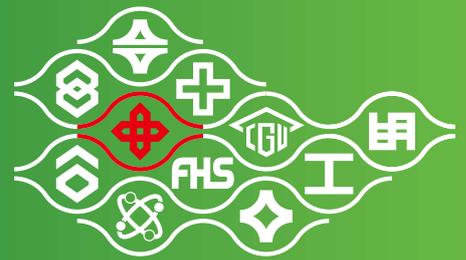


2019 CSR Report

Corporate Social Responsibility

Nan Ya Printed Circuit Board Corporation
Corporate Social Responsibilities Report





台塑企業
FORMOSA PLASTICS GROUP

NanS Ya Printed Circuit Board Corporation (NYPCB)

2019 Corporate Social Responsibilities Report

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04 | ABOUT THE REPORT

© Overview

This report is the seventh corporate social responsibility report that Nan Ya Printed Circuit Board Corporation (hereinafter referred to as the Company or NYPCB) has published. The report was published in June 2020, which includes the company's profile, governance, environmental sustainable development, employee wellness programs, and charity work that took place at or involved NYPCB Plant No.1, 2, 5, and 6 (Address: No.338, Sec. 1, Nankan Rd., Luchu Distict, Taoyuan City) from January 1st 2018 to December 31st 2018. Therefore, the previous corporate social responsibility report was published in June 2019.

All data and statistics divulged in this report have come from the statistical analysis and investigation of the Nan Ya Printed Circuit Board Corporation. Financial data were specifically countersigned by an accountant and transmitted in accordance with relevant laws. Some data have been taken from government websites and stated in a more colloquial way for description purposes. Exceptions are otherwise noted throughout the report.

We will publish the CSR report regularly and the next report will be published in June 2021.

© Report Guideline

The report content structure adopts the Global Reporting Initiative (GRI Standards 2016) sustainability reporting guidelines and is written pursuant to the guidelines and framework outlined in the "Core Option."

In order to reinforce the performance comparability and report sustainability, all the information published in this report are checked by the well-established British Standard Institution (BSI), and conform to AA1000 and GRI Standards. The "GRI Standards Check Independent Opinion Statement" of British Standard Institution (BSI) can be found as an attachment. The statement presented its findings with the International General Index, and any estimation will be mentioned in the respective chapters.

- Global Reporting Initiative ,GRI Standards 2016
- The materiality, inclusivity, responsiveness, and impact of AA1000 Accountability Principles (2008) and the 2018 Addendum

▼ **Picture 0.1 CSR Organization chart**



◎ **Methods**

To integrate and promote corporate social responsibility, NYPCB has established a “corporate social responsibility team,” (hereinafter referred to as the CSR team) led by General Manager Tang, Ann-De in 2012. General Manager Tang Ann-De and Deputy General Manager Lu, Lian-ruei, who is the Company’s Management Representative, have been responsible for the strategic planning, monitoring, and evaluation of the Company’s performance in terms of corporate social responsibility. The organizational chart is presented as above.

◎ **Contact Information**

Please contact us through the following channels if you have any suggestions or questions.

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06 / MESSAGE FROM THE PRESIDENT





The Corporate Social Responsibility (CSR) policy of Nan Ya Printed Circuit Board includes the areas of corporate governance, environmental protection, and social welfare. We have continuously strived to meet the responsibilities of our long-term commitments to our shareholders, customers, employees, suppliers, nearby communities, government units, media organizations, and non-profit organizations. As a subsidiary of the Formosa Plastics Group, NYPCB has followed the Group's CSR policies and focused on five different strategies, which are corporate governance, environmental protection, procurement policy, labor and ethics, and social welfare.

1. Corporate Governance

- (1). Abide by all laws and business ethics, and establish a comprehensive corporate system to maintain positive corporate governance.
- (2). Adopt international standards and practices, continuously improve and enhance competitiveness to benefit our shareholders.
- (3). Steadily supply high quality products at a low price and help our downstream customers to develop new products and increase their competitiveness.
- (4). Provide employees with a safe and healthy working environment, quality training programs and systems, and clear targets that they can follow so they can reach their full potential.

2. Environmental Protection

- (1). Continuously improve production processes to reduce energy consumption and carbon emissions.
- (2). Introduce lead-free technology and comply with the RoHS Derivative (Restriction of Hazardous Substances Derivative) of EU, pertaining electrical and electronic products.
- (3). Financial impact and risk opportunity of climate change to organization
The climate change would much more likely cause the extreme climate, including the average atmosphere temperature rising and drought time extension, to cause the risk of electricity and water supply shortage, therefore, the Company continuously promotes the energy saving improvement to reduce the resource and energy consumption, to improve the industrial competitiveness while enhancing the friendly environment, and achieve the multiple benefits.

3. Procurement Policies

- (1). Procure green materials and reduce resources consumption in order to increase rates of recycling and reusing of resources.
- (2). Enforce strict inspection on raw material supplies to prevent conflict minerals from entering production processes.

4. Labor and Ethics

- (1). Provide employees with a safe and healthy working environment, and have high quality training programs and systems, and clear targets that they can follow so they can reach their full potential.
- (2). Abide by laws and business ethics, establish and improve the enterprise system to maintain a sound corporate governance system.
- (3). Strive to attain perfection and do good deeds. Make continuously improvements, enhance competitiveness and give back to the society.

5. Social Welfare

- (1). Address various social issues, and participate in appropriate community and social welfare activities to foster a kind and compassionate society.
- (2). Use our corporate spirit of striving for perfection to create efficiency and success in our social welfare endeavors.

To honor our commitments in corporate social responsibilities, Nan Ya Printed Circuit Board upholds a principle of giving back what we gain from society. The Company strongly believes that such responsibilities are part of our valuable assets, an everlasting brand, and a cultural beacon. The Company pledges to shoulder more social responsibilities, take part in more social welfare activities, help minority and disadvantaged groups, promote environmental protection and strive to achieve zero pollution, zero carbon emission, and zero accident target as well as establish a diverse and convenient communication with stakeholders to create the greatest benefit to the Company's investors, employees, society, and country.

1.4 Major Products and Research & Development

▼ Identified Material Aspects and Management Approach

Corresponding Material Issues	Product innovation and research & development (R&D)	
Significance	R&D generally refers to the kind of continuous and systematic activity which has clear objectives for a company to acquire science and technology, creatively apply new knowledge of science and technology, or substantially improve technologies, products, and services.	
Policy and Commitment	To invest in product innovation and R&D by adhering to the operational principle of "improvement, innovation, and sustainable operation." To ensure competitive and high quality products are provided to customers.	
Responsibilities	R&D Department	
Resources	<ul style="list-style-type: none"> Manpower: R&D Department, the Engineering/YIP teams of production plants Funding: R&D expenses 	
Action	<ul style="list-style-type: none"> To develop low CTE substrate To improve inner layer fine line capability To improve Cu thickness uniformity at build up layer. To apply dry film solder mask To improve yield rate of high bump count substrate. 	
Communication Channel	<ul style="list-style-type: none"> Periodic project meetings Quarterly visits to clients 	
Evaluation Method	Increase in the number of trial production that leads to mass production	
Target (Short/Medium/Long Term)	<ol style="list-style-type: none"> Short-term (within 3 years): <ul style="list-style-type: none"> To develop low CTE substrate To improve inner layer fine line capability To apply dry film solder mask To develop high quality substrate Medium and long term (3~7 years): <ul style="list-style-type: none"> To increase the number of panel stack in the drilling process To develop high quality SR dry film material To develop bump inspection machine for large form factor substrates 	 
Overall Performance	<ol style="list-style-type: none"> In 2019: <ul style="list-style-type: none"> Plating machine ready(UVCP) New SR coating machine Apply 2DID machine for lot traceability New u-ball machine implement Super large form factor substrate bump & O/S inspection machine implement Number of patents obtained: 5 in 2017, 10 in 2018 , 8 in 2019. 	



NYPCB has conducted extensive research and development. The Company has achieved multiple patents but continue developing new products. The following are products successfully developed by NYPCB and their uses:

(1) Printed circuit board

A. High Density Interconnect PCB: The product is mainly a PCB used to develop the high-end blind & buried vias, high-stacking technology and corresponding applications. Product applications include wearable devices, 5G high-frequency products, high-end notebook computers, and LED displays, etc.

B. Multilayer PCB: Technologies to pair multiple layers of PCB and perform high aspect ratio electroplating and impedance matching have been developed. These technologies can be used to produce servers and workstations.

(2) IC packaging substrate

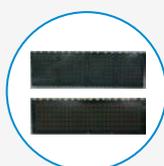
By process flow, the product can be classified into PP substrate and ABF substrate. Regardless of the packaging type, the design trend is going toward fine line, smaller micro via, thinner and high layers.

A. PP Substrate: Wire bonding and FC packaging substrates have entered mass production. The coreless substrate and embedded technology currently under development are to be applied in high-end POP packaging, multi-core chips, and smart music box chips. In the meantime, ultra-thin substrate is also under development which can be applied to smartphones, tablets, TV chips, and logic computing and power control chips. In addition, SIP package products have entered the stage of mature mass production, so can satisfy more diverse product requirement, including RF module chip for mobile phones, network telecommunication chips, wearable devices, and memory card control chips.

B. ABF Substrate: The product design now tends to be more and more lightweight, thinner, and smaller. This year, the development of high layer count and large body size substrate is the focus, in addition to the development of the high-stack precision alignment technology used in manufacturing high-end telecommunication substrates. Another goal is set for the development of high-speed I/O and 110μm pitch technology for solder balls. Based on the future challenges arising from technological products, short/medium/long term R&D projects for key production processes are established to safeguard our leading role in future technology. Moreover, introduction of new materials such as highly reliable substrates and ink, stability substrates with low-roughness surface and of large dimension, and low insertion loss dielectric material are all being developed to meet the needs of high-speed communication products in the future.

(3) Major applications and production processes of primary products

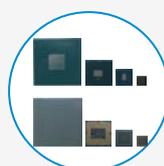
Product name	Important use
Printed circuit board	It is a key component used as a carrier in various electronic devices, and serves as the interconnection between different components to communicate message. Applications include: Notebook computers, workstations, servers, high-end memory modules, game consoles, TV sets, cars, LED displays, mobile phone peripherals, and wireless charging.
IC packaging substrate	<p>IC packaging substrate It :</p> <p>It is applied to the carrying of IC chip (Chip) products, so that the output/input signal of the chip communicates with the system through the internal and external pins on the substrate, and can help the chip heat dissipation.</p> <p>The categories are as follows:</p> <p>Netcom products: network switches, routers, wireless chipsets, radio frequency, optical fiber communication chips, etc.</p> <p>Server products: cloud servers, data center AI chips, etc.</p> <p>Consumer electronics: digital TV chips, game consoles, set-top boxes, etc.</p> <p>Computer products: central processing unit, graphics chip, etc.</p> <p>Others: car information, audio and video, etc.</p>



Wire Bond Substrate



FC-CSP



Flip Chip Substrate

1.5 Awards and Recognitions

NYPCB has followed the Formosa Plastics Group's corporate spirit in conducting final analyses and improving continuously until accomplishing perfection. We face problems head on and resolves them using practical solutions, and believe in hardwork, sincerity and honesty, society contribution, and sustainable development. This is the reason that we have continuously made improvements in corporate governance, environmental protection, and public welfare, and upheld our commitments to make the society better. NYPCB's efforts have been recognized by the Taiwanese government as well as by non-governmental organizations. The following certifications and awards have encouraged the Company to keep streamlining its management and emphasizing environmental protection and reservation.

▼ Recognitions

Items	Date	Certification
1	1993	ISO9001 Certification(Note1)
2	1996	ISO14001 Certification
3	1998	UL-QS-9000 Certification
4	2001	OHSAS-18001 Certification
5	2002	TL-9000 Certification
6	2003	Green Product/RoHS Certification
7	2004	TS-16949 Certification(Note2)
8	2009	CNS15506 Certification
9	2010	ISO-14064-1 Certification
10	2010	EICC Certification (Grade: yellow)
11	2011	A bronze medal from the Taiwan Training Quality System
12	2012	EICC Certification (Grade: green)
13	2013	ISO9001 Certification(Note3)
14	2013	TS-16949 Certification
15	2013	Awarded Authorizes Economic Oprrators(AEO) by Customers Administration,Ministry of Finance
16	2014	EICC Re-Certification (Grade: green)
17	2016	Awarded Authorized Economic Operators (AEO) by Customers Administration, Ministry of Finance
18	2017	Passed OHSAS-18001 reassessment certification.
19	2018	Passed ISO14001(2015) revision certification.

Note 1: In 1993, Product Type PCB/WB passed ISO 9000 certification and will be recertified once every 3 years.

Note 2: In 2004, Product Type PCB/WB passed TS-16949 certification and will be recertified once every 3 years.

Note 3: In 2013, Product Type ABFS passed ISO 9000 / TS-16949 certification and will be recertified once every 3 years.

▼ Awards

Items	Date	Award
1	1998	Won an award from Intel for obtaining Secc certifications
2	1999	Honored by Xerox as one of its world-class certified suppliers
3	1999	Won a Preferred Quality Suppliers award from Intel

▼ Awards

Items	Date	Award
4	1999	Won the Supplier Continuous Quality award from Intel
5	1999	Won an award from Intel for obtaining Secc certifications
6	2000	Won the Strategic Supplier Award from Jabil
7	2000	Won a Preferred Quality Suppliers award from Intel
8	2005	Won AsusTek's Environmental-friendly Management System award
9	2005	Won Outstanding Substrate Supplier Certification from Intel
10	2003	Won as a Sony Green Partner
11	2003	Won an award from Intel for contributing to the development of Calexico
12	2004	Won an Outstanding Service and Support award from AMKOR
13	2004	Won a Preferred Quality Suppliers award from Intel
14	2005	Recognized as a Sony Green Partner
15	2008	Received the Taiwan Ministry of Economic Affairs award for achieving the fastest export growth in Malaysia, one of the key markets selected by the Ministry
16	2008	Received the Taiwan Ministry of Economic Affairs award for achieving the second fastest export growth to South Korea, one of the key markets selected by the Ministry
17	2008	Received the Taiwan Ministry of Economic Affairs award for rapid export growth in key markets
18	2010	Won a corporate social responsibilities award from Taiwan's Global Views magazine.
19	2010	Won the Taiwan Executive Yuan's Entrepreneurship Award in Q1 2010
20	2011	Won the Taiwan Executive Yuan's Entrepreneurship Award in Q4 2010.
21	2012	Ranked in the Top 100 Taiwanese Technologies in 2012 by BusinessNext Magazine
22	2012	Ranked among the Top 5000 for Taiwan's Large Enterprises in 2012 by China Credit Information Service
23	2012	Named Trader of Excellence by Taiwan External Trade Development Council
24	2014	Named an ASESH Continuous Improvement Supplier of Substrates in 2013
25	2014	Named ASECL's Best Supplier of Substrate in 2013 Through Taiwan Ratings Corporation's rating, enterprise long-term credit rating: twA+, enterprise short-term credit rating: twA-1, rating prospect: stable
26	2015	Through Taiwan Ratings Corporation's rating, enterprise long-term credit rating is A+, enterprise short-term credit rating is twA-1, and rating prospect is stable
27	2016	* Won the 2015 GM Supplier Quality Excellence Award * Evaluation by Taiwan Ratings Corp., enterprise long-term credit rating: twA+; enterprise short-term credit rating: twA-1; rating outlooks: stable. * Received the Execution of CSR Award issued by the British Standards Institution.
28	2017	*Received the 2016 Key Supplier Program Award issued by Translarity. * Received the Supplier Sustainability Award issued by ASE Group.
29	2019	Awarded Authorized Economic Operators (AEO) by Customers Administration, Ministry of Finance
30	2020	First Taiwanese PCB company to make the A-Leadership List 2019 for corporates acting to address climate change recognized by Carbon Disclosure Project (CDP)

1.6 Participating Organization and Standard

To enhance its technologies and competitiveness, NYPCB has actively participated in various major industrial organizations in Taiwan such as the Taiwan Printed Circuit Association (in which NYPCB took posts as Executive Director and Director ever since 1998) and the Taiwan Electrical and Electronic Manufacturers' Association (TEEMA). The Company has also attended major seminars held both domestically and overseas in order to keep it updated with the latest global trends and to seek opportunities for further exchange and cooperation. The Company promises to follow the Responsible Business Alliance (RBA), to provide a safe working environment for the staff, and ensure to provide the respect and dignity, as well as assuring the environmental responsibility and abiding by the moral rule in the enterprise operation process.

1.7 Stakeholder Dialogue

Since globalization has significantly changed the society, environment, business, and economy, and has profoundly affected the lives of people across different sectors and from all pace of life such as agriculture, transportation, economy, trade, finance, safety, hygiene, and gender equality, NYPCB believes that establishing a friendly and convenient environment for communication is the responsibility of an outstanding corporation.

To create such an environment and show the Company's determination, we provide a variety of simple channels of communication and sets Stakeholders Engagement sector on NYPBCB's website for its stakeholders in order to better understand their thoughts, demands, and issues of concern. Their voice provides not only an additional reference for this report, but also important suggestions regarding strategy and goal planning for the company's future development of social responsibilities. Based on attributes, the proposal of feedback sent to Stakeholder Engagement will be assessed by the functional teams of President's Office and determined whether the issue causes significant impacts to our stakeholders. After the assessment, the case will be classified by the level of impact and delivered to the board meeting. Later chapters will provide the detailed responses to the issues of concern. The table sets forth the issues of concern and the channels of communication between the company and its stakeholders.

Stakeholder	Communication Channels	Meeting Frequency	Issue of Concern
Employees	1. Internal announcements	Irregularly, at least once a year	Harmonious labor relations / compensation and benefits / training and promotion /communication channels / workplace safety management/ healthcare for better employment security
	2. Representatives from the Human Resource Department		
	3. Regular meetings such as union core members seminars /education seminars/safety conferences /various training seminars/cafeteria quality review conferences	Once a month	
	4. Irregular meetings	Irregularly, at least once a year	
	5. The Administration Department has established communication channels such as suggestion boxes. Medical professionals stationed at the factory provide emergency medical assistance.		
	6. Internal publications, online platforms and questionnaires (e.g. questionnaires on training satisfaction).		
Investors (Shareholders)	NYPCB has appointed a spokesperson and deputy spokesperson system, and a specialized unit for handling investors' affairs. The Company has also communicated with its shareholders and corporate shareholders by setting up the following communication channels:	Once a year	Operating conditions / dividends / corporate governance / shareholder services / risk control and management/ Industry Prospect
	1. Shareholders		
	(1) Annual shareholders' meetings		
	(2) Published annual financial reports as requested and provided them to shareholders during the annual shareholders' meetings		
	(3) Shareholders can make inquiries through phone calls and emails.	Irregularly	

Stakeholder	Communication Channels	Meeting Frequency	Issue of Concern	
Investors (Shareholders)	2. Corporate shareholders	Irregularly		
	(1) Investment seminars in Taiwan and overseas (2) Investor forums held by securities companies (not held regularly)			
Customers	1. Audited by customers	Irregularly, at least once a year	Product quality / post-sale services / green products	
	2. Meeting with customers and dealers			
	3. Regular technological support			
	4. Surveyed client satisfaction			
	5. Provided educational training for customers			
Suppliers	1. Established an information platform for suppliers	Irregularly, at least once a year	Supply chain management / safety and health management / partnerships	
	2. Held regular meetings and reviewed reports face to face			
	3. Conducted supplier surveys through questionnaires, and provided audits and consulting services			
	4. Reviewed material supply stability and quality			
Non-Profit Organizations	1. Established charity clubs and participated in community volunteering activities	Irregularly, at least once a year	Social welfare contributions / corporate volunteer services	
	2. Held donation campaigns and provided assistances in light of major natural disasters in Taiwan			
Media	1. Reporters' interview after the annual shareholders meeting	Once a year	Operating status / dividend distribution / corporate governance / risk control / industry outlook	
	2. News interview	Irregularly, at least once a year		
Nearby Communities/ Government Units	Nearby Communities Communicated and informed communities through NYPCB's website	Irregularly, at least once a year	Social welfare contributions / community involvement / corporate volunteer services / environmental impact of transportation	
	Government Units	1. Official documents		Irregularly, at least once a year
		2. Meetings introducing and explaining new laws		Irregularly
		3. NYPCB's financial statements		Once per quarter
		4. Provided reports and information as requested by the government, authorities, and regulations. 5. Communicated with government or authorities through industrial associations		Irregularly, at least once a year



1.8 Identification of Major Issues

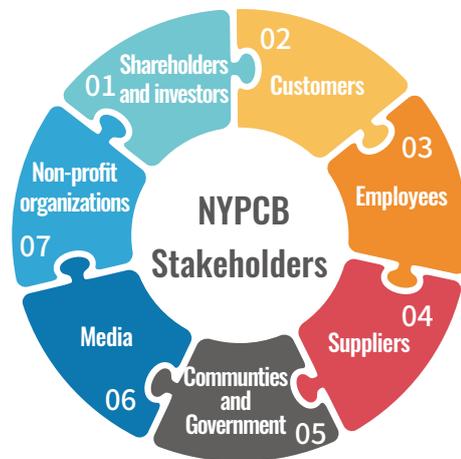
(1) Stakeholder identification and communication

Along with the social environment change and climatic environment change, the world changes variously, and influence our lives of all aspects, such as the agriculture, transportation, economy, trade, finance, safety, sanitation, and gender equality. How to construct a friendly environment is the duty of an enterprise to keep in mind at any time.

In order to provide a friendly environment, NYPCB starts from the practice of stakeholder relationships, including the connections with external supply chains, shareholders / investors, and customers as well as internal company staff. We expect that external partners could cooperate with NYPCB to contribute to the entire environment and society, while internal staff could be treated with respect and dignity. To ensure that all production process and product pose no harm to the environment, NYPCB established a working group to promote corporate social responsibility, closely working with the internal and external stakeholders and exchanging the opinions and thoughts on a timely basis. The working group shall identify the stakeholder according to the work feature of each unit, incorporate issues of concern into the routine work and annual plan, and cooperate with relevant unit depending on the issue of concern.

A. Stakeholder identification

Based on global trend, industrial feature, experiences generated from daily interactions with stakeholders, and degree of impacts stakeholders pose on corporate operation, NYPCB CSR working group has identified a total of 7 stakeholder categories (investors/ stakeholders, customers, employees, suppliers, nearby communities, government, media, and non-profit organizations) according to specific features such as responsibility, impact, intimacy, representativeness, and strategic intention.



B. Major Topic Identification Procedure

In addition to multiple daily communication channels, significant issues of 2019 were selected from the screened list based on the priority, confirmation, and review process of different significant issues. CSR working group is responsible for integrating the initial list of significant issues before distributing questionnaires to collect different voices from the stakeholders.

▼ Major Topic Identification Procedure

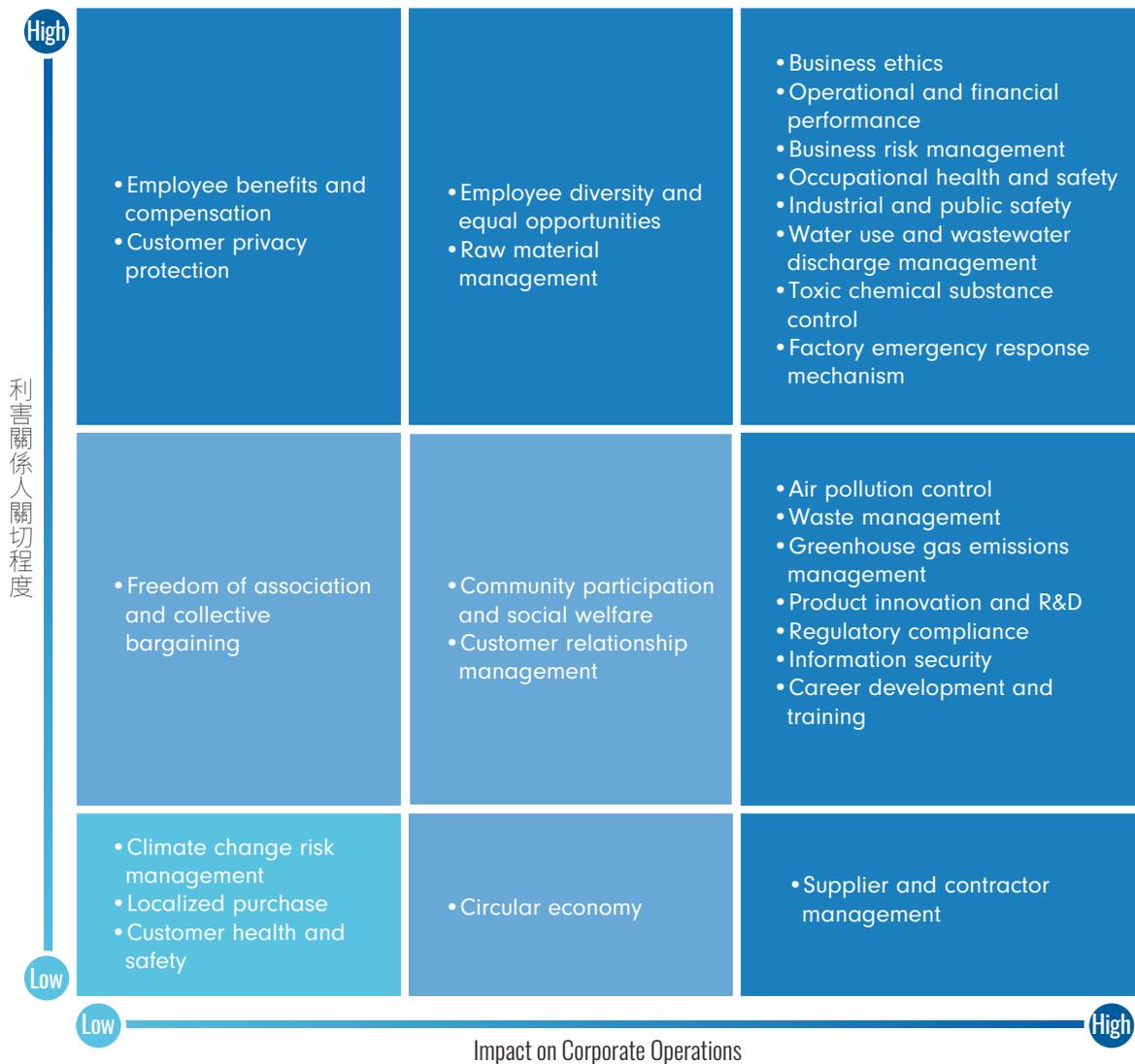


C. Sustainable topic collection

To identify the critical issues that concern our stakeholders, we successfully issued questionnaires to a total of 189 stakeholders (with a questionnaire return rate of approximately 90%). Through intensive discussion from internal meetings, we can determine the impact that these issues have on our corporation. According to "Stakeholders' Level of Concern" and "Impact on the Company", each category is analyzed and classified according to its level of impact and arranged in sequential order. With a total of 16 items, the area on the upper right signifies topics with the greatest significance and on the lower left those with the least significance. We will discuss the significant issues and items that need improvement later in this report.

