrogen oxides (NOx), and total suspended particulate (TSP). In addition, the Company has successively set up wet EPs to reduce TSP emissions and limit the concentration to be below 10ug/m³.

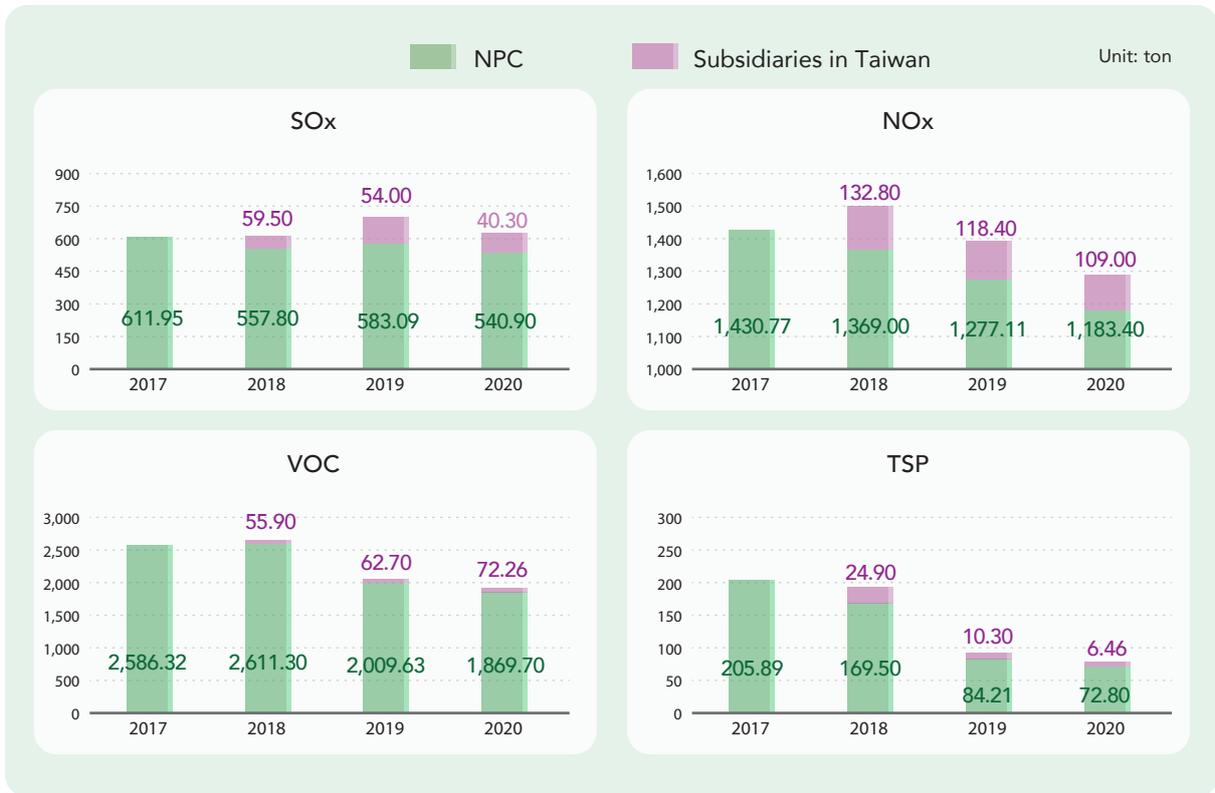


Prevention equipment



Closed coal bunker

Statistics on Air Pollution Emissions



Note 1: Source: Stationary Pollution Source Air Pollution Fee and Emissions Reporting Management System of the Environmental Protection Administration

Note 2: Subsidiaries in Taiwan have been added to the reporting boundaries since 2018

Air Pollution Reduction

Other than coal-fired boilers, fuel for other combustion equipment has been replaced with natural gas, processing residual gas, or low-sulfur fuel oil. Improvements for coal-fired boilers have been made using the following two methods:

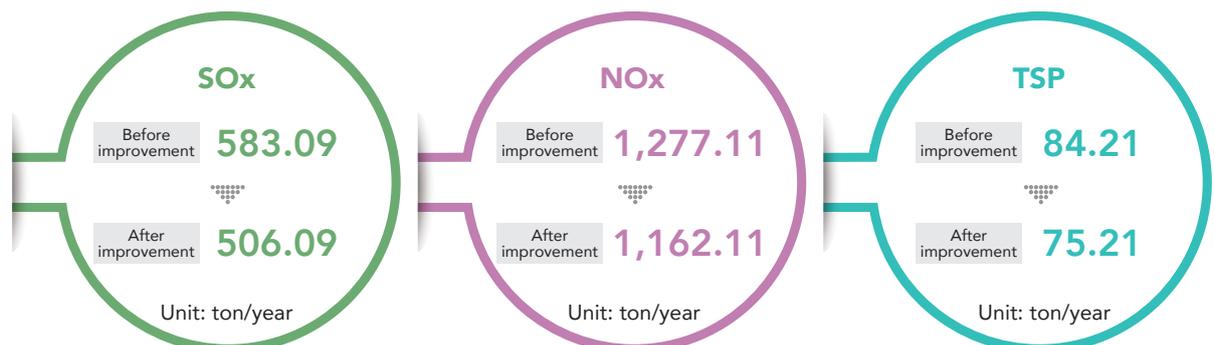
Using gas boilers to replace existing coal-fired boilers

Coal-fired boilers at Linkou site have been decommissioned, and 12 sets of 3-ton gas boilers have been set up; 1 set of 50-ton gas boiler has also been set up at Shulin site to replace the existing machine No. 1.

Improve efficiency of prevention equipment

Layers of SCR catalyst were added at Chiayi site in July 2020. Upon follow-up, it was found that the average emission intensity of NOx have been reduced from 77ppm to 50ppm, showing a reduction rate of 35%.

2020 Reduction of Air Pollution from Coal-fired Boilers



VOC Reduction and Odor Control

To prevent VOC effusion and to reduce complaints from the public regarding odors, the Company has undertaken the following practices besides regularly arranging dedicated personnel to patrol the surrounding environment:

- (1) Process optimization: Select raw materials that do not contain VOCs and reduce the number of components.
- (2) Management improvement: Set up reminder function in the computer system maintenance to remind personnel to perform regular equipment maintenance.
- (3) Detection technology strengthening: Introduce GasFind IR infrared leak detectors to assist in shortening the timeframe required to finding possible effusion in equipment.



3.4 Water Resource Management

Material Issue

Management Approach 6 CLEAN WATER AND SANITATION	
Corresponding GRI Standards: 303 and 306 - Water, Effluents and Waste	
Commitment and policies	The Company promotes resource recycling of water resources, reduces wastewater discharge, and ensures that the quality of effluents and wastewater discharge meet regulatory standards such as Water Pollution Control Act.
Responsibilities and goals	<ul style="list-style-type: none"> ■ The Company follows the principle of waste reduction at the source and end-point control, strengthens resource recycling, and reduces the load on treatment facilities. We also ensure compliance with regulatory standards to minimize environmental impact. ■ NPC promotes water-saving improvements and rainwater collection to enhance the utilization efficiency of water resources.
Resources	<ul style="list-style-type: none"> ■ The Company checks the risk of water shortage at each plant on an annual basis by using the water resource risk evaluation from Water Resources Institute (WRI) and usable water analysis (AWARE). Various water-saving response measures are strengthened for plants with higher risks. ■ The "Continuous Water Monitoring System (CWMS)" and "water pollution prevention management processing system" have been installed to ensure that water quality meets regulatory standards. ■ The Company is making every effort to save water and set up wastewater recycling facilities at high water-consumption plants. For instance, the Haifeng wastewater treatment plant can recycle 1,400 tons of wastewater on a daily basis. The recycled water can be used for processing, thereby reducing water consumption needs and discharge.
Grievance channel	Please refer to the chapter on "Stakeholder Communications".
Performance evaluation methods and results	<ul style="list-style-type: none"> ■ Verification and assurance of water footprint inventories and reports are performed by external assurance institution. ■ NPC will continue to promote process optimization, water and energy conservation improvements, and regularly convene "water and energy conservation review meetings" to review response measures and effectiveness of implementation. ■ Wastewater discharge from NPC and subsidiaries in Taiwan has increased by 14.2 million liters in 2020 as compared with 2019.
Specific actions	<ul style="list-style-type: none"> ■ Coordinate companies and plants within FPG to integrate various energies and resources under the principle of circular economy. ■ Maintain "leadership level" in Carbon Disclosure Project (CDP)'s "water security" questionnaire. ■ Encourage employee creativity and promote IE improvement proposals by offering bonuses and incentives.

3.4.1 Statistics on Water Consumption

Water Source Management

The Company is committed to water conservation and pays close attention to the source of our water withdrawal. The Company has 9 sites throughout Taiwan, and uses mostly surface water and tap water. The total water consumption in 2019 amounted to 26,194 kilotons/year, which has increased by 76 kilotons compared with the 26,118 kilotons in 2018, mainly due to increased production capacity at Jinxing plant. The sources of our water withdrawal mostly come from rivers, reservoirs, tap waters, and groundwater, etc.

In addition, the Company adopts the water resource risk evaluation tool from WRI Aqueduct and identifies water-related risks when monitoring water consumption. Based on data from the WRI Aqueduct database, none of NPC's plants have drawn water from or discharged to areas with high water stress. Nevertheless, we will continue to manage and promote water-saving and reuse measures to reduce our water dependency.

Company	Plant	Water withdrawal source
NPC	Shulin	Shimen Reservoir, Dahan River, groundwater
	Linkou	Dahan River, groundwater
	Kung San	Shimen Reservoir, groundwater
	Jinxing	Taoyuan Irrigation
	Mailiao	Jiji Dam
	Chiayi	Lantan Reservoir, Zengwen Reservoir, Chianan Irrigation, groundwater
	Hsinkang	Lantan Reservoir, Zengwen Reservoir, Chianan Irrigation
	Renwu	Fengshan Reservoir and groundwater
	Linyuan	Fengshan Reservoir
NCPC	Mailiao	Jiji Dam
Nan Ya PCB	Jinxing	Taoyuan Irrigation
PFG	Hsinkang	Lantan Reservoir, Zengwen Reservoir, Chianan Irrigation

2020 Water Withdrawal Statistics

Unit: million liters/year

Company	Water withdrawal source	Water withdrawal source				Total
		Surface water	Well water (groundwater)	Third-party (tap water)	Others	
NPC		15,286	1,000	2,963	706	19,955
NCPC		1,220	0	0	42	1,262
Nan Ya PCB		0	0	4,150	351	4,501
PFG		604	0	0	0	604
Subtotal		17,110	1,000	7,113	1,099	26,322

Source 1: All plants are still investigating and organizing the data for the type of water drawn in 2020 (not yet verified).

Source 2: The other water sources for NPC and NCPC are water from recycled rainwater.

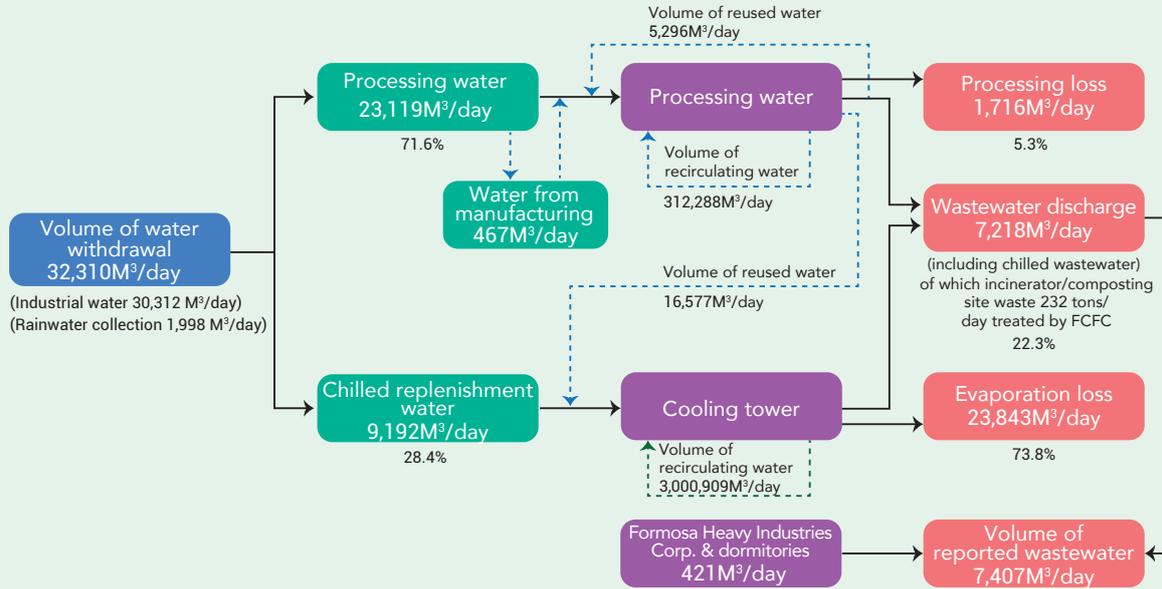
Source 3: The other water sources for Nan Ya PCB are transferred from NPC's Jinxing site.

Water Resource Recycling

Water in the plant area is mainly used as industrial water, pure water, and steam used in the production process, and all plants have reasonably assessed their water consumption, continue to recycle and reuse water, and actively promote the resource recycling of process water, rainwater, and wastewater. Take the Mailiao site as an example. In 2020, the average rainwater collection was 731 kilotons/year (accounting for 6.2% of the water consumption at Mailiao), while wastewater recycling amounts to 200 kilotons/year. According to the water recovery rate (R2) announced by the Ministry of Economic Affairs, the water recovery rate of the Mailiao site can reach 91.2%.

NPC (including NCPC) Water Utilization Balance Diagram of The Sixth Naphtha Cracker Project in 2020

Total water withdrawal: **3,367,380** tons/day (including NCPC)
 (=daily water supplement + total reused water + recirculating chilled water)



- Calculations based on the "Regulations for Review of Water Usage Plan" from the Ministry of Economic Affairs (MOEA)
- Water recovery ratio (R1) = (total water reused + total recirculating water)/total water withdrawal = **99.0%**
- Water recovery ratio (R2) = (total water reused + processing recirculating water)/(total water withdrawal - total recirculating chilled water) = **91.2%**

Responding to Water Resource Risks

In response to the risk of water shortage from extreme weather conditions, in addition to the seawater desalination plant FPG has built at the Mailiao Industrial Complex, the Company's Jinxing site has also obtained the first "Agreement for Self-Withdrawal of Effluents" in Taiwan. NPC is expected to invest NT\$150 million to set up a 2.4-kilometer water pipeline and relevant water withdrawal facility, and will apply to withdraw 15,000 tons of effluents from Taoyuan North Region Water Recycling Center on a daily basis as cooling processing water. In addition, NPC will continue to practice circular economy and actively promote various water-saving improvements. The Company will recycle rainwater and wastewater to reduce waste and to enhance water conservation through the undertaking of resource recycling and reuse of cooling water, processing water, and domestic water supply.

3.4.2 Effluent Management and Sewage Prevention

Effluent Control Process



Specifications for Effluent Testing

Each site regularly commissions sampling and testing every quarter, and the processing department conducts testing at least once a day. The results all meet the national control standards. Among them, the Shulin, Mailiao, Hsinkang, and Chiayi sites have installed automatic continuous monitoring systems for water discharge (8 sets in total). The systems have real-time connections to the local competent authorities to monitor discharge volume, temperature, pH value, and conductivity (COD and SS are also measured for the Mailiao site) on a 24-hour basis. Please refer to "Prevention and Energy Conservation Performance" on NPC's website for the discharge volume from each plant.



"Prevention and Energy Conservation Performance" on NPC's website

Statistics on Wastewater Discharge

The total effluent of the Company and its subsidiaries in Taiwan in 2020 was 10,074.7 million liters; an increase of 14.2 million liters compared to 2019. The increase is mostly attributable to increased production capacity from Nan Ya Printed Circuit Board Corp.

