2021 ESG Report

Nan Ya PCB

Environment Social Governance Report





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About this Report

Overview

Nan Ya Printed Circuit Board Corporation (hereinafter referred to as the Company or NYPCB) publishes an ESG report every year to communicate with stakeholders regarding the Company's sustainable development. This report is the tenth ESG report that NYPCB has published. The report is published on June 2022, which includes the company's profile, governance, environmental sustainable development, employee wellness programs, and social welfare that took place at or involved NYPCB's Jing Hsin Plant No.1, 2, 5, and 6 (Address: No.338, Sec. 1, Nankan Rd., Luchu District, Taoyuan City) from January 1st, 2021 to December 31st, 2021. The previous ESG report was published in June 2021.

All data and statistics disclosed 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 reported 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 ESG report regularly and the next report will be published in June 2023.

Report Guideline

The report's content structure adopts the Global Reporting Initiative (GRI Standards 2016, 2018, and 2020) sustainability reporting guidelines and is written pursuant to the guidelines and framework outlined in the "Core Option". It is compiled in accordance with the Taiwan Stock Exchange's "Environmental, Social and Governance (ESG) Information Disclosure Reporting Operation for Companies" and "Environmental, Social and Governance (ESG) Information Disclosure Application Correction Reporting Operation for Companies". In order to reinforce the performance comparability and report sustainability, all the information published in this report has been verified by the reputable British Standard Institution (BSI), and conform to AA1000AS v3 and Type 1 standards. The BSI warranty statement can be found in the Appendix. 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, 2018, and 2020
- AA1000 (2018) Accountability Principle Standard includes the four major principles of Materiality, Inclusiveness, Responsiveness, and Impact
- Task Force on Climate-Related Financial Disclosures (TCFD)
- Hardware industry standards issued by the Sustainability Accounting Standards Board (SASB)





Methods

To integrate and promote ESG, NYPCB has established a "ESG Team," (hereinafter referred to as "the team") in 2012, with President Ann-De, Tang is the chief convener and Vice President Lien-Jui Lu is the Management Representative. The team is responsible for the strategic planning, monitoring, and evaluation of the Company's performance in terms of ESG. The organizational chart is as above.

Contact Information

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

Nan Ya Printed Circuit Board Corporation

Investor Relations Unit of the President's Office, Nan Ya Printed Circuit Board Corporation Mr. Kurt Yang

Tel:+886-3-3223751 ext.1016

E-Mail: <u>kurtyang@nanyapcb.com.tw</u>

Website : <u>http://www.nanyapcb.com.tw</u>

Message from the President

Nan Ya Printed Circuit Board's commitment to Sustainable Responsibility 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 agencies, media organizations, and non-profit organizations. As a subsidiary of the Formosa Plastics Group, NYPCB has followed the Group's ESG policies and focused on five different strategies, which are corporate governance, environmental protection, procurement policy, labor and ethics, and social welfare.

- I. Corporate Governance
 - (I) Abide by all laws and business ethics, and establish a comprehensive corporate system to maintain positive corporate governance.
 - (II) Adopt international standards and practices, continuously improve and enhance competitiveness to benefit our shareholders.
 - (III)Steadily supply of high quality products at a low price and help our downstream customers to develop new products and increase their competitiveness.
 - (IV)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.
- II. Environmental Protection
 - (I) Continuously improve production processes to reduce energy consumption and carbon emissions.
 - (II) Introduce lead-free technology and comply with the RoHS Derivative (Restriction of Hazardous Substances Derivative) of EU, pertaining to electrical and electronic products.
 - (III) Financial impact and risk opportunity of climate change to organization
 - Climate change is likely to cause extreme weather, including an increase in average atmosphere temperature and longer drought, creating the risk of electricity and water supply shortage, therefore, the Company continuously promotes energy saving improvement to reduce resource and energy consumption, to improve the industrial competitiveness while enhancing environmental friendliness to achieve multiple benefits.

III. Procurement Policies

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

IV. Labor and Ethics

- (I) 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.
- (II) Abide by all laws and business ethics, and establish a comprehensive corporate system to maintain positive corporate governance.
- (III) Strive to attain perfection and do good deeds. Make continuously improvements, enhance competitiveness and give back to the society.
- V. Social Welfare
 - (I) Address various social issues, and participate in appropriate community and social welfare activities to foster a kind and compassionate society.
 - (II) Use our corporate spirit of striving for perfection to create efficiency and success in our social welfare endeavors.

To honor our commitments in sustainable 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, 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.

> Nan Ya Printed Circuit Board Corporation President Tang Ann-De June, 2022

Nan Ya Printed Circuit Board Corporation (NYPCB) Overview

- 1.1 Operation Overview
- 1.2 Product Innovation and Research & Development (R&D)
- 1.3 Awards and Participation of External Associations
- **1.4 Stakeholders Negotiation**
- **1.5 Identification of Material Issues**

1.1 Operation Overview

1.1.1 Company Profile

Nan Ya Printed Circuit Board Corporation began operation in 1985, and was originally the printed circuit board division of Nan Ya Plastics Corporation, a subsidy of Formosa Plastics Group. Nan Ya Printed Circuit Board Corporation became an independent company in 1997. The Company specializes in researching, developing, manufacturing, and selling of printed circuit boards and IC substrates (Wire Bond Substrates and Flip Chip Substrates).NYPCB has built a factory in Taiwan. The Jing Hsin factory is located in the Luchu Township of Taoyuan County. As of December 31st, 2021, the Company has a total of 6,094 employees. Employees in management positions totaled 1,089, which made up 17.87% of all employees.

Nan Ya Printed Circuit Board Corporation is a member of the Formosa Plastics Group. It has stringently upheld its founder's ideas and protected shareholders' interests. The Company believes a stringent and effective governance mechanism ensures that its operations are lawful, financially transparent, and efficient. To achieve this mechanism, NYPCB's organization has been designed as follows:



Corporate organization chart



Name Nan Ya Printed Circuit Board Corporation	
Date of Incorporation	October 28th,1997
Addross	Headquarters: 3F., No.201-36, Dunhua N. Rd., Songshan Dist., Taipei City (Tel:02-2712-2211)
Autress	Jing Hsin factory: No.338, Sec. 1, Nankan Rd., Luchu Township, Taoyuan County (Tel:03-322-3751)
Paid-in capital	NTD 6.462 billion
Number of common shares in the market	646,165,487 shares
Employees	6,094 Employees
Products	Manufacturing and sales of Conventional PCB, High Density Interconnection (HDI), Rigid-Flex, ABF (Ajinomoto Build-up Film) Substrate, and PP (Prepreg) Substrate
Production bases in Taiwan	Jing Hsin Plant

1.1.2 Market Position and Development Vision

As the size of electronic products shrinks and their functions increase, printed circuit boards are moving toward multi-functional, high-density and small-size chip trend, as well as the requirement of thinner products to meet the demand for portability. However, due to the relatively low market entry requirements and the high number of manufacturers, the competition is very fierce, especially for computers and communication boards with four to ten layers. As for the IC packaging substrate market, this kind of product is in a higher technology field with fewer competing firms despite the fact that competitors continue to enter the IC package substrate market. Therefore, pricing is not overly competitive in this market compared to that of the printed circuit board market.

The Company's main customers are currently world-class computer, communication, network, consumer electronics and auto parts manufacturers in the United States, Japan, Europe, so its products are sold to the assembly plants worldwide.

Korea/Seou Belgium/Jinluo Yi USA/Indianapois Malta/Ke Kaapu USA/Los Angeles Japan/Tokyo USA/New Yor Mexico/Guadalajara USA/Phoenix hilippines/Calamb USA/San Jose Malavsis/Penand Malaysis/Muar Factory base Sevice base

Global Service Centers



Prospects, Opportunities and Challenges to the Industry

There are two major trends in the future of this industry. Due to the rising 5G telecommunication, artificial intelligence, and wearable devices, there is a high demand for 5G base station and network application substrate, server application circuit board, high-performance computing chip substrate, and system-in-package substrate, etc. Secondly, the demand for long-distance business continues to increase and the sales of automotive electronics are recovering, driving the demand for high-end IC substrates and circuit boards. The Company can also outline the operating policy by increasing the sales ratio of high-tech products and improving the overall profitability of short-term and long-term business development plans:

- In the short-term business plan, due to the increasing demand for artificial intelligence and high efficiency computing products, NYPCB shall put more emphasis on enhancing the production capacity of large-size IC substrate products as well as developing potential customers. In line with market acceptance, we will continue to adjust our product portfolio to increase production value and profitability.
- The long-term business development plan is based on the future development trend of the market, mainly still focusing on the Internet of Things, system-in-package and 2.5D packaging application products, and will make quality and technology leadership as the main axis of long-term business development.

		Future Supply and Demand and Growth of the Market	Competitive Advantages
	Prospects of the Industry	1. The compound growth rate of the circuit board industry from 2020 to 2025 is estimated to be 5.8%	 All electronics require circuit boards Emerging application products
		 Oversupply of the conventional PCB Short supply of high-end IC substrates 	provide growth momentum 3. The advanced packaging of semiconductors consume more IC substrate capacity
/		Competitive Edges and Opportunities	Disadvantages and Countermeasures
	Development Vision of NYPCB	1. Long-term and stable cooperative relationship with leading international semiconductor manufacturers	 High-end IC substrate capacity is short in supply The price of general circuit boards is extremely competitive

	Competitive Edges and Opportunities	Disadvantages and Countermeasures
	2. Low price competition for high- end IC substrates	3. Continued expansion or removing obstacles to increase capacity
	3. Leading production technology of high-end IC substrates	4. Increase the proportion of sales of high-value products such as HDI
Development Vision of NYPCB	4. Continue to introduce artificial intelligence and big data into production management to improve production yield and efficiency	
	5. High-end IC substrates continue to develop towards large-size and high-rise data, which is conducive to the unit price increase of the products	

1.1.3 Financial Performance

Stable profitability is fundamental to a company's operations. 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 gain more clients and enhances manufacturing processes to strengthen financial performances. For detailed financial information, please visit our official website under "Financial Information".

http://www.nanyapcb.com.tw/nypcb/Chinese/InvestorRelations/Financials/ FinancialReports.aspx

Financial Performance of NYPCB in 2021

Annual revenue	NT\$ 52,228,457 thousand
Operating cost	NT\$ 37,345,601 thousand
Operating expenses	NT\$ 2,012,208 thousand
Retained surplus	NT\$ 16,752,964 thousand
Dividend	NT\$ 10
Business income tax	NT\$ 2,513,533 thousand
Donations and community investments	NT\$ 429 thousand
liability as percentage of total asset	28.16%

Note: Please refer to the Company's Annual Report for the production value in 2021

1.2 Product Innovation and Research & Development (R&D)

Corresponding	Product Innovation and Research & Development (R&D)
Material Topics	GRI Standards Comparison: Custom theme
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 Invest in product innovation and R&D by adhering to the operation of "improvement, innovation, and sustainable operation of the operation	
Responsibilities	R&D Department
Resources	Manpower: R&D Department, the Engineering/YIP teams of production plants Euclidean RPD fee
Action	 Existing manufacturing optimization, improving high ratio hole surface copper capability, copper thickness uniformity capability, visual inspection and process technology capabilities, etc. Innovative technology development, development of build-up material technology for low signal loss, laser cutting technology, finished product appearance inspection AI technology, etc.
Communication Channels	 Periodic project meetings Regular client visits
Evaluation Method	Increase in the number of trial production that leads to mass production
Targets (Short / Medium / Long <mark>T</mark> erm)	 Short term: optimize existing process technology, develop laser small aperture technology, high aspect ratio hole filling technology and other projects, and introduce AI automatic defect identification system Medium- to long-term: Develop next-generation product lines, high- frequency and low-signal loss materials, etc., to increase R&D capacity
	2021:
Overall Performance	 Optimize 5 processes, import AI analysis and modeling technology, and automatic defect filtering module of appearance defect inspection machine
	2. Developed 7 technologies and 2 types of machines, 8 of which have entered the mass production stage

1.2.1 Main product development

NYPCB continues the research and development in the three main products (ABF Substrate, PP Substrate, and conventional PCB). The Company has successfully mass-produced the high-end HDI, high-layer board and high-end substrate, and successfully entered the supply chain of world-level customers.

Product Name	ltem	Application Notes	Application level		
Conventional	High-level interconnection (HDI) PCB	It is a key component used as a carrier in various electronic	Applications include: Notebook computers, workstations, servers, high-end memory		
PCB	High layer count PCB	devices, and serves as the interconnection between different components to communicate message.	box, cars, LED displays, mobile phone peripherals, and wireless charging.		
	PP Substrate	It is applied to the carrier of the IC chip product, so that the output/ input signal of the chip	Netcom products: network switches, routers, wireless chipsets, radio frequency, optical fiber communication chips, etc.		
	ABF Substrate	communicates with the inner/outer leads on the	Server products: cloud servers, data center Al chips, etc.		
IC Substrate		PCB, and it can also assist in the heat dissipation of the chip.	Consumer electronics: digital TV chips, game consoles, set-top boxes, etc.		
			Computer products: central processing unit, graphics chip, DRAM chips, etc.		
			Others: car infotainment system, etc.		



1.1.2 Innovative R&D patents and intellectual property protection

NYPCB has formulated the "Research and Development Management Measures" and set up related computer operations, and stipulated rewards for key product research and development and patent approval in the "Research and Development Achievement Award for R&D Personnel". The Company also has a number of protection measures in terms of patents and confidential information, uses a digital management system to reduce the risk of harm, and reports the operation of intellectual property rights to the board of directors at least once a year. Please refer to the "Intellectual Property Management" on the Company's official website for details.

http://www.nanyapcb.com.tw/nypcb/Chinese/InvestorRelations/IntellectualProperty Management.aspx

The accumulated patents over the past 4 years



1.1.3 Green product design

Management of Product Life Cycle

In the production process, NYPCB not only considers process efficiency and quality, but also cares about environmental issues related to the products, integrating environmental principles from source design to waste recycling. In terms of hazardous substance management, product energy saving efficiency, and product raw material recycling, NYPCB follows international management standards and relevant environmental protection label verification specifications to promote the overall revenue share of green products.

Unit: Revenue	percentage	(%
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Aspects	Indicators	Product Types	2018	2019	2020	2021
Hazardous		ABFS	30%	40%	44%	50%
Substance	Product ratio of IEC 62474(Note 1)	PPS	32%	29%	31%	30%
Management		PCB	38%	31%	26%	20%
Product	Proportion of products that meet EPEAT or equivalent requirements (Note 2)	-	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Energy Efficiency	The proportion of products that meet the requirements for Energy Star or equivalent (Note 3)	-	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Product recycling	The weight of recycled end-of-life products and electronic waste, and the percentage of reuse (Note 4)	-	77.0%	91.0%	91.4%	97.9

Note 1: Revenue of products containing IEC 62474 declarable substances/total product revenue

Note 2: Revenue/Total Product Revenue for products certified under EPEAT or equivalent

Note 3: Revenue/Total Product Revenue for products that have achieved Energy Star or equivalent verification requirements

Note 4: Reuse ratio = weight of recycled products and electronic waste / weight of end-of-life recycled products and electronic waste

Management of green products

From raw material procurement to product sales, NYPCB attaches great impor ance to customer he lth and safety. In line with market trends ind the needs of downstream customers, NYPCB is moving towards the development trend of producing non-toxic green products, and complies with the EU RoHS ban on hazardous substances in electrical and electror ic products. The Company has simultaneously requested the top 20 uppliers to sign the eclaration form of their proid cts and provide the third-party test report, so that the new generation of circuit boards can be used in green home appliances and other felds, and continue to reduce the burden on the environment.

Green Partner Certification

NYPCB introduced hazardous substance managem nt 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 eduction plans and developing a hazardous substance 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-Received the customer's green partner certificate (2014 - 2016)
2015-The company passed the RBA Audit Standards (2015-2017)
2016-Received the Green Partner Certificate from a customer (2018~2020)
2020-Obtained the Green Partner Certificate from a customer (2020~2022)

Hazardous Substance Management Policy and Results

NYPCB has produced documents and designed management principles for its green partners and ffectively monitore the sou c 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. The company's Environment, Hygiene, and Safety Department and Quality Assurance Department act as the green product promotion organization, and implement the management goal of Hazardous Substances Free (HSF).