We will discuss the significant issues and items that need improvement later in this report. By making such improvement, we seek to maintain effective communication channels and partnerships with all of our respective stakeholders.

▼ Results of Identified Major Issues



▼ Material Topics and Value Chain

Category	Topic	Value Chain							Corresponding GRI Disclosure	Management Approach / Chapter
		Internal		External						
		NYPCCB	Shareholders	Media	Suppliers	Communities/Government	Customers	Non-profit organizations		
Economy 	Operational and financial performance	●	●						GRI 201-1	2.2 Financial Performance
	Business ethics	●	●		●		●		GRI 102-14~15 GRI 102-1	Message from the President 1.3 Prospect, Opportunities, and Challenges to the Industry
	Business risk management	●	●						GRI 102-11 GRI 201-1	Message from the President 2.1 Governance Overview 3.2 Environmental Accountability 3.3 Water and Energy Conservation and Greenhouse Gas Reduction 3.4 Protecting the Environment around Factories
	Product innovation and R&D	●					●		GRI 102-2	1.2 Market Position 1.4 Major Products and R&D
	Supplier and contractor management				●		●		GRI 102-9 GRI 308-1~2 GRI 414-1~2	2.6 Supplier and Contractor Management 4.7 Crisis Management
	Regulatory compliance	●		●		●			GRI 419-1	2.1 Governance Overview 2.3 Internal Control
	Information security	●	●		●		●		GRI 419-1	4.7 Crisis Management
Environment 	Water use and wastewater discharge management	●		●		●		●	GRI 303-1~3 GRI 306-1,5	3.3 Water and Energy Conservation and Greenhouse Gas Reduction 3.4 Protecting the Environment around Factories
	Air pollution control	●		●		●		●	GRI 305-1~2,4,5,7	3.3 Water and Energy Conservation and Greenhouse Gas Reduction 3.4 Protecting the Environment around Factories
	Waste management	●		●		●		●	GRI 306-2,3	3.4 Protecting the Environment around Factories
	Greenhouse gas emissions management	●		●		●			GRI 305-1~2, 4, 5	3.4 Protecting the Environment around Factories
	Raw material management	●			●				GRI 308-1~2	2.6 Supplier and Contractor Management
	Toxic chemical substance control	●				●			GRI 305-7	3.4 Protecting the Environment around Factories
	Factory emergency response mechanism	●				●			GRI 403-1~4	4.5 Employee Wellness Program
Society 	Employee diversity and equal opportunities	●							GRI 405-1	4.1 Employment
	Industrial and public safety	●			●				GRI 403-1~3	3.1 Commitments to Environmental Sustainability 4.5 Employee Wellness Program
	Occupational health and safety	●			●				GRI 403-1~3	3.1 Commitments to Environmental Sustainability 4.5 Employee Wellness Program
	Career development and training	●							GRI 404-1	4.3 Training System
	Employee benefits and compensation	●							GRI 401-2,3 GRI 405-2	4.2 Salaries and Welfare
	Customer privacy protection	●					●		GRI 418-1	2.5 Customers

Notes: After review, a total of 20 material topics have been established, an increase of 4 issues compared to 2018. Mainly, the topics "Customer privacy protection," "Raw material management," "Toxic chemical substance control," "Factory emergency response mechanism," and "Information security" have been added, and "Customer relationship management" has been deleted.

ESG CORPORATE GOVERNANCE



▼ Identified Material Aspects and Management Approach

Corresponding Material Topics	Ethical management, operational and financial performance, business risk management, and regulatory compliance
Significance	<p>The Corporation is a strict practitioner of regulations and business ethics. In addition to complying with the Company Act, the Securities and Exchange Act, and the Business Entity Accounting Act, the Corporation acts upon the corporate culture spirit of "Diligence and Simplicity." Based on the business philosophy of honesty and sincerity, fairness and transparency, and self-discipline and accountability, the Corporation has formulated and implemented various ethic policies in order to create good corporate governance and risk control mechanisms and seek for sustainable corporate development.</p>
Policy and Commitment	<ul style="list-style-type: none"> • To implement ethical management. • To abide by business ethics and pursue sustainable management.
Responsibilities	Board of Directors
Resources	<ul style="list-style-type: none"> • The board of directors is the highest governance unit. • Actions are taken by adhering to the "Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies" and other related regulations.
Action	<ul style="list-style-type: none"> • Establish an effective and comprehensive accounting system and internal control mechanism to fully promote computerization across all operational processes; the six major management functions – personnel, finance, business, production, materials, and engineering – should be interconnected by computers to enable trench auditing layer by layer as well as abnormality management. • Establish a professional and independent internal audit operation structure.
Communication Channels	<ul style="list-style-type: none"> • Reporting to independent directors should be conducted at least once a year jointly with the CPAs about the financial status and the overall operation of the Corporation as well as its domestic and overseas subsidiaries, together with the internal control auditing status. The impact of the revision of laws should be fully communicated with independent directors; if necessary, a meeting shall be convened at any time. • Various statements and reports prepared by the board of directors are audited by the CPAs appointed by independent directors, and a review report is presented in accordance with regulations.
Evaluation Methods	<ul style="list-style-type: none"> • Implementation effect and improvement continuity is reviewed by the board of directors at any time to ensure corporate social responsibility policies are fulfilled. • The board of directors authorizes the senior management to handle the economic, environmental, and social issues generated from the Corporation's business operations, and report the status back to the board.
Targets (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Short-Term: To act upon relevant practices ruling the information declaration and major information filing of public listed companies. There should be no such situation to occur regarding corrections by the competent authority or defaults recorded by the Stock Exchange. • Medium- and Long-Term: There should be no such situation to occur regarding the violation of ethical management principles, corporate social responsibilities, and the internal control system, or other situations not in compliance with the corporate governance principles.
Overall Performance	<ul style="list-style-type: none"> • From 2016 to 2019: The Corporation received no correction notice from the Stock Exchange. • The Corporation has established a dedicated (adjunct) unit for promoting corporate social responsibilities and ethical corporate management. The operation and execution status of the established unit is also disclosed in the Corporation's annual reports and on the corporate website, and reported regularly to the board of directors.

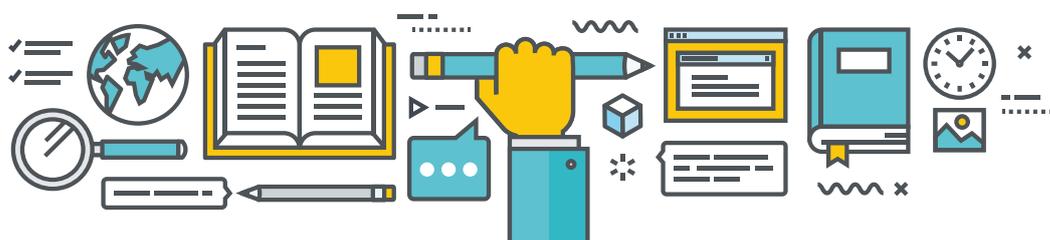
2.1 Governance overview

(1) Professional board operation

Under the corporate governance structure, the board of directors is the highest governance unit responsible for setting operational strategies. Entrusted by the shareholders, the board of directors is mainly responsible for ensuring legality and transparency in the business's operational information, designating business managers to integrate operational affairs, drafting profit distribution plans (so that shareholders can share in the business's operational results), and supervising and guiding daily business operations. The board of directors carries out its operations according to relevant regulations stipulated by the domestic "Company Act", "Articles of Association", and "Rules & Procedures of Board of Directors Meetings". The "Moral Standards for Members of the Board, and Managers" and "Business Integrity Guidelines" have also been stipulated to ensure that relevant personnel consider moral standards while performing their duties, which in turn prevents corporate and shareholders' benefits from being damaged.

The Nan Ya Printed Circuit Board Company's board member selection process shall follow Company Law, the Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies and the Nan Ya Printed Circuit Board Company's 'Board Member Selection Procedures' and other regulations. Current term board members are appointed by shareholders at the shareholders meeting in June 2017, and consist of nine members (one board chairman, five directors and three independent directors) whose appointment periods are from June 2017 to June 2020. The present Board Chairman, Mr. Wu Ka-Chao, General Manager, Mr. Tang Ann-De. Our directors are all highly-specialized personnel with rich experiences in the industry. They provide the most professional guidance on the Company's strategic planning for future developments. Their average age is about 70 years old. To fortify the independence and diversity of its corporate governance, the Company currently has three independent directors; however, there are no female directors at the moment. The education and work experience of the board members are listed below:

Title	Name	Education	Concurrent positions in NYPCB or other companies
Chairman	NYPCB representative Wu Chia-Chau	National Chengchi University, Department of Business Administration	Chairman of Nanya Plastics Corporation and Nanya Technology Corporation
Director	NYPCB representative Wong Wen-yuan	Industrial engineering, University of Huston	Chairman of Formosa Chemicals & Fibre Corporation, Formosa Taffeta and Formosa Advanced Technologies
Director	NPC representative Tzou Ming-Ren	Taipei Tech Chemical Engineering Department	General Manager of Nanya Plastics Corporation
Director	NPC representative Lin Fon-Ching	National Chengchi University, Department of Accounting	Deputy General Manager of NPC
Director	Chang Chia-Fung	Automatic control engineering, Feng Chia University	NYPCB Deputy General Manager of NPC
Director	Tang Ann-De	Electrical engineering, National Taiwan	NYPCB's President
Independent director	Wang Cheng-I	MA in Public Finance, National ChengChi University	None
Independent director	Jan De-Ho	Master of Public Administration, University of Southern California	None
Independent director	Lin Ta-Sheng	M.S. of Chemistry, Texas Southern University in Houston, Texas, USA	China Electric Director



The Company's board of directors all possess professional backgrounds in business management, leadership and decision-making, industrial knowledge, international perspective, and financial and accounting analysis, and have an abundance of business management experience. The board has nine directors, among whom three are independent directors. Their educational background, gender, professional qualifications, and work experience are listed in the following chart:

Name	Nationality	Gender	Business Management Background and Management and Decision-Making Ability				
			Business Management	Leadership and Decision-Making	Industrial Knowledge	International Perspective	Financial and Accounting Analysis
Wu Chia-Chau	R.O.C	♂	●	●	●	●	●
Wong Wen-yuan	R.O.C	♂	●	●	●	●	●
Tzou Ming-Ren	R.O.C	♂	●	●	●	●	●
Lin Fon-Ching	R.O.C	♂	●	●	●	●	●
Chang Chia-Fung	R.O.C	♂	●	●	●	●	●
Tang Ann-De	R.O.C	♂	●	●	●	●	●
Wang Cheng-l	R.O.C	♂	●	●	●	●	●
Jan De-Ho	R.O.C	♂	●	●	●	●	●
Ta Sheng Lin	R.O.C	♂	●	●	●	●	●

There totally held 6 Board of Directors meetings in 2019, attendance rate 89% and the assessment to the target and execution condition of Board of Directors function is as below:

- A. The operation of Board of Directors is according to the laws, and the provision of Articles of Association and resolution of shareholder meeting decide the executive authority, that all the directors shall create the maximum benefit for the shareholders in the principle of loyalty and good faith, except for the necessary professional knowledge to fulfill the duty.
- B. For the selected and appointed independent directors, and in order to construct the good governance system of Board of Directors for the Company, it has formulated the discussion specification for Board of Directors depending on the provision of security authority, including the major discussion content, operation procedure, items to be stated in the minute, announcement and others to be followed, which shall all be handled according to this code.
- C. Except the Company shall periodically handle the self-check for the operation of Board of Directors, to reinforce the function of Board of Directors, the internal auditing personnel shall make the audit report for the operation condition of Board of Directors, to meet the authority requirement.



(2) Corporate Management Structure

NYPCCB's governance is designed in accordance with its organization chart and their responsibilities are outlined as follows:

Departments	Responsibilities	
Auditing Office	Review internal control systems and regulations to ensure the system has been effectively enforced.	
Human Resource Unit	Organize human resources, establish articles of association, handle employee transfers, and perform employee evaluation, recruitment, education, and training. Ensure fair management, access employees online ones on to employee opinions, and compile the corporate social responsibility report.	
Management Analysis Unit	Organize board meetings and annual general meetings. Plan and implement tax exemptions. Review and compile data. Evaluate performance and analyze costs.	
Presidential Internal Co	Management Unit	Oversee production, sales, and operation.
	Equipment Unit	Establish and implement maintenance systems.
	Material Procurement and Management Unit	Plan the usage of raw material. Purchase raw material and control inventory. Ensure the usage of raw material is reasonable and cost-effective. Manage inventory and warehouses.
	Projects Unit	The construction and expansion of plants in China. Plan and arrange new production and install new equipment, conduct trials, and manage production.
	Production and Sale Unit	Oversee the expansion of the flip chip project, mass production, trial production, and delivery. Estimate the consumption of jigs and raw materials.
	Legal Affairs Unit	Manage the intellectual property rights and legal affairs of NYPCCB. Apply for patents.
	EHS Unit	Implement and manage measures to prevent pollution. Organize required training on workplace safety, environmental protection, and hygiene.
Accounting Department	Establish, plan, supervise, and implement an auditing system. Review the legality and legitimacy of transactions. Handle daily accounting reports, file taxes, and analyze the profit and loss of products.	
Information Technology Department	Oversee the Management Information system, establish an intranet, and manage Company websites. Evaluate and develop information systems, manage the intranet, and develop applications.	
Research and Development Department	Establish and review production regulations, new materials, and technologies. Establish and review new product production processes. Evaluate and execute plans to satisfy customer requirements for processing technologies and tests. Conduct trial production for new products before entering mass production.	
Product Design Department	Design, produce, and improve jigs. Integrate and review production technologies. Manage and execute trial production of films and screen plates. Compile new customer data.	
Sales Department	Carry out marketing initiatives and analyze the market. Plan and implement sales plans. Expand the customer base. Responsible for customer service. Analyze markets for new products.	
Quality Assurance Department	Establish a quality control system, audit customers, obtain UL certification, conduct reliability tests, analyze quality, and make timely improvement. Make quality control plans and review resume.	
Construction Department	Plan and analyze engineering projects. Manage parts and materials for construction. Supervise construction projects. Develop competitive products. Subcontract, examine, and verify expansion projects.	
Utility Department	The utilities, wastewater treatment equipment fault management, statistical analysis, better-planning, power system operation execution, operation management.	



(3) Follow Corporate Regulation

NYPGB has stipulated the "Directors and Managers Code of Ethics" and requires that its management abide by the code in operations and avoid unethical behaviors that may damage both the Company and the interests of its shareholders. The Company has adopted an online platform for procurement, which increases efficiency as well as ensures a fair and reasonable procurement process that could avoid malpractice. The platform provides a win-win situation for both NYPGB and its suppliers. In addition, a comprehensive auditing system has been established to maintain financial transparency and legality. Audit reports are submitted to the board. The Formosa Plastics Group Headquarters, formed by the subsidiaries of Formosa Plastics Group, is an independent auditor and thus increases the profession and efficacy of the auditing system. The independent auditing facilitates the effectiveness of supervision.

NYPGB firmly believes in honesty, accountability, and abiding laws, and as such, its management, operations and strategies have been made in accordance with domestic and foreign laws, regulations, and policies. The Company has held irregular law-related trainings and seminars for employees and has established a regulation to obey anti-trust laws. A list of summaries and prohibited conducts for each regulation has been produced, and Company requires employees to read and sign it which is the principle of all business activities. NYPGB strictly requests employees, management, and board members to obey all regulations.

Furthermore, NYPGB consults legal opinions from both Department of Legal Affairs of FPG Headquarters internally and Formosan Brothers Attorney-At-Law and Lee and Li Attorney-At-Law externally regarding to the Company's ethics and lawful behaviors along with organizational integrity. NYPGB has established a "Stakeholder Engagement" on its official website to provide a communication channel for stakeholders to propose opinions, raise questions, or give suggestions online. Designated personnel handle and pass those comments according to their characteristics to a specific person, who is in charge, replies and takes all necessary actions.

The Company also strives to ensure all commercial activities and sales strategies in compliance with the laws, trade conventions, and social norms to against any illegal, unfair and injustice affairs. The Company has never sold the products that had been prohibited or arguable and been punished for violating any regulations. NYPGB never involves in any political activities and maintains neutral and objective political stand.

Nothing corrected by the stock exchange in 2019.

(4) Commission of Salaries

To ensure corporate governance and build a healthy salary structure for the board members and managers, NYPGB established Commission of Salaries on December 27, 2011, and the commission consists of three independent directors. The appointment is in compliance with the regulations of the Securities and Futures Bureau of the Financial Supervisory Commission. The Commission has made suggestions for the salaries of the Company's chairman, and managers, and board directors. This approach prevents the chairman and managers from exposing the Company to risks from salary disputes. Discussion bills from Compensation Committee, such as salary adjustment and annual bonus related topics shall be all put forward to Compensation Committee for a second discussion after a consensus has been reached by the personnel department and labor union. The Commission of Salaries meetings were held twice in 2019, and the average actual attendance rate reached 100%.

(5) Independent Internal Audit Unit

To strengthen the supervising function of the Board, the Company has established an internal auditing unit consisting of the three independent directors. Five meetings were held in 2019 with a 93% attendance rate. The internal auditing unit is responsible for overseeing the Company's financial statements, choosing the accountants based on their level of independence and performances, ensuring the effective implementation of internal controls, making sure that the Company follows relevant laws and regulations, and assessing the existing and potential risks of the Company.

(6) Internal Audits

The Company has established an internal auditing unit, reporting exclusively to the board of directors, with the task of hiring professional internal auditors. Recruited staff members have to attend auditor training programs held by professional auditing institutions every year to continuously improve their auditing skills.

Internal audits are not the sole responsibility of the independent audit unit. Every department has to conduct audits for specific items and regularly audit their operations. The independent audit unit reviews their audits and conducts additional regular and irregular audits to ensure that the department has conducted the audit effectively.

2019 Annual Audit Plan items: 40.
Completed: 40. Rate of Completion: 100%.

A. Normal item(s) : **37** (92.5%)

B. Item(s) that required improvement : **3**
(7.5%), improved.

(7) Employee Behaviors and Code of Ethical Conduct

NYPCB has defined employees' and employer's rights and obligations to maintain order in the workplace. Pursuant to the law, a code of conduct has been established and was published after having been reviewed by relevant authorities. The Code has acted as the guideline for employee management. It has specified clear regulations regarding employee transfers, working hours, salaries, regulations and punishments, dismissal, severance pay, retirement, training, performance appraisals, and compensation for occupational injury and disease, and social welfare.

In order to ensure staff members following the Code of conduct, NYPCB has required that engineers, managers, and the management team sign a statement that specifies the operational policies that NYPCB employees should follow. The policy summary is as follows:

A. Illegal competition is banned (Antitrust policy):

Employees must abide by all regulations of the Fair Trade law. They should always gain profit through honest means and ensure their conduct is in compliance under the law.

B. Conflict of interest policy:

Employees should avoid damaging the interests of the Company during operation. They should never directly or indirectly request or accept gifts, entertainment, or any form of personal gain from the customers or competitors of the Company.

C. Data security policy:

Employees handling the Company's data should not reveal confidential data or other information that has not been published without NYPCB's written permission. They should not use the information for personal gain or use it for any purpose that is not relevant to the Company's operation. Employees should hand over all technological information that they worked on leaving the Company.

D. Participation in political activities

Employees should not directly or indirectly donate money, provide services, or give valuable items to any candidates or political parties. They should not conduct any behavior forbidden by the law or give any ill-gotten gain to legislators, political figures, or government officials that may prevent them from performing their duties.

E. Integrity business code

The Company reached the solution to draft the "Corporate Good Faith Business Code" on the Board of Directors meeting on November 11, 2014, which modified a little according to the Company practice, but the stipulated code agrees with the spirit of "Listed Company Good Faith Business Code".

(8) Anti-corruption

The company upholds the spirit of diligence and sincerity synonymous with the Formosa Plastics Corporation and has established rigorous ethical standards. Employees are expected to be responsible in both their speech and behavior not only in their work but also in their daily lives by observing all common behavioral and ethical standards. The company has always employed rigorous standards to prevent employees from leaking trade secrets, misstating facts, starting rumors, sabotaging work or violating gender equality principles in the workplace. Specific actions that have been taken in the past include establishing labor and ethical management policies and advocating the company philosophy "Create Values, Honest Business, Teamwork and Shared Prosperity". Furthermore, the company has advocated for anti-corruption practices. Such advocacy will continue to be held annually during holidays. The company has also arranged annual staff ethics cross assessment. A number of members of every department are chosen to be interviewed according to the size of the department. These interviews will emphasize on-site management, staff leave management, work hour management, etc. for staff rights and anti-corruption practices.

Since 2016, the project (administration) has added a "rule of law promotion" course to enable employees to fully understand the relevant corporate regulations and legal responsibilities involved in the company's damage caused by bribery or illegitimate benefits during the period of employment. The personnel responsible for the contracting, procurement, import and export departments must not only understand the course, but also sign the "Procurement and Contracting Person Self-discipline Convention" to standardize the discipline and attitude of the position in charge, and to abide by the law.

2.2 Financial Performance

Stable profits are the roots of a company. NYPCB is a professional circuit board manufacturing company and focuses on operational developments. The incomes and profits are mainly from operational activities. The Company continues to win more clients and enhances manufacturing processes to strengthen financial performances. In 2019, the Company's revenues totaling were NT\$ 31,094 million, operating costs totaling were NT\$ 29,467 million, operating expenses totaling were NT\$ 1,555 million, retained earnings totaling were NT\$ 5,104 million, dividends totaling were NT\$ 0.7 per share, business income tax paid totaling were NT\$ 770,000 , and donations and community investments totaling were NT\$720,000. Additionally, in 2019, the liability / total asset rate was 23.7%, demonstrating a stable financial situation. NYPCB staff salaries in 2019 are presented on Page 183 of the 2019 annual report.

To maintain a stable operation, NYPCB has appointed supervisors to oversee its operations and conduct financial audits. Professional external auditors have been brought in to conduct financial auditing to ensure the financial status remains transparent. In addition, NYPCB's monthly revenue report is published by the 10th of each month on the Market Observation Post System as required by law. The information is also updated onto NYPCB's website at the same time. The Company holds an annual general meeting in Q2 every year to inform shareholders of its operational and financial status, and show the Company's commitment to safeguard the interests of its shareholders.

2.3 Internal Control

(1) Prevent Insider Trading

NYPCB's board of directors, managers, employees, and consultants, have upheld their obligations and ethics as prudent administrators. They have signed non-disclosure agreements to keep crucial internal information in confidence prior to official Company announcements. If any leak of information is discovered, the abovementioned personnel should immediately report it to internal auditing department. Upon receiving such reports or after personally discovering a leak, the audit department would prepare a response policy under legal advisement and help from the finance department. The incident would be documented for future reference.

In order to avoid leaked information affecting stock prices and to ensure all employees follow the regulations against insider trading, NYPCB has followed Article 8 of the Regulations Governing Establishment of Internal Control Systems by Public Companies to establish an anti-insider trading regulation, and has included it in its internal control system to ensure it is effectively enforced.