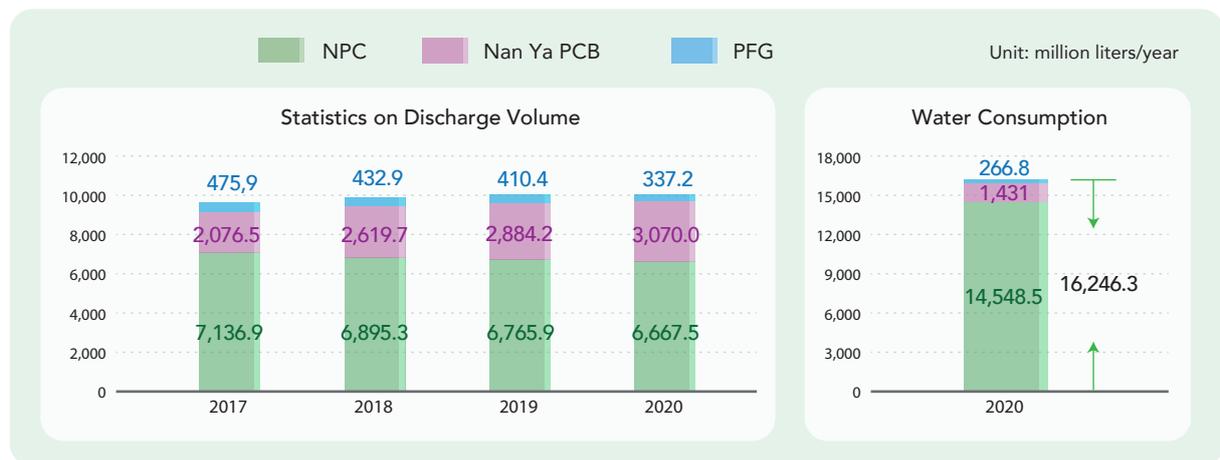
In addition, the following discharging water bodies have been designated as the total quantity control zone: Nankan River in Taoyuan (restrictions for copper) and Houjin River in Kaohsiung (restrictions for ammonia nitrogen).

Statistics on Discharge Volume in 2020

Unit: million liters/year

Company \ Discharge	Surface water	Seawater	Third-party water	Total
NPC	1,936.1	2,911.5	1,819.9	6,667.5
Nan Ya PCB	3,070.0	0.0	0.0	3,070.0
PFG	337.2	0.0	0.0	337.2
Subtotal	5,343.3	2,911.5	1,819.9	10,074.7

Note: Effluents of Nan Chung Petrochemical Corp. is entrusted to the Company's Mailiao wastewater treatment plant for treatment



3.4.3 Water Conservation Performance

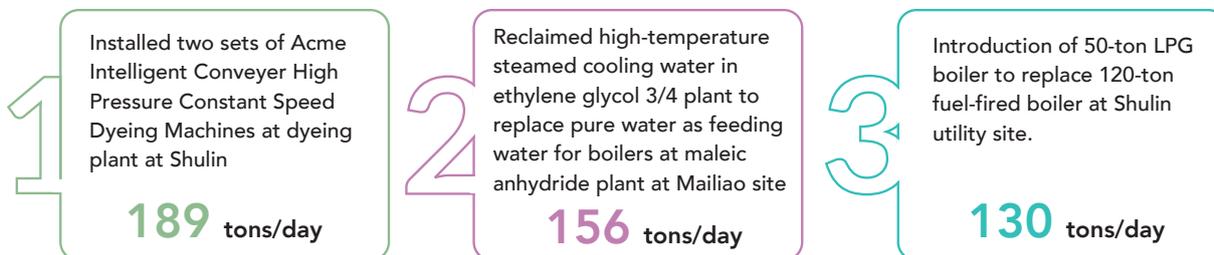
To ensure the effective use of water resources, the Company continues to implement measures such as process water reduction, water-saving management, and reduction of evaporation losses, as well as wastewater recycling and reuse, and strengthening rainwater collection at each plant. In 2020, a total of 75 water-saving improvement projects, costing NT\$50 million, have been completed by NPC and subsidiaries. The annual benefits of these projects are approximately NT\$6 million, and the water-saving performance is shown in the table below:

Summary of Water-Saving Implementation Status of the Company and its Subsidiaries in Taiwan

Item	Year	1999~2019 (A)	2020 (B)	In progress (C)	Total (D=A+B+C)
Improved Items		1,016	75	55	1,146
Water saved (ton/day)		33,126	1,107	2,605	36,838
Amount invested (NT\$100 million)		5.65	0.50	2.05	8.2
Improvement benefits (NT\$100 million/year)		2.02	0.06	0.05	2.13

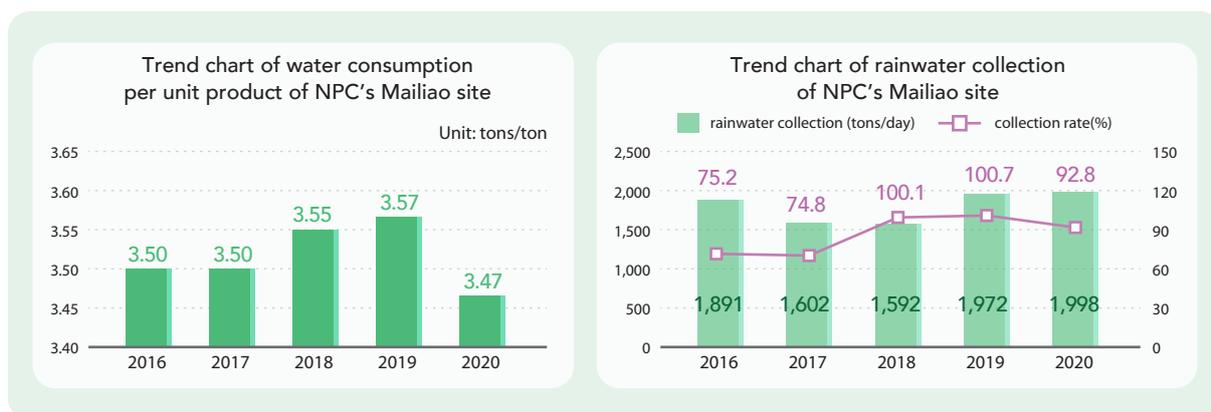
Source: FPG Water and Energy Conservation Project Database; in-progress projects are counted as ongoing improvement cases for January 2021 statistics.

Water-saving Projects and Performance in 2020



Each plant in the Company aims to reduce water consumption per unit product by 2% compared to the previous year. However, due to the wide variety of products and different units of measurement, the water consumption of the Mailiao site, which has the largest amount of consumption, will be used for the purpose of comparison.

In 2020, the average water consumption of the Mailiao site was 30,312 tons/day, which shows a 1.42% increase from 29,885 tons/day in 2019. The water consumption per unit product was 3.47 tons/ton. This is mostly attributed to an 4.4% increase of production capacity in 2020, leading unit water consumption to reduce by 2.8% compared with 2019. In addition, the rainwater collection rate in the Mailiao site was 92.8%, and the average rainwater collection was 1,998 tons/day. The water consumption per unit product and rainwater collection of the Mailiao site are as follows:



Note 1: Amount of rainwater collection = [amount of rainwater collected from each plant in Mailiao] / [number of days in the month].

Note 2: Collection rate = [(rainwater collection ton/day) x (number of days in the month)] / [(monthly average rainfall from weather data mm/month) x (rainwater collection area of each plant) x coefficient of run-off]

Note 3: Coefficient runoff = Strata, porous 0.2; Strata, impervious 0.8; therefore, the collection rate could be greater than 100%

3.4.4 Soil and Groundwater Management

To effectively manage the quality of soil and groundwater, groundwater monitoring operations have been carried out quarterly since the construction of the plant. To ensure that leakage incidents can be kept under control as soon as possible, after consulting the Soil and Groundwater Remediation Process of the Industrial Bureau of the Ministry of Economic Affairs as well as US experts, the Company has set up "Soil and Groundwater Pollution Remediation and Inspection Management Plan" to manage known pollution and potential pollution.

The groundwater monitoring results of the plant in 2020 all met the standards, and the implementation frequency is as follows:

- Monitoring is carried out biennially in the Shulin site, Kung San site, Linkou site, and Jinxing site.
- Monitoring is carried out once every quarter at the Mailiao site.
- Monitoring is carried out every six months at the Hsinkang site.

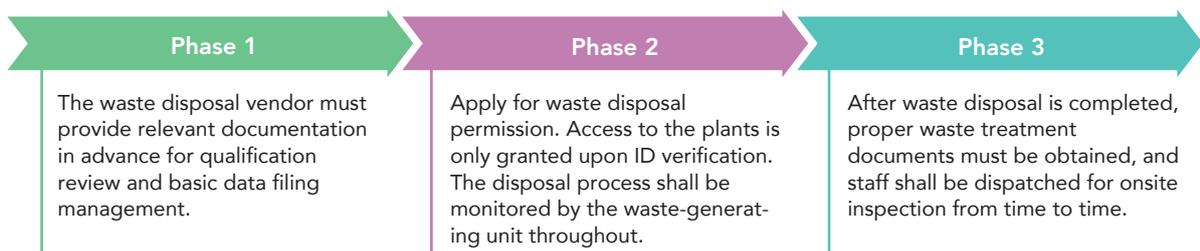
3.5 Waste Management and Circular Economy

3.5.1 Waste Management

Material Issue

Management Approach	Corresponding GRI Standards: 306 - Waste	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Commitment and policies	Environmental impact is reduced from the start through source reduction and resource recovery. Further along the process, legal compliance in all Company operations is ensured through the Company's 3-phase management.	
Responsibilities and goals	<ul style="list-style-type: none"> ■ Responsibilities: Management responsibilities are divided into plant divisions, manager's office, Safety, Health and Environment Department, and the President's Office based on respective roles and responsibilities. ■ Goals: Continue to promote waste reduction and to ensure that no environmental laws related to waste disposal/clearance are violated. 	
Resources	<ul style="list-style-type: none"> ■ Environmental protection personnel are set up at each division to undertake day-to-day management and relevant reductions. ■ The Safety, Health and Environment Department is in charge of external coordination. 	
Grievance channel	Please refer to the chapter on "Stakeholder Communications".	
Performance evaluation methods and results	<ul style="list-style-type: none"> ■ Evaluation method: <ol style="list-style-type: none"> (1) Internal audit: Dedicated personnel will regularly conduct daily inspections at each plant. The management department will perform inspection tasks based on annual plans. (2) Outsourced monitoring: Vendors are regularly commissioned to monitor the toxicity and characteristics of the Company's waste. (3) Waste disposal tracking: waste-generating department will visit the outsourced waste disposal vendor at least once a year. ■ Results: The Company's total waste in 2020 amounted to 150,229 tons, of which approximately 85% was recycled; waste disposal verification was also completed based on statutory requirements. 	
Specific actions	All plants and divisions will regularly review and formulate reduction projects based on their processing characteristics, and the safety, health and environment department will monitor their implementation results with corresponding departments.	

Waste Management Process



Statistics on Waste Disposal

In 2020, NPC and subsidiaries in Taiwan have cumulatively generated 150,229 tons of waste, in which 85% of which was recycled (the ratio of incineration includes energy recovered, reused, and recycled, among the total waste). Hazardous and general waste is classified as follows:

Statistics on Hazardous Industrial Waste Disposal

Unit: Ton

Company	Landfill	Incineration		Reused	Recycled
		Excluding energy recovery	Including energy recovery		
The Company	0.0	226.9	0.0	0.9	5,144.5
Subsidiaries in Taiwan	0.0	88.7	0.0	0.0	15,596.7
Subtotal	0.0	315.6	0.0	0.9	20,741.2
Total		21,057.7			

Statistics on General Industrial Waste Disposal

Unit: Ton

Company	Landfill	Incineration		Reused	Recycled
		Excluding energy recovery	Including energy recovery		
The Company	9,771.3	10,435.4	963.9	169.3	96,569.5
Subsidiaries in Taiwan	104.2	1,942.1	0.0	0.0	9,215.6
Subtotal	9,875.5	12,377.5	963.9	169.3	105,785.1
Total		129,171.3			

Unit: Ton

Item		Hazardous Industrial Waste		General Industrial Waste	
Disposal Method		On-site disposal	Offsite disposal	On-site disposal	Offsite disposal
Volume of waste treated	The Company	4.8	5,367.5	18,505.0	99,404.4
	Subsidiaries in Taiwan	0.0	15,685.4	232.4	11,029.5
Subtotal		21,057.7		129,171.3	
Total		150,229.0			

3.5.2 Controlled Chemical Substance Management

Material Issue

Management Approach	
Corresponding GRI Standards: none	
Commitment and policies	To comply with statutory requirements, operating divisions must receive letters of approval from the competent authority before commencing operation. Moreover, drills should be conducted in line with hazard prevention and response plans.
Responsibilities and goals	<ul style="list-style-type: none"> Responsibilities: Management responsibilities are divided into plant divisions, materials department, manager's office, Safety, Health and Environment Department, and the President's Office based on respective roles and responsibilities. Goals: Conduct controlled chemical substance management in line with the laws; all plants should regularly carry out drills and ensure that no penalties related to controlled chemical substances are received.
Resources	<ul style="list-style-type: none"> Environmental protection personnel are set up at each division to undertake day-to-day management. The Safety, Health and Environment Department is in charge of external coordination.
Grievance channel	Please refer to the chapter on "Stakeholder Communications".
Performance evaluation methods and results	<ul style="list-style-type: none"> Evaluation method: <ol style="list-style-type: none"> Internal audit: Dedicated personnel will regularly conduct daily inspections at each plant. The management department will perform inspection tasks based on annual plans. Plant inspection: 1 emergency response topic will be formulated for every month, and relevant practice drills will be carried out by the plants on a rotational basis. Feedback and comments will be shared. Results: 50 emergency drills were organized.
Specific actions	Before producing or using chemical substances, all plants should execute Management of Change (MOC) procedures to confirm the hazardous nature of the chemical substances, the completeness of existing protection, and legal requirements.

- 50 rounds of emergency drills related to controlled chemical substances announced by the EPA were carried out (excluding spontaneous drills)

The drills include simulated reporting, evaluation, treatment, and subsequent handling procedures, so as to ensure that proper treatment could be completed in the shortest time possible to reduce risks of hazard and to achieve the following effects in case of an emergency:

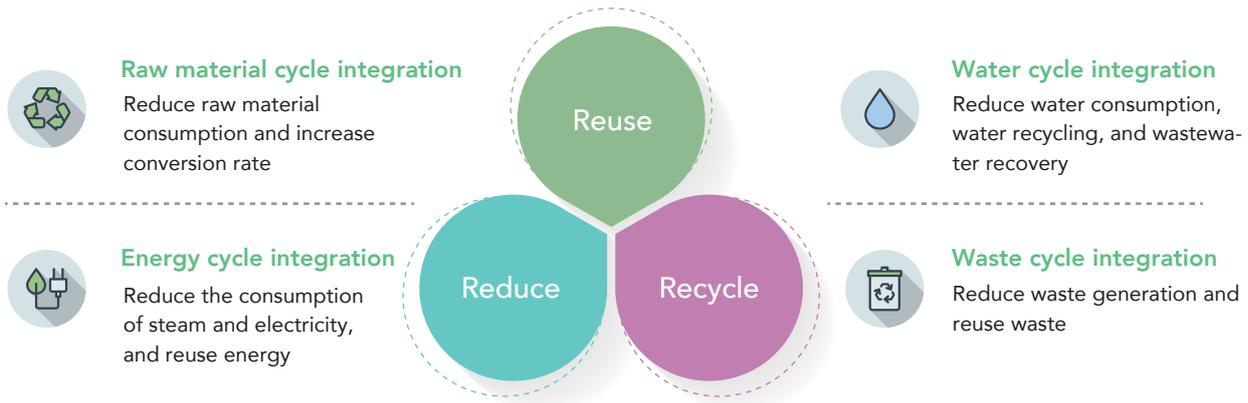
 - To familiarize personnel with emergency response drill procedures
 - To strengthen the use of response equipment and protective gear
- Serve as leader of the joint emergency prevention team to assist competent authority and other companies to enhance their emergency response skills and fulfill corporate social responsibilities

3.5.3 Circular Economy Promotion

The four major companies of Formosa Plastics Group (FPG) work together to integrate resources, establish energy conservation and carbon reduction promotional groups, and improve the effectiveness of energy and water conservation. To encourage all units to implement energy-saving and carbon reduction improvement projects and practice circular economy. We also collaborate with domestic universities every year to hold the results of excellent energy conservation, water conservation, and environmental protection case studies, as well as organize mutual observation meetings.