Hazardous Substance Management Process



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 Substance Element Comparison Table

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

RoHS Specification and Product Packaging

All raw materials used by Nanya PCB Corp in the manufacturing of all its products (ABFS, PCB, PPS) conform to RoHS regulations through the management of suppliers.NYPCB has monitored its suppliers to ensure the raw materials they supply are RoHS compliant. The elements that RoHS bans are cadmium, lead, mercury and mercury compounds, Chromium VI and Chromium compounds, and PBB and PBDE. Furthermore, RU published RoHS 2.0 instructions on December 17, 2014, adding four phthalates (DEHP, BBP, DBP, and DIBP) to the banned substance list, and the Company has listed them in its control scope.

RoHS Labels



SGS Product Inspection (Frequency: 1 Time / Year)

The company's products fully comply with the SGS inspection standard, which proves that they do not contain toxic substances that are harmful to the environment.

Certificate of inspection

全象辛峻 / PFOA (CAS No.: 335-67-1)



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参考US EPA 3550C (2007),以液相層

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US EPA 3550C (2007). Analysis was

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1.3 Awards and Participation of External Associations

1.3.1 ESG Performance Highlights

NYPCB has followed the Formosa Plastics Group's corporate spirit in getting to the root of the matter and improving continuously until accomplishing perfection. We face problems head on and resolves them using practical solutions. 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. About the Company's awards over the years, please refer to the official website under "Awards and Certification". http://www.nanyapcb.com.tw/nypcb/chinese/AboutNanYaPCB/QualityPolicy/Awards.aspx

ESG Highlights of NYPCB in 2021



Environment Protection

In the 2021 CDP climate change rating, NYPCB had received **A-Leadership**





1.3.2 Participation of external associations

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 be updated with the latest global trends and to seek opportunities for further exchange and cooperation.

List of Member Associations and Organizations						
Name of Association or Organization	Name of Association or Organization Position					
Taiwan Drinted Circuit Association	Member representative	President Ann-De Tang				
	Member representative	Vice President Kuo-Chun Chiang				
		President Ann-De Tang				
		Vice President Lien-Jui Lu				
		Vice President Kuo-Chun Chiang				
laiwan Electrical and Electronic Manufacturers' Association	Member representative	Associate Manager Young-Kee Lin				
Manufacturers Association		Associate Manager Kuo-Long Chen				
		Associate Manager Mao-Sung Huang				
		Associate Manager Sung-Long Chien				



1.4 Stakeholders Negotiation

1.4.1 7 Types of Stakeholders

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, representation, and strategic intention.

1.4.2 Stakeholder Communication Channels and Issues of Concern

NYPCB has set up a stakeholder area on the company's website to establish diverse and convenient communication channels with stakeholders, fully understand the ideas and needs of stakeholders, and obtain the issues of concern and feedback from stakeholders. Proposals or feedbacks will be assessed by the functional teams of the 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. Please refer to the following chapters for the specific practices and responses to the issues of concern to the stakeholders.

Stakeholder	Stakeholder Channel		Issue of Concern
	1. Internal announcements	Irregularly, at least once a year	
	2. Representatives from the Human Resource Department		Employee diversity and equal opportunities
2	3. Regular meetings such as union core members seminars/ education seminars/safety conferences /various training seminars	Once a month	Occupational health and safety
	4. Irregular meetings		Career development and training
Employee	5. The Administration Department has established communication channels such as suggestion boxes	Irregularly, at least once a year	Employee benefits and compensation
	6. Internal publications, online platforms and questionnaires (e.g. questionnaires on training satisfaction, cafeteria quality satisfaction).		Factory emergency response
	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:	-	Operational and financial performance
	1. Shareholders		
	(1) Annual shareholders' meetings	Once a year	
	(2) Published annual financial reports as requested and provided them to shareholders during the annual shareholders' meetings	Once a year	Business risk management Product development innovation
Investors (Shareholders)	(3) Shareholders can make inquiries through phone calls and emails.	Irregularly	Information Security
	2. Corporate shareholders	-	-
	(1) Investment seminars in Taiwan and overseas	Irrogularly	
	(2) Investor forums held by securities companies (not held regularly)	megularly	

Stakeł	nolder	Channel	Communication Frequency	Issue of Concern	
Customers		1. Customers audits 2. Meeting with customers and dealers 3. Regular technological support 4. Client satisfaction survey 5. Educational training for customers	Irregularly, at least once a year	Customer relationship management Product development innovation	
Suppliers		 Established an information platform for suppliers Held regular meetings and reviewed reports in person Conducted supplier surveys through questionnaires, and provided audits and consulting services Reviewed material supply stability and quality 	Irregularly, at least once a year	Supplier and contractor management Industrial and public safety	
		 Established charity clubs and participating in community volunteering activities Held donation campaigns and provided assistances for major natural disasters in Taiwan 	Irregularly, at least once a year	Community participation and social welfare	
		1. Shareholders visit after the annual shareholders meeting	Once a year	Operational and financial performance Business ethics	
Media	dia	2. News and interview	Irregularly, at least once a year	Business risk management Product development innovation	
	Nearby Communities	Communicated and informed communities through NYPCB's website	Irregularly, at least once a year	Community participation and social welfare Factory emergency response	
Nearby		1. Official documents	Irregularly, at least once a year	Regulatory compliance _ Water use and wastewater discharge management	
Government	Government	2. Meetings introducing and explaining new laws	Irregularly	Air pollution management – Waste Management	
Agencies	Agencies	3. NYPCB's financial statements	Once per quarter	Greenhouse gas emissions management	
		 Provided reports and information as requested by the government, authorities, and regulations. 	Irregularly, at least once a year	Raw material management Toxic chemical substance control	

1.5 Identification of Material Issues

1.5.1 Material issue Identification Process

Identification Process	Execution instructions
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 according to the 5 principles of the Stakeholder Engagement Standard, AA1000.
Collection	After examining the international sustainability framework, international trends, and industry issues, 27 sustainability themes were developed after discussion by the working groups, and a preliminary concern list was established.
Analysis	Using the survey method, a questionnaire was sent to the company's departments and stakeholders, and a total of 210 copies were returned, with a response rate of about 100%.
Confirmation	After discussion and evaluation by each department, high, medium and low intensity analysis were carried out, identified their importance with priority, and summarized 20 material issues according to the two aspects of "the degree of concern of stakeholders" and "the degree of influence on the company's operation and the influence on NYPCB".
Communication and Review	Taking 20 material issues as the focus of disclosure in this report, and the management policy and target performance are disclosed in the relevant chapters. In the future, we will continue to review various material issues, consider feedback from stakeholders, and continue to improve.

Identification results of material issues

gh ·	Employee diversity and equal opportunities	Water use and wastewater discharge management Employee benefits and compensation	Business ethics Operational and fi Occupational heal Industrial and put Toxic chemical sul Waste Managemen Business risk man	inancial performance th and safety Jlic safety bstance control nt agement
e of Stakeholder (Freedom of association and collective bargaining	Customer privacy protection	Career development and training Raw material management Greenhouse gas emissions management Air pollution management	Factory emergency response mechanism Customer relationship management Information Security Product Innovation and Research & Develop- ment (R&D) Regulatory compliance
aucoro -	Customer health and safety	Localized purchase Circular economy Community participation and social welfare Climate change risk management	Supplier and Cont	ractor Management
Lo	W	Impact on Corporate Operations		Н

Changes in Material Topics

Aspects	The topics undergone changes	Changes	Explanations
Economy	Nono	No	Maintain at 7
Environmental	None	changes	items
Society	Customer relationship management	New Topics	New Topics



1.5.2 Material Topics and Value Chain

Catagory	Material Topics	Value Chain		Corresponding GRI	Management approach disclosure Chanters	
Category		Upstream	Operation	Downstream	Disclosure	management approach disclosure Chapters
	Operational and financial performance	O	•	O	GRI 201-1	1.1 Operational Overview
	Business ethics	O	•	O	Custom Themes	2.1 Governance Structure
	Business risk management	\bigtriangleup	•	\bigtriangleup	Custom Themes	2.1 Governance Structure
	Product Innovation and Research & Development (R&D)	Ø	•	Ô	Custom Themes	1.2 Product Development and Innovation
Economy	Supplier and contractor management	Δ	•	\bigtriangleup	GRI 308-1~2 GRI 414-1~2	2.5 Supplier and contractor management
	Regulatory compliance	O	•	O	GRI 307-1 GRI 419-1	2.1 Governance Structure
	Information Security	O	•	O	GRI 418-1	2.2 Information Security
	Water use and wastewater discharge management	O	•	Ô	GRI 303-1~5	3.3 Water resource management
	Air pollution management	\bigcirc	•	O	GRI 305-7	3.4 Air Pollution Prevention and Control
	Waste Management	O	•	O	GRI 306-1~5 (2018)	3.5 Waste Management
Environment	Greenhouse gas emissions management	O	•	O	GRI 305-1~5	3.2 Climate Change Action
	Raw material management	٠	\bigtriangleup	O	Custom Themes	2.5 Supplier and contractor management
	Toxic chemical substance control	O	•	O	Custom Themes	3.5 Waste Management
	Factory emergency response mechanism	O	•	0	Custom Themes	4.5 Occupational Health and Safety

Catagony	Material Topics	Value Chain			Corresponding GRI	Managament approach disclosure Chapters
Category		Upstream	Operation	Downstream	Disclosure	Management approach disclosure chapters
	Employee diversity and equal opportunities	O	٠	O	GRI 405-1	4.1 Employment
	Industrial and public safety	\bigtriangleup	٠	\bigcirc	Custom Themes	4.5 Occupational Health and Safety
	Occupational health and safety	O	٠	O	GRI 403-1~10	4.5 Occupational Health and Safety
	Career development and training	O	٠	\bigcirc	GRI 404-1	4.3 Talent Cultivation and Development
Society	Employee benefits and compensation	O	٠	O	GRI 401-2, 3 GRI 405-2	4.2 Remuneration and Welfare
	Customer relationship management	O	\bigtriangleup	٠	Custom Themes	2.4 Customers Relationship

Note: The degree of involvement of the organization with this impact lacksquare: Direct impact igodot: Contributing impact igtriangle: Through business relationships

Corporate Governance

- 2.1 Governance Structure
- 2.2 Information Security
- 2.3 Internal Control Mechanism
- 2.4 Customer Relationships
- 2.5 Supplier and Contractor Management

2.1 Governance Structure

2.1.1 Professional board operation

Entrusted by the shareholders, the Board of Directors is the highest governance unit responsible for ensuring legal compliance and transparency in the business's operational information, designating business managers to integrate operational affairs, drafting profit distribution plans, and supervising and guiding daily business operations. In accordance with the Company Act, Articles of Association, and Rules & Procedures of Board of Directors Meetings, the Company's "Directors and Managers Code of Ethics" and "Business Integrity Code", the relevant personnel are required to perform their duties in an ethical manner, prevent the occurrence of acts detrimental to the interests of the Company and its shareholders, and exercise due diligence as a good manager. For the operation of the Company's Board of Directors, please refer to the official website under the "Corporate Governance Structure and Operation, and Important Rules and Regulations of the Company."

http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/CorGovernance OrgAndRules.aspx

In addition, in order to establish a sound corporate governance system and establish the scope of corporate social responsibility, the "Corporate Social Responsibility Code" of NYPCB has been formulated with reference to the relevant regulations from the TWSE and the TPEx in order to supervise the Company's implementation of corporate social responsibility, and review its implementation effectiveness as well as continuous improvement at all times to ensure the implementation of corporate social responsibility policies. The Board of Directors authorizes senior management to handle issues regarding the economic, environmental, and social issues generated from the Company's business operations, and report the status of implementation and preparation of the corporate social responsibility report back to the board.

The role of the NYPCB's Board of Directors

Purpose of the Board	The Board of Directors is the highest governance unit entrusted by the shareholders. Mainly responsible for ensuring legal compliance and transparency in the business's operational information, designating business managers to integrate operational affairs, drafting profit distribution plans, and supervising and guiding daily business operations.
Sustainable Development Vision	Build and maintain an effective risk management system with continuous improvements, reduce operating costs, ensure the company's continued profitability, and create a high-quality working environment to achieve the Company's sustainable business goals.

The Board of Directors is the highest decision-making and supervisory unit of risk management, is responsible for approving the Company's risk management policies and related measures, and supervising the implementation of various risk management systems and the effective operation of the mechanism, so as to achieve the company's risk management goals. Report the execution results to the Board of Directors on economic, environmental and social issues arising from operational activities at least once a year.

Board Composition

NYPCB's board member selection process shall follow the "Company Act", the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" and the NYPCB's "Board Member Selection Procedures" and other regulations. Current term board members are appointed by shareholders at the shareholders meeting on June 2020, and consists of nine members (one board chairman, five directors and three independent directors) whose appointment periods are from June 2020 to June 2023. The present Board Chairman is Mr. Chia-Chao Wu, and General Manager is Mr. Ann-De Tang. 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, with an average age of 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. For the diversity of the Board of Directors of the Company, please refer to the official website under "Board of Directors".

http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/CorGover nance.aspx

Position	Name	Education	Concurrent positions in NYPCB or other companies
Chairman	Representative of Nan Ya Plastics Corporation Chia-Chau Wu	Department of Business Administration, National Chengchi University	 Chairman of Nanya Plastics Corporation Chairman of Nanya Technology Corporation
Director	Representative of Nan Ya Plastics Corporation Wen-Yuan Wang	Department of Industrial Engineering, University of Huston	 Chairman of Formosa Chemicals & Fibre Corporation, Formosa Taffeta and Formosa Advanced Technologies

Position	Name	Education	Concurrent positions in NYPCB or other companies
Director	Representative of Nan Ya Plastics Corporation Ming-Jen Tzou	Chemical Engineering Department of Taipei Tech	 General Manager of Nanya Plastics Corporation
Director	Representative of Nan Ya Plastics Corporation Chia-Fung Chang	Department of Automatic Control Engineering, Feng Chia University	Director of UnicoCell
Director	Ann-De Tang	Department of Electrical Engineering, National Taiwan University of Science and Technology	President of NYPCB
Director	Lien-Jui Lu	Chemical Engineering, National Taiwan University of Science and Technology	Vice President of NYPCB
Independent Director	Cheng-I Wang	MA in Public Finance, National ChengChi University	None
Independent Director	Ta-Sheng Lin	M.S. of Chemistry, Texas Southern University in Houston, Texas, USA	 Director of China Electric
Independent Director	Xue-Ren Jian	M.S. of Chemical Engineering, Massachusetts Institute of Technology	 Chairman of Fuchu Corp. Independent Director of Wistron Corp.,

Operations of the Board of Directors

• 2021 Overview of the Board Operations

Number of Meetings	Average attendance rate of directors
6	100%

	Category	Resolutions
es		 [Business ethics] Approved the 2020 financial accounts and formulated the 2021 operating plan
		Approved the 2020 earnings distribution table
		Approved the 2020 "Internal Control System Statement"
		• Approved for signing of lease contract with Nan Ya Plastics Corporation
		 Approved amendments to the "Board Member Selection Procedures"
		 Approved amendments to the "Regulations of the Procedure for the General Meeting of Shareholders" of the Company
		 Approved amendments to the internal control system and internal audit implementation rules
В		 Approved amendments the "Code of Corporate Governance"
		• Formulate the Audit Plan for 2022
	i i i i i i i i i i i i i i i i i i i	 Approved the Funds Loaning Plan of Q1 2022
		[Stable development]
	Normal/Special Resolution	 Approved the increased investment of Nan Ya PCB (Hong Kong) Co., Ltd
p. of		 Approved to expand ABF substrate production line at the Shulin Plant
		 Approved machine equipment transactions with related parties
		[Employee wellness]
		 Approved the compensation for employees in 2020
		· · · · · · · · · · · · · · · · · · ·

- Approved the manager's performance salary adjustment plan in the first and second half of 2021, which is intended to be in accordance with all employees
- Propose the base date and distribution date of the Company's 2020 earnings distribution of cash dividends
- Approved the salary adjustment of managers in 2021, which is intended to be processed at a rate that does not exceed the salary adjustment range of employees

Board Performance Evaluation

In addition to regular self-inspection of the Board of Directors' operations, NYPCB shall also strengthen the functions of the Board of Directors, the internal auditors shall also prepare audit reports on the operations of the Board of Directors required by the competent authority. For the results of the Board of Directors' performance evaluation in 2021, please refer to the official website under "Performance Evaluation of the Board of Directors". http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/BoardAssessment.aspx