(2) Establish a Complete and Effective Accounting System and Internal Control Mechanisms

NYPCB's management can be categorized into the following six management mechanisms: human resources, finance, operations, production, materials, and engineering. After on-site personnel inputs basic data into their computers, the data is then delivered and repeatedly applied. Respective mechanisms mutually retrieve and connect to each other's data, with a checkpoint arranged between any two pieces of data. Through computer logic, data can be automatically articulated and debugged.

NYPCB has also established an internal auditing structure, which can be separated into three major aspects, with the first aspect executed by the Auditing Office under the Board of Directors, the second aspect routinely and professionally audited by FPG Headquarters, and the third aspect voluntarily and routinely audited by the Company's respective department.



2.4 Shareholders

NYPCB has established a spokesperson and deputy spokesperson system, and a unit specializing in handling investor affairs. The following communication channels have also been established for both individual and institutional shareholders.

(1) Individual Shareholders

- A. Annual general meeting
- B. Compile annual financial report and distribute it to shareholders during the annual general meeting
- C. Shareholders can make inquiries through phone calls and emails.

(2) Institutional Shareholders

- A. Participate in investment seminars in Taiwan and overseas.
- B. Participate in investor forums held by securities companies (not held regularly).



2.5 Customers relationship

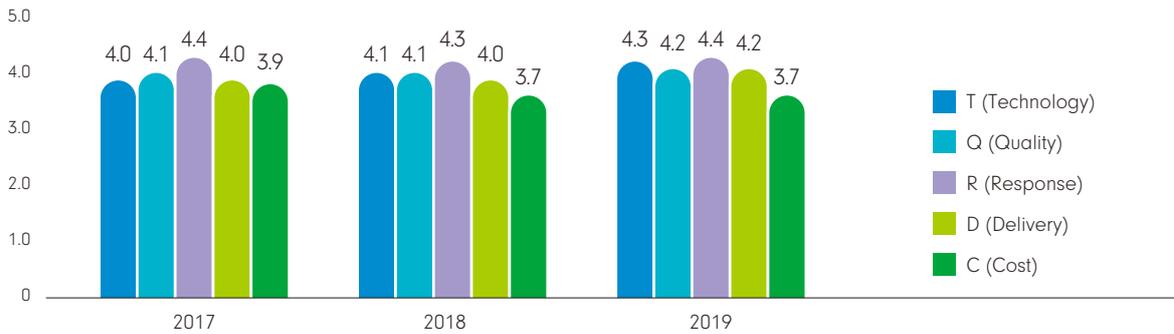
▼ Identified Material Aspects and Management Approach

Corresponding Material Topics	Customer service management, customer privacy protection
Significance	<ul style="list-style-type: none"> • To work hard to become customers' trustworthy partner for business growth. • To respect business privacy and to ensure customers' rights and interests.
Policy and Commitment	<ul style="list-style-type: none"> • To offer supreme product quality that goes beyond customers' expectation, provide instant response to customers' request through a comprehensive communication system, and strictly fulfill the promise made to customers of delivering goods on time in order to maintain good customer relationships. • To ensure information including product specifications and designs, projected sales volumes, images, prices, and others are not leaked to outside entities.
Responsibilities	<ul style="list-style-type: none"> • Customer service management: Sales Department • Customer privacy protection: Corporation-wide
Resources	<ul style="list-style-type: none"> • Regular visits to customers as well as direct communication and opinion exchanges with customers. • Regular visits to customers to understand their confidentiality needs.
Action	<ul style="list-style-type: none"> • Review customer satisfaction on a regular basis. • Conduct on-the-spot training and internal audit on a quarterly basis.
Communication Channels	Customer visits, supplier conferences, online platforms, confidentiality agreements
Evaluation Methods	<ul style="list-style-type: none"> • Conduct customer satisfaction surveys (in the aspects of technology, quality, service, delivery time, and price) • Conduct quarterly internal audit over confidential documents
Targets (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Customer satisfaction: <ul style="list-style-type: none"> (1) Short-Term (within 3 years): satisfaction level above 4 points (2) Medium- and Long-Term (3-7 years): satisfaction level above 4.5 points • No violation of confidentiality agreement from employees
Overall Performance	<ul style="list-style-type: none"> • Customer satisfaction level: 4.1 points in 2017; 4.0 points in 2018; 4.1 points in 2019. • Number of confidentiality agreement violations from employees: 0 in 2019.

(1) Customer satisfaction surveys

NYPCCB regularly conducts customer satisfaction surveys to investigate aspects such as technology, quality, response, delivery, and cost. Each individual department would communicate with customers regarding items that scored poorly and propose improvement plans to customers based on the analysis results in order to raise customer satisfaction. Please refer to the questionnaire results over the past three years, in which the average score of 2019 reached more than 4 points, which indicates that our customers are satisfied with the performance of our company.

▼ Customer Satisfaction Questionnaire



Note : 1. Grade - Excellent (5 points), Good (4 points), Fair (3 points), Need Improvement (2 points), Poor (1 point)
 2. Number of Samples Collected: 2017 - 14 households; 2018 - 14 households; 2019 - 14 households;

▼ Customer Satisfaction Process

We dedicate the improvements of internal production process and operations as well as customer satisfaction with PDCA (Plan, Do, Check and Action) management model in all activities to ensure all departments have a common principle to follow.



(2) Customer Service

NYPCCB has always been a trustworthy business partner who has grown side by side with its business partners. To enhance customer service, we are not only providing products with quality that exceeds customer expectation, but also establishing an outstanding communication system to provide timely responses to customer requests, and to ensure on time delivery of shipments.

Furthermore, in the aspect of understanding customers' valuable evaluation, the sales visit customers regularly to communicate and exchange opinions to obtain information about the latest product in the market. Such communications with customers are valuable information which will be taken into consideration of the company's operation.

NYPCCB has strived to maintain good relations with its customers with the aim to increase its competitiveness along with the customers, raising customers' loyalty, developing potential customers, and achieving final goal-enlarge the company's profit.

(3) Fair and reciprocal principles

Based on our business values of integrity and reciprocity, our company is personally led by the senior management. From contract establishment, qualification, manufacturing, marketing, customer service to customer complaint handling, we apply this principle to all our customers. At the same time, we also strictly follow the international quality standards to provide our customers with fast service and good quality. Actual measures taken are provided below:

A. Provide educational training to employees regularly to ensure understanding customer needs and related regulations. Before selling the product, we will communicate with our customers on product design and relevant risk to provide the most suitable products.

B. Business and customer service units are required to collect information related to customer satisfaction on TQRDC (technology, quality, response, delivery, and cost). These units are also asked to discuss such issues and improvement measures with the relevant manager. Through a dedicated counseling window, the company's official website and multiple complaint channels, our customer's rights are fully secured.

C. Internal and external supervision and operations are regularly carried out to ensure the implementation of company policy as well as fair and reciprocal principles.

2.6 Supplier and Contractor Management

(1) Identified Material Aspects and Management Approach

Corresponding Material Topics	Supplier management
Significance	The Corporation regularly interacts with suppliers for technology, quality, response, delivery, cost, and environment (TQRDCE) issues in order to enhance the product competitiveness from both sides, and to compete for and increase business opportunities.
Policy and Commitment	The Corporation is committed to become suppliers' trustworthy partner for business growth.
Responsibilities	Materials Department
Resources	Quarterly business review (QBR) meetings are regularly arranged to directly communicate and to exchange opinions with suppliers; NT\$648 thousand has been invested.
Action	Regularly review the satisfaction level of suppliers' TQRDCE execution and AIP improvement plan
Communication Channels	Supplier visits, QBR meetings, online and conference call platforms
Evaluation Methods	Supplier assessments (in the aspects of technical, quality, response, delivery, cost, and environment)
Targets (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Short-Term (within 6 months): At least B rating (inclusive), or 81 points or above • Medium- and Long-Term (over 6 months): Suppliers that receive C or D ratings will be given regular training, and QBR meetings and discussions will be arranged quarterly until improvement has been made.
Overall Performance	All suppliers have received B rating or above in the 2019 assessment.
Corresponding Material Topics	Raw material management
Significance	To increase material turnover and reduce idle materials and scrap through regularly reviewing and discussing the reasonableness of inventory and material use, thereby increasing the Corporation's competitiveness.
Policy and Commitment	The Corporation is committed to optimizing material use and to introducing the 3Rs of circular economy, namely Reduce, Reuse, and Recycle, to fulfill its social responsibilities.
Responsibilities	Materials Department
Resources	Convene monthly review and improvement meetings; NT\$248 thousand has been invested.
Action	<ul style="list-style-type: none"> • Conduct Plan-Do-Check-Act (PDCA) on material procurement, material use HL, and idle materials to ensure the reasonableness of material use. • Develop competitive products from the source to reduce material use per unit and procurement cost in order to reduce resource wastage.
Communication Channels	Regular monthly meetings and production line inspection and technical exchange forums from time to time
Evaluation Methods	Aperiodic factory audit is also carried out to confirm the validity of various improvement programs.

Corresponding Material Topics	Raw material management
Targets (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Short-Term (monthly): Ensure that key performance indicators (KPI) for inventory, idle stock, scrap, and competitive products are met. • Medium- and Long-Term: Regular review of items whose KPIs are not met until improvement has been made.
Overall Performance	The inventory turnover achievement rate in 2019 was 90%; the competitive product achievement rate was 100%; and the scrap achievement rate was 100%.

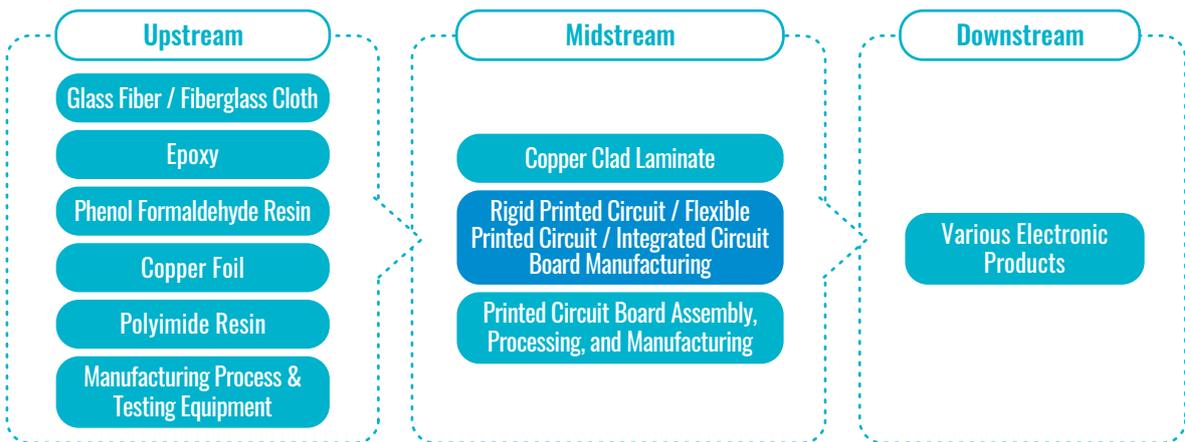
NYPCB executes procurements through “public bidding” via the Formosa Plastics Group’s online platform, where suppliers can request quotes and make offers, place orders, and make deliveries.

The Company considers its suppliers as important partners, and therefore, it strives to facilitate long-term cooperation with them to establish a stable and sustainable supply chain. Except to ensure the supplied product quality, delivery time, and price, the Company shall also urge the environmental protection, safety and sanitation improvement, emphasis on human rights, to jointly perform the corporate social responsibility, and require the supplier signing the

“Letter of Commitment of Supplier of Formosa Plastics Group for Corporate Social Responsibility”, and make the risk management and business continuity plan.

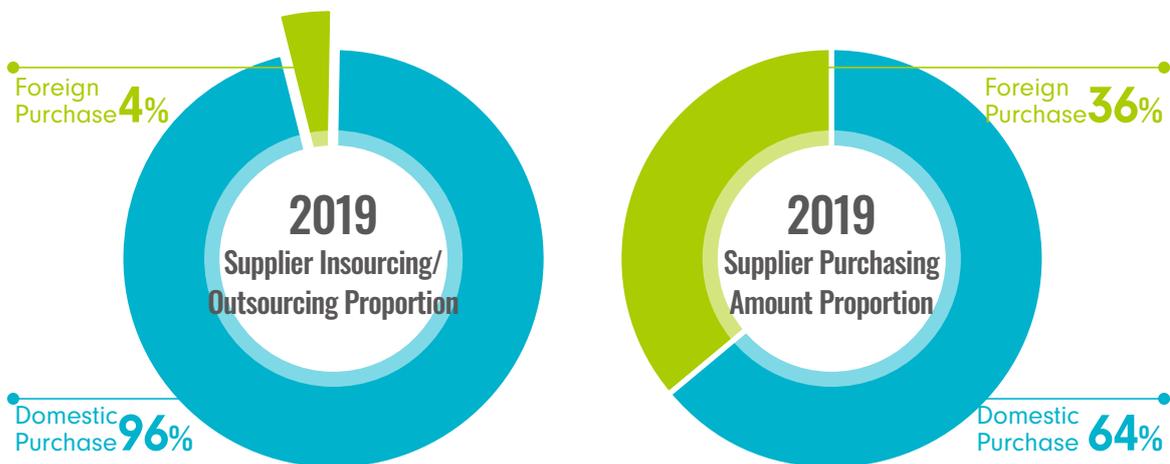
NYPCB positively implements and practices material purchasing localization in order to reduce unnecessary air transportation and ocean freight costs as well as the related carbon footprint generated from transportation. The local raw material purchasing rate increased from 43.0% in 2017 to 62% in 2018, up to 64% in 2019. (note: the raw materials for primary customers’ appointed high-level products are still imported from abroad).

▼ Organization of Supply Chain



Note: Among the company products that use raw materials from the upstream supply chain, copper foil accounted for about 30% of the volume, build up film accounted for about 10-15% of the volume, and the rest belongs to related chemicals and consumables.

▼ Supplier Insourcing and Outsourcing, Purchasing Amount Proportion



A. Quarterly Operation Evaluations

Before introducing new materials and developing corresponding products, NYPCB evaluates its operations with the senior management of key suppliers every month and discusses the supplier's performance with regard to technology (T), quality (Q), response (R), delivery (D), costs (C), environment (E), and finance (F). Meanwhile, new suppliers are also required to receive ISO9000 or ISO14000 certificates. The company evaluates suppliers through these qualities and requires that they make continuous improvements to meet NYPCB's supplier requirements. The suppliers are evaluated and published in quarterly evaluation reports every year, which leads to the replacement of unsuitable suppliers and ensures maintenance of long-term partnerships with outstanding suppliers. Suppliers are required to make improvements based on NYPCB's evaluation reports and are regularly audited by the Company to ensure that necessary improvements have been made. The reports are reviewed by the procurement department for future reference.

B. Management System Certification

NYPCB requires that its raw materials suppliers follow the TS 16949 standard. Suppliers are also required to achieve ISO 9001 and other international certifications.

C. Evaluation

NYPCB visits its major suppliers every year according to its annual plan and review supplier quality. As a result, suppliers are required to make improvements if non-compliances are found. The suppliers would be given a clear schedule and target to make improvements.

In accordance with RBA audit standards, the audit rate of the past two years has been greater than 80%. The Company listed 17 significant manufacturers for auditing in 2019, of which a 94% audit rate was achieved. In addition, all audit shortfalls have been successfully addressed

The company regularly audits and evaluates its suppliers and requests its suppliers to comply with RBA requirements and other relevant environmental regulations, as well as to carry out self-assessments and on-site audits. On-site audits emphasize quality systems, human rights and working conditions, environmental safety, green partnerships, etc. of actual operation status. Any of the aforementioned issues that do not meet the established criteria will be asked to create an improvement plan. The company will also provide suppliers with necessary assistance in order to promote corporate social responsibility.

D. Suppliers and labor rights

The Responsible Business Alliance has been promoting labor rights in the electronic industry and suppliers in recent years. NYPCB has adopted the RBA Code of Conduct and requires its suppliers to meet the code's requirements in environmental protection, health and safety, labor rights, and labor conditions.

E. Conflict minerals management

NYPCB requests its suppliers to promise not to use mineral and metals mined from conflict zones. Suppliers must disclose the information of its smelters to obtain a new material certificate prior to commencement of supply. Suppliers who do not provide complete information or work with illegal smelters shall be replaced. Smelters are encouraged to participate in the Conflict-Free Smelter Program (CFS) as a way of achieving third party certification.

F. AEO (Authorized Economic Operator) Supply chain management

The Company applied for AEO certification from Customs Administration in order to ensure that the supply chain environment of the Company can swiftly pass through customs during trading operations, thus providing customers with rapid delivery. The Company became an official AEO member on December 20, 2013.

(2) Contractor Management

Corresponding Material Topics	Contractor management
Significance	A safe construction environment free from concern should be provided, and construction should be completed on time to ensure the sustainable development of the Corporation.
Policy and Commitment	Relevant occupational safety and environmental protection laws should be complied with to ensure the safety of contractors during construction.
Responsibilities	Engineering Department
Resources	Education and training are carried out by the occupational safety personnel; safety protection is examined by supervisors and guards; factory entrance control is examined and controlled by supervisors and guards; punishment regarding occupational safety is executed by supervisors and the occupational safety personnel; safety inspection is carried out by the first-level (deputy) supervisors and the occupational safety personnel on shifts.
Action	Hold coordination meetings for the run-up to construction, sign the safety notice of the construction site daily, conduct safety analysis of the construction site by the person in charge of the contractor before a construction starts, and carry out safety promotion for the construction personnel with a signature confirmation.
Communication Channels	Monthly security agreement organization meetings with contractors, implementation of daily pre-construction toolbox meetings, monthly indoor toolbox meetings, and the promotion of safety, quality, and legal regulations.
Evaluation Methods	Supervision and management of the construction personnel of contractors
Targets (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Short-Term (within 3 years): To implement education and training of corporate safety and health, and the update of environmental protection laws and regulations for vendors' occupational safety and health management personnel. • Medium- and Long-Term (3-7 years): To encourage contractors' construction personnel to obtain licenses through certification in line with corporate rules and policies.
Overall Performance	Zero work injuries of contractors; the number of cases about vendors' work-related injuries, work suspended due to the violation of environmental regulations, or penalties imposed by government agencies: From 2014 to 2019: 0 cases.

A. Corporate Social Responsibility of Suppliers and Contractors

Based on Formosa Plastics Group's (FPG) firm belief in sustainable management and the principle of fair trade, transacting vendors are also required to comply with environmental protection, labor safety, and human rights. For transacting vendors to truly understand and to participate in the Corporation's continuous efforts in promoting corporate social responsibilities, "Letter of Commitment of Supplier/Contractor to Corporate Social Responsibility" and "Supplier/Contractor CSR Survey" have been gradually formulated since October 1, 2019, and vendors are required to sign and to respond to the aforementioned documents and to abide by relevant rules upon registering on the Formosa Technology E-market Place or after an order has been placed. The response rate of the Letter of Commitment in 2019 was 86.6%, while the response rate of the CSR Survey was 50%.

B. Vendor Evaluation

Based on the responses in "Letter of Commitment of Supplier/Contractor to Corporate Social Responsibility" and "Supplier/Contractor CSR Survey" that were newly formulated in 2019, the Corporation will arrange for vendor evaluations in 2020 to ensure that transacting vendors have fulfilled relevant social responsibilities as requested.

C. Contractor Management Ranking System

To reinforce safety management, control the quality of contractors, improve contractors' occupational safety standards, and prevent their employees from injuries, the Company implemented a ranking system for contractor management.

The general management office bidding & contracting center is responsible for collecting information about contractors and inspecting their workshops, equipment and workplace safety measures, techniques, etc. Contracted projects are used to rate their capabilities and performances according to three levels: A, B, and C. The cost of safety and health management is also included as a compulsory item when the engineering budget department sets its budgets.

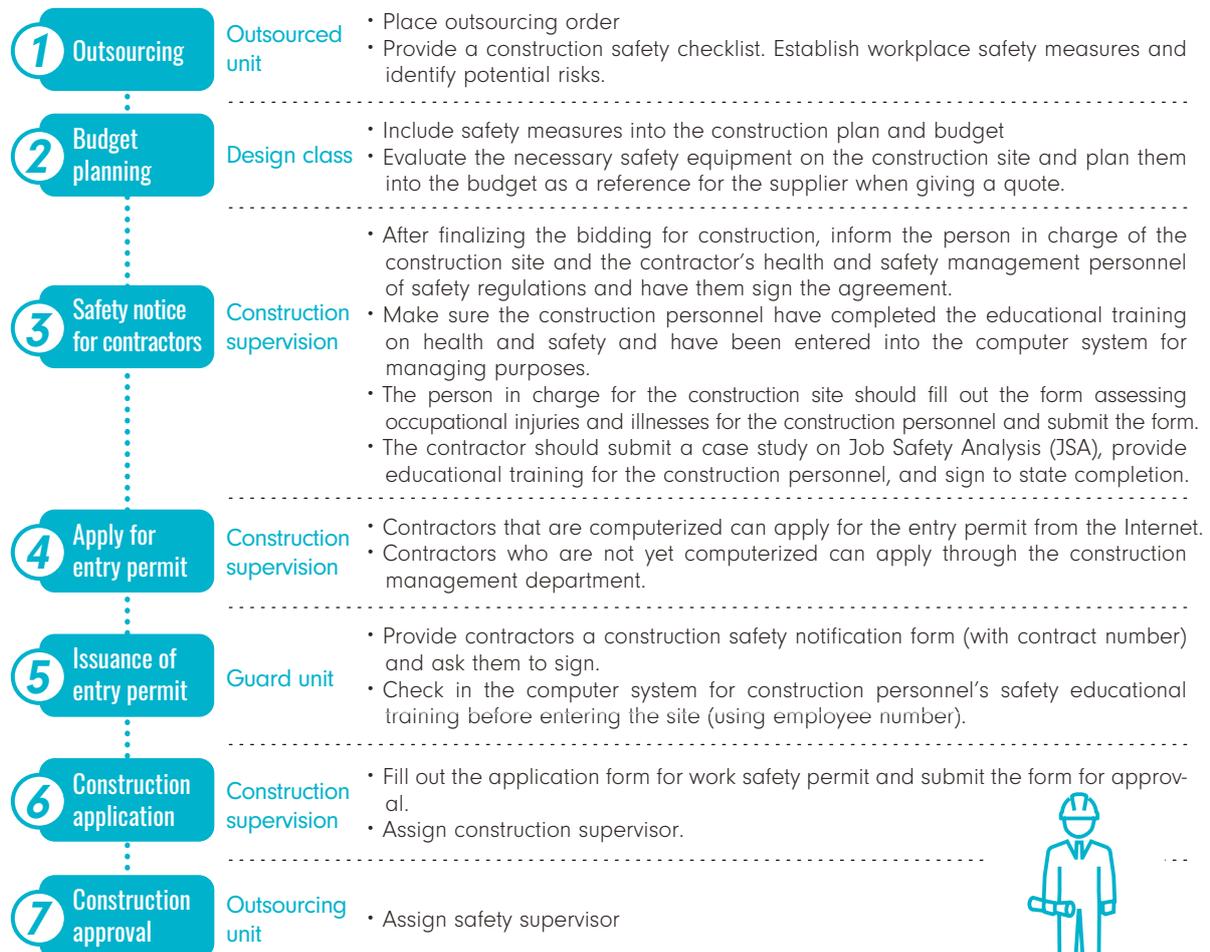
Contractors must make a list of equipment they will use to ensure safety and maintain health. The list will be included in their contracts with the Company to ensure the costs will be included in the budget. To avoid the possibility of the budget department's overlooking the health and safety management costs, the Company's computer system monitoring and controlling budget planning would automatically include the health and safety management costs. When the bidding and contracting center makes a price inquiry, the cost of health and safety management cannot be lower than the budget. This is to prevent contractors from sacrificing health and safety management for the sake of winning a bid.

(3) Contractor Safety Management

The Corporation believes that all work-related injuries and occupational diseases could be prevented. Contractors are NYPCB's partners at work, and managers are responsible for providing a safe construction environment where contractors can be assured of their safety at work. Furthermore, as accidents are mostly related to human errors, to ensure the occupational safety of all partners, in recent years, the Corporation has been reinforcing contractors' safety training, promoting various contractor safety management mechanisms, and organizing seminars so as to foster a safety-first mind-set and habit in contractors at work. In 2019, NYPCB has trained a total of 1,518 contracted personnel.

On top of implementing continuous training to educate contractors on relevant safety management, FPG believes it is more crucial for contractors to be aware of self-initiated management to prevent accidents at the construction site. To promote contractors to put management into practice, contractors are required to abide by the Occupational Safety and Health Act and other applicable laws and occupational safety and health organizations shall be established. In addition, one to five dedicated occupational safety and health management personnel with qualified licenses and necessary qualifications are required to be appointed by the contractors for each construction project. The dedicated personnel are required to implement safety and health management activities at the construction site to ensure workplace safety and environmental health.