Promotional Methods

The Company adheres to the 3Rs (reuse, reduce, and recycle) of circular economy, and reviews the implementation based on the 4 dimensions of raw materials, water cycle, energy cycle, and resource recovery to actively promotes:



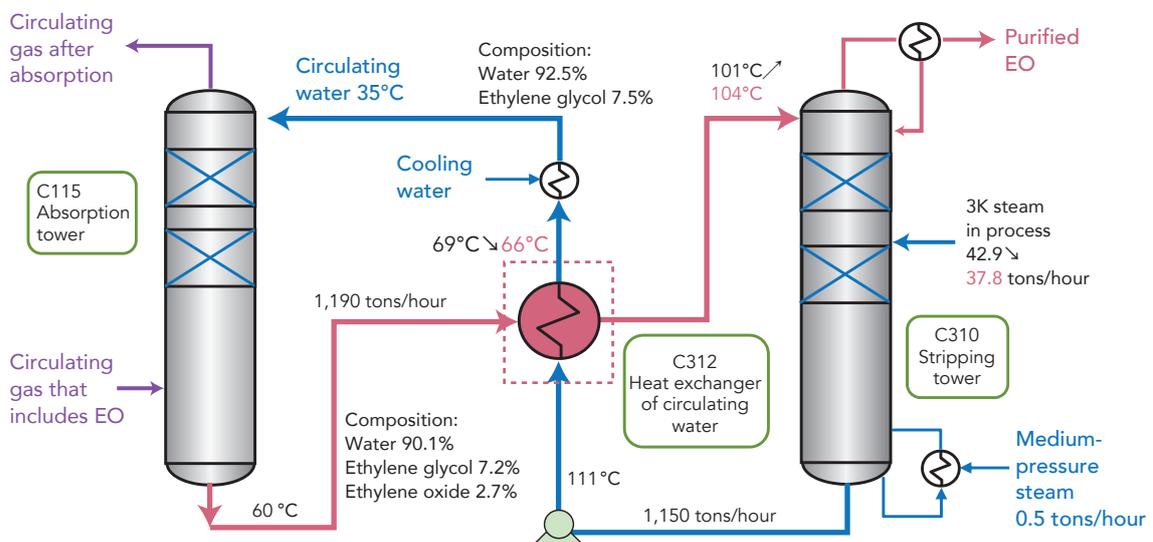
Announcement of Results

To encourage all units to strive to improve energy conservation, carbon reduction, and circular economy, the Company praises high-performing vendors/plants, and partner with domestic universities to honor excellent examples of energy and water saving and environmental protection.

Date	Venue	Major Results
October 16, 2020	"Mutual Observation Meetings and Presentations on Improvement Cases Selection of Excellent Environmental Management Plant of Formosa Plastics Group" at National Yunlin University of Science and Technology	<ul style="list-style-type: none"> NPC's BPA plant of Chemical Engineering Department II has received Merit Award for "Installation of Thickener in Pusher Centrifuge". NPC's ethylene glycol plant of Chemical Engineering Department III has received Merit Award for "Steam-saving improvement of water heat exchanger for circulating water".
October 6, 2020	Mailiao Industrial Complex held the "2020 Commendation Conference of Excellent Department on Energy Conservation, Carbon Reduction and Circular Economy Promotion in Mailiao Industrial Complex"	<ul style="list-style-type: none"> The plasticizer plant won first prize in the "2020 Excellent Department on Energy Conservation, Carbon Reduction and Circular Economy Promotion in Mailiao Industrial Complex". The 2EH plant won second prize in the "2020 Excellent Department on Energy Conservation, Carbon Reduction and Circular Economy Promotion in Mailiao Industrial Complex".

Circular Economy Practices

Steam-saving Improvement of Heat Exchanger for Circulating Water at NPC's Ethylene Glycol Plant



1. EG1 absorption tower (C115) transfers the 60°C ethylene oxide (EO) solvent at the bottom of the tower to the stripping tower (C310) to strip the EO, and the 111°C high-temperature thermal energy at the bottom of C310 is recycled via the heat exchanger of circulating water (E312) to warm up the low-temperature input for stripping tower (60 \nearrow 101 °C). Since the temperature difference between the hot and chilled side of the existing E312 is (HAT) 10°C; there is still room for improvement in the heat exchanger, heat conversion at E312 needs to be increased to lower the HAT and to further increase the temperature of the input for the stripping tower. After evaluation, the temperature of the heat difference was set at 7°C for maximum economic benefits.
2. After this improvement, the temperature of the input for stripping tower (C310) has been increased from 101 to 104°C, and the steam consumption from C310 has been reduced by 5.1 tons/hour. The improvement benefit is NT\$27,749 thousand/year, while carbon emissions have been reduced by 11,200 tons/year.

3.6 Environmental Compliance

The Company and its subsidiaries in Taiwan did not experience any significant spills in 2020. However, 3 environmental protection tickets were received. The main reasons were:

- (1) Leaks in equipment components were not instantly found and fixed.
- (2) The operating personnel did not confirm the accuracy of the reporting information.

The short-term goal of reducing the number of tickets to 50% or less wasn't achieved, and it is obvious that the personnel's vigilance regarding the discovery of abnormalities should be strengthened. Besides using the abnormal incidents as educational materials, the Company will further require all plants to continue to implement self-monitoring, immediately notify relevant personnel for review upon detection of abnormality, and complete all necessary improvements on a timely basis.

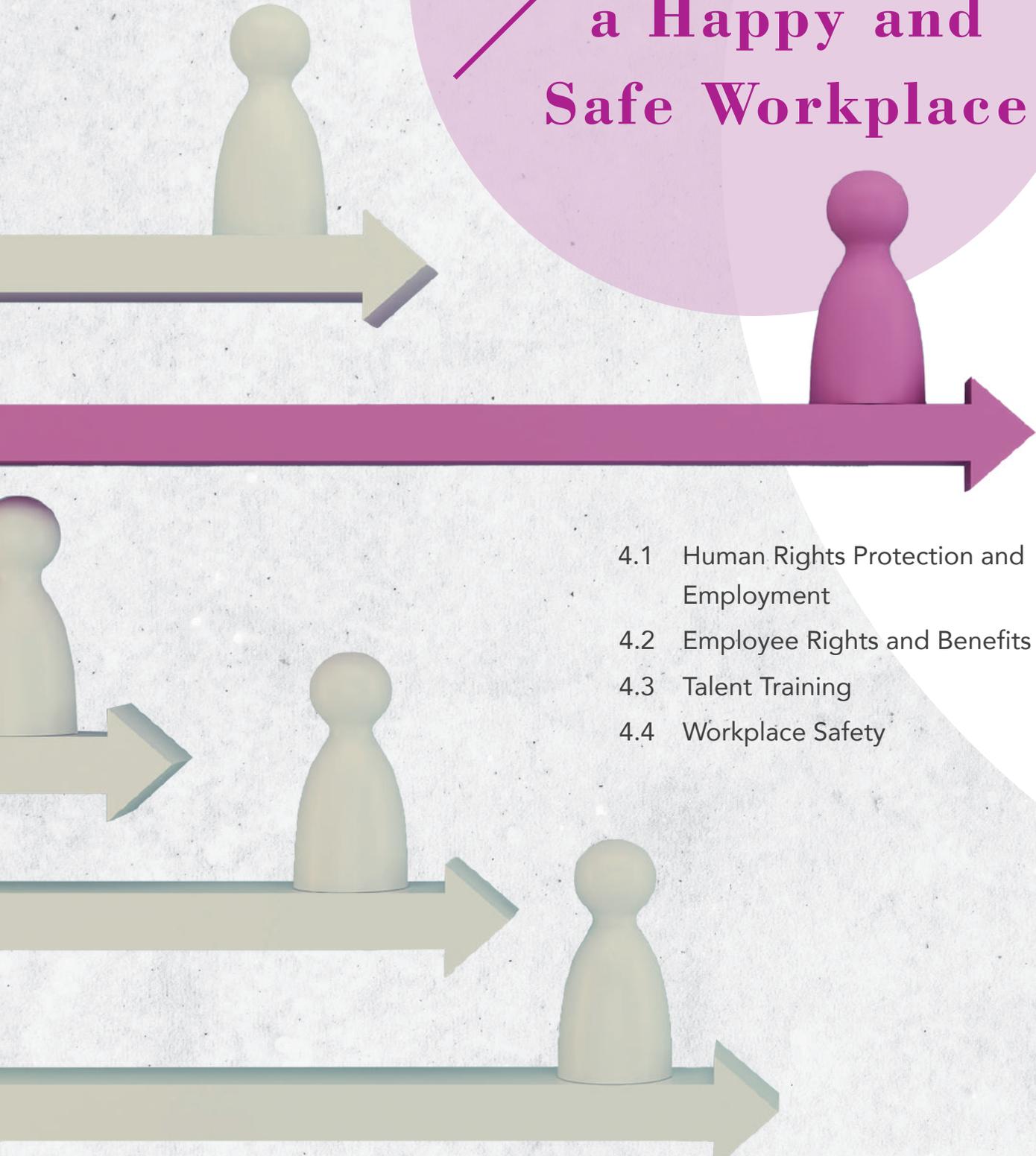
Type	2017	2018	2019	2020
Air Pollution	2 cases/NT\$200,000	6 cases/NT\$600,000	2 cases/NT\$200,000	2 cases/NT\$200,000
Water Pollution	0 cases/NT\$0	1 case/NT\$105,000	0 cases/NT\$0	0 cases/NT\$0
Waste Pollution	0 cases/NT\$0	1 case/NT\$6,000	0 cases/NT\$0	1 case/NT\$6,000
Others	1 case/NT\$100,000	0 cases/NT\$0	0 cases/NT\$0	0 cases/NT\$0
Total	3 cases/NT\$300,000	8 cases/NT\$711,000	2 cases/NT\$200,000	3 cases/NT\$206,000

Note: An additional 2 penalty cases are being appealed.

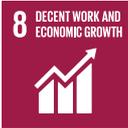




4 Creating a Happy and Safe Workplace

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- 4.1 Human Rights Protection and Employment
 - 4.2 Employee Rights and Benefits
 - 4.3 Talent Training
 - 4.4 Workplace Safety

Employees are critical to a company's sustainable development. NPC strives to provide a safe and secure workplace environment and uses diverse channels to care for our employees' physical and mental well-being. We are committed to enhancing employees' safety awareness and to building a company that our employees would be proud of.

Strategies	United Nations Sustainable Development Goals (SDGs)	Sustainable issues
<ul style="list-style-type: none"> Caring for employees' health - enhancing the quality of workplace environment and maintaining the physical and mental well-being of all employees Formulating a culture of safety and health - implementing process safety and health management at each rank to prevent occupational hazards 		Occupational health and safety, industrial and public safety, employee benefits and salaries

2020 Goals	2020 Implementations (○ Did not meet the goals; ✓ Goals met; ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Caring for Employees' Health

<ul style="list-style-type: none"> Continue to organize interviews and seminars for new employees and actively care for and assist employees to solve problems so as to retain talents Continue to provide comprehensive training, smooth promotion channels for employees, and to build a safe and positive workplace environment Compile lists of abnormal health cases across each division to understand and manage high-risk individuals Continue to organize health promotional activities to reduce the occurrence rate of employees' occupational injuries and sick leaves to achieve the goal of employees' self-health management 	<ul style="list-style-type: none"> ✓ Conducted 808 new employee interviews and 7 seminars totaling 132 persons ✓ Average employee training hours in 2020 reached approximately 49 hours/person, and promotion exam opportunities were offered to qualified personnel ✓ Actively monitored employees with chronic diseases/poor control and worked with supervisors to care for these individuals ✓ Health promotional activities organized in 2020 with 1,576 participants 	<ul style="list-style-type: none"> Continue to organize interviews and seminars for new employees and actively care for and assist employees to solve problems so as to retain talents Continue to provide comprehensive training, and smooth promotion channels for employees, and to build a safe and positive workplace environment Compile lists of abnormal health cases across each division to understand and manage high-risk individuals Continue to organize health promotional activities to reduce the occurrence rate of employees' occupational injuries and sick leaves to achieve the goal of employees' self-health management 	<ul style="list-style-type: none"> Provide competitive salaries and benefits, comprehensive training, and smooth promotion channels for employees Care for employees' physical and mental well-being and to provide a positive workplace environment
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Formulating a Safety and Health Culture

<ul style="list-style-type: none"> Zero occupational injuries; zero accidents 	<ul style="list-style-type: none"> ★ Through digital optimization of procedures for work safety, fire prevention, and PSM management to enhance operating efficiency and strengthen onsite management mechanisms ○ In 2020, there was 1 fatal occupational incident, disabling frequency rate (FR) was 0.27, disabling severity rate (SR) was 170, frequency-severity indicator (FSI) was 0.21. The Company will continue to strengthen related management 	<ul style="list-style-type: none"> Continue to promote optimization of work safety, fire prevention, and PSM operating procedures Zero occupational injuries; zero accidents 	<ul style="list-style-type: none"> Zero occupational injuries; zero accidents
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CSR Achievements at a Glance

- Employees of the Company and its subsidiaries in Taiwan: more than **93%** are full-time staff; **93%** are Taiwanese citizens.
- In 2020, the average monthly turnover rate for employees of the Company and subsidiaries in Taiwan was **0.06%**.
- In 2020, of all occupational injury indicators, the Company and its subsidiaries in Taiwan had a disabling frequency rate (FR) of **0.27** and frequency-severity indicator (FSI) of **0.21**, which were both lower than those of our peers.



4.1 Human Rights Protection and Employment

4.1.1 Human Rights Policy

The Company supports and abides by the fundamental principles on human rights, including the "United Nations' Universal Declaration of Human Rights," the "International Covenant on Civil and Political Rights" (ICCPR), and the "International Covenant on Economic, Social and Cultural Rights" (ICESCR), along with the local laws and regulations where we operation. Additionally, to protect current employees (including contractual and part-time workers), the Company has also formulated "NPC Human Rights Policy". Please refer to "Human Rights Policy and Specific Practices" on NPC's website.



"Human Rights Policy and Specific Practices" on NPC's website

4.1.2 Employment

The Company's recruitment process has always been fair, just, and impartial. The candidates are hired based on their qualifications while fully abiding by the provisions of the Labor Standards Act. Child labor has never been employed. In addition, we only take individual professional competencies and experience into consideration based on the human rights principle of equal employment opportunities. The promotions, evaluations, training, rewards, and disciplines are clearly specified and standardized for all employees after recruitment, so that all employees enjoy fair treatment. There were no violations of human rights or discrimination in 2020.

Age and Regional Distribution of New Employees of NPC and Subsidiaries in Taiwan in 2020

Unit: Person

Type	Division	Female	Male
Age	Under 29	146	612
	30-39	38	146
	40-49	16	23
	50-59	0	3
	Over 60	0	0
Region	Northern Taiwan	168	597
	Central Taiwan	0	10
	Southern Taiwan	32	177
Total		200	784
Proportion of New Employees		5.7%	5.6%

4.1.3 Workforce Structure

In 2020, the Company and its subsidiaries in Taiwan employed a total of 18,964 employees, of which 93% were Taiwanese citizens. 93% were full-time staff, 7% were contractors. 405 were from outsourced companies, including 261 males and 144 females, all of whom were Taiwanese nationals. Based on the analysis of the composition structure of all national full-time employees, the ratio of male and female is approximately 4:1, the average age is 45.0 years old, and the average years of service is 20.1 years, including 183 persons with disabilities, accounting for 1.3% of the total full-time employees.

 Workforce Structure of NPC and Subsidiaries in Taiwan in 2020

Unit: Person

Type	Division	Female		Male		Total
		Number of employees	Proportion of the group	Number of employees	Proportion of the group	
Title	Executive and above	2	0.1%	55	0.4%	57
	First-, second-level supervisors	79	2.2%	2,040	14.5%	2,119
	Entry-level supervisors and entry-level personnel	3,430	97.7%	11,967	85.1%	15,397
Workplace location	Northern Taiwan	2,576	73.4%	7,868	56.0%	10,444
	Central Taiwan	60	1.7%	1,439	10.2%	1,499
	Southern Taiwan	875	24.9%	4,755	33.8%	5,630
Age	Under 29	284	8.0%	1,628	11.6%	1,912
	30-39	558	15.9%	2,430	17.3%	2,988
	40-49	1,790	51.0%	4,952	35.2%	6,742
	50-59	764	21.8%	4,079	29.0%	4,843
	Over 60	115	3.3%	973	6.9%	1,088
Length of service	Less than 10 years	606	17.3%	3,910	27.8%	4,516
	11 to 20 years	545	15.5%	1,667	11.9%	2,212
	21 to 30 years	1,785	50.8%	6,149	43.7%	7,934
	Over 30 years	575	16.4%	2,336	16.6%	2,911
Education	Ph.D.	0	0.0%	31	0.2%	31
	Master's degree	98	2.8%	806	5.7%	904
	Bachelor's degree	128	3.6%	1,880	13.4%	2,008
	Others	3,285	93.6%	11,345	80.7%	14,630
Gender subtotal		3,511		14,062		17,573

Note: This table is based on the number of full-time employees as of December 31, 2020.

 Contractor Manpower Structure of NPC and Subsidiaries in Taiwan in 2020

Unit: Person

Title	Female	Male
Consultant	1	9
Regular contract workers	1	44
Foreign workers	555	764
Interns	1	16
Gender subtotal	558	833
Total	1,391	

Note: This table is based on the number of contracted workers as of December 31, 2020.

4.1.4 Ratio of Local Supervisors

To give back to the local communities, the Company and its subsidiaries in Taiwan have prioritized local residents when recruiting entry-level employees. In addition, the Company also actively develops local residents to become outstanding senior employees. Moreover, supervisors across all ranks are Taiwanese citizens and have been trained and developed internally to boost employee morale. The Company has maintained a 50% or above ratio of recruiting local residents as entry-level supervisors (inclusive) or above for the past three years.