Board Remuneration

The remuneration of directors and managers of NYPCB is reported to the Remuneration Committee, and it shall be processed in accordance with the Articles of Association and Article 29 of the Company Act after discussion by the board of directors In addition to the fixed monthly salary, the president, vice president and associate managers shall receive year-end bonuses, holiday bonuses and special incentives depending on the company's business performance. Among them, special incentives are adjusted and issued with reference to the target achievement rate, operating results, industrial safety incidents, water and energy saving, etc. Fixed monthly salary is also adjusted by the Remuneration Committee in reference to the Company's overall employee salary adjustment standards. For the payment of remuneration to directors and managers in 2021, please refer to the annual report "Remuneration paid to directors (including independent directors), president and vice president in recent years". https://www.nanyapcb.com.tw/nypcb/Chinese/InvestorRelations/Shareholders/meeting.aspx

• The Company's highest salary is a multiple of the median annual salary of other employees and their respective growth ratios in 2021

Item	Multiples of the median annual salary of other personnel with the highest salary	The highest annual salary increases % A	Other median annual salary growth % B	The growth ratio of the two A/B
Annual Renumeration	6~10	24.79%	15.83%	156.60%

Note 1: Annual Total Renumeration Ratio = The ratio of the highest paid individual's annual total renumeration / the median annual total compensation of other employees

Note 2: Percentage increase in annual total renumeration = increase in annual total renumeration for the highest individual / median increase in annual total renumeration for all employees (excluding the highest paid individual)



2.1.2 Functional Committee

Main functions of the Committee

Name of the Committee	Audit Committee	Renumeration Committee
Established in	June 2017	December 2011
Member Composition	3 Independent Directors	3 Independent Directors
Main function	 Fair presentation of financial statements Selection (dissolution), suitability, independence and performance of certified accountants Effective implementation of the Company's internal control Making sure that the Company follows relevant laws and regulations, and assessing the existing and potential risks of the Company 	 The Committee has made To make recommendations to the Board of Directors on the remuneration policies of the Company's directors and managers so that the remuneration policies do not lead directors and managers to engage in conduct that exceeds the Company's risk tolerance. Discussion bills from Renumeration Committee, such as salary adjustment and annual bonus related topics shall be all put forward to Renumeration Committee for a second discussion after a consensus has been reached by the Human Resources department and labor union.
Meetings in 2021	A total of 4 meetings were held in 2021, with an attendance rate of 100%	A total of 3 renumeration committee meetings were held in 2021, with an attendance rate of 100%.
Major Resolutions in 2021	 Approved the 2020 Annual Financial Statements Approved amendments to the internal control system and internal audit implementation rules Approved the Funds Loaning Plan of 2021 Q1 Approved for signing of lease contract with Nan Ya Plastics Corporation Approved to expand ABF substrate production line at the Shulin Plant Approved the increased investment of Nan Ya PCB (Hong Kong) Co., Ltd 	 Approved the manager's performance salary adjustment plan in the first half of 2021, which is intended to be in accordance with all employees. Approved the manager's performance salary adjustment plan in the second half of 2021, which is intended to be in accordance with all employees. Approved the salary adjustment of managers in 2021, which is intended to be processed at a rate that does not exceed the salary adjustment range of employees.



2.1.3 Business Integrity and Compliance

Corresponding Material Topics	Business Integrity, Legal Compliance. GRI Standard Comparison: Custom Themes; 307 Environmental Compliance, 419 Socioeconomic Compliance. The Company is a strict practitioner of regulations and business ethics.	Communication Channels	jointly with the CPA about the financial status and the overall operation of the Company 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.	
Significance	In addition to complying with the Company Act, the Securities and Exchange Act, and the Business Entity Accounting Act, the Company acts upon the corporate culture of "Diligence and Simplicity." Based on the business philosophy of honesty and sincerity, fairness and transparency, self-discipline and accountability, the Company has formulated and		2. The Company 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.	
	implemented various ethics policies in order to create good corporate governance and risk control mechanism and seek for sustainable corporate development.	Method	1. In order to establish a corporate culture of business ethics and achieve sound development, the Company implements the business ethics policy and supervision to prevent dishonest behavior according to	
Policy and	1. Implement business integrity and legal compliance.		the Company's "Business Integrity Code", and regularly reports to the Board of Directors on the annual business ethics evaluation items and operations.	
Commitment	2. Abide by business ethics, pursue sustainable management.			
	 The Company has formulated relevant business ethics policies, and the president's office will promote relevant operations, computerize the 		2. Regularly complete audit operations according to the annual audit plan.	
Deereereihilitiee	management of various businesses to reduce human intervention and judgment errors.		 Short-term: To not have issues that were corrected by the competent authority and no deficiencies in the TWSE records in accordance with relevant regulations such as listed company information declarations 	
Responsibilities	2. The audit office conducts audits according to the annual plan, and also		and other major declaration procedures.	
	company implements business ethics and avoids the occurrence of fraud.		 Regularly hold insider trading prevention education and training every year. 	
Resources	Formulated relevant business ethics policies and computerize the management of various businesses to reduce human intervention and	Targets (Short/Medium/	(2) Regularly check whether NYPCB's "Anti-Insider Trading Regulation" needs to be revised.	
	Judgment errors. 1. Establish an effective and comprehensive accounting system and	Long Term)	(3) Continue to improve various internal control systems according to laws and practical needs.	
	Internal control mechanism to fully promote computerization across all operational processes; the six major management functions —		(4) No major violations (fines over NT\$1,000,000)	
Action	personnel, finance, business, production, materials, and engineering — should be interconnected by computers to enable trench auditing layer by layer as well as abnormality management.		 Medium and long-term: Ensure that all operations of the Company comply with legal requirements, and continue to strengthen corporate governance, and disclose important information of the Company in order to cafeguard the shareholders' rights and interests 	
	2. Establish a professional and independent internal audit operation structure		1. In September 2021, a total of 1.483 people have completed the "Insider	
	3. Formulate the "Whistleblowing Procedure " to provide channels for internal and external reporting of illegal acts		Trading Prevention" online course and test, with 667 training hours, and an average score of 90 points.	
		Overall Performance	2. Completed 41 audits according to the "2021 Audit Plan", and 100% of abnormal issues have been improved and completed.	
			3. No major violations occurred in 2021.	

4. Ranked in the top 20% of listed companies in the 7th Corporate Governance Evaluation in 2020.

1. Report to independent directors should be conducted at least once a year

Business ethics

NYPCB 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 NYPCB and its suppliers.

NYPCB has a comprehensive audit system to ensure the company's financial transparency and compliance with laws and regulations. Relevant audit reports are required to be submitted to the Board of Directors. One of the functions of the general management office jointly established by the companies in the Formosa Plastics Corporation is to be able to perform independent audits. This setting can not only improve the professionalism and efficiency of the audit operation, but also give full play to its independent status and achieve the effect of supervision.

For the Company's Business Ethics and professional ethics behavior, please refer to the official website under "Business Ethics and Professional Ethical Behavior". <u>http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/EthicalCorporateManagement.aspx</u>

Anti-Corruption

Professional Ethics

NYPCB has always employed rigorous standards to ensure that employees do not disclose business secrets or misrepresent facts, spread rumors or incite sabotage, or violate gender work equality. Specific actions that have been taken in the past include establishing labor and ethical management policies and advocating the company philosophy "Create Values, Business Ethics, Coexistence and Co-prosperity".

In 2021, a total of 659 employees from the management level at NYPCB have completed the anti-corruption policy promotion with a 100% completion rate. Furthermore, the Company has advocated for anti-corruption practices annually during holidays, as well as arranged annual ethics cross assessment for employees. 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 on-site management, staff leave management, work hours management, etc. for staff rights and anti-corruption practices.

Since 2016, the "Advocacy of the Concept of Law" course has been added for engineers and management 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 departmental personnel responsible for the contracting, procurement, import and export must not only understand the course, but also sign the "Procurement and Contracting Person Self-discipline Convention" to standardize the discipline and the expected attitude of the position in charge, so that the personnel can truly abide by the law.

Anti-Corruption

It is clearly stipulated in the internal system that no entertainment or financial gift from manufacturers shall be accepted, and those who commit fraud, embezzle public funds, accept bribes or commissions will be removed from office.

Prevention of Malpractice

Fully promote rotation shifts for all those who hold positions in sales, procurement, finished product storage, supervision and budget, etc., to avoid misconduct with manufacturers.

Strict Discipline

Employees who violate the regulations will not be treated leniently once verified, and they will also be punished along with their immediate supervisors according to the circumstances to show vigilance and gain public trust.

Execution Method

1. It is clearly stipulated in the internal system that no entertainment or financial gift from manufacturers shall be accepted, and those who commit fraud, embezzle public funds, accept bribes o r commissions will be removed from office.

- 2. Fully promote rotation shifts for all those who hold positions in sales, procurement, finished product storage, supervision and budget, etc., to avoid misconduct with manufacturers.
- 3. Employees who violate the regulations will not be treated leniently once verified, and they will also be punished along with their immediate supervisors according to the circumstances to show vigilance and gain public trust.

The Company follows the principle of "Key Points of Employee Complaints", establishes multiple complaint channels, and regularly reviews and tracks the complaints.

Improvement Status When handling the complaint, the Company and the investigators shall conduct investigation and report in a fair and impartial manner. There shall be no retaliation against the complainant, and the whole process shall be kept confidential, otherwise it will be reported separately to the responsible units.

Regulatory compliance

NYPCB firmly believes in honesty, accountability, and abiding by the 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 training and seminars related to laws and regulations for employees and has and develop an antitrust compliance code. The content clearly lists the key points to follow and prohibited behaviors, and requires every employee to read and sign as the basis for their business execution. Strictly require employees, managers at all levels and members of the Board of Directors to abide by all regulations and laws.

Furthermore, NYPCB consults legal opinions from the Department of Legal Affairs internally and Formosan Brothers Attorney-At-Law and Lee and Li Attorney-At-Law externally regarding the Company's ethics and lawful behaviors along with organizational integrity. To date, NYPCB has never sold prohibited or controversial products and has not been subjected to significant penalties for violating company regulations. It also maintains an objective and neutral position on public policy and does not participate in any political activities. The Company did not receive any correction notices from the TWSE in 2021.

2.1.4 Business risk management

Corresponding Material Topics	Business risk management
	GRI Standards: Custom Topics
Significance	Control operational risks and develop countermeasures

Policy and Commitment	The Company has established "Risk Management Measures", which describes management procedures such as risk identification, risk control and supervision, risk performance management and improvement in order to raise the risk awareness of all employees, control risks within an acceptable range, and ensuring the integrity, rationality and optimization of risk management
Responsibilities	In response to risks, the Company has established an "ESG Functional and Risk Management Promotion Organization"
Resources	The Company's assets have been insured for property insurance, fire insurance, etc., and emergency response measures are provided in the factory area. In addition, the president's office and each function have system maintenance personnel, who can take timely mitigation measures in response to specific risks, and invest manpower and material resources in the situation
Action	 Identify risk events and formulate countermeasures, reduce the impact of risks on operations, and identify potential opportunities brought by the risk Report risk management operations to the Board of Directors regularly
Communication Channels	Regularly communicate with stakeholders, please refer to "1.4 Discussion with stakeholders"
Method	The Board of Directors reviews the implementation effectiveness and continuous improvement at any time to ensure the implementation of operational risk management
Targets (Short/Medium/ Long Term)	 Short-term: Identify risks and formulate countermeasures Report on risk management implementation to the board at least once a year Medium- / Long-Term: The Company identifies internal and external risks in a timely manner, and formulates countermeasures to mitigate risk hazards and strengthen operational flexibility
Overall Performance	 Established the "ESG Functional and Risk Management Promotion Organization" in 2021 Reported to the Board of Directors on the operation of corporate social responsibility matters such as sustainable environment and risk management on July 6, 2021 In addition to continuing to carry out general risk management operations, a number of risk management projects have been implemented in 2021, including industrial safety, response to the COVID-19 pandemic, information security, exchange rate fluctuations, and changes in laws and regulations

Company's risk management organizational structure and the scope of risk management, please refer to the official website under "Risk Management". http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/RiskManagement. aspx

The Risk Management Assessment Process





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2.2 Information security

Corresponding	Information security			
Material Topics	GRI Standards: 418 Customer Privacy			
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 Technology Department (the Information Security Unit will take over the responsibility in Jan. 2022.)			
Resources	 Manpower: Information Technology Department, Human Resources Unit, Information Security Unit (expected to be established in Jan. 2022.) 			
	2. External resources: Information security consulting firms			
	1. Regularly review server drill plans			
Action	2. Development and execution of information security audit procedures			
	3. Deepening and promotion of information security awareness			
Communication Channels	Regarding online opinion platforms, employee mailboxes, business continuity management (BCM) meetings, please refer to "1.4 Discussion with Stakeholders"			
	1. Information system satisfaction surveys			
Method	2. Server recovery drill plans			
	3. Information security progress meetings			
	1. Satisfaction survey (out of 10 points): average 8 points			
Targots	2. Server backup transition time			
(Short/Medium/	Short-term (within 3 years): average 18 minutes/ machine			
Long Term)	Long-Term: Establish a stable and secure hardware environment to achieve 24-hour continuous operation			
	3 Information leaks: zero leaks			

	1. Satisfaction Survey: Average 9.04 points in 2021
Overall Performance	2. The server backup transition time: Average of 17mins/ machine in 2021
	3. Information leaks: zero leaks in 2021

There were no leakage of personal information, invasion of privacy and leakage of customer information in 2021 at NYPCB. The Company fully manages the storage, inspection, authorization, distribution, recycling and destruction of various information such as research and development, production, manufacturing, sales, technical cooperation, negotiation, consignment, operation and management according to the level of confidentiality in order to protect and fulfill the rights and commitments to partners and customers.

2.2.1 Information Security Management Strategy

NYPCB continues to advance and enhance information and technical security. To establish a reliable information environment, the Company continues to strengthen and ensure the safety of various information, systems, and networks under the three major principles of confidentiality, completeness, and usability.

Information Security Management Principles	Management Focus	Methods	Implementation Results in 2021
Confidentiality	Information System Software Access Control	• The Company 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 the users' Internet use, e-mail accounts, information system, access and authorization of relevant information in the database.	 Information security promotion: 1,526 people Cases of violations on reading and writing of USB: 0 cases

Information Security Management Principles	Management Focus	Methods	Implementation Results in 2021	Information Security Management Principles	Management Focus	Methods	Implementation Results in 2021		
Completeness	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 restoration 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. 	The server backup transition time for server is 17 mins/ machine.	Fincipies			 Antivirus software h installed across all on the internal netw the status of virus in and virus database monitored by a cen management cente Windows security u set as an automatic and Windows secur update files are dist by the mainframe to known loopholes. V system update is in by computer vendo 	 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 	 The main server is regularly updated with monthly patches. 2 647 antivirus
Availability	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. The server room has 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. 	The uninterruptible power supply system is regularly maintained every year, and the transition drill is performed during the annual maintenance to ensure the normal operation of the system.	Availability	Management and Vulnerability Detection	 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 Company's network. The main server 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 main server from being attacked. 	 2,011 antivities software deployed Import the email filtering system, copy the emails directly to the supervisors 		
					Product Data Security Risk	 Products from NYPCB are not er and are designed and produced customer product design specif no product data risk. 	nd-user products, I according to Tications, so there is		

2.3 Internal Control

2.3.1 Internal Control Operation

Operational structure

NYPCB fully promote computerization across all operational processes. The six major management functions — human resources, finance, business, production, manufacture, and engineering — should be interconnected by computers to enable trench auditing layer by layer as well as abnormality management. NYPCB has also established a professional and independent internal audit operation structure, which is divided into three levels:



Prevention of insider trading management

NYPCB's directors, managers, employees and consultants conduct business good faith and with the due care and diligence of a good manager, sign to keep confidentiality of confidential documents, and do not disclose important internal information to others before NYPCB officially announces it publicly. In addition, directors, managers, employees and consultants of NYPCB should report to the internal audit department as soon as possible if they are aware of any leakage of internal material information. 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 implement the prevention of insider trading management.