A. Prior to the construction



B. During construction

1 On-site machinery and equipment inspection	Construction supervisor or construction safety personnel	<ul style="list-style-type: none"> • Inspect hazardous equipment. • Inspect electronic machinery. 	
2 Daily toolbox meeting	Construction supervision	<ul style="list-style-type: none"> • Promote construction safety. 	
3 Supervise and control of construction safety	Safety supervisor	<ul style="list-style-type: none"> • Inspect and supervise safety facilities and devices during construction. • Prohibit construction in unapproved areas and control entry. 	
	Factory construction safety personnel	<ul style="list-style-type: none"> • Daily spot check on safety facilities and devices for construction sites and construction staff. 	
	Construction supervision	<ul style="list-style-type: none"> • Inspect and supervise safety facilities and devices before, during, and after construction. 	

C. After construction

1 Confirm after construction	Outsourcing unit	<ul style="list-style-type: none"> • Make sure the working area is cleaned. • Make sure industrial waste is properly disposed. 	
	Construction supervision	<ul style="list-style-type: none"> • Check on the daily attendance of every construction staff. 	

(4) Training Safety Supervisors

To ensure safety during construction, the Corporation has assigned dedicated safety supervisors for all construction work throughout all plants on top of adhering to all applicable laws and regulations. The dedicated position is set up to remind vendors of construction safety at all times and to improve their safety awareness. In addition, the safety supervisors also assist contractors and suppliers in voluntary safety management before, during, and after construction, thereby actively maintaining the safety of contractors and construction processes.

To ensure the performance of safety supervisors and that contractors are being effectively educated, professional knowledge and hazard identification skills training courses have been offered to safety supervisors since 2011. The professional competencies of the safety supervisors are strengthened through a combination of in-class training and practical hands-on training. Currently, the training has been offered to 231 persons.



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ENVIRONMENTAL SUSTAINABILITY



▼ Identified Material Aspects and Management Approach

Corresponding Material Topics	Water use and wastewater discharge management, air pollutant management, waste management, \ and greenhouse gas emissions management
Significance	<ul style="list-style-type: none"> • Water use and wastewater discharge management: This represents the level of attention an enterprise pays to resource utilization and the reduction of the impact of wastewater on the environment. • Air pollution control: This means to reduce substances that directly or indirectly impair human health or the living environment. • Waste management: This means to reduce waste and make the most effective use of resources and materials • Greenhouse gas emission management: This means to lower electricity consumption and reduce greenhouse gas emissions.
Policy and Commitment	To cherish resources, eliminate pollution, and reduce waste. To implement safety and health control to prevent hazards. To comply with regulations and standards. To consult and communicate with neighbors for building good relationship. To understand responsibilities and respond to risks. To trace the root and cause of a problem, and continue to improve.
Responsibilities	Safety and Health Environment Team
Resources	<ul style="list-style-type: none"> • Manpower: Safety and Health Environment Team, the Safety and Health personnel in each factory and division.
Action	<ul style="list-style-type: none"> • Integrate regulation requirements and corporate management policies to set up an environmental management system which is in line with the clauses prescribed in the ISO14001 Standard. • Promote wastewater census and re-classify wastewater for pipeline adjustment in order to improve the overall effectiveness of wastewater treatment. • Set up an instant text notification system for informing about abnormal pH level in the water tank.
Communication Channel	<ul style="list-style-type: none"> • Participate in government sessions with regard to environmental protection • Participate in the circuit board association and share and learn information related to system management technology with other industrial members.
Evaluation Method	<ul style="list-style-type: none"> • Corrections made to be in line with government regulations and customer requirements. • Inspection made in accordance with the Nan Ya Printed Circuit Board Corporation's environment concern and assessment performed in accordance with regulations regarding environmental impact assessment procedures.
Target (Short/Medium/Long Term)	<ul style="list-style-type: none"> • Short-term (within 3 years): To achieve the rate of passing the audit of competent authority at 100%. • Medium and long term (3~7 years): <ol style="list-style-type: none"> (1) To comply with all government environmental regulations and customer requirements. (2) Zero fine of violation of environmental regulations. (3) To improve management systems and facilities towards the direction of sustainable development of the Corporation.
Overall Performance	2019: Zero safety and environmental accidents

3.1 Commitments to Environmental Sustainability

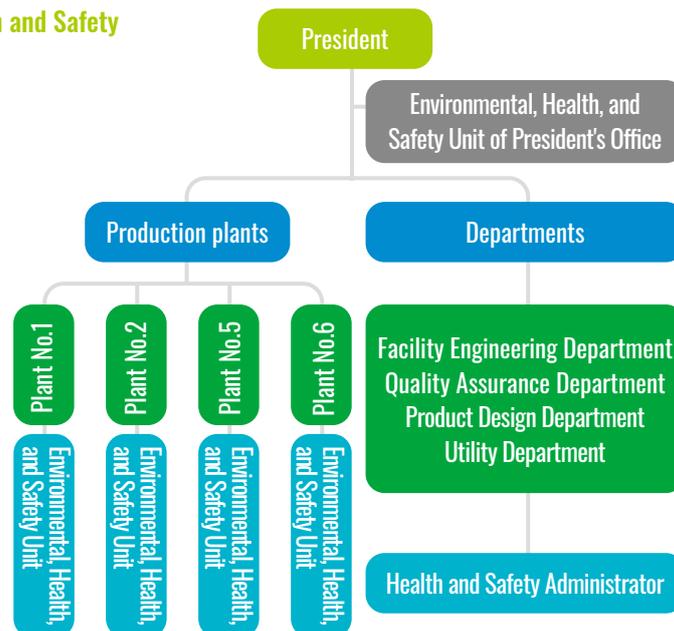
(1) Environmental Protection Policy

NYPCB is aware of the importance of the environment for human beings. It believes the environment is as important as the economy, and has actively participated in and promoted various environmental protection programs. Measures such as procurement of green raw materials, green product design, production process improvements, factory management, the process of packaging and shipments, and so on have been implemented. Through setting up performance evaluation indicators, annual targets, and a strict monitoring system on energy and resources consumption, NYPCB has continuously made improvements and upheld its founder's philosophy to strive for good deeds and perfection. To fulfill social responsibility, control risks, reduce energy consumption and emission, and protection of the environment, NYPCB has established the following environmental, safety and health policies:

A. Organization Chart and Responsibility of the EHS Unit

To ensure safe, healthy, and environmentally friendly management and sustainable development, the Company has established a EHS unit that reports directly to the President's Office. In 2009, the EHS unit was evaluated by the Council of Labor Affairs (Executive Yuan) as the first-tier Labor EHS Management Unit. On the other hand, the general manager is responsible for integrating and stipulating company policies and standard operating procedures, while providing relevant services to external parties. Each plant has established an environment and safety department responsible for the plant's internal safety, sanitation, and promotion of environmental protection through the monthly "safety and sanitation management meeting", monthly "environmental protection and energy saving meeting", quarterly "safety and sanitation committee meeting" (the required rate of labor representatives is at least 1/3 and we have reached 47%), and the annual "EHS Management Review Meeting" shall be held to discuss and review workplace safety and health, with the goal of eliminating potential accidents and hazards and achieving zero pollution.

▼ Environmental, Health and Safety Organization



B. Environmental, Health, and Safety Management System

NYPCB has strived to protect the environment and ensure the safety of employees, and promote their health. The Company has achieved the ISO 14001 certification of the environmental management system in November 1996, and passed the OHSAS 18001 assessment in 2001. Since then, NYPCB has established an EHS Management System to promote and manage the environment and occupational health and safety within the company. In 2007, the Company consulted the TOSHMS regulation and integrated it into its existing Environmental, Health, and Safety Management System. The TOSHMS certification has also been achieved, and continues to enhance its comprehensive care and management methods to its stakeholders.

NYPCB formulated the Environment, Safety, and Health Management Manual pursuant to the content of ISO 14001, OHSAS 18001, TOSHMS, and RBA, and implemented it after training to ensure that all of its employees possess the proper knowledge and skills to carry out the environment, safety, and health policies of the Company.

C. Management review operation procedure

In order to reinforce the company constitution, promote its administrative and operation capacity, establish a reasonable environment, safety, and health management system, and effectively develop activities related to environment, safety, and health targets, NYPCB continues making improvements to ensure the applicability, applicableness, and effectiveness of environment, safety, and health management.

NYPCB annually holds the "environment, safety, and health management review meeting" to review and assess the environment, safety, and health management plan of the previous year (tracking measures), the performance of target and object implementation, and target achievement degree, as well as set the annual environment, safety, and health management targets, target values, and the environment, safety, and health management plan, and the ESH team shall supervise the relevant implementation departments. We shall manage the effects of industry on the environment with strict management methods to fulfill our social responsibility and create a win-win situation.

▼ ISO 14001 Certificate (Chinese/English)



▼ OHSAS 18001 and TOSHMS Certificate (Chinese/English)



(2) NYPCB environmental protection history

NYPCB has implemented various relevant environmental protection jobs in pollution prevention, operation management, monitoring management and reporting. No violation of any environmental protection regulation has been made, nor has any major leakage that damages the environment occurred in 2019. The Company has participated in the government's environmental improvement programs, promoted waste reduction, reuse of resources, and reduced green house gas emissions. Furthermore, the Company has been developing eco-friendly products and managing them to follow the growing eco-friendly trend.

(3) Environmental problem complaint mechanism

NYPCB has set up a feedback mailbox on its global website and stipulated an external complaint and suggestion box in the public relations section, thus allowing for complaints to be delivered to the corresponding functional team for handling depending on the complaint type. The statistics show that no complaints were made regarding external environment problems of the Company in 2019.

NYPCB has also set up a mailbox on the internal website to receive employee feedback. The statistics show that no complaints were made regarding internal environment problems of the Company in 2019.



▼ Internal / External Feedback Mailbox

3.2 Environmental Accounting

NYPCB has computerized its management and operations system. To computerize its environmental management, the Company has integrated Environmental Accounting to its systems and to control relevant expenses and evaluate costs, analyze the cost effectiveness of environment protection measures, and inform stakeholders of NYPCB's contributions to environmental protection accurately and clearly.

The accounting system identifies and quantifies the impact of corporate operations on the environment as well as the cost of measures undertaken by corporate operations to alleviate, reduce or prevent their environmental impact. NYPCB adopted the accounting system in 2008, and has divided its environmental expenses into six categories per the diagram below in accordance with environmental accounting. According to the data, the Company demonstrates having the following environmental protection expenses from 2017 to 2019. In 2019, investment in environmental protection totaled NT\$189,102,000

▼ Statistics of Environmental Protection Expenses in Recent Years

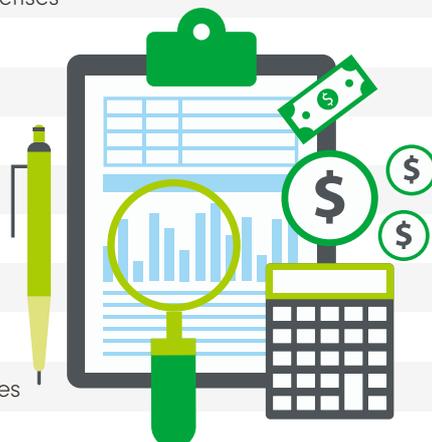


▼ Statistics of Environmental Protection Expenses in Recent Year



▼ Green Environment Code

XXXX	XXXX Non-Environmental Expenses
E111	E111 Air Pollution Control Expenses (including acid rain prevention)
E112	E112 Water Pollution Prevention and Control Expenses
E113	E113 Soil and Groundwater Pollution Prevention Expenses
E114	E114 Noise and Vibration Control Expenses
E115	E115 Land Subsidence Control Expenses
E116	E116 Toxic Substance Pollution Control Expenses
E117	E117 Soil and Water Conservation Expenses
E118	E118 Ocean Pollution Prevention Expenses
E121	E121 Mitigating Climate Change Expenses
E122	E122 Mitigating Ozone Depletion Expenses
E12Z	E12Z Other Global Environmental Protection Expenses

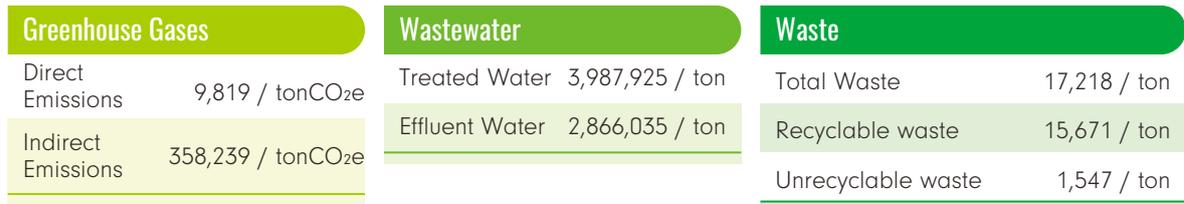
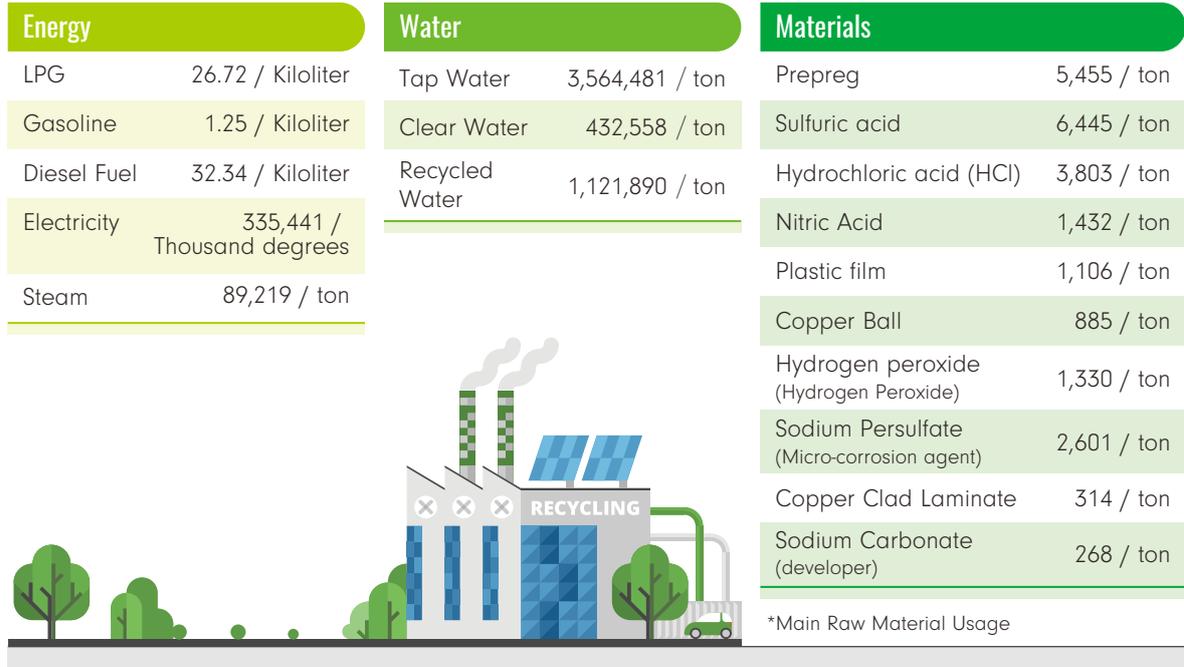


3.3 Water and energy conservation and greenhouse gas reduction

(1) Environmental Data

NYPCB's total input (raw materials and energy and water resources) and total output (greenhouse gases, air pollution wastes, and wastewater) for 2019 are shown in the following diagram.

▼ Material Analysis Flow Chart



(2) Improve energy management and reduce energy consumption

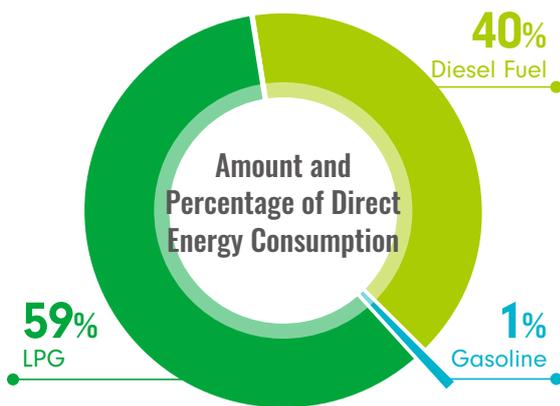
A. Energy management

Greenhouse gas emissions have become one of the most important issues on Earth. Since energy use generates carbon dioxide and causes global warming and climate change, effective management of energy use has become NYPCB's priority. The Company's energy usage includes fossil fuels, and purchased steam and electricity, we also keep track of usage.

B. Direct energy consumption

Most of the fossil fuel consumed by NYPCB in 2019 was used for the emergency power system, forklift trucks, company cars, firetrucks, and the cafeteria (kitchen). Gasoline, liquefied petroleum gas, and diesel fuel accounted for 1%, 59% and 40% total fossil fuel consumption, respectively.

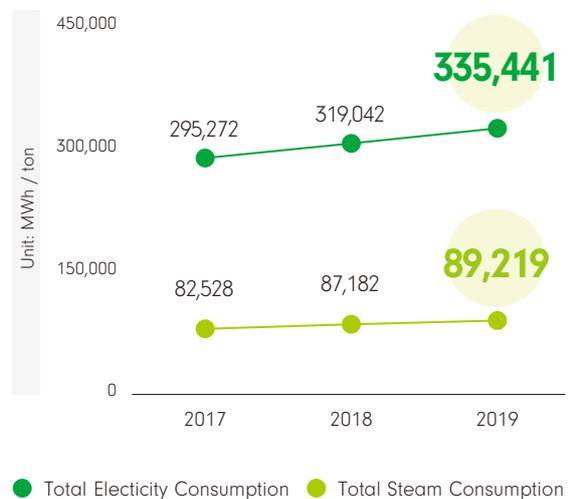
▼ Direct Energy Usage Amount and Proportion



C. Indirect energy consumption

NYPCB's production focuses on printed circuit boards, which are mostly powered by purchased electricity and steam. The two energy sources are also the biggest source of the Company's greenhouse gas emissions (over 98 percentage in 2019) and are purchased from Nan Ya Plastics Corporation's Jing Hsin and Sulin plants.

▼ Out-purchased Electric Power and Steam Usage Statistics in Recent Year



D. Reduce energy consumption

NYPCB has strived to reduce energy costs and increase energy efficiency. Annual environmental management targets and incentives have been established to encourage employees to review and improve the efficiency of their energy usage. In addition, an energy management unit has been established to manage and implement measures, as well as hold monthly energy management meetings to examine whether employees have reduced their energy usage or not.

In 2019 the Company completed a total of **46** energy saving projects, with a daily reduction of **11,194** kilowatt hours and an annual benefit of NT\$ **9,712,000**.



▼ Environmental management targets in 2019

Type	Items	2019 Target	2019 Actual value	2019 Completion rate	Description
Water conservation	Water consumption per unit of output (ton/NT\$ million)	124.5	128.5	96.78	Reduced by 2% per year based on actual usage in the previous year.
	Effluent recycle ratio	27.9	28.1	100	Increase by 1% per year based on the actual recovery rate for the previous year.
Energy conservation	Greenhouse gas emissions per unit of output (ton/NT\$ million)	11.46	11.8	97	Reduced by 2% per year based on actual emissions in the previous year.
Waste reduction	Waste produced per unit of output (kg/NT\$ million)	48.9	49.7	98	Decrease by 1% per year based on the actual amount generated in the previous year

Note 1: Recovery rate of discharged wastewater = (recovered volume) / (discharged water volume + recovered volume)

Note 2: The second coefficient of greenhouse gas emissions refers to the electricity emission coefficient of Nanya Plastics Utility Factory: 0.9480257508 metric tons of CO₂/thousand degrees

Vapor emission factor: 0.3238513839 metric tons CO₂/metric ton

Note 3: The output value is calculated based on the combined revenue value

Note 4: Water consumption per unit output value (tons/million NTD) is not up to standard because the production expansion is moved to a new machine for testing.

Note 5: The amount of unrecycled waste generated per unit output value (kg/million NTD) is not up to the standard due to the expansion of the plant and equipment, which leads to an increase in waste.

▼ Power saving implementation completed in 2019

Item	Improvement	Energy saving amount (KWH/day)	CO ₂ restraint amount (ton CO ₂ /year)	Improved benefit (NTD 1,000/ year)
1	Processing energy use reduction	50	17	43
2	Energy management	1,688	576	1,465
3	Public utility efficiency promotion	9,456	3,227	8,204
Total		11,194	3,821	9,712

Note: The improved benefit is determined after deducting the improvement equipment investment cost.

(3) Water resource management and water conservation

A. Water resource management

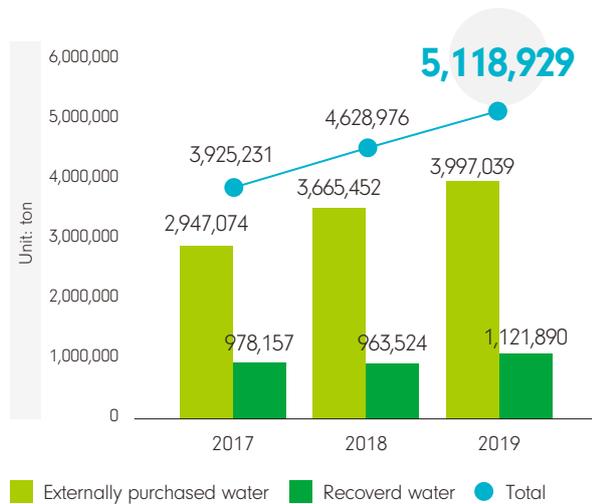
The Company's plant uses water categorized as processing water, whose main sources include tap water, recycled water, and other externally purchased water, but no underground water. Since NYPCB does not use groundwater, it has strived to reduce water consumption by reducing water used during production and recycle the water used in cleaning during production process. The Company has also invested heavily on an effluent recycling and treatment system, and has reduced wastewater in all of its plants. Recycled water that is neutral or alkaline is reused in pollution prevention. Purified recycled water is directly reused by plants and stored at pure water storage reservoirs to reduce water recharge. Water-saving devices have also been installed on the faucets in offices to reduce office water use and cultivate water-saving culture.



NYPCB has established policies to mitigate impact from potential short-term, mid-term, and long-term drought, and to respond to insufficient water supplies, water price hikes, and water conflicts with stakeholders. Water-saving measures have been implemented to reduce consumption and secure water supply. As a result, costs associated with purchased water have reduced in recent years.

- Water conservation**
 - Reduce water consumption during production
 - Reduce office water use
- Increase water sources**
 - Recycle wastewater and purify water
 - Recycle alkaline waste water and reuse it on acidic scrubbers
 - Recycle waste water that is neutral and reuse it for toilet flushing

Water Consumption Statistics in Recent Years



Note: Externally purchased water is provided by the Jinxing Plant of Nan Ya Plastics.

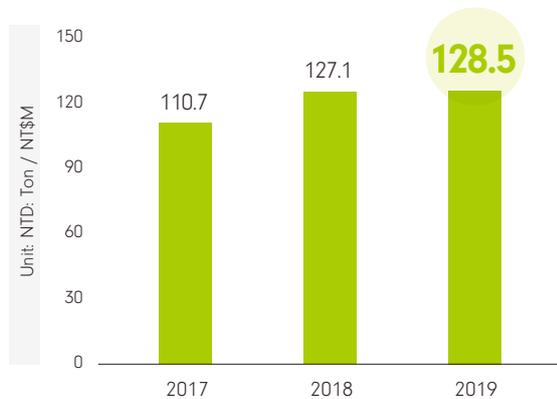
B. Water conservation policies yield positive results

In 2019, the Company continued to promote water saving improvement measures and completed a total of 13 water consumption deduction projects throughout the year, amounting to a daily reduction of 146 tons and an annual benefit of NT\$ 820,000.