Ratio of Local Residents Employed by NPC and its Taiwanese Subsidiaries as Supervisors over the Past 4 Years

Unit: persons; %

Year	2017	2018	2019	2020
Number of employees	2,550	2,607	2,579	2,558
Ratio (%)	48.4%	68.7%	68.8%	69.1%

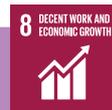


4.2 Employee Rights and Benefits

Material Issue

Management Approach

Corresponding GRI Standards: 202 Market Presence; 401 Employment; 405 Diversity and Equal Opportunity



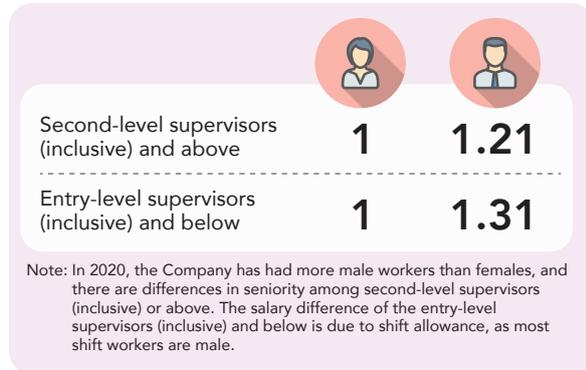
Commitment and policies	The Company has formulated human rights policy, complies with relevant laws and regulations, protects the basic human rights of employees, and provides competitive pay and a sound management system to employees. In addition, we also offer solid training, smooth promotions and grievance channels, and welcome quality personnel from all walks of life.
Responsibilities and goals	<ul style="list-style-type: none"> Responsibility: HR department Goals: Continue to organize recruitment activities and to execute the "Personnel Counseling System" and training across all stages, and to provide comprehensive compensations, benefits measures, and promotion system.
Resources	To provide stable and competitive compensations and well-rounded training and promotion/development systems, as well as comprehensive benefit measures.
Grievance channel	<ul style="list-style-type: none"> Labor union (labor-management meetings), and Employee Welfare Committee, etc. Physical and online opinion mailboxes and "799" hotline have been set up across all operations.
Performance evaluation methods and results	<ul style="list-style-type: none"> Evaluation method: Annual Report and Corporate Social Responsibility (CSR) Report. Evaluation results: <ol style="list-style-type: none"> NPC offers higher minimum wage than the statutory requirement, and the ratio of basic wages for men and women at the same ranks and positions is 1:1. NPC offers many benefit measures that are more competitive than statutory requirements.
Specific actions	Labor and management can achieve adequate communications via organizations, such as labor unions and the Employee Welfare Committee.

4.2.1 Employee Compensations

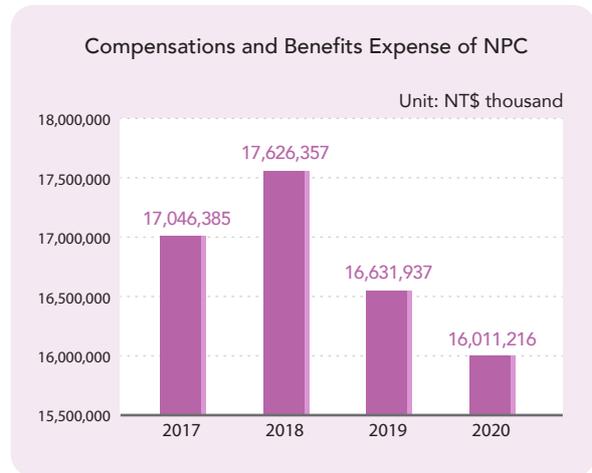
The Company offers higher salaries than the local minimum wages. Moreover, our compensations are all above industry average standards in order to attract and retain talents. The compensation standard for new employees is based on the academic and work qualifications required for their jobs, and female and male employees of the same position and rank receive equal pay. After recruitment, salaries and promotions are given over the years based on individual work performance.

Ratio of Compensations for Female and Male Employees

Compensation Ratio for Female and Male Employees of the Same Position at NPC and Subsidiaries in Taiwan



Compensations and Benefits Expense



Average and Median Wages

In 2020, the number of full-time employees who do not serve in managerial roles and their average and median wages are as follows:

Year	2017	2018	2019	2020
Number of non-managerial full-time employee (person)	11,446	11,672	11,954	12,232
Average wage of non-managerial full-time employee (NT\$ thousand/year)	1,336	1,343	1,281	1,197
Median wage of non-managerial full-time employee (NT\$ thousand/year)	1,250	1,274	1,219	1,132

In terms of retirement protection, the Company allocates monthly contributions to dedicated pension accounts based on the employees' selection of the new or old pension scheme. This helps to ensure that the Company is able to provide pensions to employees when they meet the statutory conditions of retirement:

- Old scheme (those who choose the retirement system under "Labor Standards Act"): 4% of the total monthly wage will be deposited into a dedicated account at the Bank of Taiwan. In 2020, the cumulative labor pension reserve has reached NT\$283,904 thousand.
- New scheme (those who choose the retirement system under "Labor Pension Act"): 6% of the employee's individual salary is deposited to the personal pension account of the employee.

4.2.2 Job Security

The Company provides a safe and secure career for its employees. An integrated manpower mechanism that replaces staff dismissal with transfer has been formulated. When an employee is deemed as underqualified for his/her job, the person's department head will first communicate with the person before the person is counseled, transferred, or dismissed. Moreover, all relevant procedures are carried out in line with the Labor Standards Act and applicable laws and regulations.

The monthly average voluntary turnover rate of the Company and its subsidiaries in Taiwan in 2020 was 0.06%, while the absence rate was 0.37% (absence rate calculation takes sick leave, official leave, and occupational injury leave into account, of which males accounted for 0.37% and females 0.37%). The absence rate of outsourced employees was 0.1% (of which males accounted for 0.1%, and females 0.1%). These data fully demonstrate the Company's performance in caring for its employees and protecting their job security, as well as the employees' trust and sense of belonging.

Age and Regional Distribution of Employee Turnover of NPC and Subsidiaries in Taiwan in 2020

Unit: Person

Type	Division	Female	Male
Age	Under 29	41	145
	30-39	48	80
	40-49	36	60
	50-59	22	177
	Over 60	15	131
	Retirement	10	131
Region	Northern Taiwan	126	440
	Central Taiwan	1	46
	Southern Taiwan	45	238
Total		172	724
Turnover Rate		4.9%	5.1%

Note 1: The turnover rate in the table above includes retired and dismissed personnel.

Note 2: Turnover rate is calculated by dividing the number of turnover of a gender from the total number of people of the same gender.

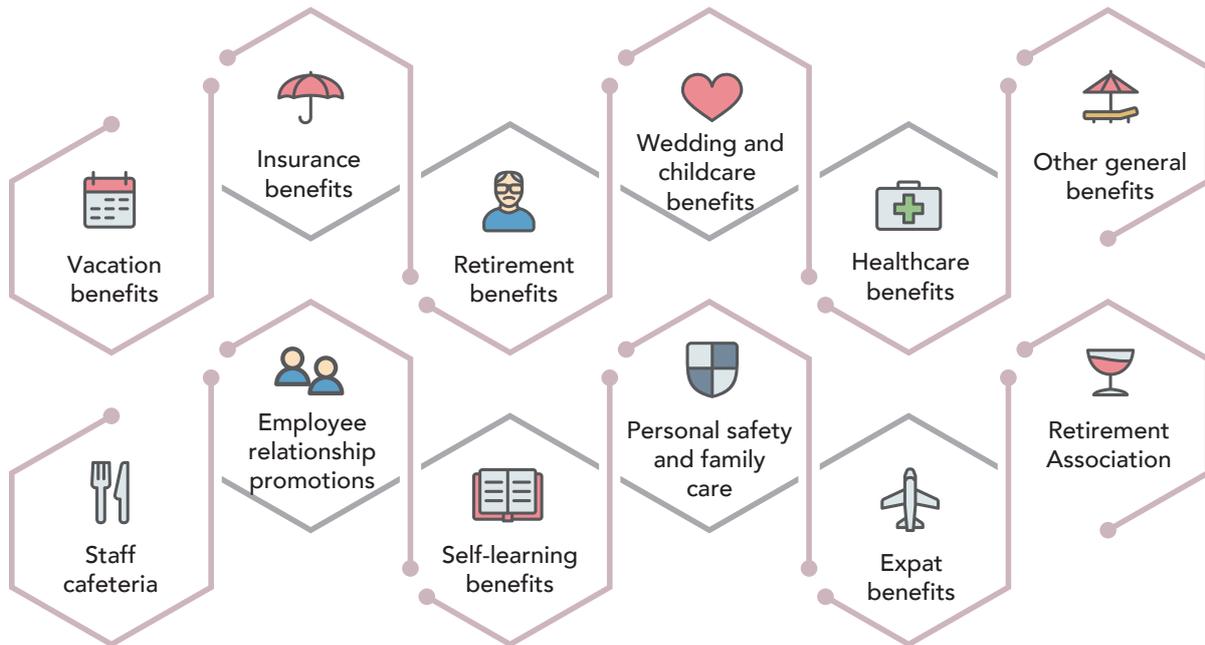
4.2.3 Employee Benefits and Care

To let all full-time employees work with peace of mind and to fully unleash his/her expertise, the Company continues to treat employees like family. Basic food, accommodations, and recreational facilities have been planned right from the beginning of building each plant. Moreover, various comprehensive benefit systems have also been planned with the employees' long-term welfare in mind.

The Company has implemented a number of employee benefits and incentive measures that are superior to statutory requirements, including:



"Employee Benefits" on NPC's website



(For details on each benefit, please refer to "Employee Benefits" on NPC's website)

In addition, to implement the concept of a happy workplace, the Company has set up breastfeeding rooms inside the plants in line with the laws, set up a friendly office environment for employees. Moreover, a parental leave system is also offered. Eligible employees can adjust their work hours based on their childcare needs. In 2020, a total of 39 females and 7 males, or cumulatively 46 employees, have applied for parental leave. The reinstatement rate was 61.2%.

Application and Reinstatement Rate of Parental Leave of the Company and Subsidiaries in Taiwan

Unit: Person

	2017			2018			2019			2020		
	Female	Male	Total									
Number of employees eligible for parental leave	29	220	249	21	214	235	47	316	363	32	305	337
Actual number of parental leave applications	9	5	14	9	5	14	12	10	22	39	7	46
Number of employees expected to be reinstated during the year (A)	10	8	18	10	8	18	12	3	15	37	12	49
Number of applications for reinstatement during the year (B)	9	7	16	9	7	16	12	2	14	23	7	30
Reinstatement rate % (B/A)	90	87.5	88.9	90	87.5	88.9	100	66.7	93.3	62.2	58.3	61.2
Retention rate %	100	100	100	100	100	100	100	100	100	100	100	100

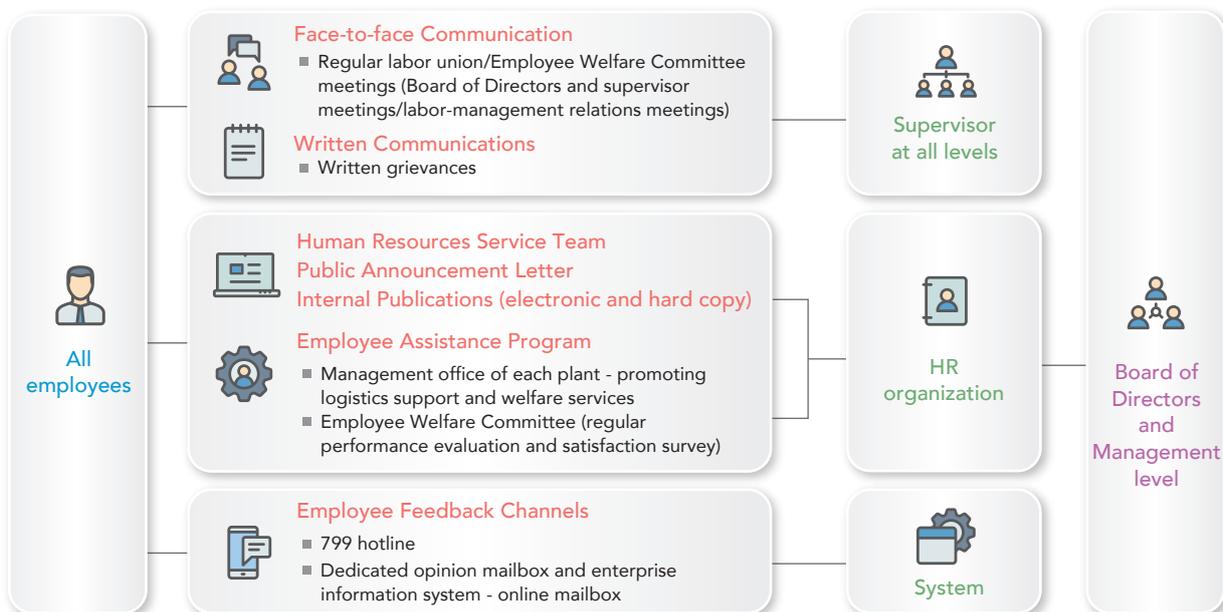
Note 1: Retention rate refers to the ratio of employees who have worked at the Company for one year or more after being reinstated after parental leave.

Note 2: Statistical data for 2019 and 2020 include NPC and its subsidiaries in Taiwan.

4.2.4 Valuing Employee Feedback

The Company strives to pursue harmonious labor-management relations and provides diverse and unimpeded communications channels. We also actively encourage employees to propose innovative ideas. All employees can voice their thoughts and ideas by joining organizations, including the labor union and the Employee Welfare Committee. Currently, 81% of all employees have joined the union.

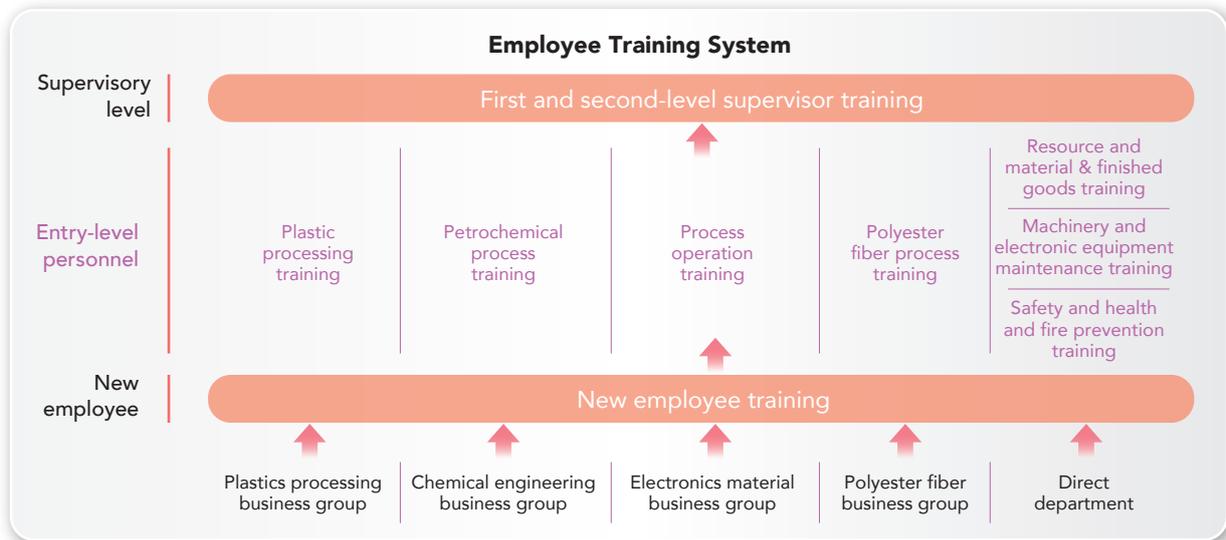
The Company's employer representatives regularly communicate with employee representatives during council or board of supervisors' meetings held by the union, as well as during labor-management meetings. When the subject concerns major labor relations issues, the Company gives priority to the opinions of the union, and all employees are protected by the mutual agreement between employers and employees. The Company's main communication channels are shown as follows:





4.3 Talent Training

The Company has developed a complete personnel training system. Through the online training management system, training can be completed step by step. The current training system includes pre-employment training, basic job training, professional competencies training, management trainee training, functional certification, and cross-functional studies in order to train well-rounded employees.