2.3.2 Internal Audit Operations

The Audit Office is under the Board of Directors and employs full-time internal auditors. Internal auditors must participate in audit business-related courses held by professional training institutions every year to continuously improve their professional capabilities. For NYPCB's internal audit organization and operation, please refer to the official website under "Internal Audit Organization and Operation". http://www.nanyapcb.com.tw/nypcb/chinese/InvestorRelations/InternalAudting Org.aspx

Overview of Internal Auditor Training in 2021



Internal audit is not only the responsibility of each independent audit department, but each department of the Company also needs to conduct independent business inspections at specified periods for specific audit items. The independent audit department, depending on the results of its own self-inspection, conducts re-inspection on a regular or irregular basis to ensure that the self-inspection of each department is actually carried out.

Internal audit operation in the past four years



2.3.3 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. It will be publicly disclosed after being verified by the competent authority, so that the management of employees at NYPCB are able to follow. Issues such as the appointment and transfer of personnel, working hours, wages, disciplines to be observed, related regulations on rewards and punishments, dismissal, severance, retirement, training and assessment, occupational accident compensation and pension, welfare measures and other items are clearly regulated in the code of conduct.

In addition, to strengthen the behavior and ethical standards of the Company's managerial officers, those who ranked above engineers and specialists are required to sign the "Statement of Employees' Compliance to NYPCB's Operating Policy," which is summarized as follows:

Item	Note
Prohibition of unfair competition (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. The Company has no legal proceedings involving anti-competitive behavior, anti-trust and monopoly practice in 2021.
Regulating the 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 benefits from the customers or competitors of the Company, nor shall any improper gifts, entertainment, or other benefits be accepted.
Internal 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. When an employee resigns from the Company, all the technical information under personal custody shall be returned.
Political Activities Policy	Employees should not directly or indirectly donate money, provide services, or give valuable items to any candidates or political parties. Employees are also not allowed to impose improper benefits on political figures or government officials such as legislators, so as not to affect the performance of their duties.
Business Integrity Code	The Company reached the resolution to draft the "Business Integrity Code" on the Board of Directors meeting on November 11, 2014. Although it was slightly revised according to the practice of NYPCB, the established code is consistent with the spirit of the "Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies".

2.4 Customer Relationship

Corresponding	Customer relationship management GRI Standards: Custom Topics			
Material Topics				
Significance	We are committed to being a business partner that our customers can trust and grow with			
Policy and Commitment	The Company delivers supreme product qualities beyond the customers' expectations and responds quickly to customer's request through outstanding communication systems. Furthermore, the Company fulfills its promise of delivering goods on time to maintain good customer relationships			
Responsibilities	Sales Department			
Resources	Investment in R&D, quality assurance, sales and other related departments			
Action	Review customer satisfaction on a regular basis			
Communication Channels	Customer visits, supplier conferences, online platforms, please refer to "1.4 Discussion with Stakeholders"			
Method	Annual customer satisfaction surveys (in the aspects of technology, quality, service, delivery time, and price)			
Targets (Short / Medium / Long Term)	 Short-term (within 3 years): Satisfaction level above 4 points Medium- and long-term (3-7 years): Satisfaction level above 4.5 points 			
Overall Performance	4.3 points in customer satisfaction in 2021			

2.4.1 Customer Satisfaction Survey

NYPCB is committed to becoming a business partner that customers can trust and grow with. In order to strengthen customer service, besides providing a quality level that exceeds customer expectations, the Company also responds to customer requests in real-time through a comprehensive communication system, and strictly abides by its commitment to customer delivery on time to establish good customer relationships.

In order to further understand the valuable opinions of customers, the sales department regularly visits customers, communicates directly with customers and exchanges opinions, and conducts face-to-face discussions on the latest products and market information, so as to incorporate relevant matters reflected by customers into the company's operation for reference. In 2021, a total of 19 customer complaints have been received, all of which have been closed, and we ensured that all customers' opinions can be received and responded to in a timely manner.

2.4.2 Customer Satisfaction Survey

NYPCB regularly conducts questionnaire surveys on customer satisfaction, and the survey content includes five aspects: "technology", "quality", "service", "delivery time" and "price". For items with low-satisfaction, the relevant departments are responsible for understanding and communicating the issues, and based on the analysis results, review and improvement measures are put forward, and the continuous improvement direction and results are responded back to customers to improve customer satisfaction. Both internally and externally, we use the PDCA (Plan, Do, Check, Action) management model in the process of various activities, in order to reach a common direction and a common goal.

Please refer to the following figure for the results of the customer satisfaction survey in the past three years. The average score in 2021 is above 4 points, indicating that the company's customer satisfaction meets customer expectations. The delivery time and price evaluations were both better than last year, and the "technical" score decreased by 0.4 compared with last year, mainly because the impact of full production capacity indirectly affected the technical score.

Customer Satisfaction Survey Process



Customer Satisfaction Survey Results

Identify target, Distribute questionnaires, Collect and analyze questionnaire, Discuss during internal review meeting, Make necessary improvement actions, Feedback to customers about the improvements.

	2018	2019	2020	2021
Technology (T)	4.1	4.3	4.4	4.0
Quality (Q)	4.1	4.2	4.4	4.4
Response (R)	4.3	4.4	4.4	4.8
Delivery (D)	4.0	4.2	3.7	4.2
Cost (C)	3.7	3.7	3.7	4.0

Note 1: Score - Outstanding/benchmark (5 points), Meets/Exceeds Expectations (4 points), Conditional acceptable (3 points), Unsatisfactory (2 points), Unacceptable (1 point)

Customer Complaint Handling Process at NYPCB



2.4.3 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, certification, manufacturing, marketing, customer service to customer complaint handling, we apply these principles 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. The implementation measures are as follows:

- Regularly provide training for employees to help them understand and pay attention to customer needs and specifications, and fully communicate the product design and related risks with customers before accomplishing sales in order to provide the most suitable products to the customers.
- Designated units such as sales and customer service units are required to collect information related to customer satisfaction on TQRDC (technology, quality, response, delivery, and cost) and regularly review the improvements with their managers. Through a dedicated consultation personnel, the company's official website and multiple complaint channels, our customer's rights are fully protected.
- Regularly perform various internal and external supervision and control operations to ensure the implementation of the system to achieve the concept of integrity and mutual benefit.

Note 2: Number of Samples Collected : 2018 - 14; 2019 - 14; 2020 - 14; 2021 - 17 (Survey by sales ranking)

2.5 Supplier and contractor management

Supplier and contractor management			 Supplier visits, quarterly manager meetings of both parties, online and telephone (video) conference platforms Implementation of daily pre-construction toolbox talks, monthly 	
Material Topics	Aterial Topics GRI Standards: 308 Supplier Environmental Assessment, 414 Supplier Social Assessment			
	Regularly interact with suppliers on issues related to technology (T), quality (Q), response (R), delivery (D), cost (C), and environment (E), in		project agreement meetings, advocacy of safety, quality, and laws and regulations	
Significance	order to provide product competitiveness for both parties and jointly strive for business opportunities; Provide a safe and secure construction environment and complete the project on schedule to ensure the sustainable development of the company	Method	 Supplier assessments (in the aspects of technical (T), quality (Q), response (R), delivery (D), cost (C), and environment (E) Supervision and management of the construction personnel of 	
	Committed to becoming a business partner of mutual trust and growth		contractors	
Policy and Commitment	with suppliers; complying with relevant laws and regulations on industrial safety and environmental protection to ensure the safety of contractors'		Supplier management	
	construction		1. Short-Term (within 6 months): At least B rating (inclusive), or 81 points or	
Responsibilities	Materials Department & Engineering Department		above	
	 Regularly arrange quarterly supervisory meetings of both parties to conduct direct communication and exchange of opinions with suppliers 		2. Medium- and Long-Term (over 6 months): Suppliers that receive C or D ratings will be given regular training, and conduct meetings and discussions with both supervisors every quarter until improvement has been made	
	2. Education and training is carried out by the occupational safety personnel: safety protection is examined by supervisors and guards:	Objectives		
Resources	factory entrance control is examined and controlled by supervisors	(Shore-/Medium- /Long-Term)	Contractor management	
	and guards; punishment regarding occupational safety is executed by supervisors and the occupational safety personnel; and safety inspections are carried out by the first-level supervisors/deputy supervisors on rotated duties		 Short-term (Within 3 years): Implement the training on the contractor's health and safety management personnel, the corporate safety and health, and updates on environmental protection laws and regulations 	
	 Regularly review the implementation satisfaction and annual improvement plan with suppliers in terms of technology (T), quality (Q), response (R) delivery (D) cost (C) and environment (E) 		 Medium- and Long-Term (3–7 years): To encourage contractors' construction personnel to obtain licenses through certification in line with corporate rules and policies 	
Action	 Hold project run-up coordination meetings, including the safety notice af construction signed daily, safety analysis of the construction site by 		1. There were 24 companies (100%) with grade B or above in 2021 in the supplier's evaluation	
	the person in charge of the contractor before a construction starts, and safety promotion made for the construction personnel which shall be confirmed and signed off on	Overall Performance	2. A total of 2,093 contractors' personnel were trained in 2021, and there were no occupational injury incidents for contractors (for details, please refer to 4.5 Occupational Health and Safety)	
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 is 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; and safety inspections are carried out by the first-level supervisors/deputy supervisors on rotated duties			
Action	Hold project run-up coordination meetings, including the safety notice of construction signed daily, safety analysis of the construction site by the person in charge of the contractor before a construction starts, and safety promotion made for the construction personnel which shall be confirmed and signed off on			
Communication Channels	Implementation of daily pre-construction toolbox talks, monthly project agreement meetings, advocacy of safety, quality, and laws and regulations			
Method	Supervision and management of the construction personnel of contractors			
	1. Short-term (within 3 years):			
Objectives (Short- /Medium- /Long-Term)	To implement education and training of corporate safety and health, and the update of environmental protection laws and regulations for contractors' 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 			
	1. A total of 2,093 contractors' personnel were trained in 2021			
Overall Performance	 Zero work injuries of contractors; suspension of work due to factory work-related injuries or violation of environmental regulations, or penalties imposed by government agencies: 0 cases from 2015 to 2021 			

2.5.1 Supplier and contractor management

Supply Chain at NYPCB



Note: The percentage distribution of raw materials used in the upstream supply chain of NYPCB products is about 30% copper foil, build-up film about 10~15%, and the rest are other chemicals and consumables

Supplier Composition Overview

In 2021, there were about 550 suppliers in cooperation with NYPCB, of which the number of local suppliers accounted for 90%, and the proportion of procurement amount reached 39%.



基準:採購金額>新台幣10萬元/年

Management overview

The procurement process at NYPCB adopts the method of "open bidding". Through the Formosa Plastics procurement and outsourcing system on the electronic trading platform, it provides online inquiry, quotation, price negotiation, order and delivery of suppliers.

NYPCB has always regarded suppliers as partners, and is committed to provide guidance and make long-term cooperation to establish a sustainable supply chain with stable progression. Since October 1, 2019, the "Letter of Commitment of the Formosa Plastics Group suppliers and contractors for Corporate Social Responsibility Requirements" and "Supplier/Contractor Social Responsibility Questionnaire" have been added successively. When manufacturers log in to the Formosa Plastics Electronic Market or after placing an order, we will send a letter to request manufacturers to sign then reply, and comply with the relevant regulations.

Supplier/Contractor Management Overview

	2018	2019	2020	2021
Trading Manufacturers (Number of Manufacturers)	-	-	335	550
Percentage of signed social responsibility commitments (%)	-	-	48%	60%
Percentage of completed social responsibility commitment questionnaire (%)	-	-	98%	98%

2.5.2 Supplier and contractor evaluation and classification

Supplier evaluation and audit consultation

NYPCB regularly conducts supplier evaluations with the senior executives of key suppliers. In addition to requiring new suppliers to pass the ISO 9001 and ISO 14001 certifications, comprehensive evaluations of the technology (T), quality (Q), response (R), delivery (D), cost (C), environment (E) and other indicators to assess the suitability of suppliers to enter into the supply chain. New suppliers that have passed the assessment must complete the signing of the "Letter of Commitment of the Formosa Plastics Group suppliers and contractors for Corporate Social Responsibility Requirements" during the transaction. In addition, through regular evaluation of existing suppliers every six months, suppliers are required to pay attention to environmental and social governance (ESG, Environment, Social, and Governance indicators account for 10% of the overall evaluation), and obtain the RBA (Responsible Business Alliance) certification, ISO 45001 certificate, AEO (Authorized Economic Operator) certification, and requires major raw material suppliers to meet the requirements of IATF 16949 as the goal.

NYPCB visits major suppliers and conducts quality system audits every year according to the annual plan. The implementation target is to have the audit rate greater than 80% within two years. The audit process is to ask suppliers to conduct self-inspection and assessment first, and then conduct an on-site audit. The audit items include the implementation of quality system, human rights and labor conditions, environmental safety, green partners, etc., as well as compliance with the requirements of RBA and relevant environmental laws and regulations. For those who fail the audit, NYPCB will require suppliers to formulate improvement plans and provide necessary assistance. A total of 10 major manufacturers had been planned to be audited in 2021, 10 of which have been completed, and the audit completion rate is 100%. There were no high-risk manufacturers, no major audit defects, and all other audit defects have been fully improved.

The Status of the Major Supplier Audits

Year	2018	2019	2020	2021
Overall manufacturer audit ratio (Note 1)	100%	100%	90%	100%
Proportion of high-risk manufacturers audited (Note 2)	NA	NA	NA	NA

Note 1: Number of Audited Manufacturers/Number of Major Manufacturers Note 2: Number of Audited Manufacturers/Number of High-Risk Manufacturers

Tiered Management System for Contractors



To reinforce safety management, control the quality of contractors, improve contractors' occupational safety standards, and prevent their employees from injuries, NYPCB implemented a hierarchical system for contractor management. For all engineering professional manufacturers, the contracting center of the general management office is responsible for collecting their information, investigating and evaluating their plant construction sites, construction equipment, construction site safety management capabilities and technical capabilities, and contract performance, etc. They are classified in to classes A, B, and C according to their contracting ability and actual performance.

For supplier safety management, please refer to 4.5 Occupational Health and Safety in this report.

2.5.3 Supply Chain Issues

Corresponding	Raw material management			
Material Topics	GRI Standards: Custom Topics			
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 Company's competitiveness			
Policy and Commitment	The Company is committed to optimizing material use and introduce the 3Rs of circular economy, namely Reduce, Reuse, and Recycle, to fulfill its social responsibilities			
Responsibilities	Materials Department			
Resources	Regular monthly meeting to review and improve			
Action	1. Conduct Plan-Do-Check-Act (PDCA) on material procurement, material follow-up, and idle materials to ensure the reasonableness of material use			
	2. Develop competitive products from the source to reduce material use per unit and procurement cost in order to reduce resource consumption			
Communication Channels	Regular monthly meetings and production line inspection and technical exchange forums from time to time			
Method	Coordinate with irregular incoming audits to confirm the effectiveness of various improvement programs			

Targets (Short/Medium/ Long Term)	 Short-Term (monthly): Ensure that the performance indicators 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
	1. In 2020, the amount of material purchase requisitions will be reduced to NT\$95 million
Overall Performance	2. The Inventory turnover achievement days is less than 3 weeks
	3. The competitive product achievement rate was 100%
	4. The scrap disposal achievement rate was 100%

Procurement of key raw materials

The sole supplier or the key supplier must update the Business Continuity Planning (BCP) every year. The Company properly manages emergency response plans and requires suppliers to conduct self-risk assessments annually.

2.5.4 Localized purchase

Conflict minerals management

In terms of conflict mineral 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 asked to improve, and do not rule out finding replacements. In addition, NYPCB actively encourages smelters in the supply chain to participate in the Responsible Minerals Assurance Process (RMAP), and get certified as a qualified smelter by a trusted third party. In 2021, a total of 12 smelters in the supply chain participated in RMAP and obtain third-party certification, accounting for 100% of the total smelters.

NYPCB actively promotes and implements the localization of material procurement to reduce unnecessary air and sea freight and the carbon footprint generated during transportation. Please refer to the table below for the ratio of the number of domestic/outsourced suppliers and the ratio of the amount purchased in the past four years.