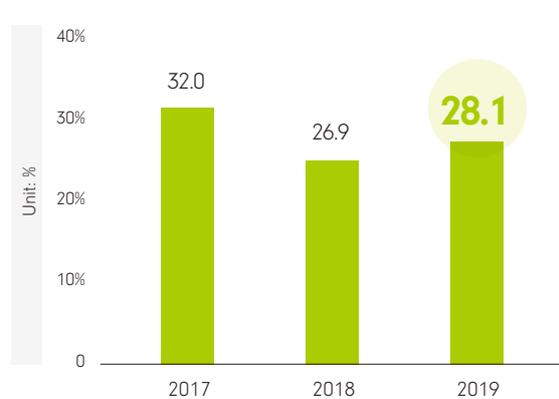
Completed water saving improvement activities in 2019

Item	Improvement	Water consumption saved amount (ton/day)	Improved benefit (NTD 1,000/ year)
1	Waste water recovery and reuse	3	12
2	Processing water consumption deduction	143	808

Trend Chart of Water Consumption of Unit Output Value



Discharged Wastewater Recovery Rate Trend Chart

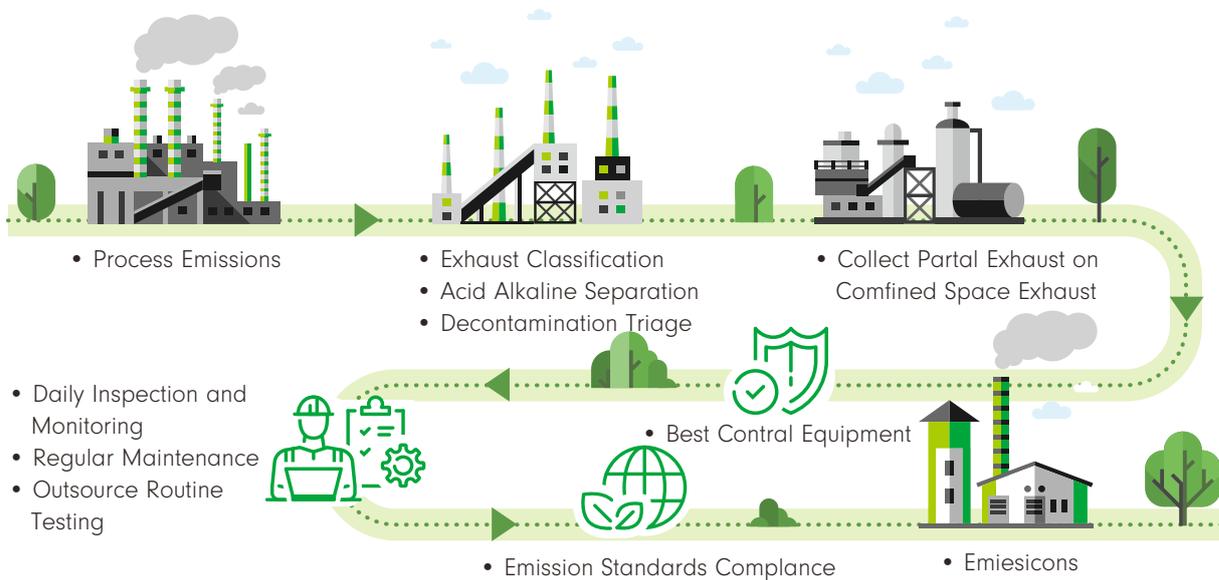


3.4 Protect the environment around plants

(1) Air pollution prevention

The main source of air pollutants generated in NYPCB's plant came from the use of neutral, acidic, alkaline chemicals and volatile organic compounds during production processes. These chemicals have been separated by collecting exhausts during the processes. Specific equipment such as scrubbers, bag filters, and activated carbon towers has been installed to handle each type of exhaust. To enhance air quality and eliminate odors around the plant, NYPCB purchased a UV-C reactor and VOC treatment system in 2011, pH monitoring alarm systems for packed towers in 2012 and a high notification frequency continuous pH monitor facility for packed towers to increase the efficiency of exhaust reduction. The Company also ensures the equipment are maintained regularly so that they can effectively prevent pollution per the following chart. If new equipment is installed or if existing equipment is upgraded, NYPCB has Environmental Protection Administration-certified companies to test air pollutants in their stacks to make sure air pollution prevention is effective. Past test results show NYPCB's air pollutant emissions are far lower than national emission standards.

▼ Exhaust Pollution Prevention Process Emissions Flowchart



▼ Air Pollution Control Equipment



Scrubber



Bag Filter



UVC Reaction Tower



Activated Carbon Adsorption Tower

(2) Water pollution prevention

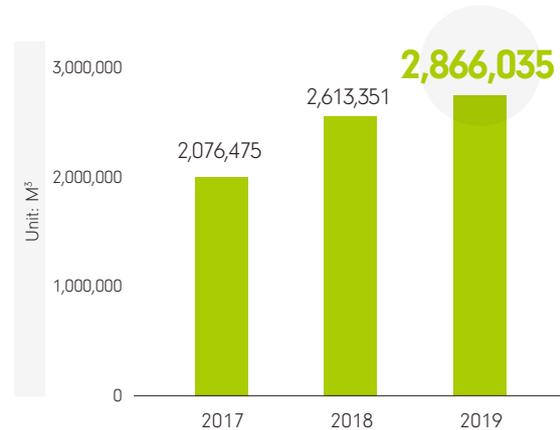
NYPCB considered the characteristics of wastewater and the stability and accessibility of wastewater treatment when designing its wastewater treatment procedures and facilities. A comprehensive treatment process, treatment facilities, and wastewater piping system were designed for production lines to effectively treat, recycle, and purify wastewater. Wastewater is stringently and immediately categorized when produced by production equipment and machinery. The water is collected through distribution channels and sent to specific water treatment facilities. The Company tests effluents daily to ensure that the quality of treated water is far lower than national standards. Due to the long-term drought that persisted in the first half of 2015, water restrictions were enacted in Taoyuan District from March to May. With the restricted water supply, the Company internally agreed to postpone the annual repair and maintenance of its wastewater purification and recycling system. Through system overloading operations, the wastewater recycling rate was increased while wastewater effluent was decreased in order to reduce the overall wastewater discharge.

The company's factories are located in or near class B industrial land set aside for industrial purpose only

and thus are not within any ecological protection zones. NYPCB pledges to persistently improve its production processes and equipment to reduce wastewater discharge and enhance wastewater treatment to reduce its impact on the environment.

The increase in wastewater discharge in 2019 compared to 2018 was due to the expansion of the plant process area and the increase in process water consumption.

▼ Statistics of wastewater discharge over the years



Item Plant	Factory location	Drinking Water source and water conservation area	Dams and reservoirs	National parks	Wildlife conservation areas	Nature reserve	Protected coastline zone
Jing Hsin plant	Downstream sections of Nankang River	X	X	X	X	X	X
Shu Lin plant	Downstream sections of Dahan River	X	X	X	X	X	X

Note: 「X」 :the company is not in the above protected area.

▼ 2019 Wastewater quality evaluation results

廠區	Test Item	Unit	Regulations and Standards	Test Results			Does the Sample Comply with Water Quality Standards?
				Minimum	Average	Maximum	
Jing Hsin No. 1 Wastewater Treatment Plant	pH	—	6~9	7.0	7.3	7.5	●
	COD	mg / L	<120	39.0	44.3	49.4	●
	Suspended Solids	mg / L	<50	2.2	5.7	10.5	●
	Copper Ions	mg / L	<3	0.3	0.4	0.7	●
Jing Hsin No. 2 Wastewater Treatment Plant	pH	—	6~9	7.3	7.6	7.9	●
	COD	mg / L	<120	13.5	23.9	40.5	●
	Suspended Solids	mg / L	<50	1.5	4.4	6.1	●
	Copper Ions	mg / L	<3	0.3	0.5	0.6	●
Shu Lin wastewater Treatment Plant	pH	—	6~9	6.4	7.25	8.1	●
	COD	mg / L	<120	26.3	57.6	88.8	●
	Suspended Solids	mg / L	<50	1.7	19.85	38	●
	Copper Ions	mg / L	<3	0.23	0.31	0.39	●

▼ Photographs of Wastewater Treatment Equipment



biological

coagulation and sedimentation

chemical reaction

(3) Waste management

NYPCB has established multiple waste collection points within its plants to reduce wastes and make the best use of its resources and materials. The Company also continuously improves its production processes and operations for this purpose. For the first is reducing wastes from the beginning of the process. Second is considering reused. And the last, categorizing and renew them to recycle for the resource.

Certified Taiwanese recyclers have been commissioned to handle its wastes, which are mostly treated at certified waste treatment plants in Taiwan. Only a few of them have been treated abroad. Regarding domestic waste management contractors, the company follows up the hired contractor to ensure that they properly manage the waste. Those that have been transported to other countries have obtained legal permission from those countries and treated in accordance with local laws.

▼ Waste Treatment Methods and Quantity

Treatment Methods	General Business Waste		Hazardous Business Waste		Total	
	weight (Tons)	Percentage (%)	weight (Tons)	Percentage (%)	weight (Tons)	Percentage (%)
Incineration	1,483	8.6%	63	0.4%	1,547	9.0%
Landfill	0	0.0%	0	0.0%	0	0.0%
Recycling	3,046	17.7%	12,625	73.7%	15,671	91.0%
Total	4,529	26.3%	12,688	73.7%	17,218	100%

In terms of the effectiveness of resource recovery, after continuous promotion of relevant waste reduction measures, the company's unit output value of unrecovered waste generation (unrecovered: refers to the annual waste generated by incineration and landfill treatment), the achievement rate in 2019 was 98 % (Reduction of 1% per year based on the actual emissions of the previous year), mainly due to the expansion of factory buildings and machines, resulting in increased waste. In the future, we will continue to implement various waste reduction and resource reuse measures, and strive towards the goal of reducing the amount of waste generated.

▼ Non-recycled Waste Disposal per Unit Of Product



▼ Wastes categorizing and collecting



(4) Examination and reduction of greenhouse gas emission

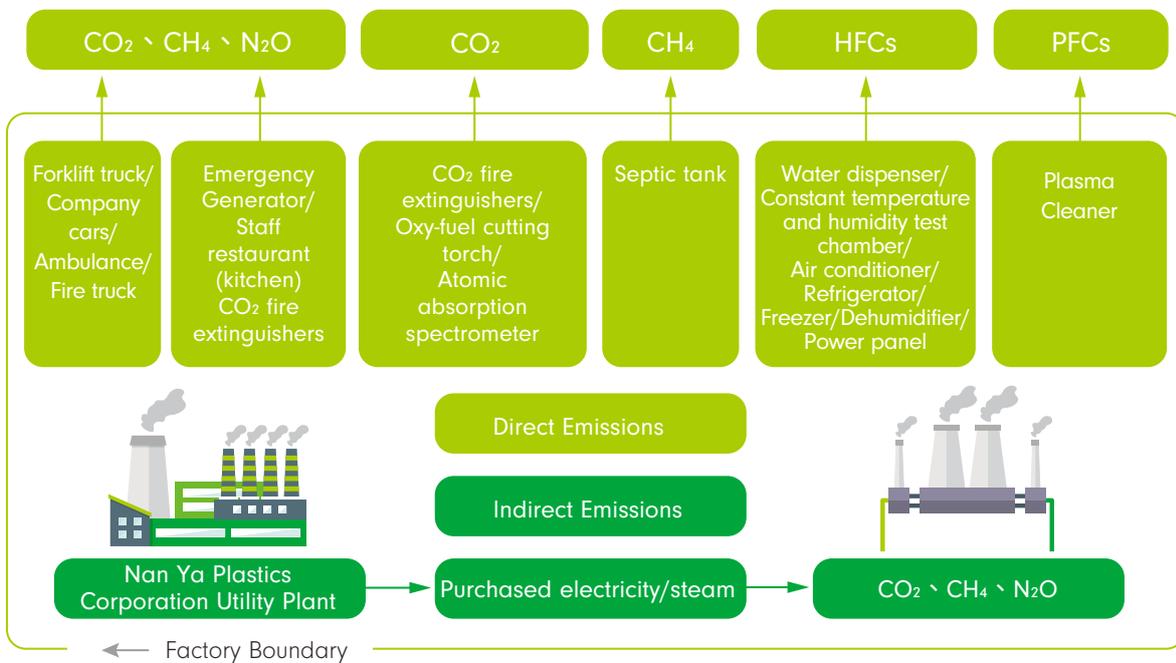
Global warming and climate change have become a key obstacle for sustainable development. Increase of greenhouse gases raises temperatures around the world and causes abnormal climate changes and unpredictable impact on the environment. NYPCB has recognized the importance of these issues and has conducted comprehensive examinations and evaluation of its greenhouse gas emissions since 2005 in accordance with the principles of ISO 14064-1 to reduce its greenhouse gas emissions and achieve sustainable development. As an electronic processing industry, over 95% of NYPCB's greenhouse gas emissions were generated by the indirect discharge of its purchased electricity. Reducing electricity consumption thereby is the most effective way to reduce greenhouse gas emissions. The Company also adopted the Plan-Do-Check-Act management model to improve its facilities and reduce its emissions continuously and increase competitiveness.

A. Evaluation

The main source of greenhouse gas emitted by NYPCB came from indirect discharge of electricity use at its plants. To reduce greenhouse gas emissions, alleviate global warming, and fulfill its responsibilities as a global citizen and abide by the Kyoto Protocol that became effective in 2005, the Company has planned and promoted the reduction of greenhouse gas emissions and controlled its greenhouse gas source. It has also set reduction targets based on the plan every year, implemented measures to reduce energy consumption, and reviewed the results on a monthly basis. NYPCB also inspects the amount and quality of its direct and indirect greenhouse gas emissions (Scope 1 and 2) in accordance with the ISO 14064-1 standard. Scope 3 is only examined for its quality since it involves employee transportation between home and work and for business. NYPCB has also established a ridesharing system for business trips, encouraging the use of video conferencing and production support to reduce the exhaust generated from the vehicles employees used for transporting goods or commuting.

Note: Scope 3 refers to the exhaust generated by employee commuting and business trips, outsourced waste treatment, and contractor vehicles.

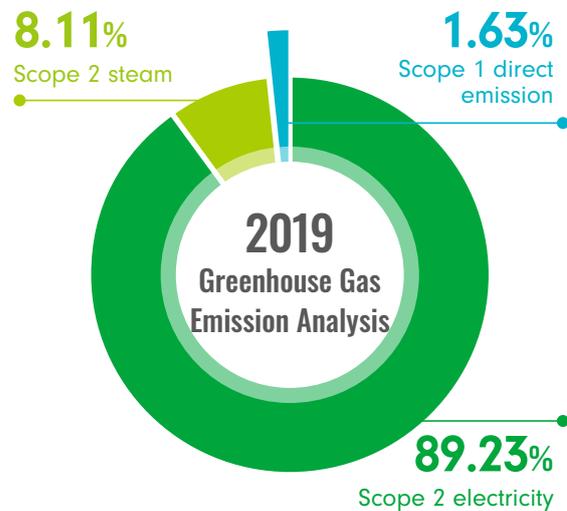
▼ Diagram of Greenhouse Gas Emission Category



B. Emission analysis

According to ISO 14064-1 standards, the total GHG emissions of the entire Company in 2019 totaled 368,058.3045 tons of CO₂e, of which 9,819.0262 tons of CO₂e were Scope 1, occupying 2.67% of total emissions, and 358,239.2783 tons of CO₂e were Scope 2, occupying 97.33% of total emissions. The emissions load statistic data is calculated based on the coefficient of 2018, and it is estimated that the emission load statistic data will be verified by a third-party external verification organization before July 2019. As shown in the following table, out-purchased electric power and steam utilization is the main emission source, and the electric power and steam used in NYPCB are purchased from NPC Jingxing Plant . Therefore, in order to effectively restrict CO₂e, the Company should start by saving electric power.

The company's total greenhouse gas emissions (tons/year) in 2019 increased by 4% compared to 2018, mainly due to increased production, resulting in increased steam and electricity use, resulting in increased greenhouse gas emissions.



Note 1: In the base year of 2011, emissions were 392,442 tons.
 Note 2: The greenhouse gas emission coefficient refers to version 6.0.4 of the Greenhouse Gas Emission Coefficient Management Table of the Environmental Protection Agency, and the global warming potential coefficient refers to the fourth assessment report of IPCC.

▼ Total Greenhouse Gas Emissions in Recent Years



▼ Greenhouse Gas Emission Trend Chart of the Unit Output Value



The company's unit output value of greenhouse gas emissions (ton / million Taiwan dollars) increased by 0.8% compared to 2018 (based on the actual annual emissions of the previous year as a benchmark of 2% reduction), we will continue to promote energy-saving improvement measures in the future, Efforts to improve energy efficiency and reduce greenhouse gas emissions.

(5) Toxicity and concern chemical substances management

The company's management and use of toxic and concerned chemical substances are mainly category III cyanide (potassium cyanide and sodium cyanide) and category IV toxic chemical substances, and in accordance with environmental protection regulations, the purchase/transport/use/storage/ Management and declaration are carried out at the stage of disposal. Another type of toxicity Chemical substances are acutely toxic to the human body. In particular, strict lock-up control is implemented for storage locations. Protective equipment is required to enter the storage room to reduce the chance of personnel contact. In order to effectively prevent disasters, the process is equipped with alarm equipment and emergency response is implemented regularly every year.



(6) Climate Change Risk Management

A. Climate change risk management strategies

Item	Management strategies
Promote energy and water conservation programs	Formulate energy and water conservation evaluation methods to encourage each department to submit conservation proposals through incentive/disincentive measures; internal/external positive examples are also regularly shared while evaluation and improvements are implemented across the Corporation.
Promote greenhouse gas (GHG) inventory verification	Establish an ERP information management system for greenhouse gas emissions; third-party agencies are commissioned to conduct inventory verification each year to keep greenhouse gas emissions under control.
Promote the response mechanism to climate change	Voluntarily join the Carbon Disclosure Project (CDP) rating to inspect the completeness of the Corporation's climate change response system and to establish energy conservation and carbon reduction goals to fulfill social responsibilities.

B. Identification and Response to Climate Change Risks

Dimensions	Risk and opportunity impacts	Response measures	Implementation status for 2019
	Greenhouse gas inventory	<ul style="list-style-type: none"> Promote greenhouse gas inventory and outsource related verification to British Standards Institution (BSI) Voluntarily participate in CDP rating 	<ul style="list-style-type: none"> Passed GHG inventory verification First PCB company in Taiwan to make the A- Leadership List recognized by CDP
Regulations	Renewable Energy Development Act	<ul style="list-style-type: none"> Short-Term: NYPCB does not purchase electricity from Taipower and is thereby exempted from the first batch of controlled targets. Long-Term: NYPCB will either apply for and purchase renewable energy certificate or to pay relevant fees after becoming a controlled target 	<ul style="list-style-type: none"> Promoted energy conservation measures and enhanced power usage effectiveness (PUE)
Natural disasters	Extreme weather (typhoons or droughts) leading to reduced or suspended production	<ul style="list-style-type: none"> Establish a typhoon emergency response team Establish a water consumption plan and control measures 	<ul style="list-style-type: none"> Established the typhoon emergency response team and business continuity plan (BCP) to enhance responsiveness Promoted water conservation measures and reduced consumption of externally-procured water
Others	Respond to market demand for green products	<ul style="list-style-type: none"> Establish a hazardous substance management system Promote Green Partner verification 	<ul style="list-style-type: none"> Received Green Partner certification from clients

(7) Green supply chain

NYPCB takes client health and safety seriously at every stages, from the procurement of raw materials to the sale of products. In order to meet the demands of both market trends and downstream customers, the company is moving towards manufacturing non-toxic green products that conform to EU RoHS regulations. NYPCB has also met the requirements of product statement and third party assessment report from the top 20 suppliers in order to ensure that new generation circuit boards are used in green appliances, thus further reducing the environmental burden.

A. Management of green products

NYPCB introduced a hazardous material management system in 2001, and has been promoting the concept and certification of Green Partners. The Company has since conducted internal audits for this purpose. To promote the concept of Green Partners, the Company established a Green Partner standard procedure and began implementing waste reduction plans and developing a hazardous materials management system in 2004, and regularly reviewed their enforcement.

- 2001 - Introduced the concept of Green Partners and defined hazardous materials.
- 2004 - Established Green Partner SOP and updated relevant information.
- 2005 - Achieved Green Partner certification. (2005-2007)
- 2006 - The EU established Restricted of Hazardous Substances (RoHS) Directive
- 2008 - Achieved Green Partner certification. (2008-2010)
- 2009 - Developed and adapted a RoHS management system
- 2010 - Achieved Green Partner certification. (2010-2012)
- 2011 - Installed x-ray fluorescence devices to detect hazardous materials in products
- 2012 - Achieved Green Partner certification. (2012-2014)
- 2013 - The company passed the RBA Audit Standards (Product Content).
- 2014 - Achieved Green Partner certification. (2012-2014)
- 2015 - The company passed the RBA Audit Standards (2015-2017).
- 2016 - Achieved Green Partner certification. (2016-2018)
- 2018 - Achieved Green Partner certification (2018-2020)
- 2020 - Achieved Green Partner certification. (2020-2022)



NYPCB has been promoting green procurement and has required its raw material suppliers to provide written assurances to ensure their products do not contain hazardous materials. They are also required to provide annual test reports to prove their products meet the requirements of customers and are in compliance with relevant laws.

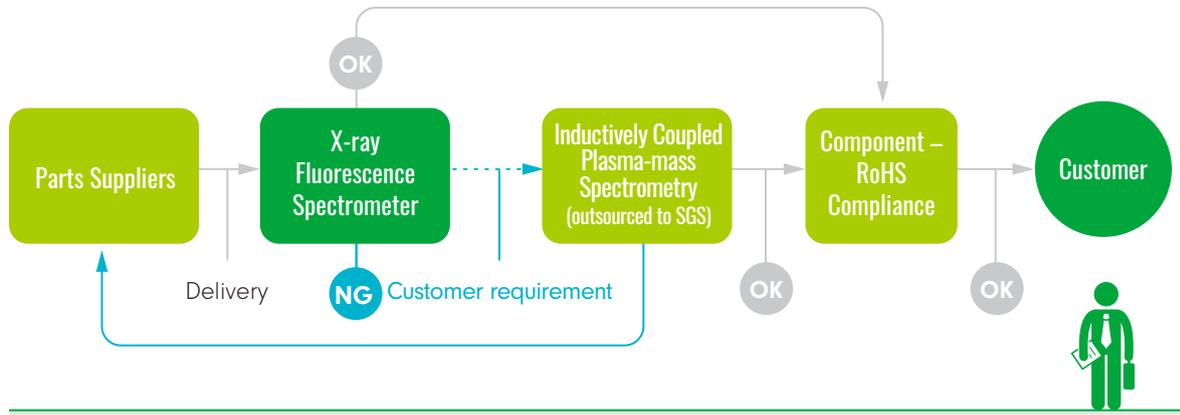
B. Restrict use of hazardous materials

NYPCB has produced documents and designed management principles for its green partners and effectively monitored the sources of its raw materials and other relevant materials to make sure they are in compliance with RoHS, REACH, international laws, customer requirements and the standards of green products, and to reduce their impact on the environment.

C. Hazardous Substance Free policies

NYPCB has established a Hazardous Substance Free system and required its green partners to comply and enforce it: The Company has set up groups and specified their responsibilities to manage green partners effectively. Its environmental safety and quality assurance units are responsible for promoting green products and ensuring they comply with relevant laws and customer requirements. Other relevant departments were required to integrate the system into their operations in compliance with NYPCB's HSF management target.

D. XRF Analysis Process

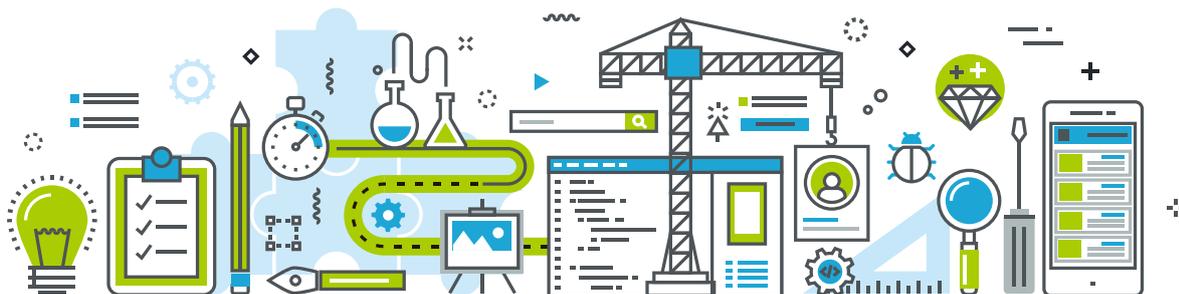


E. XRF system can detect and measure hazard element accurately

The XRF system can accurately measure hazardous substances such as Cd, Pb, Cr, Hg, Br, and Cl. The system helps NYPCB to meet customer requirements to include such data in shipment reports, in order to be in compliance with EU RoHS regulations.

▼ Hazardous Material Elemental Table

Hazardous Materials	Analytical Pattern	
	Shipment Analysis	SGS Analysis
Cadmium	X-ray Fluorescence Spectrometer	Inductively Coupled Plasma-mass Spectrometry Analysis
Lead		
Mercury		
Hexavalent Chromium	X-ray Fluorescence Spectrometer (analyzes chrome)	Use UV/VIS Spectroscopy to Measure Absorbance of Liquid Samples
Halogens – Chlorine Halogen - Bromine		Ion Chromatography Analysis



3.5 Greening and tree-planting activities around plants

NYPCB has designed a comprehensive greening plan for its limited land resources. The plants and flowers planted in the Company include tropical foliage such as Chinese Banyans, Royal palm, Formosan Nato Tree, Chinese rain tree, weeping fig, Buddhist Pine, Blackboard tree, Indian rubber bush, Madagascar Almond, Common Garcinia, Sea Fig and cotton tree, and shrubs such as Pink Ixora, Rhododendron, Golden Dewdrop, Chinese hibiscus, China rose, umbrella tree and Golden Banyan tree as well as seasonal plants such as Impatiens walleriana, scarlet sage, Wax Begonia, petunia, New Guinea Impatiens, Torenia, and Egyptian Starcluster.