4.3.1 Employee Training and Evaluation

In 2020, the average number of training hours per employee was approximately 49 hours. The average number of training hours for first-level supervisors was 16 hours, for second-level supervisors was 32 hours, for entry-level supervisors was 61 hours, and for entry-level personnel, 49 hours. The main courses and results are as follows:

- Obtain job-related professional licenses: based on the operational and safety needs of each department.
- Courses such as "Basic Training for RTPMS", "Statistical Quality Management and Experimental Design", "Artificial Intelligence (AI) Training", and "Training for Visual Inspection Techniques": Designed to enhance employees' professional and managerial skills both at work and in life.
- Announcement of relevant laws and regulations such as the Occupational Safety and Health Act, the Labor Standards Act, Act, Sexual Harassment Prevention Act, and Act of Gender Equality in Employment, and the advocacy of such laws to employees via "10-minute On-site Training", "Communication Sessions" and "Morning Meetings" and "Formal Training", so as to enhance employees' awareness regarding human rights and occupational safety.

Training Status for All Employees in the Past Four Years

Unit: Hour

	First-level supervisors			Second-level supervisors			Entry-level supervisors			Entry-level personnel		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
2017	12,836	30	12,866	36,896	807	37,703	168,774	1,288	170,062	454,790	101,029	555,819
2018	13,942	43	13,985	44,281	1,235	45,516	212,648	3,852	216,500	601,865	139,303	741,168
2019	15,835	22	15,857	51,544	1,743	53,287	204,606	4,033	208,639	559,517	130,361	689,878
2020	13,575	55	13,630	40,481	859	41,340	201,880	4,741	206,621	536,573	128,938	665,511

Note 1: Statistical data from 2018 to 2020 includes the Company and its subsidiaries in Taiwan.

Note 2: Due to the impact of the COVID-19 pandemic, the training hours have decreased in 2020.

Note 3: The Company belongs to the (plastic) secondary processing industry, and female employees mostly serve in indirect functions at office settings and hence have fewer requisite professional training skills.

Training Completion Rate in All Stages for the Past Four Years

Unit: %

Year	Items	Basic job training	Professional competencies training	Annual training program
2017		100	99.6	100
2018		100	99.9	100
2019		100	99.9	100
2020		100	100	100

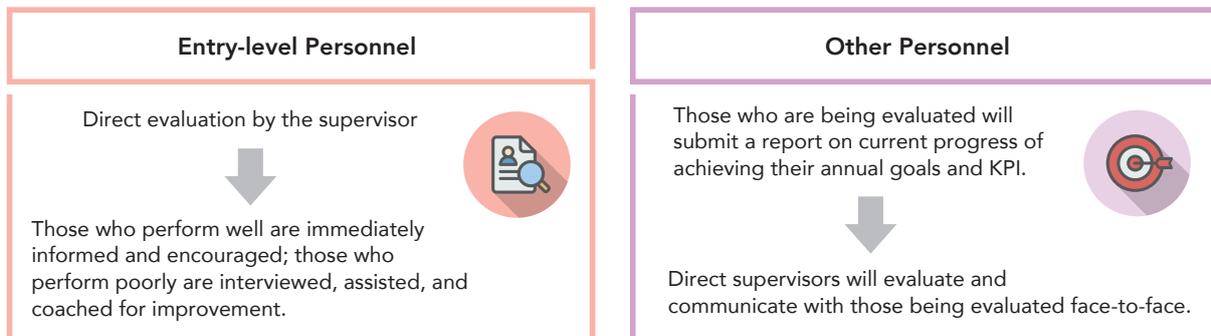
Note 1: Completion rate refers to the ratio of the assigned training programs that were completed in that year.

Note 2: Statistical data from 2018 to 2020 includes the Company and its subsidiaries in Taiwan.

Employee Career Path



Furthermore, the Company has specified the "regular work evaluation" in its "Performance Review Procedures" in order to improve the quality of work and to cultivate a serious and responsible work attitude among the employees. All employees are reviewed every 1-3 months depending on their duties. Regular work evaluation motivates employees to pursue growth and to create a self-challenging work environment.

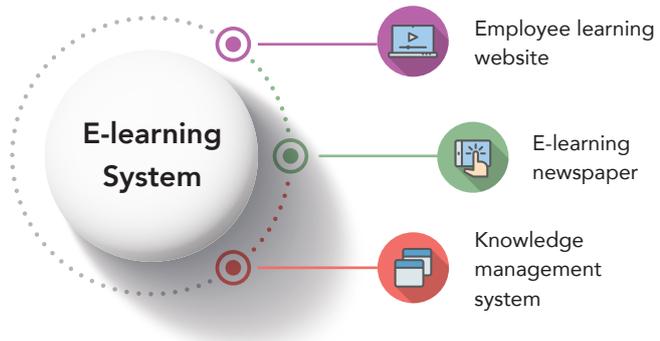


4.3.2 Security Personnel Training and Digital Learning & Knowledge Management System

The Company provides comprehensive professional security training for all security personnel to obtain necessary training certification, including "industrial safety", "security personnel work procedures", and "applicable laws and regulations". Moreover, an e-learning system has also been implemented to provide diverse and self-learning channels to our employees. Please refer to "Talent Development" on NPC's website for details.



"Talent Development" on NPC's website



4.4 Workplace Safety

Material Issue

Management Approach

Corresponding GRI Standards: 403 - Occupational Safety and Health



<p>Commitment and policies</p>	<p>The Company has set up the Occupational Safety & Health Committee to promote "Process Safety Management". We also hold PSM exchange and seminars every six months and encourage all plants to obtain ISO 45001 Occupational Safety and Health Management System and the Taiwan Occupational Safety and Health Management System (TOSHMS) certification in order to cultivate Industry Safety culture. This will help to reduce the frequency of occupational accidents and injuries, ensure the physical and mental health of employees, and maintain the safety of the plant and the surrounding neighborhood.</p>
<p>Responsibilities and goals</p>	<ul style="list-style-type: none"> ■ Responsibilities: <ol style="list-style-type: none"> (1) Dedicated personnel for work safety has been assigned in the President's Office, all business divisions, and plants to be in charge of occupational health and environmental management as well as to conduct relevant audits. (2) Medical personnel in charge of workplace health promotions have been assigned in the management office of each plant. ■ Goals: Zero occupational injuries, zero accidents.
<p>Resources</p>	<ul style="list-style-type: none"> ■ Dedicated personnel for work safety has been assigned in the President's Office, all business divisions, and plants to be in charge of occupational health and environmental management as well as to conduct relevant audits. ■ Medical personnel in charge of workplace health promotions have been assigned in the management office of each plant.
<p>Grievance channel</p>	<ul style="list-style-type: none"> ■ PSM exchange and seminars are held once every six months, and the results of process risk management are presented each year. ■ Coordination meetings with contractors are regularly convened, and toolbox meetings are held on a daily basis.
<p>Performance evaluation methods and results</p>	<ul style="list-style-type: none"> ■ Evaluation method: <ol style="list-style-type: none"> (1) Obtain external certifications such as ISO and the evaluation for Accredited Healthy Workplace from the Ministry of Health and Welfare. (2) Continuous monitoring of labor safety data and working hours. ■ Evaluation results: ISO 45001 Occupational Safety and Health Management System and the Taiwan Occupational Safety and Health Management System (TOSHMS) certifications have been obtained by all NPC plants.
<p>Specific actions</p>	<ul style="list-style-type: none"> ■ Promote "Process Safety Management (PSM)" procedures to cultivate Industry Safety culture and to reduce the risk of occupational hazards. ■ Practice contractor engineering safety management, safety supervisor system, and transportation safety quality evaluation system.

4.4.1 Workplace Safety Management

To ensure workplace safety, the Company has established a specific occupational safety and health organization. The Occupational Safety Committee has been set up in all the plants in accordance with laws and regulations, and obtained the certifications of ISO 45001 Occupational Safety and Health Management System and the Taiwan Occupational Safety and Health Management System (TOSHMS).

Occupational Safety Committee

Number of committee members: **181**
 Employee representatives: **70**
 Employee representatives account for **39%**, which is superior to the statutory requirement

Meetings are held quarterly. Topics discussed in 2020 are as follows:

- Review of the location of road bumps in the plant
- Discussion on the content of occupational disease prevention evaluation form
- Review of the implementation of the plant safety and health training program
- Traffic safety promotion proposal
- Research on occupational injury investigation report
- Automated inspection and safety and health audits



ISO 45001 Occupational Safety and Health Management System certificate



Taiwan Occupational Safety and Health Management System (TOSHMS) certificate

Occupational Injury Indicators

The Company had 1 occupational fatality incident in 2020. The incident involved an employee who attempted to wedge between the loading outlet and the trolley before stopping the trolley, and died from being crushed between the door and the machine. The Company immediately formed an "incident investigation team" after the accident to collectively review and clarify the cause of the accident with relevant departments. Substantive improvement measure was proposed, and all departments are requested to inspect and review the adequacy of protective measures in place. Those with inadequate protection are requested to make improvement, while education and training has also been reinforced across all departments. All employees are requested to comply with NPC's rules to stop any future recurrence.

All occupational injury indicators of the Company and its subsidiaries in Taiwan were lower than that of our competitors (plastic product manufacturers) in 2020. In particular, NPC had 10 disabling injuries, including 5 incidents of "being trapped by the equipment", 3 incidents of "being hit", and 1 each of "electrocution" and "falling".

The Occupational Injury Indicators of the Company and Its Subsidiaries in Taiwan

Year	The Company and subsidiaries in Taiwan			Plastic products manufacturers		
	Disabling Injuries Frequency Rate (FR)	Disabling Injuries Severity Rate (SR)	Frequency-severity Indicator (FSI)	Disabling Injuries Frequency Rate (FR)	Disabling Injuries Severity Rate (SR)	Frequency-severity Indicator (FSI)
2017	0.28	7	0.04	1.87	293	0.74
2018	0.33	6	0.04	1.46	185	0.52
2019	0.43	59	0.15	1.42	94	0.37
2020	0.27	170	0.21	1.54	209	0.57

Note 1: Disabling Injuries Frequency Rate (FR) = number of disabling injuries × 10⁶ / total working hours

Note 2: Disabling Injuries Severity Rate (SR) = working days lost to disabling injuries × 10⁶ / total working hours

Note 3: Frequency-severity Indicator (FSI) = (FR × SR / 1000)^{1/2}

Occupational Injury Data from All Plants of the Company and Its Subsidiaries in Taiwan in 2020

Plant \ Type	Male			Female		
	Disabling Injuries Frequency Rate (FR)	Disabling Injuries Severity Rate (SR)	Frequency-severity Indicator (FSI)	Disabling Injuries Frequency Rate (FR)	Disabling Injuries Severity Rate (SR)	Frequency-severity Indicator (FSI)
Taipei	0	0	0	0	0	0
Shulin	0	0	0	0	0	0
Linkou	0.45	91	0.20	0	0	0
Kung San	0.35	2	0.02	0	0	0
Jinxing	0.11	0	0	0	0	0
Mailiao	0.34	1	0.01	0	0	0
Chiayi	0	0	0	0	0	0
Hsinkang	0.66	802	0.72	0	0	0
Renwu	1.11	4	0.06	0	0	0
Details	10 occupational injuries involving male employees, including 5 incidents of "being trapped by the equipment", 3 incidents of "being hit", and 1 each of "electrocution" and "falling".			No female employee was involved in any occupational injuries.		

Contractors' Occupational Injury Indicators

There was 1 contractor involved in an occupational fatality in 2020. The incident involved an unauthorized entry from a contractor's employee to an access-controlled 5-meter platform to get scaffold boards. The employee accidentally fell from the platform opening to the first floor, and died after being rushed to the hospital. The Company immediately formed an "incident investigation team" after the accident to investigate its cause. Besides comprehensively improving the protection at the entrances/exits in construction sites, the Company has also reinforced training for contractors, JSA content review, and strengthened construction dynamic inspection management.

Year	Total Working Hours and Days		Number of Accidents	Total Days Lost	Disabling Frequency Rate (FR)	Disabling Severity Rate (SR)	Frequency-severity Indicator (FSI)
	Total Working Days	Total Working Hours					
2020	667,906	5,343,250	1	6,000	0.18	1,122	0.44

Note 1: The statistical data for the contractors' total working hours and days began in 2020

Note 2: The definition of the indicators are the same as employees' occupational injury indicators

4.4.2 Process Safety Management

The Company has implemented Process Safety Management (PSM) that includes 14 key items pursuant to corporate regulations. A total of 159 PSM personnel (93 in Taiwan, 55 in China, and 11 in Vietnam) have been assigned to various ranks throughout the Company to promote and manage the PSM operations and to ensure the quality of such implementations. The details of the operation are as follows:

Monthly	Every 6 months	Annually
<ul style="list-style-type: none"> Conduct monthly audits based on the 14 PSM key items to ensure that all plants meet the requirements in following the standard procedures and work practices Safety management's KPIs are reported monthly to effectively control PSM risks (Taiwan only) 	<ul style="list-style-type: none"> Organize "PSM exchanges and seminar" to enhance the quality of PSM operations across all departments 	<ul style="list-style-type: none"> Select departments with high-performing safety culture (awards: PHA, MOC, Implementation of SOP - full participation) to attend FPG awards ceremony on behalf of the Company and to enhance the overall safety culture

Process Hazards Analysis, PHA

To better understand and control the risks of plant operations, aside from conducting reviews of process and personnel's Process Hazards Analysis (PHA) operations, suggestions are also made for improvement and progress control.

In terms of improving the quality of PHA, the Company has commissioned IHS to conduct training and certification for PHA facilitators. A total of 20 employees have been certified (14 in Taiwan, 6 in China) to perform PHA each month to comprehensively guide and promote the PHA operations at each plant. The goal is to identify the potential hazards in the workplace and effectively control process risks. In 2020, the Hazard and Operability Study (HzaOp) was further subdivided into routine operation and non-routine operation so as to ensure that all process risks and hazards can be comprehensively reviewed.

Taiwan	China
Executed by PHA facilitators and completed through cross-auditing.	
Quality inspection of 30 plants (offices) was completed in 2020.	Quality inspection of 39 plants (offices) was completed in 2020.

Management of Change, MOC

To ensure that changes in all designs, equipment, raw materials, or operating conditions do not have a negative impact on the production process, a Management of Change (MOC) controller has been set up in each department to be in charge of MOC procedures and ensure all the changes are carried out in accordance with corporate regulations. The scope of MOC has been further expanded to construction vendors for "fixed asset bid" to continuously strengthen the breadth and depth of relevant reviews to establish more well-rounded management.

In addition, the designated personnel of the Safety, Health and Environment Department and the MOC personnel of the business division will perform monthly onsite confirmation of the quality and completeness of the MOC analysis.

Taiwan	China
Performed by PSM personnel in each department through cross-audit.	
Quality inspection of 69 plants (offices) was completed in 2020.	Quality inspection of 41 plants (offices) was completed in 2020.

Job Safety Analysis, JSA

To ensure that the safety analysis procedures are practiced, organizational and systematic analysis techniques are applied to assess various potential hazard risks for the personnel and operations. Appropriate precautions are then taken to ensure safety. Personnel of the Safety, Health and Environment Department perform on-site checks monthly to confirm the integrity of the work safety analysis.

Taiwan	China
Inspection from personnel of the Safety, Health and Environment Department	
Quality inspection of 23 plants (offices) was completed in 2020.	Quality inspection of 41 plants (offices) was completed in 2020.

Standard Operating Procedure, SOP

To ensure the implementation and full participation of all employees in the SOP, each unit regularly holds SOP review and revision seminars, SOP amendments and training, SOP case studies and feedback surveys, SOP audit, plant inspections, and KPI reviews. The safety and health personnel and department heads team up to perform onsite inspections to ensure the integrity of the implementation.

Taiwan	<p>Joint inspection by Safety, Health and Environment Department personnel and personnel responsible for supervising SOP from each department</p> <hr/> <p>Quality inspection of 75 plants (offices) was completed in 2020.</p>
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Job Safety Analysis, JSA

To ensure that the safety analysis procedures are practiced, organizational and systematic analysis techniques are applied to assess various potential hazard risks for the personnel and operations. Appropriate precautions are then taken to ensure safety. Personnel of the Safety, Health and Environment Department perform on-site checks monthly to confirm the integrity of the work safety analysis.