	2	2018 2019		2020		2021		
	Insourced	Outsourced	Insourced	Outsourced	Insourced	Outsourced	Insourced	Outsourced
Percentage of insourced/outsourced suppliers (%)	92%	8%	87%	13%	84%	16%	90%	10%
Percentage of insource and outsource purchase amount of suppliers (%)	47%	53%	44%	56%	42%	58%	39%	61%

Note 1: Insourced purchases are defined as suppliers purchased in Taiwan and the corresponding purchase amount, and outsourced purchases are from outside Taiwan Note 2: Major customers that specify high-end products that still need to import raw materials from abroad

The Company continues to promote green procurement, requiring raw material suppliers to provide a letter of commitment promising that their products do not contain substances that are harmful to the environment, and requiring annual inspection reports to ensure that the products meet the requirements of customers and relevant laws and regulations. The amount of green procurement in 2021 is NT\$4,256.1 million.

Environmental Sustainability

- 3.1 Commitment to sustainable development of the environment
- 3.2 Climate Change Action
- 3.3 Water Resources Management
- 3.4 Air Pollution Management
- 3.5 Waste Management

3.1 Commitment to sustainable development of the environment

3.1.1 Environmental Protection Policy

HSE Organizational Structure and Responsibilities

NYPCB has a ESH Unit that reports directly to the President's Office. In 2009, the HSE unit was evaluated by the Council of Labor Affairs (Executive Yuan) as the first-tier Labor ESH Management Unit. It is responsible for the integration, formulation, and execution of relevant external business related policies and various standard implementation procedures of the entire company. Each factory also has an environmental safety department, which is responsible for the promotion of internal safety, hygiene and environmental protection.

ESH Organization



	Safety and hygiene management meeting	Environmental protection and energy saving meeting	Occupational Health and Safety Committee
Purpose of the Organization	 Zero occupational injuries and zero hazards Zero violation tickets 	 Zero anomalies as checked by the competent authorities Energy saving, water saving and waste reduction 	 Established under the Occupational Health and Safety Act Review safety, hygiene, health and other related business
The top person in charge	Deputy General Manager	Deputy General Manager	President
Frequency of meetings	Once per month	Once per month	Once per quarter
Management Results in 2021	No occupational injuries/disabilities or fines	 Zero anomalies confirmed by the competent authority The achievement rate of the energy saving target was 75.8% The achievement rate of the water saving 	15 items were suggested for improvement
		4. The achievement rate of the waste reduction target was 109%	

Environmental, health, and safety management system

NYPCB has achieved the ISO 14001 certification of the environmental management system in November 1996, and passed the ISO45001 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, with reference to the provisions of the TOSHMS management system, we successfully passed the CNS 15506 verification to further confirm the direction and practice of comprehensive care for all stakeholders. In terms of occupational health and safety, NYPCB successfully transferred to ISO 45001 in 2021, ensuring that all employees can have a safe working environment. Based on the above contents, the Company formulates an environmental safety and health management manual, and implements training to ensure that all employees acquire sufficient knowledge and skills.

Managing Review Procedures

NYPCB holds the "Environment, Health and Safety Management Review Meeting" annually to review and evaluate the environmental, health, and safety management plan (tracking measures) and objectives, the implementation of the objectives, and the rate of achievement of objectives from the previous year. At the same time, the environmental, safety and health management goals, target values, and management plans for the current year are set, and the ESH team supervises the actual implementation from the relevant departments. For the management system certifications, please refer to the official website under "Awards and Certification".

https://www.nanyapcb.com.tw/nypcb/chinese/AboutNanYaPCB/QualityPolicy/ Awards.aspx



3.1.2 NYPCB Environmental Protection History

NYPCB handles the basic work of environmental protection management in accordance with the law. In 2021, there was no record of violating environmental protection laws and regulations, and there was no major leakage incident that affects the environment. In addition, the Company has participated in the competent authorities's environmental improvement programs, promoted waste reduction, reuse of resources, and reduced green house gas emissions. Furthermore, the Company has been researching and developing eco-friendly products and managing them to follow the growing eco-friendly trend.

3.1.3 Complaint Mechanism for Environmental Issues

NYPCB has set up a feedback mailbox on its global website as well as the intranet and stipulated an internal and external complaint and suggestion box. A public relations team was also formed to approach and handle external complaints. The statistics show that no complaints were made regarding external and internal environment problems of the Company in 2021.



Internal and external feedback mailbox

3.1.4 Environmental Accounting

The environmental 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 and set out various independent accounting subjects. The environmental expenditure invested in 2021 was NT\$327,968,000, of which the recurring expenses on environmental protection was NT\$231,168,000, and the investment in environmental protection equipment was NT\$96,800,000. The equipment investment in 2021 increased by NT\$ 94,274,000 compared with that in 2020, mainly due to the expansion of wastewater treatment equipment.



Environmental Expenditure of NYPCB in the Past Four Years

	Unit: Thousands of NT\$							
	2018	2019	2020	2021				
Investment in environmental protection equipment	250	3,685	2,656	96,800				
Recurring Expenses	177,191	185,497	195,538	231,168				
Total Environmental Protection Expenditure	177,441	185,182	198,194	327,968				

- Note 1: Investment in Environmental Protection Equipment: Investment in equipment that helps to improve the environment
- Note 2: Recurrent Expenses: expenditures on various activities to prevent, reduce, or eliminate pollution or public hazards caused during the process of production and consumption

Classification of Environmental Protection Recurring Expenses



3.1.5 Overall Environmental Results in 2021

In 2021, the total input (materials, energy, water resources) and total output (greenhouse gas, air pollutants, waste, waste water) and other environmental information of NYPCB's operating plants are summarized following diagram:



Note 1: No emission of nitrogen oxides and sulfur oxides in exhaust gas

3.2 Climate Change Action

3.2.1 Climate Change Management Framework

	Governance	Strategy	Risk Management	Indicators and Goals
Management Strategies and Action Plan	 The Company has established an energy management unit to promote the review and improvement of energy efficiency of each department, as well as hold monthly energy management meetings and tracking the current status. Environmental policies, reduction targets, effectiveness of implementation plans, etc., will be implemented by the General Manager after preliminary review by the Vice President. 	 The Company continues to promote the ISO 14001 environmental management system as well as various energy and resource conservation activities. Cooperate with the government to promote green procurement policies, purchase products that are required to have environmental protection and energy saving labels, and report the procurement results to governmental units every year. Improve the recycling and reuse of waste water generated in the process, promote energy- saving solutions, apply economical and clean production processes, and reduce the demand for energy and water. 	 Risk topic collection: When formulating risk scenarios, consider the transition risks (policy and legal/market/technology/reputation) in the TCFD structure, then define and explain the risks that may occur. Major risk identification: Identify major risk issues based on the financial impact degree, impact object, and risk possibility of the relevant risk issues. Scenario Analysis and Opportunity Assessment: When developing an opportunity scenario, consider resource efficiency, energy, products and services, markets, and adaptability, and make an opportunity statement explaining the opportunities that may occur. 	1. The Company has set an absolute reduction target for greenhouse gases with the base year as 2020, starting year as 2021, the target year as 2030, and the reduction ratio is expected to be 25% in 10 years.
Implementation	Implemented 13 meetings, tracked the progress of implementing energy management policy, annual goals, and policy resolutions in 2021.	 In 2021, a total of 42 energy-saving projects were completed, which was able to reduce 12,458 degrees per day. A total of 27 water-saving projects were completed in 2021, which reduced water consumption by 325 tons per day. 	NYPCB actively invests in the research and development of products related to the electric vehicle industry, such as circuit boards/substrates for peripheral products of electric vehicles. It is expected that circuit boards/substrates will increase rapidly in the electric vehicle market demand, thereby boosting the company's revenue.	 Sites suitable for installation of solar power have been planned and investigated. There are plans to purchase green power (wind power, photovoltaic).

3.2.2 Climate Change Management Strategies

In response to international trends, the Company has analyzed and evaluated the risks and opportunities associated with climate change and demonstrated its responsibilities and strategies by effectively allocating capital to achieve its vision for low-carbon economic transformation.

Item	Management strategies	Management results
Promote energy and water conservation programs	Environmental management goals and targets are set every year along with the proposal reward system, and the review and improvement of energy efficiency are promoted in each unit. There is also an internal energy management unit for management and operation where regular monthly energy management meetings are held to implement daily operations and conduct internal energy conservation audits.	 In 2021, a total of 42 energy-saving projects were completed, which reduced 12,458 degrees per day and generated an annual benefit of NT\$ 10,761,000. In 2021, a total of 27 water-saving projects were completed, which reduced water consumption by 325 tons per day, with an annual benefit of NT\$2,488.

Item	Management strategies	Management results
Purchasing Green Products	Purchase green products every year and report to the competent authority.	Honored with "2020 Outstanding Private Enterprise and Organization with Excellent Performance in Green Procurement" in 2021, which was issued by the Taoyuan City Government.
Use green energy	 Plan and investigate suitable solar power installationsPower generation location. Plans to purchase green power (wind power, photovoltaic). 	We begun to adjust the purchases of many renewable energy power sellers internally, which will be adjusted along with the green power market. We expected to purchase 16.74 million degrees in 2024.

3.2.3 Climate change risk management

Risk Analysis Methods and Processes

由安衛環部門 (EHS) 主導,負責召集其它單位 (經營分析組 / 安衛環組 / 營業處 / 公用處) 每半年共同進行風險與機會資訊的蒐集,考量轉型風險 (政策和法律 / 市場 / 科技 / 聲譽) 及實 體風險 (慢性及急性),並對可能發生之事件,做出風險說明,包含財務衝擊程度、衝擊時間 (短.中.長)、價值鏈中受衝擊對象、風險可能性。擬定機會情境時,考量資源效率、能源、 產品與服務、市場、適應力,並對可能發生之事件,做出機會說明,包含財務影響程度、影響時間 (短.中.長)、價值鏈中受影響對象、機會可能性。

Risk Analysis Results

Aspects	The Impacts of Risks and Opportunities	Potential Financial Impacts	Stages at which risks and opportunities impact the value chain	Response measures
Emerging Regulations	Increased operating costs due to regulatory revisions	The amendment to Taiwan's "Renewable Energy Development Act" was formally passed on April 2019, requiring consumers with large electricity consumption (with a contracted capacity greater than 5000KW) to set up renewable energy equipment, energy storage equipment with 10% of the contracted capacity within five years, or purchase Renewable Energy Certificates, otherwise a fee will be charged. Although the Company purchases electricity from Nanya Plastics and was not included in the first wave of control list of major electricity consumers, it may still be included in the control list in the future, resulting in an increase in operating costs.	Operation	We begun to adjust the purchases of many renewable energy power sellers internally, which will be adjusted along with the green power market. Expected to purchase 16.74 million degrees in 2024)
chronic entity	Changes in rainfall patterns and extreme variability in climate patterns	In recent years, due to the impact of global climate change, the original rainfall time frame has changed. The rainy season in Taiwan is delayed to until after June and the time of rain is very short, resulting in less rainfall in Taiwan's dry season and shortage of water resources. As a result, NYPCB may experience water shortage during the dry season. If water is carried from other areas with abundant water sources to cope with the shortage of water resources, it will inevitably increase the production cost.	Operation	 Process water reduction Wastewater recycling and reuse Purchasing the wastewater from Taoyuan North District Water Resources Center for pure water regeneration system to produce pure water. It is estimated that by 2024, the annual water withdrawal will be reduced by 2,860,000M³.

3.2.4 Short-, medium- and long-term management goals

2021 Goals and Achievements

Category	Item	Target Value in 2021	Actual Value in 2021	Achievement Rate %	Note
Water Soving	Water consumption per unit of output value (ton/million NTD)	114.6	80.7	142%	Consumption reduced by 2% per year based on actual usage in the previous year.
water Saving	Effluent recycle ratio	28.5	31	109%	The recycling rate increased 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)	10.4	8.3	125%	Emission decreased by 2% based on the actual emission of the previous year.
Waste Reduction	Amount of waste not recycled per unit of output value (kg/ NT\$ million)	46.8	30.1	155%	Reduce by 1% per year based on the actual amount of the preceding year.

Short-term goals (Goals in 2022)

A. Continue to promote water saving, energy saving, and waste reduction.

B.Set the comparison target of unit output value consumption between 2022 and 2021:

Reduce water consumption by 2%, reduce electricity by 2% based on 2020, reduce the amount of unrecycled waste by 1%, and reduce greenhouse gas emissions by 2% based on 2020.

Mid- and long-term goals (Goals for 2023~2030)

- A.Continue to promote water conservation, energy conservation, and waste reduction operations, and participate in external assessments to improve energy conservation technologies and effectiveness.
- B.Add RO purification treatment system to increase waste water recovery.
- C.Increase the proportion of external reclaimed water.

- C. The recovery rate of discharge wastewater increased by 1% compared with 2020.
- D. In 2022, the Carbon Disclosure Project (CDP) "Climate Change" questionnaire rating maintains at the "Leadership Level".
- E. Import external reclaimed water for usage.
- D. Continue to fill out the CDP questionnaire to understand the trend in response to international climate change.
- E. The absolute target of greenhouse gas reduction is 2030, which is expected to reduce by 25% in 2030 compared with the base year of 2020.
- F. The ESH system continues to promote "digitalization" to facilitate timely monitoring and reduce the occurrence of abnormalities.

Note 1: Effluent Recycle Ratio = [(1-(Effluent volume) / (Effluent volume + Recovery volume))*100]

Note 2: Scope 2 coefficient of greenhouse gas emissions refers to the electricity emission coefficient of the Nanya Plastics Utility Plant: 0.9888530771 metric ton CO₂/1,000 kWh steam emission coefficient: 0.3084563385 metric ton CO₂/1,000 kWh steam emission

Note 3: The output value is based on the amount of consolidated revenue

3.2.5 Greenhouse Gas and Energy Management

Corresponding	Greenhouse gas emissions management		
Material Topics	GRI Standards Comparison: 305 Emissions		
Significance	Global warming and climate change has 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		
Policy and Commitment Commitment Comply with external regulations and internal environmental goals, and promote energy-saving improvement operations with the goal of reduced greenhouse gas emissions during production			
Responsibilities	ESH Team		
Resources	Manpower: The ESH team, the health and safety personnel in each factory and division		
Action	1. Periodic inventory of Scope 1, Scope 2 and Scope 3 carbon emissions according to the SO 14064-1 Standards		
Action	Understand carbon emission hotspots through emission analysis and implement energy-saving projects		
	1. Participate in governmental briefings on environmental protection regulations		
Communication Channels	 Participate in the circuit board association to share and learn information related to system management technology with other industrial members 		
	Participate in the internal meetings of the Group to share and learn related system management techniques with different business groups		
Evaluation Method	Hold energy management meetings on a monthly basis, and conduct internal energy conservation audits		
Targets	1. Short term (within 3 years): 2% reduction in greenhouse gas emissions		
(Short/Medium/ Long Term)	 Mid- and long-term (3 to 7 years): 3% reduction in greenhouse gas emissions 		
Overall Performance	1. Sites suitable for installation of solar power have been planned and investigated		
renormance	2. There are plans to purchase green power (wind power, photovoltaic)		

Greenhouse Gas Management

NYPCB's greenhouse gas (GHG) emissions are mainly from indirect energy emissions caused by the use of electricity in manufacturing plants. 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. As for Scope 3, 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.

Diagram of the Scope of Greenhouse Gas Inventory





• The total amount of greenhouse gas emissions over the years

	2017	2018	2019	2020
Scope 1	6,073.88	5,513.9	9,783.92	10,099.46
Scope 2	320,830.91	332,342.8	358,247.45	409,219.61
Scope 3	-	-	-	367,819.47
Total Emissions (Scope 1+Scope 2)	326,904.78	337,856.7	368,031.37	10,099.46
Greenhouse gases per unit of output Emissions (tons/ NT\$ Million)	110.7	127.1	128.5	116.9

Unit: Metric Tons CO₂e

Note 1: The verification data from 2021 will be released in the fourth quarter of 2022

- Note 2: Gas types from Scope 1 are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride. Scope 2 is mainly based on the types of greenhouse gases emitted by the Jinxing Plant of Nanya Plastics Co., Ltd. and the Taipower Company. After the control rights method is used to set the range of the organizational boundary, emission is calculated by the emission coefficient method
- Note 3: Scope 3 inspection items include employee commuting and business transportation, outsourced waste cleaning, and vehicle transportation by the outsourced engineering manufacturers
- Note 4: The greenhouse gas emission coefficient is quoted from the EPA Greenhouse Gas Emission Coefficient Management Table Version 6.0.4, and the global warming potential coefficient is quoted from the IPCC Fourth Assessment Report

Note 5: In the base year 2020, emissions were 419,319 tons

Emissions Analysis

The main source of CO_2 emission in the whole plant is the purchased electricity and steam, which are all purchased from the Jinxing Plant of Nanya Plastics Co., Ltd. In order to effectively suppress CO_2 emissions, we can mainly start from saving electricity. NYPCB's total greenhouse gas emissions in 2021 was increased compared to 2020, mainly due to the increase in the number of machines and product evolution stages throughout the company, resulting in an increase in electricity usage and greenhouse gas emissions.