The greening plan divided the Company into three zones, the administrative zone, production and plant zone, and the dormitory and living zone. The 30-year-old Chinese Banyan trees in the plants and the habitats of wild birds such as wild quail, Chinese Bulbul, and Japanese White-eye have been preserved and protected. The production and plant zone has been afforested. Chinese Banyan trees were planted along Nanjing 1st Road and Nanjing 2nd Road. The gardens along lanes, according to their sizes and characteristics, were planted with Hoop Pine, Terminalia mantaly H. Perrier, weeping fig, Common Garcinia, and round banyan trees. Seasonal plants and flowering shrubs were planted in front of the plant gate, improving surrounding landscape. To make the three men and women's dormitories in the dormitory and living zone more hospitable and more homely, the plants around these buildings were specially selected. Large tropic foliage such as the blackboard tree and Formosan Nato Tree as well as seasonal flowers and shrubs such as Impatiens walleriana, Bougainvillea, viola and China Rose were planted around these buildings. During their blooming seasons, their flowers are not only pleasant to employees' eyes but also help them to relax.

NYPCB's greening plans at its plants and on its land are as follows:

(1) Greening

- A. The Chinese Banyan trees that have existed since 1983 when the plants were built will be preserved. The areas that have been left untouched will be planted with blackboard trees, Hoop Pine, and Indian rubber bush depending on the characteristics of the gardens there.
- B. Offer free tree seedlings through government departments such as the department of agriculture and forestry bureau.
- C. The gardens that became barren because of heavy shade will be planted with groundcovers

- C. Such as the Singapore Daisy and boat lily to increase NYPCB's ratio of green cover.

(2) Gardening

- A. NYPCB has been growing its own seedlings since 1995 and has produced plants and flowers that are used in the gardens across its plants and buildings. The Company has made its plantation entirely self-sufficient, saving costs of purchasing flowers and plants every season.
- B. The lawns and gardens in the administrative zone were specially designed and are gardened carefully and planted with seasonal flowers and plants.
- C. The miss-planted rate of seasonal flowers and plants cultivated across the Company is kept below 10%. The percentage of flowers that blooms every season reach 80% and above. Physical and metal strengths are much-needed in technology industry. The strengths work its best in a workplace that is beautiful, full of culture, leisure, and relaxation. NYPCB's greening management will continue to focus on creating a beautiful environment that values quality of life and nature of the future.

In 2019, the Company autonomously nurtured more than 86,500 seasonal flowers and grasses with daily maintenance costs totaling NTS 1,297,000.



Exquisite landscape of administrative district



Seasonal grass flowers in factory production area



Chinese Banyans near the Offices



Flower Terrace in a corner of Nanjin 1st Road in the factory



EMPLOYEE WELFARE



▼ Identified Material Aspects and Management Approach

Corresponding Material Topics	Employees' salaries, benefits, diversity and equal opportunities for the employees, career development and education & training,.
Significance	Employees are the most important asset of the Corporation. The Corporation should endeavor to ensure every employee can work safely and are willing to be fully fledged in contributing their talent. To attract talented employees, the Corporation offers not only stable and competitive salaries, but also a comprehensive training and promotion system in order to fully utilize the work force.
Policy and Commitment	To set up reasonable and competitive salary remuneration in accordance with the labor market, establish the employee appeal system, formulate work rules and personnel management rules, and promotes diversified employee care measures.
Responsibilities	The Human Resource Unit of President's Office Administration Dept.
Resources	<ul style="list-style-type: none"> • Manpower: The Human Resource Unit, Administration Dept. • Funding: Employee welfare fund.
Action	Establish comprehensive training and promotion development system, sound internal communication mechanism, and regular salary adjustment review mechanism; promote work performance bonus; and hold various employee leisure activities.
Communication Channel	Trade union forums, online opinion platform, employees suggestion box, hotline for feedbacks
Evaluation Method	<ul style="list-style-type: none"> • Employee satisfaction survey • Review and improvement of staff retention rate
Target (Short/Medium/Long Term)	<ul style="list-style-type: none"> • Salary Short-term (within 3 years): To achieve women to men salary ratio at 1:1. Medium and long term (3~7 years): To achieve equal pay for equal work at competitive salary levels. • Benefits: Short-term (within 3 years): To achieve 9 points in employee satisfaction survey. Medium and long term (3~7 years): To promote employee care plan and promote the development of balance between work, health, and life. • Career development: Short-term (within 3 years): To achieve a turnover rate below 1.5%. Medium and long term (3~7 years): To recruit suitable talents for suitable positions, and stabilize manpower status.
Overall Performance	<ul style="list-style-type: none"> • Salary ratio of women to men: 1:1.2 in 2017 and 1:1.2~1.30 in 2018 and 2019. • Employee satisfaction level: 8.53 points in 2017 ,8.71 points in 2018, 8.71 points in 2019. • Turnover rate: 1.2% in 2017 , 0.5% in 2018 and 0.6% in 2019.

4.1 Employment

Employees are the most important asset of a company. Every company should strive to ensure every employee can work safely and are willing to contribute his/her talent. To recruit talented employees, NYPCB offers stable and competitive salaries and benefits, comprehensive training, and promotion system.

NYPCB selects candidates for positions under the principle of fairness, justice, and equality. Every candidate has equal opportunity to apply for a job. The Company also ensures the personal qualities and ability of its newly-recruited employees fit the requirements of his/her position. Taiwan's Labor Standard Act specifies that employers are not permitted to hire workers aged below 15. Child labor (15 years of age and under 16 years old) and workers between the ages of 16 and 18 are not permitted to carry out heavy or hazardous work. NYPCB has complied with the Responsible Business Alliance(RBA). No child labor is currently employed.

(1) 2019 NYPCB Human Resources Structure

In 2019 the company's human resources department consisted of 99.9% official staff and 0.1% temporary staff (all 8 staff were on contract including 5 males and 3 females, all working places are Taoyuan factory area), with no part-time employees. The department consisted of 81.7% domestic employees and 19.3% foreign employees (all from Vietnam). The ratio of male and female employees was 2:1, and the average age was 38.1. The average years of service was 13.8 years.

▼ Official staff structure distribution

Unit: person

Category	Group	♂		♀		Total	Percentage
		Number of People	Percentage	Number of People	Percentage		
Position	Managing Directors and Above	-	0.0%	6	0.2%	6	0.1%
	Executives and Managers	16	0.8%	275	7.3%	291	5.0%
	Supervisors	168	8.4%	571	15.1%	739	12.8%
	General Staff	1,650	82.8%	2,922	77.4%	4,572	79.3%
	Service Staff	158	7.9%	-	0.0%	158	2.7%
Location	Taoyuan	1,992	100.0%	3,771	99.9%	5,763	99.9%
	Shulin	-	0.0%	3	0.1%	3	0.1%
Age	<29	638	32.0%	744	19.7%	1,382	24.0%
	30-39	466	23.4%	987	26.2%	1,453	25.2%
	40-49	718	36.0%	1,660	44.0%	2,378	41.2%
	50-59	159	8.0%	358	9.5%	517	9.0%
	>60	11	0.6%	25	0.7%	36	0.6%
Years of Service	<10	801	40.2%	1,364	36.1%	2,165	37.5%
	11-20	591	29.7%	1,507	39.9%	2,098	36.4%
	20-30	566	28.4%	844	22.4%	1,410	24.5%
	>30	34	1.7%	59	1.6%	93	1.6%
Academic Degree	Doctorate	-	0.0%	4	0.1%	4	0.1%
	Master's	43	2.2%	181	4.8%	224	3.9%
	Bachelor's	73	3.7%	395	10.5%	468	8.1%
	Other	1,876	94.2%	3,194	84.6%	5,070	87.9%
Subtotal by Gender		1,992	100.0%	3,774	100.0%	5,766	100.0%

(2) New employees by age and region

Unit: person/%

Category	Group	♂		♀	
		Number of People	Percentage	Number of People	Percentage
By age	<29	176	8.8%	282	14.1%
	30-39	6	0.3%	25	1.3%
	40-49	3	0.2%	2	0.1%
	50-59	0	0.0%	1	0.1%
	>60	0	0.0%	1	0.1%
By region	Domestic	39	2.0%	151	7.6%
	Foreign (Vietnam)	146	7.3%	160	8.0%
Total new employees		185	9.3%	311	15.6%
Service employees		1,995	34.6%	3,779	65.4%

Note:

1. Statistics based on employees who started work between 2019.1.1 and 2019.12.3 (including formal and informal staff)
2. Percentage of new employees ratio = Total new employees / (Total new employees + Service employees) * 100

(3) Local supervisory proportion

In order to develop stable working opportunities, local residents are given priority in the recruitment of new general employees. Furthermore, the Company trains local residents to become competent leaders. In 2019, the percentage of local residents holding senior supervisory roles was approximately 4.9% (the percentage of senior supervisory roles is defined as the proportion of employees working as a supervisor or above, who have held the position for at least five years and have the same household registration as the factory).

(4) Number of Physically and Mentally Disabled Recruitments

In order to safeguard the rights and interests of physically and mentally handicapped individuals, our Company protects their equal participation in social, political, economic, and cultural activities to promote their self-reliance and personal development. According to Article 38 of "People with Disabilities Rights Protection Act", a certain number of job vacancies shall be opened to physically and mentally handicapped individuals. By the end of 2019, a total of 46 physically and mentally handicapped individuals (28 male and 18 female) were recruited, among which 11 have severe disabilities, 9 have moderate disabilities, and 26 have mild disabilities.

▼ Number of Physically and Mentally Disabled Recruitments

項目	2017.12	2018.12	2019.12	
Gender	♂	26	26	28
	♀	19	18	18
Total		45	44	46
Degree of obstacle	Severe disabilities	8	9	11
	Moderate disabilities	6	7	9
	Mild disabilities	31	28	26

4.2 Salaries and welfare

(1) Employee Salaries

NYPGB not only complies local labor laws but also joins local associations that survey salaries and welfare to ensure its salaries are competitive. In addition, it is ensured that employee salaries are not gender biased, therefore, the salaries of male and female workers are equal. The company advocates the idea of the "same pay for the same work". The base salary ratio between male and female employees with the same position and rank is 1 : 1. Once hired, employees will have their salaries adjusted annually and may be promoted based on their performance.

In 2019, the company has 5,622 non-supervisor full-time employees (excluding those who have been employed for less than 6 months). The total salary is NT\$4,863,218,000, the average annual salary is NT\$865,000 , and the median salary is NT\$830,000.

▼ Salary ratio of male and female employees

Unit: %

	♂	♀
Manager and above	100	130.87
Supervisor and below	100	121.91

▼ The number and average pay of non-administrative staff

	2018	2019	Differences (%)
Number of full-time non-administrative staff (person)	5,484	5,622	2.52
Total pay (in NT\$1,000)	4,619,609	4,863,218	5.27
Average annual salary (in NT\$1,000)	842	865	2.73
Median salary (in NT\$1,000)	-	830	-

(2) Employee welfare

The Company values its employees, respects their rights to work, and offers reasonable salaries. It also strives to alleviate employee concerns and burdens in their lives so that they can fully develop and utilize their talents and thereby enhance the Company's performance. In order to ensure that all employees feel secure in their work and utilization of their profession, the company advocates the idea of "treating employees as family" and has set up excellent facilities for food, accommodation and leisure. Furthermore, the company has taken into consideration the long-term benefits of its employees and has planned various comprehensive benefit systems. Furthermore, a variety of benefit measures have been provided for our employees:

- A. Year-end bonus and dividend
- B. Indemnity
- C. Wedding and funeral subsidies
- D. Medical cost discounts for employees and their family members seeking medical services at Chang Gung Memorial Hospital.
- E. Labor and health insurances
- F. Uniforms
- G. Accommodation for employees who are single or married with children
- H. Employee stock option
- I. Funds and subsidies for the employee year-end dinner party
- J. Relief payments for employees hospitalized due to illness, gold coins and recognitions for senior employees.



The company offers a variety of employee benefits and incentives based on Formosa Plastics Group and goes above and beyond many legal standards. Such benefits include:

A. Leave benefits

The Corporation provides a variety of leave to employees, ranging from personal leave, family leave, newcomer leave, menstrual leave, sick leave, tocolysis leave, marriage leave, bereavement leave, work-related injury leave, official leave, pregnancy checkup leave, maternity leave, paternity leave, childcare leave, transfer leave, expatriate leave, leave for employees stationed in Vietnam, aborigine leave, election leave, and special leave. In particular, the pay standards for sick leave, certain types of bereavement leave, and typhoon leave are higher than the legally stipulated levels indicated in the Labor Standards Act.

B. Insurance benefits

In addition to helping employees with their labor insurance and national health insurance, the welfare committee member of each factory provides accident and medical insurance or provides employees with discounted group insurance (accident, medical, cancer) so that employees have more comprehensive insurance freedom.

▼ Employee benefits for the past three years

Unit: NT\$ 1,000

Item	2017	2018	2019
Expense on Employee Welfare (salary / labor & health insurance / pension / other)	4,552,091	4,862,436	5,271,499



Staff Canteen



Billiard Room



Movie Theater



Table Tennis Room



Library



Hairdressing Department



Healthcare Center



Bakery Shop



Basketball Court



Staff Dorm

C. Retirement benefits

The company will pay monthly labor pension and retirement reserve fund. When an employee meets retirement criteria, the company will pay his/her pension according to the law, in addition to a retirement gift.

D. Marriage and childbearing benefits

D1. In the occasion of a marriage or funeral of the employee or a family member of the employee, the company will provide an incentive (funeral offerings) and subsidize managers at all levels for the incentive (funeral offerings).

D2. The company offers nursing rooms for employees to use during work hours.

D3. According to relevant laws, in order to provide parental leave, employees that meet the required criteria must adjust their work hours according to childcare needs.

D4. The number of people who can apply for parental leave in the past three years can be as follows:

		2017.12	2018.12	2019.12
Qualified to apply for parental leave (excluding applicants)		181	114	103
		32	20	20
	Total	213	134	123

D5. To provide unpaid maternal or paternal leave, employees who have served in the Company for half a year and have children under 3 can file their application depending on their needs. In the past three years, 189 employees (female 143, male 46) applied for unpaid maternal or paternal leave. The return rate was 54%, and the retention rate was 80%. Furthermore, in 2019 alone, 41 employees (female 33, male 8) applied for unpaid maternal or paternal leave, with a return rate of 65% and retention rate of 79%.

▼ Parental-leave application, return rate and retention rate for the past three years

Unit: person

Item	2017			2018			2019			合計		
			Total			Total			Total			Total
Actual number of employees that applied for parental leave	29	58	87	9	52	61	8	33	41	46	143	189
Number of employees that should have returned (A)	19	53	72	16	30	46	9	31	40	44	114	158
Number of employees that applied for return (B)	14	13	27	13	20	33	7	19	26	34	52	86
Return Rate (B/A)	74	38	62	81	67	72	77	61	65	77	46	54
Number of post-parental leave employees who stayed for at least one year	10	33	43	13	10	23	9	17	26	32	60	92
Retention Rate (%)	77	79	78	92	76	85	69	85	79	80	80	80

Note: "Retention Rate" is defined as the percentage of post-parental leave employees that returned and stayed for at least one year.

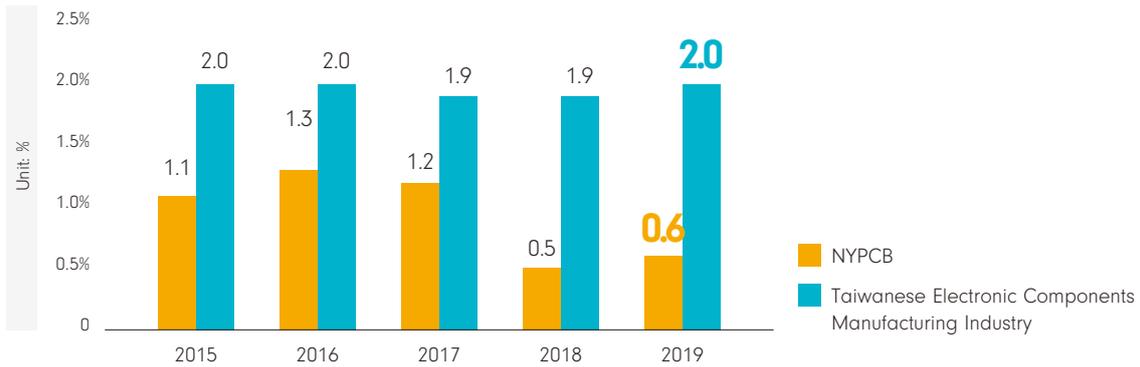
(3) Staff evaluation

All NYPCB employees shall be periodically evaluated according to the "Evaluation Method", and the year-end performance grade shall be determined according to the periodic evaluation, attendance, reward and punishment, and case disposal time to serve as a reference for salary adjustment and year-end bonus, as well as for future development, promotion, and transfers. Employees with evaluation results of grade B or C shall be interviewed periodically by their supervisor to track the abnormality improvement plan and results.

(4) Job Security

In order to adapt to the rapidly changing business environment and constantly innovated technology, the company continues to rationalize management and keep its organization simple. However, even in the most difficult economic times, the company prioritizes the working rights of its employees. The company has established human resources integrative mechanisms to replace paid leaves with transfers. The resignation rate of the company has been around 0.9% for the past five years. Compared to the Taiwanese electronic components manufacturing industry, this company's resignation rate is considerably lower. This reflects the effectiveness of employee care and work protection provided by Nanya PCB Corp., and the strong trust in company management and the sense of identity of the employees.

▼ Comparison of Resignation Rate between NYPCB and the Electronic Components Industry over the Past Five Years



Source: Accounting and Statistics (time series data search - quit rate)

▼ 2019 Resigned Staff by Age and Region

Category	Group	♂		♀	
		Number of People	Percentage	Number of People	Percentage
By Age	Under 29	104	5.2%	135	3.6%
	30-39	30	1.5%	52	1.4%
	40-49	9	0.5%	13	0.3%
	50-59	8	0.4%	20	0.5%
	Over 60	2	0.1%	2	0.1%
By Region	Taoyuan Factory	153	7.7%	221	5.8%
	Shulin Factory	0	0.0%	1	0.0%
Total dismissed employees		153	7.7%	222	5.9%
Service employees		1,943	34.6%	3,779	65.4%

Note:

1. Statistics based on employees who started work between 2019.1.1 and 2019.12.31(including formal and informal staff)
2. Percentage of dismissed employees ratio= Total dismissed employees/Service employees*100



4.3 Training system

(1) Training

NYPCCB has established a comprehensive training system with quality working and learning environment, aimed to inspire employees' proactive attitudes and innovative views. In addition, a comprehensive training plan for different stages of each employee's career has been created to facilitate gradual improvement, allowing him/her to excel and become outstanding and practical professional. The complete training program includes: New employee training, job training of shifts and basic work practice for new junior college recruits, basic job training, job specialty training, first/secondary level reserved supervisor training, cross-functional training for middle and high level supervisors, etc., and accompanied with external training and job certification available for acquisition. Online lessons, language training, training to develop internal lecturers, combined with promoting and job rotation, ad hoc invitations of external experts to come for teaching, the creation of good work and study environment, and the amplification of training energy; all of these are to satisfy those requirements in personal career planning and corporate operation growth.

(2) Employee training and advanced courses

In 2019, NYPCCB's employee training courses, including those held by individual units and professional and manager training courses organized by the President's Office, were conducted 1,975 times and attended by 5,768 employees (not included Managing Directors). The total duration of the training was 143,006 hours (an average of 24.8 hours for each individual), and the cost of the training was NT\$ 1,708,532.

▼ Average training hours per employee in the most recent three years

Unit: hrs/person

Position	Executive		Manager		Supervisor		General Staff		Total	
	Number of People	Total Hours								
2017	74	653	228	4,309	713	17,885	4,310	127,978	5,325	150,824
Average	8.8		18.9		25.1		29.7		28.3	
2018	71	720	223	2,405	705	13,465	4,624	105,293	5,623	121,882
Average	10.1		10.8		19.1		22.8		21.7	
2019	72	319	225	1,775	574	15,162	4,897	125,750	5,768	143,006
Average	4.4		7.9		26.4		25.7		24.8	

▼ Average training hours for per male and female employee in the most recent three years

	Gender	Number of People	Total Hours	Average
2017	Male	1,801	40,535	22.5
	Female	3,524	110,289	31.3
2018	Male	1,943	35,566	18.3
	Female	3,680	86,316	23.5
2019	Male	1,995	37,814	19.0
	Female	3,773	105,192	27.9

Note: 1. Number of people is not included Managing Directors

2. The number of people is based on the comparison table of the number of people in December of that year.



4.4 Employee relations

(1) Negotiations between employer and employees

- A. Establish a complaint system to improve employer and employee relations.
- B. Establish clear regulations and a human resource management system to specify employees and employer obligations and administrative matters so that employees can understand and protect their rights.
- C. Organize regular physical examinations in accordance with labor safety and health law, assign a labor safety and health coordinator, and set up relevant management systems and regulations to avoid accidents and protect employees.

(2) Care for employees

Organize campaigns to encourage employees and improve their welfare. Encourage employees to seek a balance between work, health, and life.

A. Diverse employee welfare: Provide medical fee discounts for employees and their family members at Chang Gung Memorial Hospital, scholarships for employees' children, encouragement bonus for stock purchasing, birthday coupons, wedding and funeral subsidies, holiday gifts and coupons, and comprehensive living facilities. The Company offers paid sick leave and indemnity that exceeds what is required by law. It also organizes various leisure activities such as sports game, domestic travel, and a variety of clubs.

B. Salary: Offer reasonable salaries and bonuses that are competitive. Set up a regular salary adjustment system. Provide bonuses during the Dragon Boast Festival, Lunar Festival, and at the end of a year depending on the Company's overall performance.

C. Communication: Hold regular management meetings and publish an internal magazine every quarter. Set up recommendation boxes, hot lines, and sexual harassment prevention hot lines for employees. In 2019, there is 1 complaints related to human rights infringement were made through the official complaint channel. The case has been properly handled.

D. Encourage innovation: Offer incentives for good suggestions and encourage employees to report excursions at work and offer their improvement advises. Incentives are provided if the suggestions have made significant improvement. In 2019, a total of 742 improvement suggestions were made and a total of NT\$ 227,100 were given out as rewards. The Company have set up an online platform for its employees to discuss and exchange ideas, and rewards those who provide innovative ideas.

E. Employee Assistance Program(EAPs): Resources can be sought through the county's health bureau mental health center to senior managers and employees if they have management, psychological, family, or relationship problems. The Company offers services to reduce the damage caused by man-made, natural factors, or inappropriate treatments.



4.5 Employee wellness program

(1) Improve the health and wellness of employees

Since parts of the NYPCB workplace uses various chemicals, including sulfuric acid, manganese, plumbum, nickel, potassium cyanide, and sodium cyanide, while some processes use non-ionizing radiation related devices or make considerable noise, in order to maintain employees' health, the Company shall stipulate a sampling plan depending on the current situation of each processing area and carry out environmental detection every six months. Furthermore, NYPCB cooperates with Chang Gung Hospital to periodically provide its staff with health examinations and yearly provide special operation personnel with special health examinations, with an emphasis on screening for common cancers depending on the personal demand.

In addition to organizing health examination for employees, NYPCB's plants also offer breast-feeding rooms for female employees. Other workers can enjoy medical services and a smoking quitting assistance at the health-care center in campus. Since NYPCB has partnered with the Chang Gung Medical Foundation, it is able to provide medical center-level services and health care. Employees and their family members can also enjoy discounts if they seek medical services, health examinations, or services not covered by health insurance at the Chang Gung Medical Foundation. The Company's welfare committee also organizes irregular leisure activities to help employees relax and promote health. Group insurance has also been purchased for employees to offer financial support if employees suffers from serious illness or injuries due to accidents.