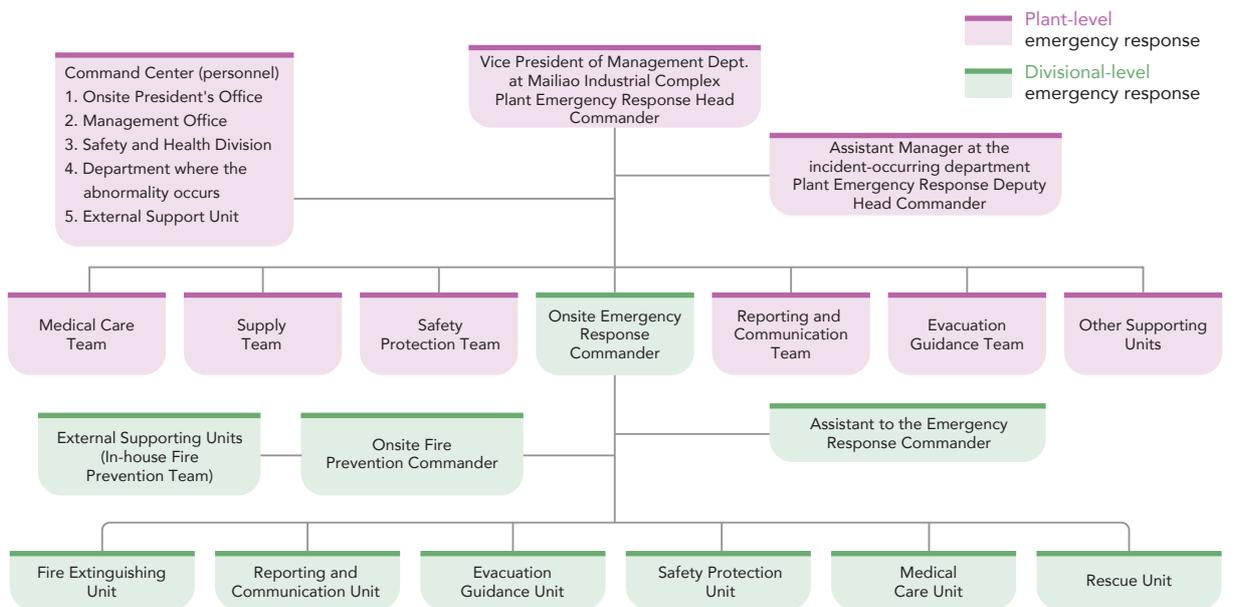
Work Safety Protection Practices in 2020

To strengthen process safety management and to reduce the occurrence of hazardous incidents, the Company has comprehensively reviewed the process protective measures at each plant in 2020. Interlocking devices, alarms and buzzers have been installed based on the characteristics of each process. To strengthen equipment safety and implement work safety management within the plants, all improvements have been completed in the first half of the year.

4.4.3 Disaster Prevention Training

For the emergency response teams to better comprehend the hazardous factors and potential threats in each process, each plant not only conducts regular disaster prevention training, but also participates in joint practice drills from the competent authority. Emergency rescue procedures are simulated based on the nature of tasks, including emergency response drills of fire, poisoning, chemical disaster, and compound disasters. In response to poor air quality, the Company also collaborated with the local environmental protection department to organize emergency response drills of air pollution this year.

The Company's emergency response system is divided into three phases in accordance with the scale of the disaster and practical needs:



In-house Fire Prevention Organization

To ensure that in case of a major fire, nearby plants can be immediately notified, and firefighting equipment and manpower can be called upon to help each other. In-house fire prevention teams have been organized at each plant. The teams are trained externally and also participate in emergency response drills every six months to enhance their emergency response's ability.



Toxic Disaster Drill

In 2020, we have participated in 2 joint training drills and collaborative support sessions. Through simulation exercises, we enhanced the personnel's ability to respond to emergency rescue and coordinate disaster relief and refer to the good practices of other units as self-improvement goals:

<p>07/30</p>	<p>Shulin 2020 Overall drill of toxic and concerned chemical substances of local joint prevention organization of New Taipei City</p>	<p>09/09</p>	<p>Mailiao Emergency response drill to Butadiene pipeline leakage in public pipeline framework at Haifeng</p>
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4.4.4 External Transportation Safety

To ensure the safety of transportation operations and reduce the risk of operation, NPC follows the various systems and operating standards set by Formosa Plastics Group. These include the "Transportation Safety Management Measures" and "Emergency Response Management Measures", which are implemented through evaluation, education, training, and rescue drills.

Management approach	Descriptions	2020 Implementations
Evaluation	<ul style="list-style-type: none"> The Company's transportation contractor must first pass the evaluation of the "Safety Quality Assessment System (SQAS)" and obtain a certificate of conformity (every three years) Qualified contractors are required to receive annual assessments in accordance with the assessment level. (Grade A contractors are assessed once every two years, grade B contractors once every year) 	A total of 30 contractors passed the evaluation (7 achieved grade A, 23 achieved grade B)
Education and Training	<ul style="list-style-type: none"> Safety review meetings with all plants are regularly held. Meetings with contractors are held from time to time to review and analyze all accidents. 	At least once a month
Rescue drill	<ul style="list-style-type: none"> Each plant regularly holds disaster prevention training Participate in joint drills held by the competent authority from time to time. 	Please refer to Chapter 4.4.3 Disaster Prevention Training

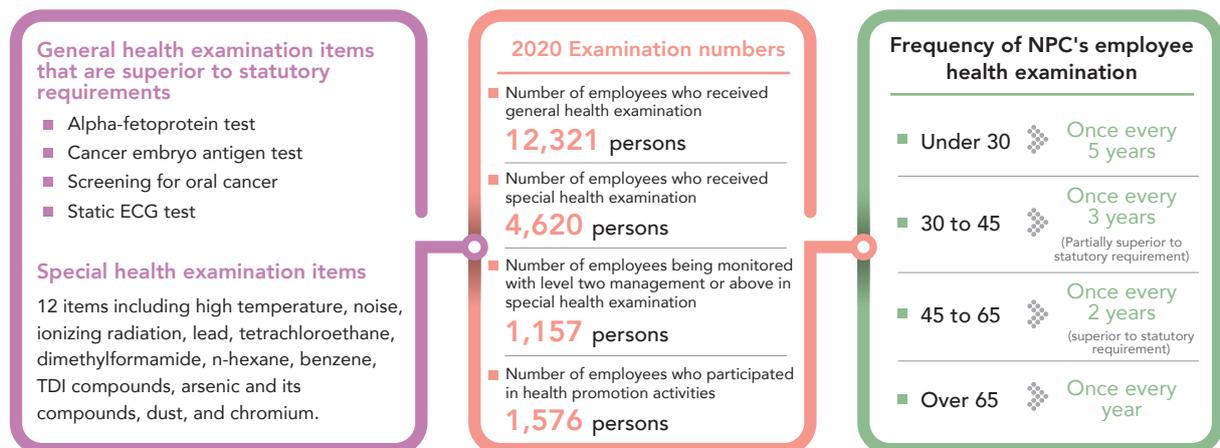
4.4.5 Employee Healthcare

The Company systematically and continuously promotes health measures to provide a healthy and safe work environment and excellent training programs for employees. Employees are provided with specific goals to harness their talents and competencies, and are encouraged to actively engage in Company activities.

Health Management and Health Promotion Measures

To care for the health of our employees, NPC implements not only the health examination items stipulated by the laws, but also provides 4 additional examination items superior to statutory requirements. In addition, special health examination and health classification management are implemented for all employees who engage in special health hazards operations. In 2020, there were no abnormal cases of occupational diseases found in the special health examinations.

Onsite medical staff has been set up in the plants to provide personal health instruction and consultation. Employees can enjoy health management measures such as weight management, tobacco hazard prevention, health seminars, preventive healthcare, and injury/illness treatments. Moreover, medical and health services provided by Chang Gung Memorial Hospital have been integrated to further raise the employees' health awareness. To safeguard the employees' health, onsite physicians study the work environment, employees' work habits, and safety protection practices to provide suggestions for improvement and related medical consultation services.



Occupational Disease Prevention Measures

To comply with the preventive regulations against emerging occupational diseases in the Occupational Safety and Health Act, the Company has implemented the following measures: maternal health protection, prevention of musculoskeletal diseases triggered by repetitive work, prevention of illegal infringement while on duty, and prevention of diseases triggered by abnormal workload.

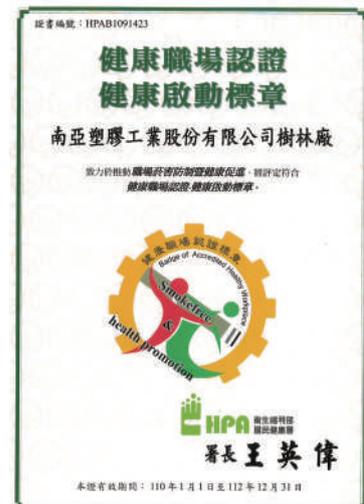
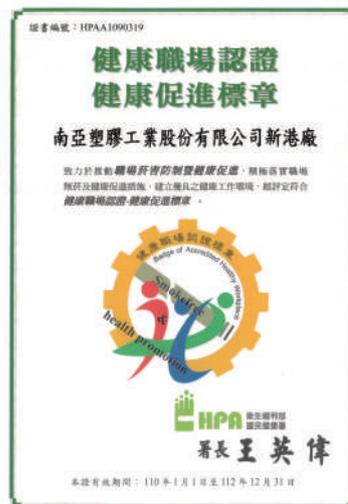
Occupational Disease Prevention Measures	Details
Maternal health protection	Female employees are protected from maternal health hazards during pregnancy until one year after childbirth through hazard assessment and controls, physician guidance, graded risk management, and special work arrangements.
Prevention of musculoskeletal diseases triggered by repetitive work	Preventing musculoskeletal diseases caused by poor posture, excessive exertion, repetitive movements, etc. by adopting relevant human factors engineering improvement measures.
Prevention of illegal infringement while on duty	Preventing employees from being threatened or attacked in work-related environments by adopting measures such as hazard identification and assessment, job suitability arrangement, hazard prevention, and communication skills training to ensure zero violence in the workplace.
Prevention of diseases caused by abnormal workload	Preventing brain and cardiovascular diseases caused by irregular working hours, long working hours, frequent business trips and shifts, etc. Health advice, working hour adjustment, and job content change will be given to the employees for better health management.

Healthy Diet Promotion

To promote healthy eating, we publish information on dietary nutrition every month. With the assistance of nutritionists from Chang Gung Memorial Hospital, we have improved the cooking methods, condiment usage, food selection, and menu. The ratio of fried foods is less than 6%. We inspected approximately 4,000 dishes in the staff restaurant every month in 2020, and the number of fried dishes was maintained at below 240 dishes.

Sharing the Experiences of Creating a Healthy Workplace

To share the results of building a healthy work environment and to receive suggestions for improvement from experts and scholars, the Company actively participates in healthy workplace activities organized by the competent authorities. In 2020, Linkou, Mailiao, and Hsinkang sites were awarded the "Badge of Accredited Healthy Workplace - Health Promotion" label, while Shulin and Jinxin sites won the "Badge of Accredited Healthy Workplace - Health Initiation" label.





5

The Pursuit of Co-Prosperity and a Better Homeland

5.1 Local Engagement

5.2 Social Contribution

NPC is committed to social engagement, and actively promotes community events and local outreach programs. We participate in various social welfare activities along with Formosa Plastics Group to realize our social impact and to promote community development, in order to collectively work towards a better and more sustainable future.

Strategy	United Nations Sustainable Development Goals (SDGs)
<ul style="list-style-type: none"> Neighborhood outreach and expanding social engagement 	

2020 Goals	2020 Implementations (○ Did not meet the goals; ✓ Goals met; ★ Exceeded expectations)	Short-term Goals (2021 Goals)	Medium- and Long-term Goals (2022-2027)
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Neighborhood Outreach and Expanding Social Engagement

<ul style="list-style-type: none"> Continue to organize a voluntary cleaning team. Schedule one day per month to clean the roads around the production sites and the community environment before work Actively promote corporate volunteers to care for the disadvantaged groups Community outreach activities have been scheduled to bring Apple Theater and Ming Hwa Yuan Arts and Culture Group to New Taipei Municipal's Shulin Senior High School and the Taoyuan's Nankan Wufu Night Market to promote traditional art in the second half of 2020 	<ul style="list-style-type: none"> ✓ Participated in "Love is Miracle" fundraiser event at Miracle Home Sisters of Providence on December 12, 2020, in which we donated secondhand toy boxes and led the senior residents to dismantle secondhand toys to recycle plastics. The event was participated by over 3,000 local residents ✓ In 2020, a total of 34 sessions of environmental protection volunteer events were held with 1,405 participants and 2,455 hours of volunteer service ✓ Corporate volunteering teams have been organized at each plant to care for the disadvantaged groups (orphanages and nursing homes). In 2020, 27 sessions were held with 744 participants and 6,558 hours of volunteer service ○ Due to COVID-19, large-scale neighborhood outreach programs have been temporarily suspended 	<ul style="list-style-type: none"> Continue to organize a voluntary cleaning team. Schedule one day per month to clean the roads around the production sites and the community environment before work Actively promote corporate volunteers to care for the disadvantaged groups "Secondhand toy recycling boxes" have been set up at each plant to promote the concepts of "recycling plastics" and "circular economy", and the toys are made available to social welfare groups 	<ul style="list-style-type: none"> Continue to organize various neighborhood outreach and charity activities Reinforce the efforts to promote traditional arts
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CSR Achievements at a Glance

- A total of **34** sessions of environmental protection volunteer events were held with **1,405** participants in the northern sites.
- A total of **27** caring for disadvantaged group sessions were held with **744** participants in 2020.

The Company has long played the role of a corporate citizen that fulfills its corporate social responsibility by investing in the community. We hope to create a vision of co-prosperity and a better homeland through the influence of Formosa Plastics Group (FPG). Take environmental protection at Mailiao Industrial Complex for example, besides setting up dedicated research units to conduct environmental monitoring and impact assessment, FPG also provides free healthcare and environmental knowledge promotion for the residents.

Additionally, neighborhood outreach programs including occasional visits, traditional culture promotion, charity service, and caring for disadvantaged groups are planned by the management teams at each plant. To strengthen communications and interactions with local residents, employees are also encouraged to serve as corporate volunteers and to engage in local environmental cleanup and charity flea market events. The Company also gives back to society in coordination with FPG's plans. Besides, participating in and promoting "Formosa LOHAS Circle" activities, we also carry out various welfare activities in line with FPG's seven foundations and charitable trusts.



5.1 Local Engagement

5.1.1 Community Outreach

All sites of the Company promote various community outreach activities in line with the planning from local management teams. We hope to spread love and hope to all corners of society with local residents through these activities, and to strengthen the ties between the plants and the local communities. Take the sites in the north area as an example, the community outreach activities that we participated and promoted in 2020 are as follows:

Item	Collaborative Unit	Promotion Method	2020 Results
Visits	<ol style="list-style-type: none"> 1. Local village offices 2. Local residents 	<ol style="list-style-type: none"> 1. Strengthening communication through occasional visits 2. The local residents are invited for plant activities to foster stronger ties 	Each site has maintained great relationships with the local communities. There have been no complaints or suggestions
Traditional Culture Promotion	Apple Theater (Shulin site) Ming Hwa Yuan Arts and Culture Group (Jinxing site)	Sponsoring theater companies to perform at the plants	Due to COVID-19, large-scale neighborhood outreach programs have been temporarily suspended and will resume post-pandemic
Community Outreach	<ol style="list-style-type: none"> 1. Township Office 2. Village Office 3. Community development associations 	Actively participate in activities held by township offices, village offices, and community development associations to strengthen relationships with the local communities	Sponsorship amounted to NT\$2,693,280
Environmental Protection Volunteering	Employees and their families of each plant	<ol style="list-style-type: none"> 1. Enlist employees of each plants and their families to do environmental protection volunteering work to keep the plants as well as the surrounding areas clean 2. Participated in "Love is Miracle" fundraiser event at Miracle Home Sisters of Providence on December 12, 2020, in which we donated secondhand toy boxes and led the senior residents to dismantle secondhand toys to recycle plastics 	<ol style="list-style-type: none"> 1. Monthly environmental protection volunteering activities were held at each plant; in 2020, there were 34 sessions, participated by 1,405 volunteers 2. Participated in a fundraiser event at Miracle Home Sisters of Providence on December 12, 2020 to promote the concepts of "plastic recycling" and "circular economy". The event was participated by over 3,000 community residents
Charity Service	<ol style="list-style-type: none"> 1. Charity Service Club of Welfare Committee 2. Labor union 3. Local social welfare groups 	<ol style="list-style-type: none"> 1. Pay regular visits to orphanages and nursing homes. Goods are collected and donated to social welfare institutions 2. Flea markets were held in conjunction with the Charity Service Club of Welfare Committee and local public welfare groups. All proceeds were donated 3. Assist disadvantaged groups in applying for emergency relief from FPG's Ching Pao P.D. Charitable Foundation 	<ol style="list-style-type: none"> 1. A total of 27 charity service activities were organized with 744 participants, total donations amounted to NT\$2,971,580 2. Emergency relief applications to FPG's Ching Pao P.D. Charitable Foundation amounted to NT\$213,000



Group photo from the environmental protection volunteers



Assisting disadvantaged families to apply for emergency relief fund

Donating secondhand toys to Miracle Home Sisters of Providence

Corporate volunteers leading the elderly on a one-day trip to Chiang Kai-Shek Shilin Residence



Volunteers guiding the elderly and local residents to dismantle toys and recycle the plastics

Media coverage



行動玩具車啟航 台塑《玩具環島，讓愛圍繞》溫暖全台

民眾網-民眾日報 2020-12-12 15:35:43

【記者董怡成新北報導】台塑企業Formosa玩具基地《玩具環島，讓愛圍繞》活動，透過行動玩具車環島串聯台塑企業各地六個單位一起送愛心，本月7日從彰化出發探訪針環島，今（12）日來到倒數第二站-新北市泰山區「財團法人主辦裕女會泰山奇蹟之家」，由南亞塑膠公司台北管理處長李志賢代表捐贈予泰山奇蹟之家，長者們都露出了開心笑容，實現台塑企業「取之於社會，用之於社會」的精神。

今日主辦裕女會奇蹟之家辦理「愛在奇蹟·樂活晚年 感恩敬老暨募款園遊會」活動，吸引超過3,000位社區民眾扶老攜幼參加，場面盛大，是每年一度的地方盛事，奇蹟之家園區綠意盎然，景色優美，主要從事居家照護及日間托顧協助，有愛心滿滿的社工及志工陪伴照護，安排長者參加運動、益智及娛樂等豐富課程，與台塑企業同為民眾的好鄰居。

Fulfilling Responsibilities and Achieving Local Co-Prosperty Through "Formosa LOHAS Circle"

With the "circle" concept, FPG hopes to integrate local resources around the sites, such as the communities, small farmers, businesses, and local governments. By forming a co-prosperity circle that promotes local economic development and local tourism, we can create local co-prosperity and the common good, thus bringing more positive energy to the Taiwanese society.