Analysis of Greenhouse Gas Emissions in 2020



Energy Management and Improvement of Energy Conservation

Direct energy use

The fossil fuels used in 2021 are mainly used for emergency generators, stackers, official vehicles, fire trucks, and staff restaurants (kitchens) in the factory area. In terms of consumption percentage, LPG accounts for about 49%, diesel accounts for 49%, and gasoline accounts for 2%.



Indirect energy usage

The production process of NYPCB mainly focuses on the production of printed circuit boards, and purchased electricity and steam are the main power sources of the company and the largest source of greenhouse gas emissions. The electricity and steam used by each unit are purchased from the Jinxing Plant and Shulin Plant of Nan Ya Plastic Co., Ltd. The overall electricity consumption in 2021 increased compared with 2020, which is caused by the expansion of the manufacturing process and the increase in product output.

(千度) 450,000 378,567 375,000 319,042 300,000 25,000 150,000 87,182 89,219 88,968 83,903 75,000 2018 2019 2020 2021 Total steam consumption (Tons) Total electricity consumption(kwh)

Statistics on the consumption of purchased electricity and steam over the years



Promotion of saving energy

NYPCB spares no effort to reduce energy costs and improve energy efficiency. Environmental management goals and targets are set every year, and cooperates with the proposal reward system to promote the review and improvement of energy efficiency by each unit.There is also an internal energy management organization for management and operation. Energy management meetings are held regularly every month to implement daily operations and conduct internal energy conservation audits.

In 2021, NYPCB completed a total of 42 energy-saving projects, which reduced 12,458 kWh per day and generated an annual benefit of NT\$ 10,761,000.

Note: Energy Saving Benefit Calculation is cited from the "Taiwan Green Productivity Foundation's Guidelines for the Inspection of Voluntary Greenhouse Gas Reductions in Industry"

7,721

12.458

2,635

4.251

Public utility efficiency

promotion

Total

Ш

6,699

10.761

3.3 Water Resources Management

Corresponding	Water use and wastewater discharge management					
Material Topics	GRI Standards Comparison: 303 Water and Effluent					
Significance	Most of the water used by the company in the factory is process water. The main sources are tap water, reclaimed water and other purchased water, and no groundwater is used. In order to reduce water consumption, we first continue to promote water saving and water reclaiming from the source of the process, and also plan to reuse cleaning water from the process line					
Policy and Commitment	Continue to promote water saving and water reclaiming in the factory area from the source of the process, reduce the water consumption per unit of production, and cherish water resources					
Responsibilities	ESH Team					
Resources	Manpower: The ESH team, the health and safety personnel in each factory and division					
	1. Actively manage water use to reduce overall water consumption					
Action	 Promote water resource management measures, establish wastewater reclaiming systems, and commit to water conservation improvement activities 					
	1. Participate in governmental briefings on environmental protection regulations					
Communication Channels	2. Participate in the circuit board association to share and learn information related to system management technology with other industrial members					
	3. Participate in the internal meetings of the Group to share and learn related system management techniques with different business groups					
Evaluation Method	Hold energy management meetings on a monthly basis, and conduct internal water-saving audits					
Targets (Short- / Medium- / Long- Term)	 Short-term (within 3 years): Use of water resources: Add water reclaiming equipment to reduce the use of purchased water Wastewater Discharge Management: Zero Environmental Tickets Mid- and long term (3~7 years): 					

	1. Water resources: In 2021, a total of 27 water consumption reduction
Overall	projects were completed, which reduced water consumption by 325 tons
Performance	per day in total, resulting in an annual benefit of NT\$ 2,488,000
	2. Wastewater Discharge Management: Zero environmental fines in 2021

3.3.1 The main source of water intake

The main sources of water used by the water company are tap water, reclaimed water and other purchased water, and no groundwater is used. The source of tap water comes from the Shimen Reservoir.

Unit: million liters

Statistics on the water intake of NYPCB source in the past four years

Year	2018	2019	2020	2021
surface water	475	433	351	213
well water (Groundwater)	_	-	_	-
third party (Tap water)	3,190	3,564	4,151	4,002
Others	-	-	-	-
Total water withdrawal	3,665	3,997	4,502	4,215

Note 1: Other sources of water intake of NYPCB are transferred from the Nanya Jinxing Plant Note 2: Total water withdrawal = surface water + well water + third party + others



3.3.2 Water management

Water management results over the years



	2018	2019	2020	2021
Water Usage (A)	4,629	5,119	5,803	5,480
Reclaimed water volume (B)	964	1,122	1,301	1,266
Discharge (C)	2,613	2,389	3,070	2,792
Water consumption (D)	2,016	2,730	2,733	2,688

Note 1:Water consumption = Water usage (A) - Discharge (C)

Note 2:Water Usage (A) = Reclaimed water volume (B) + Discharge (C) + Water consumption (D)

3.3.3 Water Management Measures

In order to reduce water consumption, NYPCB continues to promote water saving and water recycling from the source of the process, and also plans to reuse cleaning water from the process line. In addition, the whole plant area, including the employees' office area, has been fully equipped with water savers on faucets to establish a water-saving culture.

NYPCB Reclaimed Wastewater System

System	Neutral reclaimed water system	Alkaline reclaimed water system	Repurification and reclaiming system
Mode of Operation	Transfer the wastewater with pH 7 to the washing tower of the production plant and use as flushing water (including dormitory)	The wastewater with pH9~pH10.5 is transported to the washing tower of the production plant for use.	Use continuous treatment units such as coagulation and flotation, sand filtration, microfiltration and reverse osmosis to remove residual COD, SS, microorganisms and dissolved ions in the water
Outcome Benefits	 Neutral reclaimed wat 430,198 tons/year. Alkaline reclaimed wat 263,223 tons/year. 	er use in 2021: ter use in 2021:	Directly supplement the water of each plant and the clean water pool of the pure water field to reduce the consumption of pure water

In response to possible short-, medium- and long-term water shortage scenarios, NYPCB develops countermeasures for situations such as insufficient water supply, rising water prices, and water resources conflicts among stakeholders. In 2021, the water consumption per unit of output value decreased compared with 2020 (the target achievement rate is 100%); the wastewater recovery rate in 2021 was higher than that in 2020 (the target achievement rate is 100%); which was due to the expansion of the plant process area and the increase in the amount of alkaline reclaimed water in the second wastewater field.



• Reduction in Domestic Water Usage

Increasing the Sources

- Recycling, purifying, and reproducing pure water from effluent
- Alkaline wastewater recovery acid waste gas, reuse for washing tower
- Cleaning operation for the neutral wastewater recycling process





Tendency chart of the recovery rate of effluent



Water saving activities completed in 2021

Improvement Methods	Amount of water saved (ton/day)	Improved efficiency (NT\$ thousands)	
Wastewater recycling and reuse	0	0	
Process water reduction	325	2,488	

Statistics of Water Saving Activities at NYPCB in the Past Four Years

	Amount of water saved (ton/day)	Improved efficiency (NT\$ thousands)
2018	343	1,716
2019	146	820
2020	347	2,422
2021	325	2,488



3.3.4 Waste water disposal

In the design concept of wastewater treatment facilities, NYPCB mainly considers the characteristics of wastewater and the stability and convenience of treatment, operation and maintenance. The classification and planning of the complete wastewater treatment process and facilities, together with the rigorous planning of the process source wastewater classification and piping engineering, is to effectively treat the wastewater and facilitate the back-end recycling and purification.

Wastewater treatment equipment



The location where NYPCB is located and the adjacent areas are all industrial land planned by the government dedicated to industrial use, and is not located in ecological protection areas. The receiving water body for wastewater discharge is Nankan River (as shown in the table below). In the future, we will continue to improve the process and equipment to reduce the amount of wastewater discharge and improve treatment, so as to reduce the impact on the environment.

Item Plant	Plant area	Drinking water source water quality protection area	Drainage area for the reservoir	National Park	Wildlife Sanctuary	Nature Reserve	Coastal Reserve
Jinxing	Downstream of the Nankan River	Х	х	Х	Х	Х	Х

Note: "X" means that NYPCB is not in the above protected areas

In addition, the wastewater generated by each process is strictly classified and managed at the process machine or equipment side, and then collected through the diversion pipeline to various wastewater treatment systems. The Company also conducts daily discharge water sample testing to ensure that the treated water quality is far below the existing statutory emission standards. The statistics of the inspection results in 2021 are as follows, and they all meet the requirements of the regulations.



2021 Wastewater quality evaluation results

Item	Inspection Items	Unit	Regulatory _ Standards		Inspection Results		
Category				Minimum Value	Average Value	Maximum Value	standards or not
	Hydrogen Ion Concentration Index (pH)	-	6-9	6.9	7.0	7.1	<
Jinxing Wastowator Plant	Chemical Oxygen Demand (COD)	mg/L	<120	44.3	60.8	74.3	<
No.1	Suspended Solids (SS)	mg/L	<50	7.6	11.5	15.2	
	Copper ions (Cu)	mg/L	<1.5	0.29	0.35	0.37	
	Hydrogen Ion Concentration Index (pH)		6-9	7.1	7.3	7.7	~
Jinxing Wastewater Plant No.2	Chemical Oxygen Demand (COD)	mg/L	<120	18.8	27.3	35.1	S
	Suspended Solids (SS)	mg/L	<50	3.1	5.1	8.8	S
	Copper ions (Cu)	mg/L	<1.5	0.34	0.43	0.48	S

Note: The regulatory standard is "Appendix 5 of the Standard for Discharge Water - Items and Limits of Discharge Water Quality in Basic Metal Industry, Metal Surface Treatment Industry, Electroplating Industry and Printed Circuit Board Manufacturing Industry"

3.4 Air Pollution Control

Corresponding	Air pollution management						
Material Topics	GRI Standards Comparison: 305 Emissions						
Significance	The main source of air pollution of the company is the use of acid, alkali and chemicals containing volatile organic compounds in the manufacturing process. Therefore, in addition to implementing the acid-base separation design at the source of the process waste gas collection pipeline, we also plan and set up treatment equipment according to the characteristics of various waste gases, including packed scrubbers, baghouses, activated carbon adsorption towers and other air pollution control equipment. In order to improve the air quality around the factory area, the Company purchased a UV-C reaction tower in 2011 to improve the effect of odor and VOC treatment						
Policy and Commitment	Establish waste gas pollution prevention and control processes, manage the emission values of major air pollutants in the factory area, and ensure the quality of surrounding air						
Responsibilities	ESH Team						
Resources	Manpower: The ESH team, the health and safety personnel in each factory and division						
Action	 Cooperate with the implementation of inspection and maintenance work, so that the equipment can perform its best and be able to perform pollution work effectively Whenever the process equipment is added or changed, the Company entrusts an organization approved by the Environmental Protection Administration to conduct flue pollutant testing during the test run to ensure the effectiveness of pollution control 						
	1. Participate in governmental briefings on environmental protection regulations						
Communication Channels	2. Participate in the circuit board association to share and learn information related to system management technology with other industrial members						
	3. Participate in the internal meetings of the Group to share and learn related system management techniques with different business groups						
Evaluation Method	Hold energy management meetings (including air pollution prevention and control equipment management) on a monthly basis, and conduct air pollution prevention and control Internal audit work in equipments						
Targets (Short- / Medium- / Long- Term)	 Short-term (within 3 years): Add or change equipment as needed with the manufacturing processes and update the air pollution permits 						
	 Medium and long term (3~7 years): Air pollution emission management: zero environmental protection fines 						
Overall Performance	Air Pollution Emissions Management: Zero environmental protection fines in 2021						

The main source of air pollution of the NYPCB is the use of acid and alkali and chemicals containing volatile organic compounds in the manufacturing process. In addition to implementing the acid-base separation design at the source of the process waste gas collection pipeline, we also plan and set up treatment equipment according to the characteristics of various waste gases, including packed scrubbers, baghouses, activated carbon adsorption towers and other air pollution control equipment.

In order to improve the air quality around the factory area, the company purchased a UV-C reaction tower in 2011 to improve the effect of odor and VOC treatment. In 2012, a pH abnormality reporting system for a packed scrubber was installed to instantly improve system deviation and improve waste gas treatment efficiency. Cooperate with the implementation of inspection and maintenance work at the same time so that the equipment can perform its best and be able to perform pollution work effectively. The Company's flue test results have always met the statutory emission standards (the test results have been published on the Environmental Protection Agency's "Fixed Pollution Source Management Information Disclosure Platform ").

Exhaust Pollution Prevention Control Flowchart



Air Pollution Control Equipment



Statistics of Air Pollutant Emission Information of NYPCB in 2021

		Unit: Ton/Year		
Various maior gas omissions	Plant	Total		
various major gas emissions	Jinxing Plant of NYPCB			
Nitrogen oxides (NOx)	-	-		
Sulfur oxides (SOx)	-	-		
Volatile Organic Compounds (VOCs)	68.04904	68.04904		
Suspended Particulate (PM)	0.062651	0.062651		



3.5 Waste management

Corresponding	Waste management						
Material Topics	GRI Standards Comparison: 306 Waste						
Significance	NYPCB is committed to reducing waste, making the most effective use of resources and materials and recycling the material resources						
Policy and Commitment	NYPCB has established multiple waste collection points within its plants to reduce wastes and also continuously improves its production processes and operations. First, waste reduction is being promoted at the source of the process, secondly consider recycling, and finally promote waste classification and reuse						
Responsibilities	ESH Team						
Resources	Manpower: The ESH team, the health and safety personnel in each factory and division						
Action	1. All business wastes are contracted by qualified domestic cleaning companies and entrusted to qualified waste treatment plants for treatment. The contracted wastes are regularly inspected by follow-up visits to ensure the wastes are disposed properly						
	2. Continuously promote relevant waste reduction measures						
Communication Channels	 In accordance with the provisions of ISO standards, the Company integrates regulatory requirements and company management systems, formulates an environmental health and safety management system, and effectively controls the legality of various operations 						
	Promote waste reduction activities, implement circular economy, and improve resource utilization						
Evaluation Method	Hold energy management meetings (including waste management) on a monthly basis, and conduct internal waste management audits						
Targets (Short- / Medium- / Long-	1. Short term (within 3 years): Continues to promote reduction of combustible waste						
Term)	2. Long-term (3-7 years): Promotion of outsourcing waste reduction						
Overall	1. In 2021, the achievement rate of the waste reduction target was 109%						
Performance	2. Waste management: zero fines						

3.5.1 Waste management

NYPCB is committed to reducing waste, making the most effective use of resources and materials, and recycling the material resources. The Company has established multiple waste collection points within its plants to reduce wastes and also continuously improves its production processes and operations. First, waste reduction is being promoted at the source of the process, secondly consider recycling, and finally promote waste classification and reuse, so that resources and materials can be recycled and reused.

All business wastes from NYPCB are contracted by qualified domestic cleaning companies and entrusted to qualified waste treatment plants for treatment. The contracted wastes are regularly inspected by follow-up visits to ensure the wastes are disposed properly.



Total waste

2021 ESG Report 59

Waste diverted from disposal by recycling operations



Waste directly disposed of by disposal operation

Unit: metric tons



As for the effectiveness of resource recovery, through continuous promotion of relevant waste reduction measures, the achievement rate of the amount of non-recycled waste per unit output value of NYPCB (non-recycled: refers to the annual amount of waste generated by incineration and landfill disposal) was 109% in 2021. 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.