▼ Health Education Activities



▼ NYPCB Healthcare Center 2019 Health Promotions

Topic	Quarter	Health Promotion Content	Item Category	Time	Lecturer	Number of Participants
Health Promotion	1st Quarter	Activity: Flu vaccination	Event	January	Public Health Center of Luzhu District, Taoyuan	37
		Lecture: Healthy Eating During Chinese New Year	Lecture	February		32
		Lecture: Understanding and Preventing Measles	Lecture	March		30
Life Care	2nd Quarter	Activity: Blood drive	Event	April		41
		Activity: Screening for the four major cancers	Event	May		455
		Seminar: Heat-Related Health Hazards	Lecture	June		67
Relieving Workplace Pressure	3rd Quarter	Seminar: Preventing Dengue Fever	Lecture	June		38
		Seminar: Summertime Diet	Lecture	August		30
		Activity: Blood drive	Event	September		58
Preventive Health Care	4th Quarter	Lecture: Understanding Special Operations and Related Preventions	Lecture	October		306
		Seminar: Understanding and Preventing High Blood Pressure, Blood Sugar, and Cholesterol	Lecture	November		890
		Activity: Relieving Neck and Shoulder Tension	Event	December		35

Total Participants

2,019



(2) Contingency plan for infectious diseases (Industry and Public Safety)

A. NYPCB has established comprehensive reporting and preventing systems for infectious diseases:

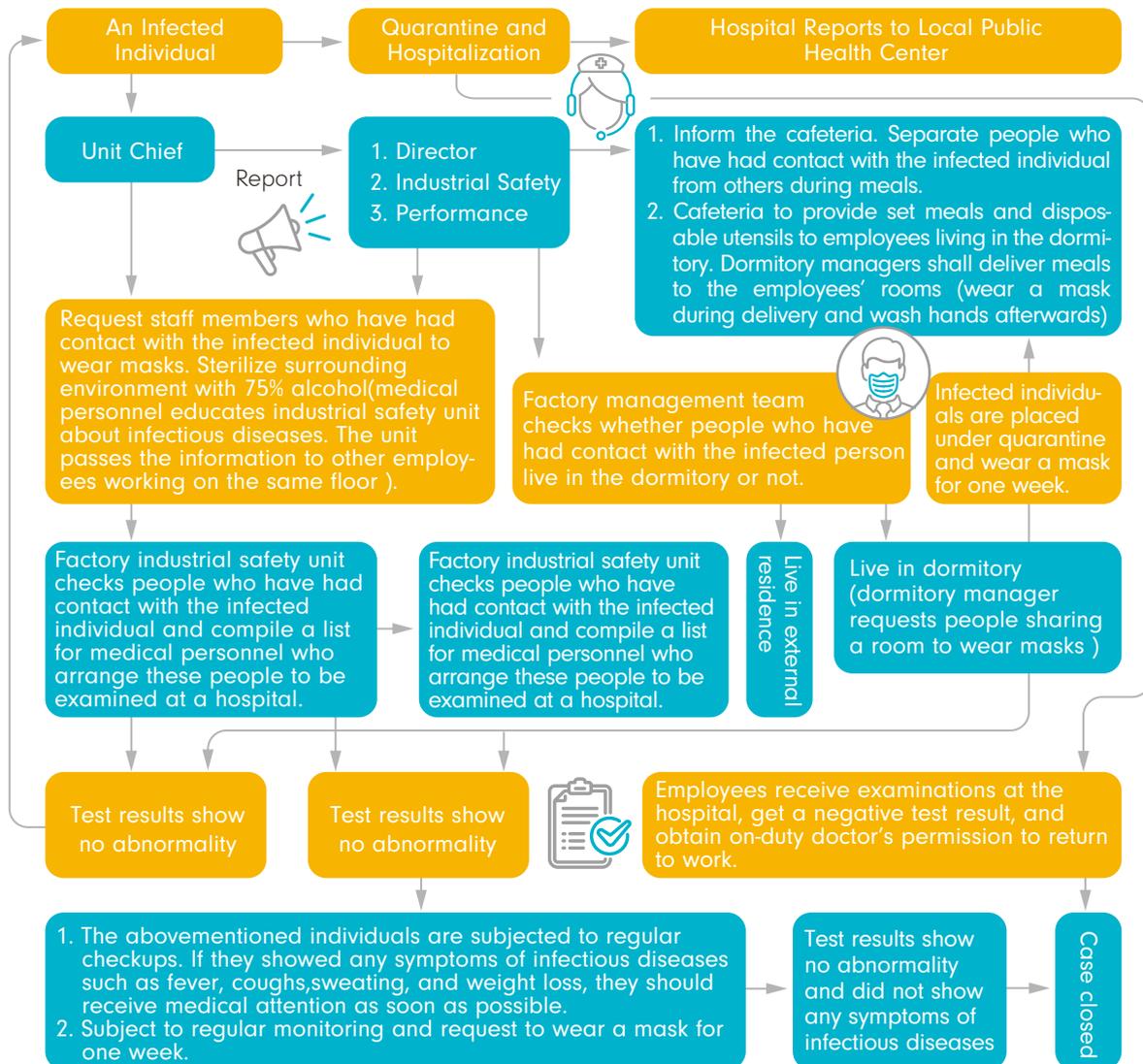
- Prevention of infectious diseases -
Increase employee awareness to infectious diseases prevention and educate employees about the preventative measures against infections through air, droplets, and contact.
- Reporting of infectious diseases -
Report occurrence of infectious disease to local health bureaus and persuade the infected employees to receive medical attentions or have them hospitalized if necessary.
- Preventative measures -
Provide medical control and preventative leave, implement preventative measures on employees and visitors, and effectively separate infected patients from others.

B. COVID-19 Pandemic Prevention Measures

- A joint pandemic prevention team was set up and pandemic prevention meeting is held twice daily to review relevant preventive measures and to stay on top of current pandemic developments. Status of employees under home quarantine, staff attendance, and workers returning to work are also monitored.
- Temperature is taken at entrances to factory plants.
- Domestic and overseas business trips are halted.
- Frequency of environmental disinfection has been increased.
- Meals at staff canteens are served in boxes to prevent gathering of large crowds.
- The Corporation pays attention to the health of employees and manages and tracks the health conditions of employees taking sick leave.



▼ Infectious Disease Contingency Procedures



▼ Prevention advocacy



(3) Health and safety education and contingency response training

Below lists the occupational safety training classes held in 2019 and the corresponding numbers of participants:

- A. Manufacturing process or hazardous material usage:** There were 24 sessions of training held in total which were participated by 993 people. The total number of hours was 2,979.
- B. Radioactive substance on-the-job training:** 4 sessions held in total and participated by 137 people. The total number of hours was 411.
- C. Emergency rescue on-the-job training:** 5 sessions held in total and participated by 93 people. The total number of hours was 279.
- D. Supervisor on-the-job training for specific chemical substances:** 4 sessions held in total and participated by 52 people. The total number of hours was 156.
- E. Contractor pre-entry training:** 21 sessions held in total and participated by 1,077 people. The total number of hours was 2,154.
- F. On-the-job training for supervisors of organic solvent operations:** 3 sessions held in total and participated by 9 people. The total number of hours was 27.
- G. On-the-job training for operators of forklifts with loaded weight over 1 ton:** 2 sessions held in total and participated by 14 people. The total number of hours was 42.
- H. On-the-job training for operators of fixed forklifts under 3 tons:** 3 sessions were held with a total of 20 individuals and 60 hours.
- I. On-the-job training for operators of cranes:** 2 sessions were held with a total of 17 individuals and 51 hours.

NYPCB views contractors as one of its own employees; therefore, the Company organizes regular pre-work trainings for contractors. The Company holds daily toolbox meetings to promote pre-work employee protection ware inspection and physical and psychological health checks. Through the toolbox meeting, the Company will notify and remind workers about the specific dangerous of construction, process, and environment of the work on the day. Construction and maintenance departments need to coordinate and collaborate with each other to achieve the goal of zero incidents.

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▼ Training reality



▼ Security management icon

Set intrinsic safety as a basic principle in equipment design

Inspection and examination of Class A hazardous workplace



Fire alarm safety interlock switch / air conditioned rooms / bonded area / drilling machine area

Manage and control hazardous materials to enhance public safety

Establish protocols of operating high and low voltage distributor panel



(4) Statistic of occupational disasters and accidents and the effect of health and safety management

In 2019, a total of 1 significant injury causing incidents occurred (1 being clipped and hit respectively). Industrial Complex, with an injury frequency rate of 0.08 (0 and 0.08 for female and male respectively), an injury severity rate of 0.83(0 and 0.83 for female and male respectively), and a frequency-severity indicator of 0.01 (0 and 0.01 for female and male respectively).

However, to prevent similar disabling incidents from happening again in the future, our corporation has carried out a series of management activities that enable our workers to identify, evaluate, and control potential hazards in their respective work environments. Furthermore, cases involving occupational hazards have been integrated into the teaching materials to raise occupational safety awareness among our employees. Our employees are also provided with SHE suggestion channels, instant responses, and appropriate countermeasures to achieve the ultimate safety management goal of “zero disasters and zero industrial injuries”.

Occupational Safety Performance Index		2017		2018		2019	
		Jing Hsin Plant	Shu Lin Plant	Jing Hsin Plant	Shu Lin Plant	Jing Hsin Plant	Shu Lin Plant
Serious Injury Frequency Rate (Incident/per 1,000,000 hours worked)		0.17	0	0.17	0	0.08	0
Serious Injury Severity Rate (Working days lost/per 1,000,000 hours worked)		8.59	0	1.48	0	0.83	0
Frequency-Severity Indicator		0.04	0	0.02	0	0.01	0
Unit Number of major occupational disasters and accidents	1. Death	0	0	0	0	0	0
	2. Disaster and accidents that caused more than three people injured	0	0	0	0	0	0
	3. Spills and leaks of Ammonia, Chlorine, Hydrogen fluoride, Phosgene, Hydrogen sulfide and Sulfur dioxide that resulted in hospitalization of more than one person	0	0	0	0	0	0
Number of serious injury incidents (excluding major occupational disasters and accidents)		2	0	2	0	1	0
Working days lost		98	0	17	0	10	0
Male absence rate (%)		1.0	0	0.7	0	0.05	0
Female absence rate (%)		1.0	0	0.8	0	0	0

Calculation rule:

1. Disabling injuries frequency=Disabling injuries cases*1,000,000/Total experienced work hours
2. Disabling injuries severity=Disabling injuries days not worked*1,000,000/Total experienced work hours
3. Comprehensive injuries indicator= $\sqrt{\text{disabling injuries frequency} \times \text{disabling injuries severity}}/1,000$
4. Absence rate (%) = Total Absence days / Total working days × 100%

4.6 Human rights

NYPCB believes employee should be respected and treated equally. The Company provides equal job opportunity to every jobseeker and employee and protects individual's basic human rights. The Company does not discriminate employees due to their race, skin color, age, gender, sexuality, disability, pregnancy, religious beliefs, political stance, club members, or marital status at work in terms of compensation, promotion, training or hiring. Employees are not forced to accept discriminatory medical examinations. In addition, recruitment is always conducted in a public way both internally and externally, and the firm does not restrain its employees or recruit forced labor through coercion, debt, fees, or contract. NYPCB also provides sexual harassment training to its managers and employees to prevent sexual harassment.

New recruits are provided with labor and ethics training so that newcomers will understand their rights and obligations. Such training is conducted to ensure that all employees are treated fairly and are able to uphold a responsible attitude in following the moral codes and ethical standards of the Company.

The Company has met all local government laws and regulations regarding employers and employees. The Company Employee Handbook has also been reviewed and certified by the Taipei City Government before distribution to all NYPCB employees. The employees has strived to do its best to peacefully resolve any labor disputes through fair, just, reasonable, and humane measures and to maintain a harmonious employer and employee relationship.

The company's labor employees have the option to freely participate in a union and run for representative without the fear of harassment, threats or retaliation. The company's labor employees can openly discuss issues regarding work with management.

The total people participating in the collective bargaining agreement of the Company in 2018 were 62.6% of total employees. The Company's labor union also holds regular director and supervisor meetings, and, to avoid colleagues' doubts, the Company does not intervene in the union's practical operations and member lists. Furthermore, it will give full play to the labor union under legal and reasonable scope in order to make wide discussions on labor issues and shall implement policies after reaching an agreement and making an agenda, which considerably helps to improve employee-employer relations and the planning of labor welfare.

NYPCB closely adheres to the line of national labor specifications and international Declaration of the Rights of Man and of the Citizen, and seeks fair treatment to and respect of all employees, including:

- Providing work conditions in accordance with the government's labor related laws and regulations.
- Offering equal work opportunities for all job seekers according to the Employment Services Act.
- Setting up complaint channels for employees when their legal rights are damaged or inappropriately handled.
- Setting up an "Employee Rewards and Punishment Review Committee" for reviewing employees to received significant rewards or punishments.
- Providing "Sexual Harassment Prevention, Complaint, and Punishment Measures in the Workplace" to prevent employees and job seekers from a sexual harassment work environment and to respond to any related issues.

Furthermore, no significant investment agreements or contracts relating to human rights were made in the company in 2019



4.7 Security control dynamics

(1) Personnel safety

- To ensure personnel safety in campus, NYPCB has requested its employees to wear uniforms and carry ID cards to enter and exit its campus in accordance with its factory entry and exit regulations. In addition, workplace safety training is provided to contractors to help them become familiar with NYPCB's security control system. Visitors are escorted within the campus by staff members of the unit they intended to visit.
- All security personnel shall be strictly selected through safety investigations and pursuant to stringent conditions and shall pass the administrative methods related to personnel, vehicle and article factory entering, human right policies (such as: labor ethical policies), and other training.
- To prevent burglars and criminals from entering the Company's premises and endangering employee safety, emergency response drills are regularly held in the campus. Security monitoring system has also been installed around the plant gates, perimeter, and key areas. The system can monitor employees and detect abnormalities in a timely fashion and respond appropriately.

(2) Supply chain safety

As a key parts supplier, NYPCB has ensured all raw materials used in production processes such as gold, tantalum, wolfram, tin and cobalt are in compliance with the Policy for Conflict-free Materials. The Company has required its suppliers to investigate the place of origin of materials supplied to ensure they are not obtained by non-government warlords or criminal rings, or excavated from conflict zones in the Democratic Republic of Congo or through illegal methods or smuggling. Metals exported from the Democratic Republic of Congo, Rwanda, Uganda, Burundi, Tanzania and Kenya are considered to be conflict minerals by the Policy of Conflict-free Materials. NYPCB has completed its examinations on its raw material supplies and plans to enhance raw material control within the Company to prevent conflict minerals from entering its production processes in the long run. The Company will continue protecting customer rights, abiding by the RBA code of conduct and striving to fulfill its corporate social responsibilities.

Under the backdrop of globalization, major natural disasters or accidents occurring anywhere in the world could affect NYPCB. The Company thereby pays extra attention to potential risks of its supply chain and offers timely and proactive assistance to its suppliers. NYPCB has taken the following factors into account:

- A. Business continuity management plan:** NYPCB has requested its main suppliers to set up contingency policies and standard reaction procedures for potential natural disasters or man-made threats that may damage their operations in order to reduce the impact from such major incidents to NYPCB.
- B. Risks exposed to natural disasters:** NYPCB has identified the geographical connections between its suppliers around the world with past major disasters and accidents. The Company has reviewed and designed risk reduction plans with its suppliers and has requested them to increase the numbers of their plants. Suppliers have also been required to prepare contingency reaction policies such as making production in other countries and increasing inventory to reduce the impact of disasters and accidents.
- C. Risks from the suppliers' suppliers:** NYPCB requires its suppliers to manage the risks of their own supply chain and suppliers and helps them to establish a business continuity management policy to secure the stability of NYPCB's supply chain.
- D. Manage IT disruption risks:** NYPCB requires its suppliers to set up a remote backup system and ensure standard protection measures have been implemented on their data centers in order to reduce the impact of disasters and accidents.

In order to meet the security management systems for supply chains and achieve the Taiwan Customs Authorized Economic Operator Certification, NYPCB has set up guidance and principles to ensure supply chain security and has provided written directives to its departments to follow. The requirements are implemented to ensure supply chain safety from receiving orders, raw material procurement, producing, processing, packaging and shipping as well as customer-related transportation, information, and logistic safety. The Company has also established a comprehensive and effective supply chain safety management system.

(3) Information Security

Corresponding Material Topics	Information security
Significance	Due to rapid development of information technology in recent years, the survival and growth of companies have now become interconnected with information systems, which have completely changed the business models of enterprises. Additionally, the continuous operation and security of information systems have also become crucial to these enterprises.
Policy and Commitment	To achieve continuous operation of information systems and to strengthen the protection and authorization of internal data.
Responsibilities	Information Systems Division
Resources	<ul style="list-style-type: none"> • Manpower: Information Systems Division, HR Department • External resources: Information security consulting firms
Action	<ul style="list-style-type: none"> • Regularly review server drill plans • Implement and review information security audit procedures
Communication Channels	Online opinion platforms, employee mailboxes, business continuity management (BCM) meetings
Evaluation Methods	<ul style="list-style-type: none"> • Information system satisfaction surveys • Server recovery drill plans • Information security progress meetings
Target (Short- / Medium- / Long-Term)	<ul style="list-style-type: none"> • Server backup transition speed <ul style="list-style-type: none"> (1) Short-Term (within 3 years): avg. 15 min/machine (2) Long-Term: Establish a stable and secure hardware environment to achieve 24-hour continuous operation • Information leaks: zero leak
Overall Performance	<ul style="list-style-type: none"> • Server backup transition speed drill: <ul style="list-style-type: none"> (1) 2018: avg. 12 min/machine (2) 2019: avg. 13.5 min/machine • Information leakage incident: <ul style="list-style-type: none"> (1) 2018: 0 incident (2) 2019: 0 incident



The Corporation had no incident of information leakage, invasion of customers' privacy, or leaks in customer information in 2019. In addition, the Corporation understands and considers the protection of customers' and business partners' information as top priority and therefore, has implemented a long-term confidentiality management system. The storage, access, authorization, dissemination, recovery, and termination of various information ranging from R&D, production, manufacturing, sales, technical partnership, business inquiry, outsourcing/contracting, operation, to management are adequately managed based on pre-established levels of confidentiality. Such mechanisms are established to protect the rights and interests of the Corporation's partners and customers, as well as to fulfill the Corporation's commitment to these stakeholders.

NYPCB continues to advance and to enhance information and technical security. To establish a reliable information environment, the Corporation continues to strengthen and ensure the safety of various information, systems, and networks under the three major principles of confidentiality, completeness, and usability. In addition, auditing, coaching, and training are carried out to help employees understand the Corporation's emphasis on confidentiality and related rules, thereby strengthening the staff's awareness of information security and to implement protective measures for confidential information in their daily works.

Furthermore, four key management tasks have been designed to prevent possible harms to the Corporation from misuse of information, leaks, disruptions, and damage due to human errors, intentional theft and natural disasters.

A. Physical and Environmental Security : An uninterruptible power system (UPS) has been installed in the server room, and is regularly inspected and tested by maintenance personnel or external vendors based on the maintenance cycle of the UPS. Thermal and humidity thermometers, water leak detectors, smoke detectors, fire extinguishers, fire alarms, and a fire alarm central controller have also been installed to ensure the operation and safety of the server room.

B. Information System Backup Drill : A mainframe and equipment failure backup drill is periodically carried out each year to ensure the completeness and usability of backup procedures. In the case that temporary backup or restore is needed for any application system, an application shall be filed, and the Information System Division will process the request upon approval from the departmental supervisor.

C. Antivirus Management and Vulnerability Detection : Antivirus software has been installed across all computers on the internal network, and the status of virus infection and virus database update are monitored by a centralized management center. Windows security update is set as an automatic update, and Windows security update files are distributed by the mainframe to fix known loopholes. When system update is installed by computer vendors for the factory plant computers, the storage device (a USB flash drive or hard drive) that contains the program to be installed needs to be scanned for virus before it could be connected to the Corporation's network.

The mainframe system is regularly scanned each year to manage and integrate program patches and to analyze any loopholes, as well as to find out any potential risks in the system to reduce network threats and the chances of mainframe from being attacked.

D. Access Control : The Corporation has formulated management procedures that regulate the management over information access, including restricted authorization over computer use and information protection. The scope of such authorization includes management over users' Internet use, e-mail account, information system, access and authorization of relevant information in the database.







The formation of company culture occurs over the long term and is developed by operation principles, and, in summary, Formosa Plastics Group's operating concept is to pursue the rationalization of everything with a "diligent and simple" attitude and with "strive for perfection" as the ultimate goal. Since the objective environment is changing and nothing can ever actually reach "perfection", but through the endless pursuit of all, these principles have become the original drive force for the Company to constantly improve business performance and competitive conditions, thus achieving the purpose of "sustainable operation" and "contribution to society" based on the aim of "Take from society, and give back to society". The Formosa Plastics Group founder said "one can only hold so many things in his/her hands but if one opens the hands, he/she can hold the world." The remark stressed the importance of contributing to society which appears to be a one-way action; but in fact, people who can give more to the society will get more in return. The more they can contribute to the society, the more they can achieve. Therefore, the founder has helped many people in need with the same passion and zealously he had while leading the Company. NYPCB has been contributing to society and engaging positively with neighboring communities. NYPCB believes that people are depending on each other, and that the one who is strong should help the weak, and the rich should help the poor. If people contribute their strengths, society and the world would be a better place to live in day by day.

5.1 Community Relations

The Corporation has taken in-depth participation in local community. It also cares for the life at the neighborhood. There are Neighborhood Relations Team and volunteer teams set up in the Administration Department. They have reached out and visited and communicated with local residents to establish a channel for mutual trust. At the same time, the Corporation takes a contributory part in community and the earth by paying care for the elderly, the youth, and other disadvantaged groups, assisting local or devoted social welfare organizations in holding festive activities or non-profit second hand market, and encouraging employees to be an environmental protection volunteer. With the promotion of various activities, Nan Ya Printed Circuit Board Corporation expects to spread love and hope into every corner of society and strengthen the tie between the Corporation and local community.



More than 2,000 residents of Guishan District enjoying the performance of Apple Theater Company



Participated in International Coastal Cleanup to safeguard the marine environment



Invited Ming Hwa Yuan to perform at Taishan District, New Taipei City



Assisted disadvantaged groups to apply for emergency relief fund



Invited Coming True Fire Group to perform at Taoyuan Municipal Nankan Junior High School



Volunteers in the factory clean up the surrounding community



Corporate volunteers present a gift box for elderly people living alone



Corporate Volunteer Service Activities

Each of the Corporation's campuses promotes community outreach by following local Administration Department's planning. Take the plants in the north area as an example, the community outreach works actually conducted in 2018 are listed as follows:

Item	Cooperative Units	Promotional Methods	2019 Implementation Performance
Visits and communication	<ul style="list-style-type: none"> Neighborhood offices Local residents 	<ul style="list-style-type: none"> Ad hoc visits to create communication channels Invitation to participate in factory activities to harmonize relationship 	<ul style="list-style-type: none"> The plants have maintained good relationship with local communities and residents. There have been no complaints or suggestions arising therefrom. Signed a memorandum of disaster prevention cooperation with district offices, carried out pre-disaster evacuation and post-disaster material transportation, allowed volunteers to provide logistics support during a disaster to improve the disaster prevention network in the region and establish a disaster prevention partnership.
Traditional culture promotion	<ul style="list-style-type: none"> Apple Theater Company (Engineering Factory III) Ming Hwa Yuan Arts & Cultural Group (Linkou Plant) Coming True Fire Group (Jinxing Plant) 	Sponsor cultural/arts groups to perform in plants	<ul style="list-style-type: none"> Engineering Factory III: 2,000 audience members Linkou Plant: 3,000 audience members Jinxing Plant: 3,000 audience members
Neighborhood relationship	<ul style="list-style-type: none"> Township offices Neighborhood offices Community development associations 	Actively participate in activities held by township offices, neighborhood offices, and community development associations in order to maintain good relationship between each other.	Accumulated sponsorships: NT\$2,910,265
Environmental protection volunteering	<ul style="list-style-type: none"> Plant employees and their families The Society of Wilderness 	<ul style="list-style-type: none"> Plant employees and their families are encouraged to act as volunteers for environmental protection works to jointly maintain the environment around the factory plants. Participated in the 2019 International Coastal Cleanup (ICC) on September 21, 2019 in Taipei to maintain the marine environment. 	<ul style="list-style-type: none"> Environmental protection volunteering activity was organized once a month at each plant, and a total of 48 rounds were organized with 1,623 volunteers participating. A coastal cleanup event was held at northern shore of Waziwei in Bali District, New Taipei City on September 21, 2019, which was participated by 65 persons.
Charity service	<ul style="list-style-type: none"> Charity Service Club of the Welfare Committee Labor unions Local charity groups 	<ul style="list-style-type: none"> Make regular visits to orphanages and nursing homes and collect goods to be donated to social welfare institutions. Hold second-hand markets in collaboration with the Charity Service Club of Welfare Committee and local charity groups. All proceeds were donated. Assist disadvantaged groups to apply for emergency relief from FPG's CHING PAO P.D. Charitable Foundation Promote donations for disadvantaged schoolchildren in Taoyuan City who are unable to pay for school lunch 	<ul style="list-style-type: none"> A total of 50 charity service activities were held with 3,261 persons participating. Accumulated donations amounted to NT\$1,692,438. Emergency relief from FPG's CHING PAO P.D. Charitable Foundation amounted to NT\$670,159. A total of 650 individuals collectively donated NT\$1.57 million toward 28 elementary schools.