Having begun in Taoyuan, "Formosa LOHAS Circle" has been established in Taoyuan, Yilan, Yunlin, Kaohsiung, and Changhua. All of which have developed diverse and distinctive tourism activities. For details, please refer to the official website for "Formosa LOHAS Circle".



Official website for "Formosa LOHAS Circle"

2020 Performance



Total number
of participants

87,875



Total
investments

NT\$ 5.24 million



Note: This statistical data only includes activities that NPC has engaged in, and with the exception of activities expense in Yangmei, which was paid in full by the Company, all other leisure and recreation expenses were shared by the Company, FPC, FCFC, and FPCC.

Sharing Toys Around Taiwan with Love

The Toy Van of FPG's Formosa Toy Library has visited our 7 major management divisions throughout Taiwan and Fushan Elementary School in Taitung. One of our stops along the way was Miracle Home Sisters of Providence in Taishan District, New Taipei City. Divisional Head of Taipei Management Division, Chih-Hsien Lee gifted toys to Miracle Home on behalf of the Company. At the same time, corporate volunteers from NPC guided the elderly to dismantle toys and to enjoy various games and activities. The activities gave the elderly warmth and sense of accomplishment, realizing our vision for "sharing toys around Taiwan with love".



Food Education at YangMei Organic Farm

FPG's YangMei Leisure Farm is a 39-hectare organic farm that upholds the two founders' philosophy of being friendly to the land. No pesticide or chemical fertilizers are used and farming is done in an organic manner. Large areas of uncultivated forest land are preserved, leading to YangMei's rich ecological resources and beautiful environment. To promote the two founders' visions for "environmental sustainability" and "good for land", the Company collaborates with YangMei Leisure Farm through the Formosa LOHAS Circle project. We strive to promote local development by organizing various activities at YangMei with neighbor communities and schools.

To develop a collaborative network with the local community, the Company has planned a series of mutual learning and empowerment courses, for which the partners at YangMei Leisure Farm are also invited to join. We hope to create local co-prosperity and assist the growth of local farms and small farmers by together learning, discovering and promoting unique local characteristics.

Environmental education, organic farming education, food and agricultural education, and various agricultural and ecological experiential activities such as Organic Farming-Lohas rice paddies, hotel building for solitary bee, plant ecology investigation, etc., are organized in the YangMei Leisure Farm. In addition, these courses and experience activities are freely available for schools and the public, which could strengthen the promotion of food and agricultural education, and allows the Company to fulfill the corporate social responsibilities.



Mutual Learning and Empowerment:
Partners of YangMei Leisure Farm



Environmental Education:
LOHAS Rice Paddies- Harvesting

5.1.2 Sustainable Development of Mailiao

The Company has long promoted various environmental protection management tasks while viewing preserving the local environmental quality as our major goal and social responsibility. Before any establishment or expansion of the plants, water, air, and community and other environmental impact are strictly assessed. The development plans are all carried out according to the environmental impact assessment (EIA) commitments. Meanwhile, we cooperate with Yunlin County Government on the "Environmentally-Friendly Project" to engage in environmental protection, healthcare, and industrial promotion. Our goal is to achieve local sustainable development while fulfilling our social responsibility by finding and solving problems with great efforts.

Environmental Impact Assessment of Mailiao Industrial Complex

As the air quality impact of air pollution in Mailiao Industrial Complex has become a public concern, and the marine ecological impact of wastewater discharge needs further investigation, FPG has set up special research units such as "Evaluation and Advisory Committee on Mailiao Industrial Complex Impact on Air Quality" and "Marine Ecological Impact Assessment and Advisory Committee". In addition, a sound environmental monitoring network, which is equipped with eight layers of intensive monitoring and control system has been set up to easily track the emission sources and ensure the local air quality is acceptable. For details, please refer to "The Beauty of Mailiao Eco-industrial Park" and "Environmental Protection and Safety" on FPG's official website.



"Corporate Social Responsibility" section on FPG's website

Water Consumption Issues

According to the monthly "Jiji Weir Industrial and Public Water Supply Report" of the Industrial Development Bureau, MOEA, the annual water supply of Jiji Weir in the past four years (2017-2020) ranges from 3,079,460,000 to 5,728,870,000 tons. The average industrial water consumption accounted for 2.5% of the total water supply, and the average diverted agricultural water usage only accounted for 2.1%. The water consumption is shown in the table below.

Statistics of Water Supplied by Jiji Weir from 2017 to 2020

Unit: 10,000 ton

Year	Inflow from the Jiji Weir	Agricultural Irrigation	Industrial consumption			
	(A)	Average Water Consumption (B)	Average Water Consumption (C)	Ratio on Volume at Water Source (C)/(A)	Diverted Agricultural Water (D)	Ratio of Total Agricultural Water Consumption (D)/(B)
2017	572,887	186,163	10,138	1.8%	3,328	1.8%
2018	307,946	182,450	10,256	3.3%	3,618	2.0%
2019	510,006	189,778	9,840	1.9%	3,712	2.0%
2020	391,478	171,146	9,945	2.5%	3,532	2.1%

The water consumption of the Mailiao Industrial Complex does not affect nearby agriculture and other industries. To prevent water shortage during the dry season, FPG prepared an environmental impact assessment (EIA) report to apply for setting up a seawater desalination plant that can produce 100,000 tons of fresh water per day. The report was approved by the EPA on October 9, 2018, and approved by the MOEA on December 26 in the same year. It is expected that the seawater desalination plant could produce fresh water within 3 years after the start of operation.

Ecological Preservation

To evaluate the environmental impact and the ecological changes of nearby plants and animals of Mailiao Industrial Complex, FPG has commissioned professional institutions to investigate it over the years. According to the research results, the number of plant species is stable, and the number of animals is mostly influenced by seasonal effects. The operation of Mailiao Industrial Complex brings no significant impact in the surrounding area.



"Ecological Preservation" on "The Beauty of Mailiao Eco-industrial Park" website



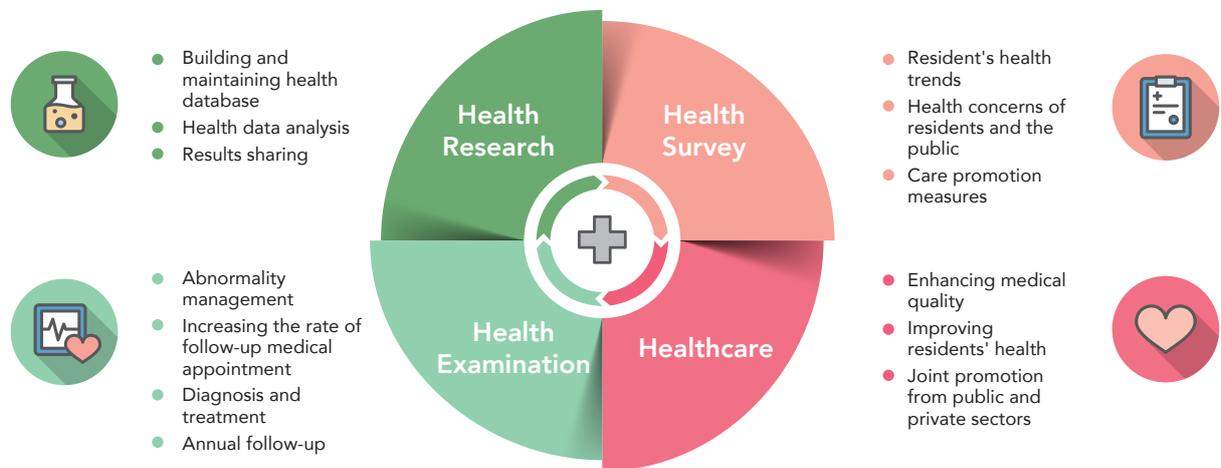
The average wastewater discharge of Mailiao Industrial Complex in 2020 was 73,145 tons/day, which is significantly lower than the EPA quotas 187,638 tons/day. According to the monitoring results over the years, all wastewater treatment plants strictly abide the regulations of discharging wastewater only when it meets the standards. In addition, the Chinese White Dolphins have been observed inhabiting in nearby sea area during the long-period observation of marine ecology. It shows that the operation of Mailiao Industrial Complex brings no impact on the ecology of Chinese White Dolphins.

■ Please refer to the "Ecological Preservation" section on "The Beauty of Mailiao Eco-industrial Park" website

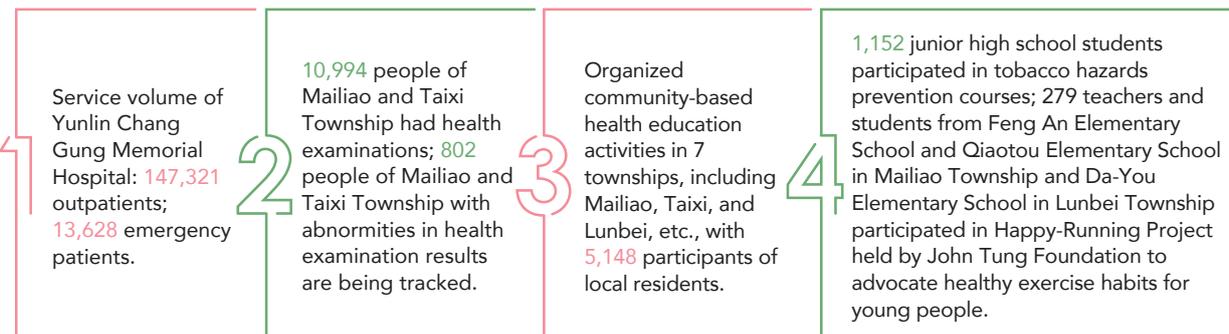
Healthcare for Mailiao Residents

To take care of the health of local residents, National Cheng Kung University has been commissioned to conduct 64 health risk assessment caused by harmful air pollutants since 2009. The simulation results show that the maximum of total noncarcinogenic risks of the assessments are all less than 1, which indicates that the impact on human health is acceptable. Besides, Yunlin Chang Gung Memorial Hospital was built up. By integrating the medical and education resources within the Chang Gung Memorial System, we hope to improve the medical quality and healthcare in the neighboring areas and make Mailiao become a benchmark of health community.

Framework for Healthcare Promotion in Mailiao



2020 Healthcare Progress



■ Please refer to "Community Healthcare" on FPG's website for more details on healthcare for residents in Mailiao.



"Community Healthcare" on FPG's website



In 2020, 5,148 people participated in the community-based health education activities that held to promote healthy living



Lun Feng Elementary School and Qiaotou Elementary School participated in Happy-Running Project held by John Tung Foundation

Improving the Local Quality of Life

	Traffic Improvements	Noise Management	Air Quality
Purpose	To maintain good traffic conditions in communities near Mailiao Industrial Complex and ensure the safety of school children	To effectively manage noises from production processes at Mailiao Industrial Complex	To preserve the air quality in Yunlin County
Practices	Implement a vehicle diversion system for access to and from Mailiao Industrial Complex, and arrange volunteers to help maintain traffic safety at adjacent intersections	Perform regular noise monitoring operations in nearby areas	Diesel vehicles are required to submit emission certificate when applying for Mailiao Industrial Complex's access permit
Results	Traffic is smooth near Mailiao Industrial Complex during commuting hours, and the safety of school children has been improved	The monitoring results show that the operation of Mailiao Industrial Complex has not had significant noise impact on the local community	In 2020, 597 diesel vehicles were intercepted and inspected, and they all passed

According to the statistics of diesel vehicle exhaust inspection conducted by the EPA of Yunlin County in 2020, 597 diesel vehicles on the roads around Mailiao Industrial Complex were intercepted and inspected, and they all passed. Inspection results in the past 4 years are as follows:

Year	Traffic Volume	Number of Interceptions	Number of Inspections	Number of Unqualified Vehicles	Failure Rate of Traffic Volume
2017	1,850	267	156	0.0%	0.0%
2018	1,115	137	106	0.0%	0.0%
2019	1,245	438	80	0.0%	0.0%
2020	1,511	597	82	0.0%	0.0%

Promoting Local Industry

To take care of the local livelihood and fulfill our vision of local co-prosperity, FPG commissioned experts to counsel residents who engage in agricultural and fishery industries in Mailiao, Taixi, Dongshih, Sihu, and Kouhu areas. Our goal is to increase the economic value of the crops and fishery products. Besides, we hope to promote the sustainable operation of local fisheries and create the mutual prosperity in Mailiao area.



■ For details on agricultural and fishery counseling, please refer to "Social Engagement" on FPG's website.



"Social Engagement" on FPG's website

5.2 Social Contribution

To implement the philosophy of the two founders, FPG has actively engaged with the government and various private organizations to gain a deeper understanding of social needs and to provide caring and assistance to disadvantaged groups. FPG continues to lend a hand to those in need by offering education, medical, and social benefits. Large-scale charity activities are all coordinated and planned by FPG's Group Administration, while NPC promotes and implements relevant projects on a timely basis. For details on their implementations, please refer to "Foundation and Charity Trusts" on FPG's website.



"Foundation and Charity Trusts" on FPG's website

5.2.1 Medical and Educational Promotion

Alarmed at the lack of medical resources in Taiwan during the 1970s, the two founders of FPG dedicated themselves to building a non-profit medical center-grade teaching hospital to give back to society. After 40 years of effort, branches of Chang Gung Memorial Hospital have been set up in Taipei, Linkou, Keelung, Kaohsiung, Chiayi, Taoyuan, and Yunlin one after the other. These hospitals provide integrated health care from preventive medicine, acute medical care, chronic medical care, traditional Chinese medicine, long-term care, and wellness community.

To cultivate industry-specific talent, Ming Chi Technical College (now Ming Chi University of Technology), Chang Gung College of Medicine (now Chang Gung University), and Chang Gung Institute of Nursing (now Chang Gung University of Science and Technology) were successively established beginning in 1963 to cultivate high-performing medical and nursing talents.



"Corporate Social Responsibility" section on Chang Gung Memorial Hospital's website



Chang Gung University's website



"Corporate Social Responsibility" section on Ming Chi University of Technology's website



Chang Gung University of Science and Technology's website

5.2.2 Social Assistance

The two founders of FPG actively engaged in social welfare promotion by establishing seven foundations and charitable trusts. In order to concentrate the donations on underprivileged groups and social welfare groups, FPG strives to save personnel and administration costs. In addition, FPG collaborates with professional groups, scholars, and experts and promotes various social welfare projects based on the principles of "comprehensive, thorough, and systematic" operations.

Foundations and Charitable Trusts



Welfare for Women and Children

- Scholarships for disadvantaged families have cumulatively exceeded NT\$100 million, benefiting over 8,500 students.
- Cumulative donations from Ching Pao P.D. Charitable Foundation's Work-Study Program have reached nearly NT\$56 million, benefiting over 1,300 students.
- Over NT\$118 million has been invested in the Medical and Economic Assistance Program for Rare Diseases, benefiting nearly 8,000 patients.

Welfare for Physical and Mental Disabilities

- Created the first online "Early Treatment Forum", which is founded on the principles of evidence, family, and integration and aims to enhance the quality and numbers of institutions, personnel competencies, and parents' knowledge and competencies. Evaluation mechanism, community service, and integrated education are promoted, enabling young children with learning disabilities to receive quality early treatment services. Over NT\$810 million has been invested from 2006 to 2020, benefiting approximately 23,000 persons, and 92 institutions have received counseling and subsidies.