Wastes categorizing and collecting



3.5.2 Management of toxicity and chemical substances of concern

Corresponding	Toxic chemical substance control							
Material Topics	GRI Standards Comparison: Custom theme							
Significance	Strengthen the use, control and discharge of chemical substances that have a significant impact on the environment and human body							
Policy and Commitment	Reduce disaster incidents through risk prevention and contingency plans, accident handling procedures, and regular implementation of emergency drills							
Responsibilities	ESH Team							
Resources	Manpower: The ESH team, the health and safety personnel in each factory and division							
	1. Reduce the probability of various accidents through hazard identification, risk assessment and control improvement measures							
Action	Regularly conduct emergency drills for toxic substances, fires and chemical disasters, and be familiar with emergency management procedures							
Communication Channels	According to ISO standard provisions, integrate legal requirements and the company management system, formulate a HSE management system, to effectively control the legality of various operations							
Evaluation Method	Internal Audit and Management Review Meeting							
Targets (Short/Medium/ Long Term)	 Short-term (within 3 years) : The Company should obtain 9 licenses on Emergency Responders of the Toxic and Concerned Chemical Substances before 2023 (technical level: 3 people, operational level: 3 people, general knowledge level: 3 people) The content of the emergency equipment plan and the hazard prevention plan shall be reviewed every 2 years and sent to the EPA for reference Medium and long-term (3 to 7 years): Obtain the licenses for trainee personnel for Emergency Responders of the Toxic and Concerned Chemical Substances before 2023, with 4 trainees in the entire company. (technical level: 1 people, operational level: 1 people, general knowledge level: 2 people) According to the announcement, the relevant documents for licensing the operation of chemical substances of concern have been added to meet the regulatory requirements. 							

Overall Performance	1. Toxic testing in 2021 included 2 no-warning testing twice a year and 1 overall exercise
	2. In 2021, there were no toxic chemical disaster accidents
	3. In 2021, a total of 6 people have obtained the license of emergency responders of the roxic and concerned chemical substances

In the management and use of toxic and chemical substances of concern, NYPCB mainly includes the Type 3 of cyanide (potassium cyanide and sodium cyanide) and the Type 4 of toxic chemical substances. In accordance with environmental protection regulations, management and reporting are carried out for the stages of purchase/transportation/use/storage/disposal. In addition, because the third type of toxic chemical substances are acutely toxic to the human body, the lock-up control of the storage site is strictly enforced, and protective equipment is required to enter the storage room to reduce the chance of personnel contact. In order to effectively prevent disasters, alarm equipment is installed in the process, and emergency response drills are carried out on a regular basis annually.

Disaster emergency prevention exercises





Employee Welfare

- 4.1 Employment
- 4.2 Remuneration and Welfare
- 4.3 Talent Cultivation and Development
- 4.4 Employee Communication and Care
- 4.5 Occupational Health and Safety

4.1 Employment

Corresponding	Employee diversity and equal opportunities					
Material Topics	GRI Standard Comparison: 405 Diversity and Equal Opportunity					
Significance	In order to ensure that all employees can be treated and cared for reasonably so that the company and colleagues can grow together, we adhere to the core concept of treating multicultural employees with the principle of equality and anti-discrimination, providing employees with equal and fair employment opportunities, and recruit talents without discrimination based on race, gender, age, physical and mental disabilities, religion, ethnicity or any other characteristics protected by relevant laws and regulations					
Policy and Commitment	The Company has a human rights policy that abides by laws and regulations, protects the basic human rights of employees, and provides employees with a sound management system, solid training, smooth promotion and complaint channels in order to recruit outstanding talents					
Responsibilities	Human Resources Department					
Resources	Offer a stable and excellent compensation system, as well as a complete education and training, promotion and development system, along with a complete set of welfare measures					
Action	Both employers and employees can communicate fully through trade unions, welfare committees and other organizations					
Communication Channels	 Trade unions (labor-management associations), welfare committees and other organizations Physical and online suggestion box, the "799" hotline 					
Evaluation Method	Annual report, social responsibility report					
Targets (Short/Medium/ Long Term)	Continue to manage talent recruitment, implement the "Human Resource Counseling Personnel" system and training courses in phases, and provide a comprehensive remuneration, welfare measures and promotion systems					
Overall Performance	The new entry rate in 2021 was 8.8%					

4.1.1 2021 Manpower Structure at NYPCB

For NYPCB's manpower structure, the total number of employees in 2021 was 6,094, including a total of 6,086 regular employees, accounting for 99.9%, and with 8 non-regular employees whom are all fixed-term contract employees, accounting for 0.1% (5 males, 3 females, and their working location is at the Taoyuan Plant). Currently, there are no part-time employees; domestic employees account for 84.9%, and foreign employees account for 15.1% (all nationalities are Vietnamese). The ratio of male to female employees is about 2:1, the average age of employees is 39.2 years old, and the average years of service is 14.5 years.

Manpower Structure Distribution of Regular Employees





Note: Service staff refers to the administrative staff who handles business tasks

Nationality distribution of NYPCB employees in the past four years



Note 1: The management level refers to managers(inclusive) and above Note 2: Technical staff refers to the supervisors

Age and regional distribution of new employees





4.1.3 Ratio of Local Supervisors

NYPCB creates stable employment opportunities, gives priority to local residents when recruiting new entry-level recruits, and actively trains local residents to become outstanding officers. In 2021, a total of 271 local residents were employed as supervisors, accounting for about 4.5%.

Proportion of employing local residents as supervisors in the past four years



Unit: Number of people

4.1.4 The number of people with disabilities

In order to safeguard the rights and interests of persons with disabilities, protect their equal opportunities to participate in society, politics, economy, culture, and promote their independence and development, NYPCB employs persons with disabilities in accordance with Article 38 of the People with Disabilities Rights Protection Act. By the end of 2021, a total of 51 persons with disabilities (32 males and 19 females) have enrolled, including 13 persons with severe disabilities, 8 persons with moderate disabilities and 30 persons with mild disabilities.

Number of Employees with Disabilities in the past four years





Number of employees Percentage of locals (%)

Note 2: Local ratio = supervisors (inclusive) or above whose household registration and factory location are the same county and city / number of full-time employees



4.2 Remuneration and Welfare

Corresponding	Employee benefits and compensation					
Material Topics	GRI Standards Comparison: 401 Employment, 405 Diversity and Equal Opportunity					
Significance	Manpower is the most important asset of the company. How to make every employee feel at ease and willing to give the best of their abilities is the goa that the Company strives to pursue. In order to attract outstanding talents, we provide stable and competitive salaries and comprehensive welfare measures					
Policy and Commitment	We offer reasonable and competitive salary and benefits in accordance with the labor market					
Responsibilities	The Human Resources Unit of the President's Office, Administration Department					
Resources	 Manpower: The Human Resources Unit, Administration Department Funding: Employee welfare fund 					
Action	 Regular salary adjustment review mechanism; promote work performance bonus Hold employee leisure activities 					
Communication Channels	Trade union forums, online opinion platform, employees suggestion box, hotline for feedbacks					
Evaluation Method	 Employee satisfaction survey Statistics, review and improvement of staff retention rate 					
Objectives	 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 					
(Short/Medium/ Long Term)	 2. Benefits: Short-term (within 3 years): To achieve 9 points in employee satisfaction survey Medium and long-term (3~7 years): Promote employee care plans to promote balanced development of work, health and life 					
Overall Performance	 Salary ratio of women to men: 1:1.2 in 2017, 1:1.2~1.3 in 2018~2020, 1:1.2~1.4 in 2021 Employee satisfaction: 8.53 points in 2017, 8.71 points in 2018, 8.71 points in 2019, 8.86 points in 2020 					

4.2.1 Employee Compensation

NYPCB not only complies local labor laws but also joins local associations that survey salaries and welfare to ensure its salaries are competitive in the labor market. The basic salary ratio of female and male employees of the same position and rank in the Company is about 1:1. After being employed, salary will be adjusted and promoted year by year depending on work performance, and the corresponding salary will be given. In 2021, the number of non-supervisor full-time employees will be 5,825 (excluding those who have been on the job for less than 6 months), with a total salary of NT\$6,896,435,000, an average annual salary of NT\$1,184,000, and a median salary of NT\$1,147,000.

Rank	Female	Male
Manager and above	1	1.40
Supervisor and below	1	1.21



The number and average salary of non-supervising staff

4.2.2 Employee Welfare

NYPCB established the Employee Welfare Committee in accordance with the "Act for Employee Welfare", "Employee Welfare Committee Organizational Regulations" and "Regulations for Employee Welfare Association Establishment". The Company also set up an employee welfare committee and allocate employee welfare funds to handle employee welfare matters including: welfare association, staff cafeteria, hairdressing department, food and beverage department, library, health center, sports facilities, movie appreciation, annual welfare products, birthday vouchers, employee travel subsidies, life lectures and hiking activities, etc. For details about the Company's various welfare measures, please refer to the official website under "Work and Life".

http://www.nanyapcb.com.tw/nypcb /chinese/Employ ment/WorkLife/Compensation.aspx





Expense on Employee Welfare (salary / labor & health insurance / pension / other)























The Company offers a variety of employee welfare benefits and incentives based on Formosa Plastics Group and are more generous than the requirements of government regulations. Details are as follows:



In order to continuously maintain the vision of a happy workplace, NYPCB has set up breastfeeding rooms and implemented the system of parental leave and unpaid parental leave. In 2021, a total of 23 people applied for parental leave without pay, with a reinstatement rate of 86 % and a retention rate of 83 %.

Number of applicants, the reinstatement rate, and retention rate of unpaid parental leave in 2019-2021

											Unit. Null	inel ol heohle
	2019		2020			2021			Total in 2019-2021			
NTPLB	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of people who can apply for parental leave in the past three years	111	53	164	93	32	125	78	12	90	282	97	379
Actual number of applications for parental leave	8	33	41	3	19	22	8	15	23	19	67	86
Number of people who should be reinstated in the current year (A)	9	31	40	4	29	33	6	15	21	19	75	94
Number of applicants for reinstatement in the current year (B)	7	19	26	3	15	18	6	12	18	16	46	62
Reinstatement rate (B/A) (%)	77	61	65	75	52	54	100	80	86	84	61	66
Number of people who stay for more than one year after reinstatement	9	17	26	5	13	18	6	8	14	20	38	58
Retention Rate	69	85	79	71	68	69	100	67	83	87	70	75

Note: "Retention rate" refers to the rate of employees who are reinstated after parental leave and stayed for more than one year

4.2.3 Staff Evaluation

All NYPCB employees undergo regular assessments in accordance with the "Assessment Measures", and the year-end performance appraisal grades are assessed based on regular work assessments, attendance records, records of rewards and punishments, and the time limit for handling various cases as the basis for salary adjustment and yearend bonus issuance, and as a reference for future training, promotion and transfer. Employees with evaluation results of grade B or C shall be interviewed periodically by their supervisor to track the improvement plans and results. In 2021, 100% of employees were subjected to regular assessment.

4.2.4 Excellent Job Security

In order to adapt to the rapid changes in the business environment and the continuous innovation of technology, NYPCB continued to rationalize management and simplify the organization. However, based on the spirit of giving priority to protecting the rights and interests of employees, even in the most difficult business environment, we still share the difficulties with employees and establish a human resources integration mechanism to replace severance by transfer. In the past four years, NYPCB's employee turnover rate has been about 0.6%, which is significantly lower than that of Taiwan's electronic components manufacturing industry.



Age and regional distribution of the resigned employees in 2021



Note 1: The statistical period includes the resigned and in-service colleagues from 2021.1.1 to 2021.12.31 (including regular and part-time personnel)

Source:Department of Budget, Accounting and Statistics (Time Series Data Enquiry - Exit Rate)

Note 2: Percentage of resigned staff = Total number of employees resigned / (Total number of employees at service) * 100

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4.3 Talent Cultivation and Development

Corresponding	Career development and training					
Material Topics	GRI Standards Comparison: 404 Training and Education					
Significance	Manpower is the most important asset of the company. How to make every employee feel at ease and willing to give the best of their abilities is the goal that the Company strives to pursue. Having a complete training and promotion development system attracts outstanding talents, and be able to make full use of human resources					
Delievend	1. Formulate work and human resources management regulations					
Commitment	Provide complete functional training in combination with career development					
Responsibilities	Human Resources Unit from the President's Office, Eech department					
Resources	1. Manpower: Human Resources Unit, performance group of each department					
	2. Funding: Training budget					
Action	Promote and implement a complete training and promotion development system					
Communication Channels	Online opinion platform, employees suggestion box, hotline for feedbacks					
Evaluation Method	Statistics, review and improvement of staff retention rate					
Objectives	Short-term (within 3 years): To achieve a turnover rate below 1.5%					
(Short/Medium/ Long Term)	Medium and long term (3~7 years): To recruit suitable talents for suitable positions, and stabilize manpower status					
Overall Performance	Turnover rate: 1.2% in 2017, 0.5% in 2018, 0.6% in 2019, 0.6% in 2020, 0.7% in 2021					

4.3.1 Career Learning Map

NYPCB has a complete training and development system for the new recruits, and has created a quality working and learning environment to cultivate professional talents with innovative perspective and continuous improvement. At the same time, 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 an outstanding and practical professional.

Career Development Road Map for Employees


4.3.2 Implementation of employees' continuing education and training

In 2021, the Company's various training courses, in addition to being held by each department independently, will also be coordinated by the training unit under the President's office to handle common professional training and training for management trainees. A total of 1,686 training sessions were held, the number of participants was 6,095 (excluding managing directors). The total number of training hours was 125,550 hours, the average training hours per individual was 20.6 hours, and the total cost was about NT\$1.67 million.

Average number of training hours for different types of employees in the most recent three years

Position	tion Executives			Managers		Supervisors		General Staff		Total					
Year	Total Number of People	Total Number of Hours	Average	Total Number of People	Total Number of Hours	Average	Total Number of People	Total Number of Hours	Average	Total Number of People	Total Number of Hours	Average	Total Number of People	Total Number of Hours	Average
2019	72	319	4.4	225	1,775	7.9	574	15,162	26.4	4,897	125,750	25.7	5,768	143,006	24.8
2020	74	277	3.7	228	2,095	9.2	608	12,049.5	19.8	5,081	104,633.5	20.6	5,991	119,055	19.9
2021	73	487	6.7	234	2,054	8.8	626	11,188	17.9	5,162	111,821	21.7	6,095	125,550	20.6

Average training hours per employee in the most recent three years

Year	Gender	Total number of people (person)	Total training hours (hours)	Average (hour/ person)
2010	Male	3,773	105,192	27.9
2019	Female	1,995	37,814	19.0
2020	Male	3,920	84,732	21.6
2020	Female	2,071	34,323	16.6
2021	Male	4,051	90,980	22.5
2021	Female	2,044	34,570	16.9

Note: The total number of people does not include managing directors. The statistical time is based on the number of people at the end of December of the current year

The actual scene at the training



(Unit: Hours/Person)

4.4 Employee Communication and Care

4.4.1 Status of Collective Bargaining

NYPCB has established an employee complaint system to improve labormanagement relations, and formulated work and human resources management regulations to clearly stipulate the rights, obligations and management matters of both parties, so that employees can fully understand and protect their own rights and interests.

Communicat Target	on Channel	Communicat	ion Resources
	 Face-to-face communication Regular meeting of trade union/welf committee (board of supervisors/lab management meeting) Written communication Complaint form 	are oor- Supervisors at all levels	
All employe	 Human resources service team Announcement letter Internal Magazine Publications (electronic, physical books) Employee Assistance Program The Plant Management Office promotions logistical support and welfare service Employee Welfare Committee (periodic performance evaluation a satisfaction survey) 	Human Resources Organization es	Board of Directors and the Management
	Employee feedback box - The 799 Hotline from the plant - Physical suggestion mailbox, corpora information system (Online suggestic box)	ite System on	-

4.4.2 Employee Care

NYPCB continuously promotes many employee care programs to motivate employees, enhance employee benefits, and promote employees to achieve a balanced development in work, health, and life. For related content, please refer to the official website under "Work and Life".

http://www.nanyapcb.com.tw/nypcb/Chinese/Employment/WorkLife/Compensation.aspx

The Company has set up improvement proposal incentives to encourage employees to discover work abnormalities and propose a good improvement plan, and bonuses will be issued based on the improvement period and effect after adoption. In 2021, there were a total of 387 improvement proposals, and a total of NT\$124,600 of bonuses was issued. In addition, an innovation platform website was set up for employees to discuss professional topics, and appropriate rewards were given to those who provide outstanding innovative ideas.



In addition, NYPCB provides Employee Assistance Programs (EAPs). Through the consultation resources of the Mental Health Center of the County Government Health Bureau, unit supervisors and employees can seek professional social workers and counselors to provide crisis management assistance for their management, psychological, family, emotional and other problems to reduce the damage caused by man-made, natural factors or inappropriate treatments.