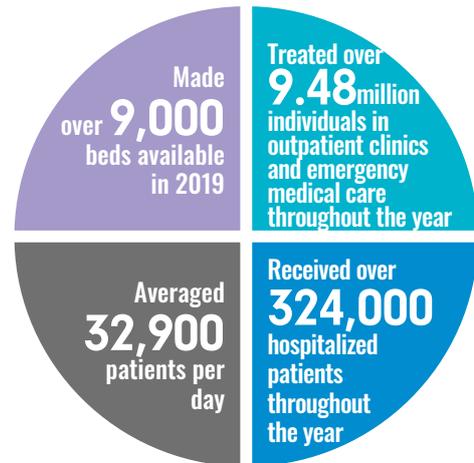


5.2 Healthcare Promotions

(1) Chang Gung Medical Care System

Seeing the lack of medical resources in Taiwan in the 1970s, the two founders of the parent company of the Corporation, Formosa Plastics Group, had resolved to build a non-profit "Chang Gung Medical Foundation" (hereinafter called Chang Gung Memorial Hospital), which began to provide medical services in December 1976. After 40 years of hard work, Chang Gung Memorial Hospital now provides integrated healthcare that includes preventive healthcare, emergency medical care, chronic medical care, traditional Chinese medicine, long-term care, and a Health and Culture Village. At the same time, Proton Therapy Centers have also been set up at Linkou and Kaohsiung respectively to provide pioneering cancer treatment.

Presently, Chang Gung Memorial Hospital is one of the largest general hospitals throughout Asia and has achieved international standards whether in terms of medical equipment or medical service. It is widely recognized and trusted by the public.



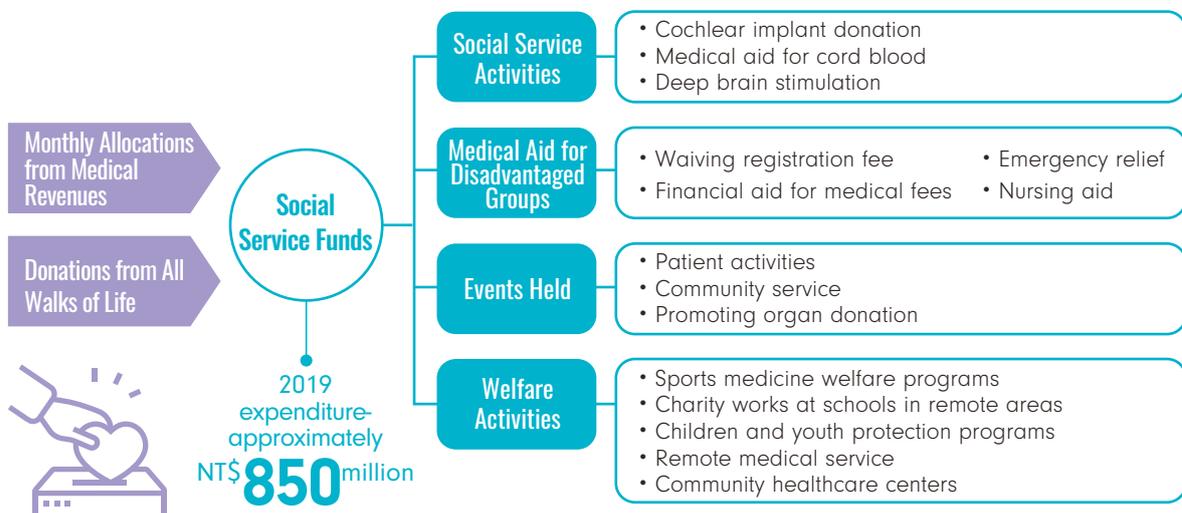
(2) Domestic and Overseas Medical Care

A. Emergency Relief: Chang Gung Memorial Hospital is committed to helping the government enhance its emergency medical care capability and responsiveness at times of major disasters. Each of our hospitals participates in important tasks ranging from emergency relief and rescue missions, regional initial training for disaster relief, to training seed mentors. In addition, Chang Gung Memorial Hospital is also a first-rate emergency hospital designated by the Ministry of Health and Welfare.

B. Medical Assistance and Caring for the Disadvantaged: Chang Gung Memorial Hospital has always been committed to providing necessary medical assistance to areas with insufficient medical and healthcare resources. The scope of our medical assistance covers all mountainous regions, remote areas, and aboriginal tribes and villages throughout Taiwan. Medical personnel from various departments will provide regular or aperiodic volunteer medical consultations and host healthcare promotions, on top of assisting regional hospitals and clinics to enhance their medical facilities, services, and quality.

C. International Assistance and Medical Diplomacy: Upholding a principle of helping people worldwide, Chang Gung Memorial Hospital has also reached out to other developing countries as well as joined the government's diplomacy policy. Over the years, the Hospital has demonstrated its vision for borderless medicine through continuously assisting numerous nations to establish craniofacial centers and organ transplantation centers, and through organizing free medical consultations and facilitating the training of overseas medical personnel.

D. Social Service, Medical Aid, and Welfare Activities



E. Health Promotion - Community Services: Chang Gung Medical Hospital has acted according to national policies and conducts various free health counseling sessions, preventive services and screenings, and health promotion events every year. These community events help local residents to identify health issues prior to experiencing advanced complications and thus allows them to seek treatment at an early stage.

F. Plant Health Promotion Activities: In association with the Chang Gung Medical Care System, our Company makes good use of the hospital resources and arranges several health promotion activities at our industrial complexes so that our colleagues are updated with the latest healthcare and medical information to help them maintain their good health. By striving for a perfect balance between daily work and personal health, our employees are leading better lives in terms of safety and quality.

- Physical examinations for our employees(once a year).
- Four major cancers screening for our employees (once a year).
- Professional nutritionists from Chang Gung Memorial Hospital were invited to design healthy menus for our employees (once a month).
- Medical physicians from Chang Gung Memorial Hospital were invited to be stationed at our industrial complexes to provide our employees with medical consultation services (4 times each week).
- Public health education information from Chang Gung Memorial Hospital was provided to our employees to ensure their healthy habits (once a month).
- Chang Gung Monthly Medical Journal was printed every month to provide our employees with the latest health information (1 journal per month).
- Lectures about the '4 Major Cancers Screening' and '3 Highs' (high blood pressure, high blood sugar, and high blood cholesterol) prevention were delivered at our industrial complexes(Irregular).

5.3 Education Undertaking

(1) Founded three schools

In order to cultivate the special talents in the industrial field, Formosa Plastics Corporation established Ming Chi Technical College (Ming Chi University of Technology now) in 1963, and established Chang-Gung Medical University(Chang-Gung University now) and Chang-Gung Institute of Nursing (Chang-Gung University of Technology now) in 1987 and 1988 successively along establishment of Chang-Gung Medical University in 1976 in order to cultivate the outstanding medical talents. Three universities take "Be diligent and plain" as motto and implements cooperative education and work-and-study internship system to cultivate the independence and hardworking of the students and achieve the objective of theory combining with practices while training the special talents having outstanding knowledge and skills.



(2) Help the native young people to receive education and find the jobs

In order to care for the native vulnerable groups, FORMOSA Plastics Corporation has been sparing no effort to help the native students to receive education to acquire the professional skill since 1995. Chang-Gung University of Technology recruits native young girls to receive the courses with major of nursing in order to train the professional nursing personnel, then Ming Chi University of Technology starts the technical training class for native people and special technical and vocational class for native people to help the native young people not continuing their study in school to train their employability and offer the opportunity to receive education to the students wanting to continue study. Moreover, in order to make the native students to study wholeheartedly, two founders donate to pay all tuition and incidental fees during the students' school years; at the same time, the two founders offer the work-and-study internship opportunity in order to lighten their financial burden; and the total number of students receiving the benefit has exceeded 5,400 so far, and the total amount of grant money has also exceeded TWD 1.6 billion.



APPENDIX



Appendix 1 Global Reporting Initiative ,GRI Standards 2016 (GRI Standards Comparison List)

Note: 「*」 :Major Issues , 「●」 :General Disclosure of Core Options

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 102 General Disclosures 2016	102-1	Name of the organization	1.1 Corporate profile	9	●
	102-2	Activities, brands, products, and services	1.2 Market position 1.4 Major products and R&D 2.1 Governance overview (3) Follow corporate regulation	10 12 8	●
	102-3	Location of headquarters	1.1 Corporate profile	9	●
	102-4	Location of operations	1.1 Corporate profile	9	●
	102-5	Ownership and legal form	1.1 Corporate profile	9	●
	102-6	Markets served	1.2 Market position	10	●
	102-7	Scale of the organization	1.1 Corporate profile 1.2 Market position 2.2 Financial performance	9 10 29	●
	102-8	Information on employees and other workers	4.1 Employment	60	●
	102-9	Supply chain	2.6 Supplier and contractor management	32	●
	102-10	Significant changes to the organization and its supply chain	About the report	4	●
	102-11	Precautionary Principle or approach	2.1 Governance overview (3) Follow Corporate Regulation (6) Internal Audits (7) Employee Behaviors and Code of Ethical Conduct	27 27 28	●
	102-12	External initiatives	1.6 Participating organization and standard	16	●
	102-13	Membership of associations	1.6 Participating organization and standard	16	●
	102-14	Statement from senior decision-maker	Message from the President	6	●
	102-15	Key impacts, risks, and opportunities	1.3 Prospect, opportunities, and challenges to the industry	11	
	102-16	Values, principles, standards, and norms of behavior	2.1 Governance overview (8) Anti-corruption	28	●
	102-17	Mechanisms for advice and concerns about ethics	2.1 Governance overview	24	
	102-18	Governance structure	2.1 Governance overview (1) Operation of board of directors	24	●
	102-20	Executive-level responsibility for economic, environmental, and social topics	About the report	4	
	102-21	Consulting stakeholders on economic, environmental, and social topics	1.7 Stakeholder dialogue	16	
	102-23	Chair of the highest governance body	2.1 Governance overview (1) Operation of board of directors	24	

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 102 General Disclosures 2016	102-26	Role of highest governance body in setting purpose, values, and strategy	About the report -Methods	4	
			1.1 Corporate profile	9	
			2.1 Governance overview	24	
			(1) Operation of board of directors		
	102-32	Highest governance body's role in sustainability reporting	2.1 Governance overview	24	
	102-37	Stakeholders' involvement in remuneration	4.2 Salaries and welfare	62	
	102-40	List of stakeholder groups	1.7 Stakeholder dialogue	16	●
	102-41	Collective bargaining agreements	4.6 Human rights	73	●
	102-42	Identifying and selecting stakeholders	1.7 Stakeholder dialogue	16	●
			1.8 Identification of Major Issues	18	
	102-43	Approach to stakeholder engagement	1.7 Stakeholder dialogue	16	●
	102-44	Key topics and concerns raised	1.7 Stakeholder dialogue	16	●
			1.8 Identification of Major Issues	18	
	102-45	Entities included in the consolidated financial statements	1.1 Corporate profile	9	●
	102-46	Defining report content and topic Boundaries	1.8 Identification of Major Issues	18	●
	102-47	List of material topics	1.8 Identification of Major Issues	18	●
	102-48	Restatements of information	No Restatements	-	●
	102-49	Changes in reporting	No significant change	-	●
	102-50	Reporting period	About the report	4	●
	102-51	Date of most recent report	About the report	4	●
102-52	Reporting cycle	About the report	4	●	
102-53	Contact point for questions regarding the report	About the report	4	●	
102-54	Calms of reporting in accordance with the GRI Standards	Appendix 1 Global Reporting Initiative ,GRI Standards 2016 (GRI Standards Comparison List)	85	●	
102-55	GRI content index	Appendix 1 Global Reporting Initiative ,GRI Standards 2016 (GRI Standards Comparison List)	85	●	
102-56	External assurance	Appendix 4 Assurance	94	●	
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.8 Identification of Major Issues	18	
	103-2	The management approach and its components	1.4 Major products and R&D	12	
			2. Governance	22	
3. Environmental sustainability			38		
4. Employee welfare			58		
103-3	Evaluation of the management approach	1.8 Identification of Major Issues	18		
GRI 201 Economic Performance 2016	201-1	Direct economic value generated and distributed	2.1 Governance overview	29	
			4.2 Salaries and welfare	62	*
			5.1 Neighborhood relations	79	

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 201 Economic Performance 2016	201-3	Defined benefit plan obligations and other retirement plans	4.2 Salaries and welfare	62	
	201-4	Financial assistance received from government	The Company has complete financial status and received no financial support from the government in 2019.	-	
GRI 202 Market Presence 2016	202-2	Proportion of senior management hired from the local community	4.1 Employment (3) Local supervisory proportion	61	
GRI 203 Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	5.1 Neighborhood relations	79	
GRI 204 Procurement Practices 2016	204-1	Proportion of spending on local suppliers	2.6 Supplier and contractor management (1) Supplier Management	32	
	205-1	Operations assessed for risks related to corruption	2.1 Governance overview (3) Follow corporate regulation (7) Employee Behaviors and Code of Ethical Conduct (8) Anti-corruption	27 28 28	
GRI 205 Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	2.1 Governance overview (3) Follow corporate regulation (7) Employee Behaviors and Code of Ethical Conduct (8) Anti-corruption	27 28 28	
	205-3	Confirmed incidents of corruption and actions taken	2.1 Governance overview (3) Follow corporate regulation (7) Employee Behaviors and Code of Ethical Conduct (8) Anti-corruption	27 28 28	
GRI 206 Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2.1 Governance overview (7) Employee Behaviors and Code of Ethical Conduct ※The Company did not have any lawsuit related to anti-competitive behavior, antitrust, and monopoly behavior in 2019.	28	
GRI 301 Materials 2016	301-1	Materials used by weight or volume	3.3 Water and energy conservation and Greenhouse gas reduction	43	
	301-2	Recycled input materials used	The Company did not use Recycled input materials in 2019.	-	*
	301-3	Reclaimed products and their packaging materials	3.4 Protecting the environment around factories (7) Green supply chain F. RoHS regulations and product packaging	55	*
GRI 302 Energy 2016	302-1	Energy consumption within the organization	3.3 Water and energy conservation and Greenhouse gas reduction (1) Environmental Data (2) Improve energy management and reduce energy consumption	43 44	
	303-1	Water withdrawal by source	3.3 Water and energy conservation and Greenhouse gas reduction (3) Water resource management and water conservation	45	*
GRI 303 Water 2016	303-2	Water sources significantly affected by withdrawal of water	3.3 Water and energy conservation and Greenhouse gas reduction (3) Water resource management and water conservation	45	*

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 303 Water 2016	303-3	Water recycled and reused	3.3 Water and energy conservation and Greenhouse gas reduction (3) Water resource management and water conservation	45	*
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	3.5 Greening and tree-planting activities around factories (The Company's factories are not located in ecological preservation areas)	56	
GRI 304 Biodiversity 2016	304-2	Significant impacts of activities, products, and services on biodiversity	3.5 Greening and tree-planting activities around factories (The Company's factories are not located in ecological preservation areas)	56	
	304-3	Habitats protected or restored	3.5 Greening and tree-planting activities around factories (The Company's factories are not located in ecological preservation areas)	56	
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	3.5 Greening and tree-planting activities around factories (The Company's factories are not located in ecological preservation areas)	56	
	305-1	Direct (Scope 1) GHG emissions	3.4 Protecting the environment around factories (4) Examination and reduction of greenhouse gas emission	50	*
GRI 305 Emissions 2016	305-2	Energy indirect (Scope 2) GHG emissions	3.4 Protecting the environment around factories (4) Examination and reduction of greenhouse gas emission	50	*
	305-4	GHG emissions intensity	3.4 Protecting the environment around factories (4) Examination and reduction of greenhouse gas emission	50	*
	305-5	Reduction of GHG emissions	3.4 Protecting the environment around factories (4) Examination and reduction of greenhouse gas emission	50	*
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	3.3 Water and energy conservation and Greenhouse gas reduction (1) Environmental Data	43	*
	306-1	Water discharge by quality and destination	3.4 Protecting the environment around factories (2) Water pollution prevention	48	*
GRI 306 Effluents and Waste 2016	306-2	Waste by type and disposal method	3.4 Protecting the environment around factories (3) Waste management	49	*
	306-3	Significant spills	3.1 Commitments to environmental sustainability (2) NYPCB environmental protection history	41	*
	306-5	Water bodies affected by water discharges and/or runoff	3.4 Protecting the environment around factories (2) Water pollution prevention	48	*
GRI 307 Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	3.1 Commitments to environmental sustainability (2) NYPCB environmental protection history	41	

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 308 Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	2.6 Supplier and contractor management	32	*
	308-2	Negative environmental impacts in the supply chain and actions taken	2.6 Supplier and contractor management	32	*
GRI 401 Employment 2016	401-1	New employee hires and employee turnover	4.1 Employment (2) New employees by age and region	61	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.2 Salaries and welfare	62	*
	401-3	Parental leave	4.2 Salaries and welfare	62	*
GRI 402 Labor/ Management Relations 2016	402-1	Minimum notice periods regarding operational changes	4.6 Human rights(No latest date has yet been set)	73	
GRI 403 Occupational Health and Safety 2016	403-1	Workers representation in formal joint management-worker health and safety committees	3.1 Commitments to environmental sustainability A. Organization Chart and Responsibility of the EHS Unit	40	*
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	4.5 Employee wellness program (4)Statistic of occupational disasters and accidents and the effect of health and safety management	72	*
	403-3	Workers with high incidence or high risk of diseases related to their occupation	4.5 Employee wellness program (1) Improve the health and wellness of employees	68	*
			(2) Contingency plan for infectious diseases	69	
403-4	Health and safety topics covered in formal agreements with trade unions	No health or safety-related topics can be found in the NYPCB union agreement.	-		
GRI 404 Training and Education 2016	404-1	Average hours of training per year per employee	4.3 Training system (2) Employee training and advanced courses	66	*
	404-2	Programs for upgrading employee skills and transition assistance programs	4.3 Training system	66	*
	404-3	Percentage of employees receiving regular performance and career development reviews	4.3 Training system	66	*
GRI 405 Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	4.1 Employment (1) 2019 NYPCB Human Resources Structure	60	*
	405-2	Ratio of basic salary and remuneration of women to men	4.2 Salaries and welfare (1) Employee Salaries	62	*
GRI 406 Non- discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	4.2 Salaries and welfare (1) Employee Salaries	62	
GRI 407 Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	2.6 Supplier and contractor management	32	
			4.6 Human rights	73	
GRI 408 Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	2.6 Supplier and contractor management	32	
			4.6 Human rights	73	
GRI 409 Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	4.6 Human rights	73	

GRI Standard Number	Disclosure Number	Disclosure Title	Reference chapter	Page	Comment
GRI 411 Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	4.6 Human rights (The company had no related to aborigines' rights infringement and measures adopted by the organization in 2019.)	73	
GRI 412 Human Rights Assessment 2016	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	4.6 Human rights	73	
GRI 413 Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	5.1 Neighborhood relations	79	
GRI 413 Local Communities 2016	413-2	Operations with significant actual and potential negative impacts on local communities	The Company had no significant or potentially negative influence on the local community in 2019.	-	
GRI 414 Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	2.6 Supplier and contractor management (1) Supplier Management	32	*
GRI 414 Supplier Social Assessment 2016	414-2	Negative social impacts in the supply chain and actions taken	2.6 Supplier and contractor management	32	*
GRI 415 Public Policy 2016	415-1	Political contributions	2.1 Governance overview (3) Follow Corporate Regulation (7) Employee Behaviors and Code of Ethical Conduct (The Company is free of political contribution donations in 2019.)	27 28	
GRI 416 Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	3.4 Protecting the environment around factories (7) Green supply chain	53	
GRI 416 Customer Health and Safety 2016	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	The Company had no violation in 2019.	-	*
GRI 417 Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	2.5 Customers relationship 3.4 Protecting the environment around factories (7) Green supply chain	30 53	
GRI 417 Marketing and Labeling 2016	417-2	Incidents of non-compliance concerning product and service information and labeling	The Company had no violation in 2019.	-	
GRI 417 Marketing and Labeling 2016	417-3	Incidents of non-compliance concerning marketing communications	The Company had no violation in 2019.	-	
GRI 418 Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	The Company had no violation in 2019.	-	
GRI 419 Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	2.3 Internal control (The Company did not have any sanctions due to violation of laws or regulations in 2019.)	29	*

Appendix 2: Comparison Table for ISO 26000 Articles

	Major issue	Corresponding section in 2018 report	Page	Comments
Organization management	Decision-making and implementation system for target delivery	2. Governance	22	
	Conventional check	2. Governance	22	
	Risky position of human rights	4.6 Human rights	22	
	Prevent accomplices	2. Governance	73	
Human rights	Solve complaints	4.6 Human rights	22	
	Discrimination and disadvantaged group	4.6 Human rights	73	
	Citizen and political rights	4.6 Human rights	73	
	Economic society and cultural rights	4.6 Human rights	73	
	Basic work rights	4.5 Employee wellness program	68	
	Employment and employment relations	4.1 Employment	60	
Labor practice	Work conditions and social protection	4.5 Employee care	68	
	Social dialogue	1.7 Stakeholder dialogue 1.8 Identification of Major Issues	16 18	
	Work health and safety	4.5 Employee wellness program	68	
	Labor development and training	4.3 Training system	60	
	Pollution prevention	3. Environmental sustainability	38	
Environment	Sustainable resource utilization	Message from the President	6	
	Climate change relief and adaptation	Message from the President 3.4 Protecting the environment around factories (6) Climate Change Risk Management	6 52	
	Natural environment protection and restoration	3.4 Protecting the environment around factories	47	
	Anti-corruption	2.1 Governance overview (3) Follow Corporate Regulation	27	
Fair business practice	Responsible political participation	-	Not involved in any political activity	
	Fair competition	2.1 Company management (3) Follow Corporate Regulation	27	
	Promote influence circle's social responsibility	2.5 Customers relationship 2.6 Supplier and contractor management 5. Charity	30 32 78	
	Respect intellectual property rights	-	The Company respects intellectual property rights	
	Fair marketing, information, and contract practice	2.1 Company management (3) Follow Corporate Regulation	27	
Consumer issues	Protect consumer's health and safety	-	Does not provide any final product to consumers	
	Sustainable protection	-	Does not provide any final product to consumers	
	Consumer service, support and complaint settlement	2.5 Customers relationship	30	
	Consumer data protection and privacy	-	Does not provide any final product to consumers	

	Major issue	Corresponding section in 2018 report	Page	Comments
Consumer issues	Provide necessary service	1.4 Major products and R&D	12	
	Education and new knowledge	1.4 Major products and R&D	12	
Community participation and development	Community participation	5. Charity	78	
	Education and civilization	5. Charity	78	
	Employment creation	Message from the President	6	
	Science and technology development	5. Charity	78	
	Create wealth and revenue	5. Charity	78	
	Health	4.5 Employee wellness program	68	
	Responsible investment	5. Charity	78	

Appendix 3: Comparison Table for United Nations Global Compact

Category	Ten principles	Corresponding section in 2017 report	Page	Comments
Human rights	Business circles shall support and respect internationally recognized human rights	4.6 Human rights	73	
	Guarantee and does not associate with violators of human rights	4.6 Human rights	73	
Labor standards	Business circles shall support freedom of association and actually recognize the right of collective bargaining	4.6 Human rights	73	
	Eliminate all forms of forced labor	4.6 Human rights	73	
	Actually abolish child labor	4.6 Human rights	73	
	Eliminate employment and occupational discrimination	4.6 Human rights	73	
Environment	Business circles shall support the adoption of preventive methods to protect the environment	3. Environmental sustainability	38	
	Act on their own initiative in promoting the most responsible things to do for the environment	3. Environmental sustainability	38	
	Encourage the development of and promote environmentally friendly technology	3.4 Protecting the environment around factories (7) Green supply chain	53	
Anti-corruption	Business circles shall try their best to fight against all forms of corruption, including extortion and bribery	2.1 Company management (8) Anti-corruption	28	





INDEPENDENT ASSURANCE OPINION STATEMENT

2019 Nan Ya Printed Circuit Board Corporation Corporate Social Responsibility Report

The British Standards Institution is independent to Nan Ya Printed Circuit Board Corporation (hereafter referred to as Nan Ya PCB in this statement) and has no financial interest in the operation of Nan Ya PCB 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 PCB 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 PCB. 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 PCB only.

Scope

The scope of engagement agreed upon with Nan Ya PCB includes the followings:

1. The assurance scope is consistent with the description of 2019 Nan Ya Printed Circuit Board Corporation Corporate Social Responsibility Report.
2. The evaluation of the nature and extent of the Nan Ya PCB's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum 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 PCB 2019 Corporate Social Responsibility Report provides a fair view of the Nan Ya PCB CSR programmes and performances during 2019. 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 PCB and the sample taken. We believe that the 2019 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate Nan Ya PCB's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS (2008) with 2018 Addendum. 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 PCB's description of their approach to AA1000AS (2008) with 2018 Addendum 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 PCB'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 PCB 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 PCB's inclusivity issues.

Materiality

Nan Ya PCB has established relative procedure in organization level, as the issues which were identified by all departments have been prioritized according to the extent of impact and applicable criterion for sustainable development of organization. Therefore, material issues were completely analyzed and the relative information of sustainable development was disclosed to enable its stakeholders to make informed judgments about the organization's management and performance. In our professional opinion the report covers the Nan Ya PCB's material issues.

Responsiveness

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

Impact

Nan Ya PCB has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. Nan Ya PCB 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 PCB's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

Nan Ya PCB 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 PCB's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum 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 PCB'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

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