Sports and Cultural Cultivation

- Donated over NT\$107 million to Taiwanese cultural theater groups, generating more than 360,000 views
- Over NT\$290 million has been invested in sponsoring exceptional tennis, table tennis, billiards, badminton, and golf athletes. Chang Gung Memorial Hospital also provides medical assistance such as player health examinations, sports injury clinics, and medical entourages, etc.

Inmates Support

- Wang Jhan-Yang Social Welfare Foundation's "Rainbow Project" offers counseling to inmates with addiction and AIDS in Yunlin, Taipei, and Kaohsiung. The recidivism rate is less than 10% (far lower than the average 70-80%)
- Wang Jhan Yang Charitable Trust Fund's "Xiangyang Project" offers professional counseling to inmates with addictions. The recidivism rate is less than 10% (far lower than the average 60-70%)

Welfare for the Elderly

- From 2007 to 2020, 1.15 million vaccine shots have been donated for the "Pneumococcal Vaccine for Elderly Program", which has saved nearly NT\$14.3 billion in medical expense for the government
- From 2013 to 2020, the "Health Fitness Center for the Elderly" has helped over 15,000 seniors to lead healthier lives and to slow down aging.
- "Senior Housing and Home Appliance Improvement Program" was launched in 19 cities and counties throughout Taiwan; 1,350 houses have been repaired to date



"Foundation and Charity Trusts" on FPG's website



Wang Jhan Yang Charitable Trust Fund's website



Ching Pao Charitable Trust Fund's website



Wang Jhan-Yang Social Welfare Foundation's website



Ching Pao P.D. Charitable Foundation's website

The image features a stack of four books of varying colors (red, white, black, and grey) with a pair of black-rimmed glasses resting on top. The books and glasses are positioned on the left side of the frame. A large, semi-transparent beige circle is centered in the upper right portion of the image, containing the word "Appendix" in a dark red, serif font. The background is a light, textured grey.

Appendix

Appendix 1 Global Reporting Initiative (GRI) Comparison Table

Appendix 2 Sustainability Accounting Standards Board (SASB)
Comparison Table

Appendix 3 Independent Assurance Opinion Statement

Appendix 1 Global Reporting Initiative (GRI) Comparison Table

The indexes mentioned below are cross-referenced with the GRI Standards: 2016. As presented by the Independent Assurance Opinion Statement, except for “GRI 303 - Water and Effluents” and “GRI 403 - Occupational Health and Safety” adopt the GRI Standards: 2018, and “GRI 306 -Waste” adopt the GRI Standards: 2020, related information has been verified to meet the requirements of the GRI Standards:

GRI Standards	Disclosure Item	Referenced Section	Pages	Remark
Organizational profile				
GRI 102: General Disclosures 2016	102-1	Name of the organization	1.1 About Nan Ya Plastics	P.18
	102-2	Activities, brands, products, and services	2.1 Diversified Product Application	P.33
	102-3	Location of headquarters	1.1 About Nan Ya Plastics	P.18
	102-4	Location of operations	1.1 About Nan Ya Plastics	P.18
	102-5	Ownership and legal form	1.1 About Nan Ya Plastics	P.18
	102-6	Markets served	1.1 About Nan Ya Plastics	P.18
	102-7	Scale of the organization	1.1 About Nan Ya Plastics 1.2 Corporate Governance	P.18 P.23
	102-8	Information on employees and other workers	4.1 Human Rights Protection and Employment	P.72
	102-9	Supply chain	2.1 Diversified Product Application 2.3 Supplier and Contractor Management	P.33 P.43
	102-10	Significant changes to the organization and its supply chain	1.1.1 Company Introduction	P.18
	102-11	Precautionary Principle or approach	1.3 Risk Management	P.28
	102-12	External initiatives	3.1 Commitment to Environmental Protection 4.1 Human Rights Protection and Employment	P.48 P.72
	102-13	Membership of associations	1.1.4 External Association Participation	P.21
Strategy				
102-14	Statement from senior decision-maker	From the Chairman	P.4	
102-15	Key impacts, risks, and opportunities	From the Chairman 1.2.5 Internal Control Mechanism 1.3 Risk Management 5. The Pursuit of Co-Prosperity and a Better Homeland	P.4 P.26 P.28 P.88	
Ethics and integrity				
102-16	Values, principles, standards, and norms of behavior	1.1.2 Business Philosophy 1.2 Corporate Governance	P.20 P.23	
Governance				
102-18	Governance structure	1.2 Corporate Governance	P.23	
102-22	Composition of the highest governance body and its committees	1.2 Corporate Governance	P.23	
102-23	Chair of the highest governance body	1.2 Corporate Governance	P.23	
102-24	Nominating and selecting the highest governance body	1.2 Corporate Governance	P.23	
102-25	Conflicts of interest	1.2 Corporate Governance	P.23	
102-36	Process for determining remuneration	1.2 Corporate Governance	P.23	

GRI Standards	Disclosure Item	Referenced Section	Pages	Remark	
Stakeholder engagement					
GRI 102: General Disclosures 2016	102-40	List of stakeholder groups	The Report and Management of Sustainable Issues	P.6	
	102-41	Collective bargaining agreements	4.2.4 Valuing Employee Feedback	P.77 The Company listens to the employees through labor union instead of writing collective agreement to create harmonious labor-management relations	
	102-42	Identifying and selecting stakeholders	The Report and Management of Sustainable Issues	P.6	
	102-43	Approach to stakeholder engagement	The Report and Management of Sustainable Issues	P.6	
	102-44	Key topics and concerns raised	The Report and Management of Sustainable Issues	P.6	
	Reporting practice				
	102-45	Entities included in the consolidated financial statements	1.1 About Nan Ya Plastics	P.18	
	102-46	Defining report content and topic Boundaries	About This Report	P.2	
	102-47	List of material topics	The Report and Management of Sustainable Issues	P.6	
	102-48	Restatements of information	About This Report The Report and Management of Sustainable Issues	P.2 P.6	
	102-49	Changes in reporting	About This Report	P.2	
	102-50	Reporting period	About This Report	P.2	
	102-51	Date of most recent report	About This Report	P.2	
	102-52	Reporting cycle	About This Report	P.2	
102-53	Contact point for questions regarding the report	About This Report	P.2		
102-54	Claims of reporting in accordance with the GRI Standards	Appendix 1 Global Reporting Initiative (GRI) Comparison Table	P.100		
102-55	GRI content index	Appendix 1 Global Reporting Initiative (GRI) Comparison Table	P.100		
102-56	External assurance	Appendix 3 Independent Assurance Opinion Statement	P.107		

GRI 200: Topic - Specific Standards Economic Series 2016

Material Topic

Economic Performance

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6
	103-2	The management approach and its components	1. Ongoing Sustainable Governance Strategy	P.16
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7
			1.1.3 Operating Performance	P.21
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	

GRI Standards	Disclosure Item		Referenced Section	Pages	Remark
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	1.1.3 Operating Performance	P.21	
	201-3	Defined benefit plan obligations and other retirement plans	4.2 Employee Rights and Benefits	P.74	
Market Presence					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	4. Creating a Happy and Safe Workplace	P.70	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Evaluation of the management approach	The Report and Management of Sustainable Issues	P.6		
GRI 202: Market Presence 2016	202-2	Proportion of senior management hired from the local community	4.1.4 Ratio of Local Supervisors	P.74	
Anti-Corruption					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	1. Ongoing Sustainable Governance Strategy	P.16	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Evaluation of the management approach	The Report and Management of Sustainable Issues	P.6		
GRI 205: Anti-Corruption 2016	205-3	Confirmed incidents of corruption and actions taken	-	-	No incident related to corruption occurred in 2020.
GRI 300: Topic - Specific Standards Environmental Series 2016					
Water					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	3. Green Environment Management Promotion	P.46	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Evaluation of the management approach	The Report and Management of Sustainable Issues	P.6		
GRI 303: Water and Effluents 2018	303-3	Water withdrawal	3.4.2 Effluent Management and Sewage Prevention	P.62	
	303-4	Water discharge	3.4.2 Effluent Management and Sewage Prevention	P.62	
	303-5	Water consumption	3.4.2 Effluent Management and Sewage Prevention	P.62	
Emissions					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	3. Green Environment Management Promotion	P.46	
	103-3	Evaluation of the management approach	The Report and Management of Sustainable Issues	P.6	

GRI Standards	Disclosure Item		Referenced Section	Pages	Remark
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	3.2.2 Managing Risks and Opportunities Related to Climate Change	P.53	
	305-2	Energy indirect (Scope 2) GHG emissions	3.2.2 Managing Risks and Opportunities Related to Climate Change	P.53	
	305-4	GHG emissions intensity	3.2.2 Managing Risks and Opportunities Related to Climate Change	P.53	
	305-5	Reduction of GHG emissions	3.2.2 Managing Risks and Opportunities Related to Climate Change	P.53	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	3.3.1 Air Pollution Prevention	P.58	
Waste					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	3. Green Environment Management Promotion	P.46	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		
GRI 306: Waste 2020	306-1 (2020)	Waste generation and significant waste-related impacts	3.5.1 Waste Management	P.65	
	306-2 (2020)	Management of significant waste-related impacts	3.5.1 Waste Management 3.5.3 Circular Economy Promotion	P.65 P.67	
	306-3 (2020)	Waste generated	3.5.1 Waste Management	P.65	
	306-4 (2020)	Waste diverted from disposal	3.5.1 Waste Management	P.65	
	306-5 (2020)	Waste directed to disposal	3.5.1 Waste Management	P.65	
Environmental Compliance					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	3. Green Environment Management Promotion	P.46	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	3.6 Environmental Compliance	P.69	
GRI 400: Topic - Specific Standards Social Series 2016					
Employment					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	4. Creating a Happy and Safe Workplace	P.70	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		

GRI Standards	Disclosure Item		Referenced Section	Pages	Remark
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	4.1.2 Employment 4.2.2 Job Security	P.72 P.75	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.2 Employee Rights and Benefits	P.74	
Occupational Health and Safety					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	4. Creating a Happy and Safe Workplace	P.70	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		
GRI 403: Management Approach 2018	403-1	Occupational health and safety management system	4.4 Workplace Safety	P.80	
	403-3	Occupational health services	4.4 Workplace Safety	P.80	
	403-10	Work-related ill health	4.4 Workplace Safety	P.80	
Diversity and Equal Opportunity					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	4. Creating a Happy and Safe Workplace	P.70	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	1.2 Corporate Governance 4.1 Human Rights Protection and Employment	P.23 P.72	
	405-2	Ratio of basic salary and remuneration of women to men	4.2.1 Employee Compensations	P.74	
Socioeconomic Compliance					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6	
	103-2	The management approach and its components	2. Product Value Expansion	P.31	
			The Report and Management of Sustainable Issues- Communications with Stakeholders	P.7	
103-3	Explanation of the material topic and its Boundary	The Report and Management of Sustainable Issues	P.6		
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	2.2.3 Legal Compliance	P.42	

Appendix 2 Sustainability Accounting Standards Board (SASB) Comparison Table

Code	Accounting Metric	Referenced Section	Pages
Topic	Greenhouse Gas Emissions		
RT-CH-110a.1	<ul style="list-style-type: none"> ■ Gross Scope 1 emissions (unit: CO₂-e) ■ Percentage covered under emissions-limiting regulations (unit: %) 	3.2 Risks and Opportunities of Climate Change	P.51
RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions-reduction targets, and an analysis of performance against those targets	3.2 Risks and Opportunities of Climate Change	P.51
Topic	Air Quality		
RT-CH-120a.1	<ul style="list-style-type: none"> ■ Air emissions of the following pollutants: (unit: ton) ■ NO_x (excluding N₂O) ■ SO_x ■ Volatile organic compounds (VOCs) ■ Hazardous air pollutants (HAPs) 	3.3 Air Pollution Prevention	P.58
Topic	Energy Management		
RT-CH-130a.1	<ul style="list-style-type: none"> ■ Total energy consumed (unit: GJ) ■ Percentage grid electricity (unit: %) ■ Percentage renewable (unit: %) ■ Total self-generated energy (unit: GJ) 	3.2 Risks and Opportunities of Climate Change	P.51
Topic	Water Management		
RT-CH-140a.1	<ul style="list-style-type: none"> ■ Total water withdrawn (including regions with high or extremely high baseline water stress) (unit: 1000m³) ■ Total water consumed, (including regions with high or extremely high baseline water stress) (unit: %) 	3.4 Water Resource Management	P.60
RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	3.4 Water Resource Management	P.60
RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	3.4 Water Resource Management	P.60
Topic	Hazardous Waste Management		
RT-CH-150a	Amount of hazardous waste generated (unit: ton)	3.5 Waste Management and Circular Economy	P.65
	Percentage recycled (unit: %)	3.5 Waste Management and Circular Economy	P.65
Topic	Workforce Health & Safety		
RT-CH-320a.1	<ul style="list-style-type: none"> ■ Total recordable incident rate (TRIR) and fatality rate for direct employees ■ Total recordable incident rate (TRIR) and fatality rate for contract employees 	4.4 Workplace Safety	P.80
RT-CH-320a.2	Description of efforts to reduce exposure of employees to long-term (chronic) health risks	4.4 Workplace Safety	P.80

Code	Accounting Metric	Referenced Section	Pages
Topic	Safety & Environmental Stewardship of Chemicals		
RT-CH-410b.1	Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances (unit: %)	2.1 Diversified Product Application 3.5 Waste Management and Circular Economy	P.33
	Percentage of such products that have undergone a hazard assessment (unit: %)		P.65
RT-CH-410b.2	Description of strategy to manage chemicals of concern	3.5 Waste Management and Circular Economy	P.65
	Description of strategy to develop alternatives with reduced human and/or environmental impact		
Topic	Management of the Legal & Regulatory Environment		
RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	3.6 Environmental Compliance	P.69
Topic	Operational Safety, Emergency Preparedness & Response		
RT-CH-540a.1	<ul style="list-style-type: none"> ■ Process Safety Incidents Count (PSIC) ■ Process Safety Total Incident Rate (PSTIR) ■ Process Safety Incident Severity Rate (PSISR) 	4.4 Workplace Safety	P.80
RT-CH-540a.2	Number of transport incidents	4.4 Workplace Safety	P.80
Topic	Production by reportable segment		
RT-CH-000.A	Description of Production by reportable segment (unit: m ³ or ton)	2.1.1 Major Brands	P.33

Appendix 3 Independent Assurance Opinion Statement



INDEPENDENT ASSURANCE OPINION STATEMENT

NAN YA PLASTICS CORPORATION 2020 Corporate Social Responsibility Report

The British Standards Institution is independent to NAN YA PLASTICS CORPORATION (hereafter referred to as NAN YA PLASTICS in this statement) and has no financial interest in the operation of NAN YA PLASTICS other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of NAN YA PLASTICS only for the purposes of assuring its statements relating to its corporate social responsibility (CSR), more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by NAN YA PLASTICS. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to NAN YA PLASTICS only.

Scope

The scope of engagement agreed upon with NAN YA PLASTICS includes the followings:

1. The assurance scope is consistent with the description of NAN YA PLASTICS CORPORATION 2020 Corporate Social Responsibility Report.
2. The evaluation of the nature and extent of the NAN YA PLASTICS's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000AS v3 sustainability assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the NAN YA PLASTICS CORPORATION 2020 Corporate Social Responsibility Report provides a fair view of the NAN YA PLASTICS CSR programmes and performances during 2020. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the NAN YA PLASTICS and the sample taken. We believe that the 2020 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate NAN YA PLASTICS's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that NAN YA PLASTICS's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a review of issues raised by external parties that could be relevant to NAN YA PLASTICS's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 12 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that NAN YA PLASTICS has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the NAN YA PLASTICS's inclusivity issues.

Materiality

NAN YA PLASTICS publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of NAN YA PLASTICS and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the NAN YA PLASTICS's management and performance. In our professional opinion the report covers the NAN YA PLASTICS's material issues.

Responsiveness

NAN YA PLASTICS has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for NAN YA PLASTICS is developed and continually provides the opportunity to further enhance NAN YA PLASTICS's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the NAN YA PLASTICS's responsiveness issues.

Impact

NAN YA PLASTICS has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. NAN YA PLASTICS has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the NAN YA PLASTICS's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

NAN YA PLASTICS provided us with their self-declaration of in accordance with GRI Standards: Core option (For each material topic covered by a topic-specific GRI Standard, comply with all reporting requirements for at least one topic-specific disclosure). Based on our review, we confirm that social responsibility and sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the NAN YA PLASTICS's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

Responsibility

The CSR report is the responsibility of the NAN YA PLASTICS's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:



Peter Pu, Managing Director BSI Taiwan



Statement No: SRA-TW-2020006
2021-05-28

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