4.4.3 Respect for Human Rights

NYPCB believes that every employee should be treated with fairness and respect, provides equal job opportunities, and protects the basic human rights of to job seekers and every employee. No material investment agreements and contracts relating to human rights were made in the company in 2021. For the company's human rights protection, please refer to the official website under "Human Rights Policy and Specific Practices"

http://www.nanyapcb.com.tw/nypcb/chinese/SocialResponsibility/HumanRightsPolicy.aspx

The company's labor employees have the option to freely participate in a union and run for representative and can communicate openly with the company's management about work issues without fear of retaliation, threats or harassment. The total people covered by the collective bargaining agreement of the Company in 2021 was 60.4% of the total number of 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. Under the scope of legality and reasonableness, the unions can give full play to and communicate with each other, discuss labor issues extensively, and implement resolutions after reaching a consensus, which is of great help to the improving labor-management relations and planning labor welfare matters.

The company regularly holds communication meetings for managers at all levels, and publishes a quarterly corporate magazine. Employees can also express their opinions through the employee suggestion box, sexual harassment prevention hotline or response hotline. In 2021, there were a total of 4 human rights-related complaints through the formal complaint channel, 2 of which have been properly handled and closed, and the remaining 2 are in progress.

4.5 Occupational Health and Safety

4.5.1 Occupational health and safety

Corresponding	Occupational health and safety			
Material Topics	GRI Standards Comparison: 403 Occupational Health and Safety			
Significance	Ensuring workplace safety and hygiene is not only to safeguard the basic human rights of employees, but also an indicator of enterprise development and progress. In order to effectively reduce occupational hazards and strengthen the physical and mental health of all employees, NYPCB has established a complete health and safety management system to strengthen hazard risk management and control, implement health and safety self-management capabilities, and enhance workplace health and safety culture			
Policy and Commitment	 Promote the ISO 45001 & TOSHMS system, improve environmental safety and hygiene, and maintain the health of employees as goal Emphasizing on two-way communication, aiming at full participation 			
Responsibilities	Occupational Health and Safety Committee all employees			
	Manpower: supervisors at all levels, health and safety management personnel			
Resources	 Expenses: various equipment improvement, personnel education and training, operating environment monitoring costs 			
Action	Regularly check and track management results based on the PDCA structure			
Communication Channels	Company-Health and Safety Management Meetings Various departments-environmental safety meeting, communication meeting, safety observation and interview			
Evaluation Method	Health and Safety Management KPI			
Targets (Short/Medium/ Long Term)	Short term - zero occupational injuries, zero accidents, zero fines Long term - creating a safe workplace culture			
Overall Performance	 Complete the ISO-45001 system conversion in 2021 Disability injury indicators are improving year by year, with zero fines in 2021 			

Occupational Health and Safety Management System

NYPCB promotes workplace safety and has established a clear occupational health and safety organization. The plant area has set up occupational health and safety committees in accordance with laws and regulations (the proportion of labor representatives is more than 1/3 according to law) to jointly participate in the optimization and improvement of the occupational health and safety system, and has obtained the ISO45001 occupational safety and health management system certificate. The system covers 100% of the company's workers .





The Company has established a system tic hazard identification and risk assessment process to avoid unsafe environments or operational behaviors in the process. If employees discover potential risks or hazards in the work environment on their own, they can go through...

Statistics on Occupational Hazards

In 2021, there were no disabling injuries in the NYPCB Jinxing Plant and its contractors.

		2018	2019	2020	2021
Total working	hours	11,643,619	12,041,744	12,364,880	12,680,976
Disabling Inju	ry Frequency	0.17	0.08	0.08	0
Disabling Inju	ry Severity	1.48	0.83	0.1	0
Comprehensiv	e Injury Index	0.02	0.01	0.01	0
	Death causing disaster	0	0	0	0
	Disasters with more than 3 casualties	0	0	0	0
The number of major occupational disasters	Leaking of ammonia, chlorine, hydrogen fluoride, phosgene, hydrogen sulfide, sulfur dioxide and other chemical substances and more than 1 person was injured and hospitalized	0	0	0	0
Number of disability injuries (excluding major occupational accidents)		2	1	1	0
Lost working h	ours calculated in days	17	10	5	0
Male absentee	ism rate (%)	0.7	0.05	0.000315	0
Female absen	teeism rate (%)	0.8	0	0	0
	Number of deaths due to occupational illnesses	0	0	0	0
Occupational	Death rate due to occupational illnesses	0	0	0	0
nin Coo	Number of record-able cases of occupational illnesses	0	0	0	0

Note 1: Frequency of disabling injuries = number of disabling injuries * 1,000,000/total working hours

Note 2: Severity of disabling injury=number of days lost due to disablinginjury*1,000,000/total working hours

Note 3: Comprehensive injury index = $\sqrt{}$ frequency of disabling injury * severity of disabling injury/1,000 Note 4: Total absent days/ Total working days X 100%

Employee Healthcare and Promotion





Response to the Epidemic

• Infectious disease treatment process

I May 2021, a cluster of COVID-19 infections br ke out in Taiwan. NYPCB reduced the impact of the pand mic on business operations throug employee health care, internal operation adjustment, and external visitor management. At the end of May of that year, an employee was diagnosed during a vacation. The Company cooperated with the central ep demic prev ntion e gulations and carried out a compreh nsive di s nfe tion of the s ctory area as soon as possible. According to the results of the epidemic investigation, the close contacts were listed and isolated, and there were no further confirmed cases.



COVID-19 Pandemic Prevention Measures

Healthcare for Employees	Paying close attention on employee health and tracks the health management of those on sick leave					
Internal Operation	 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 Implement temperature measurement control at the factory Domestic and overseas business trips are on pause 					
Adjustment	 Frequency of environmental disinfection has been increased Meals at staff canteens are served in boxes to prevent gathering of large crowds 					
	Follow the control measures of the CECC to ensure the health and protection of employees					
	Domestic business trips are prohibited. Non-essential entry into office buildings or factories is prohibited					
*	Personnel entering the office building or factory area must have their body temperature measured and disinfected					
Ÿ	Replace meetings with audio or video conferences as much as possible, wear masks all the time					
External visitor	Control Measures when Entering the Plants					
management	High infection risk control measures, PCR testing will be done if necessary (Endorsed by the Company)					
	When foreign technicians enter the factory, they must formulate an epidemic prevention plan (planning of the scope of activities, health management of contacts when interacting with employees, etc.)					

Epidemic Prevention Propaganda



4.5.2 Industrial and public safety

Corresponding	Industrial and public safety				
Material Topics	GRI Standards Comparison: Custom theme				
Significance	Protection of all employees, related stakeholders, property and items from dangers such as disasters or accidents				
Policy and	1. Implement hazardous chemical control measures, promote process safety management, eliminate risks such as fire and explosion, and improve overall internal safety				
communent	2. Set up a complete set of fire-fighting equipment, implement inspection and maintenance mechanism				
Responsibilities	All employees				
Decourses	1. Manpower: supervisors at all levels, process safety management personnel, fire management personnel				
Resources	Expenses: various equipment improvement, fire-fighting equipment installation and maintenance declaration fees				
	 Define and control risks for chemicals, equipment and production operations 				
Action	Set up stock control and warning mechanism for public dangerous articles				
Action	Promote building safety inspection management system and management mechanism				
	4. Fire-fighting equipment are systematically managed and the frequency of scheduled inspections is established				
Communication	Company-Health and Safety Management Meetings				
Channels	Various departments-environmental safety meeting, communication meeting, IE improvement report				
Evaluation Method	PSM-KPI, fire management KPI				
Targets	Short term - zero disaster				
Long Term)	Long term - reduce fire and explosion risk				
Overall	1. No major accidents in the past ten years				
Performance	2. Build automatic monitoring system for fire protection system				

Supplier and contractor Safety Management

The Company also regards the contractors who enter the factory as a part of the employees. In addition to regularly holding pre-factory education and training for the contractors, if there are new measures or mishap in the audits, the contractors will be reviewed in the "toolbox meeting" every day. Education and training content includes: construction safety, the standard operating procedures of sorting and waste reduction and guidance of mishaps and deficiencies. In 2021, no major occupational accidents of contractors occurred in the Company's factory area.

Indicators of Supplier and Contractor Injury in 2021



Note:

- 1. Disabling injury frequency (FR) = (total number of injuries and losses \times 106) \div Total Working Hours
- 2. Disabling Injury Severity Rate (SR) = (Total Injury Lost Days \times 106) \div Total Working Hours
- 3. Comprehensive injury index = $\sqrt{}$ (disability injury frequency FR \times disability injury severity rate SR) \div 1000
- 4. The disabling injury ratio between the Company's suppliers and contractors is based on the important disabling injury statistical indicators announced by the Ministry of Labor. The frequency of disability injury (FR) and the disability injury severity rate (SR) are selected as the main statistical basis (statistics do not include off-site traffic accidents)

Management Methods

In order to prevent construction accidents, NYPCB has continued to strengthen contractor safety education and training, promote contractor safety management systems, and conduct observation seminars and other businesses in recent years. NYPCB trained a total of 2,093 contractors in 2021.

In order to urge contractors to implement management, it is stipulated that contractors must comply with 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.

Before Construction

Item	Work Procedure	Responsible Unit/Personnel	Operational Items				
1	Outsourcing	Outsourcing unit	 Place outsourcing order Provide a construction safety checklist. Establish workplace safety measures and identify potential risks 				
2	Budget Planning	Design class	 Include safety measures into the construction plan and budget Evaluate the necessary safety equipment on the construction site and plan them into the budget as a reference for the supplier when giving a quote 				
3	Safety notice for contractors	Construction supervision	 After finalizing the bidding for construction, the person in charge of the construction site and the contractor's health and safety management personnel are informed of the safety regulations and the agreements are signed Make sure the construction personnel have completed the health and safety training as well as the computer system management control The person in charge for the construction site should fill out and submit the "Questionnaire on Physical and Mental Condition of Contractor's Employee's Injury and Illness in Contract Work" The contractor should submit a case study on Job Safety Analysis (JSA), provide educational training for the construction personnel, and completes the 				
4	Apply for entry permit	Construction supervision	 Contractors that are registered online can apply for the entry permit online Contractors who are not yet registered online can apply through the construction management department 				
5	Issuance of entry permit	Guard unit	 Construction work safety notice (contract number) signed by the construction personnel Computer verification of the construction personnel's safety educational training before entering the site (by using the employee number) 				
6	Construction Application	Construction supervision	 Fill out a work safety permit application form and submit it to the unit for signature and approval Assign construction supervisor 				
7	Construction approval	Outsourcing unit	Assign safety supervisor				

Under construction:

Item	Work Procedure Unit/ Personnel		Operational Items			
1	On-site machinery and equipment inspection	supervisor or worker	Inspect hazardous equipment Inspect electronic machinery			
2	Daily Toolbox Meeting	Construction supervision	Promote construction safety			
	Supervise	Safety supervisor	Inspect and supervise safety facilities and devices during construction Prohibit construction in unapproved areas and control personnel entry			
3	and control of construction safety	Factory construction safety personnel	Daily spot check on safety facilities and safety protection for construction sites and construction staff			
		Construction supervision	Inspect and supervise safety facilities and devices before, during, and after construction			

After Construction

Item	Work Procedure	Responsible Unit/ Personnel	Operational Items		
1	Confirm after construction	Outsourcing unit	Make sure the working area and environment is cleaned Make sure industrial waste is properly disposed		
		Construction supervision	Check on the daily attendance of every construction staff		

Training of 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. By 2021, NYPCB has offered the professional training to 242 people.

Trained safety supervisors who wear seat belts to carry out practical training on overhead work





Health and Safety Education

Most accidents are related to human negligence, therefore how to educate employees, improve their safety awareness and ability to respond to emergencies is the primary focus of NYPCB's safety education and training. In 2021, there were a total of 81 stages of industrial safety training courses, with a total of 2,951 trainees and a total of 7,290 training hours. For information on the sessions of relevant courses in 2021, the number of trainees, etc., please refer to the official website under "Training and Development". http://www.nanyapcb.com.tw/nypcb/Chinese/Employment/Training.aspx

• Courses offered and number of trainees in 2021:

Course Name	Sessions Offered	Number of Trainees	Hours per person	Total Number of Hours
Pre-factory training for contractors	24	2,093	2	4,186
Training on Manufacturing, Disposal or Use of Hazardous Substances	20	679	3	2,037
Class A occupational health and safety supervisor	4	6	42	252
On-the-job training for emergency medical technicians	1	31	3	93
On-the-job training for supervisors on the use of specific chemical substances	3	27	3	81
On-the-job training for forklift operators with a loading of more than one metric ton	1	25	3	75
Emergency medical technicians	2	4	18	72
On-the-job training for supervisors of organic solvent operations	3	20	3	60
On-the-job training for Class B occupational health and safety administrators	1	5	12	60
On-the-job training for Dangerous Goods Security Supervisors	1	7	8	56
On-the-job training for professional and technical personnel in waste removal and treatment	1	7	8	56
on-the-job training for Class A occupational health and safety supervisors	2	4	6	24
On-the-job training for fire management personnel	1	7	6	42

Course Name	Sessions Offered	Number of Trainees	Hours per person	Total Number of Hours
On-the-job training for air pollution control personnel	1	4	8	32
Operators of radioactive substances or ionizing radiation	1	10	3	30
On-the-job training for waste (sewage) water treatment personnel	3	3	8	24
Organic Solvent Operations Supervisor	2	7	3	21
Personnel using hoisting tools to carry out hoisting operations	1	1	18	18
On-the-job training for professional technical managers of toxic and chemical substances of concern	1	2	8	16
On-the-job Education for Class A Occupational Health and Safety Managers	1	1	12	12
Fire management personnel	1	1	12	12
On-the-job training for hypoxia supervisor	2	3	3	9
Class B Air Pollution Control Personnel	1	1	8	8
Class B waste treatment technicians	1	1	8	8
On-the-job training for Class B boiler operators	1	1	3	3
Fixed hoist operators under three metric tons	1	1	3	3
Total	81	2,951	214	7,290

4.5.3 Factory emergency response mechanism

Corresponding	Factory emergency response mechanism				
Material Topics	GRI Standards Comparison: Custom theme				
Significance	In order to strengthen the management of emergency response operations in the factory area (division), so that the handling of emergency response in various departments can be followed, so as to establish operational management such as emergency response and personnel education and training. Through regular drills and training to quickly deal with accidents, prevent the expansion of disasters and reduce disaster losses, and ensure the safety of the company's personnel, equipment and property				
Policy and Commitment	 Hold regular contingency drills According to the evaluation results, set up contingency equipment and conduct regular inspections 				
Responsibilities	All employees				
Resources	 Manpower: supervisors at all levels, special fire management personnel Expenses: personnel training and emergency equipment costs 				
Action	 Hold an annual joint response drill in the plant area, and conduct a disaster prevention and escape drill every six months at the factory Conduct emergency response commander training for plant directors 				
Communication Channels	 Conduct training before the drill After the drill, review the current procedure and set improvements 				
Evaluation Method	Conduct performance ratings for each exercise				
Objectives (Short/Medium/ Long Term)	Through daily drills and training to quickly deal with accidents, prevent the expansion of disasters and reduce losses				
Overall Performance	In 2021, a total of 7 drills were conducted, and 9,231 people participated in the execution				

Emergency response mechanism



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Level of Imminent Hazard

Limited to a small amount of leakage in the plant or disasters such as fire and pollution, and will not affect or spread to adjacent plants.

Explanation

- ※ Rescued by the factory where the accident occurred in accordance with the "Factory Emergency Response Organization".
- * The on-duty supervisor, day (night) supervisor or factory (section) supervisor of the department where the accident occured shall serve as the on-site commander.



Level of Imminent Hazard

Major accidents or major natural disasters such as large-scale leaks, fires, explosions, or after responding internally, the disaster has a tendency to expand and other major accidents or major natural disasters which will affect or spread to nearby factories.

Explanation

- * The factory where the accident occurred shall, in accordance with the "Factory Emergency Response Organization", request the support of the neighboring factory or the relevant departments of the factory to implement rescue and treatment.
- * The on-duty supervisor, day (night) supervisor or plant (division) director of the accident department shall ask the chief emergency response commander of the plant for assistance to carry out the rescue.



Level of Imminent Hazard

Major accidents or natural disasters have spread outside the factory area, posing a serious threat to the people outside the factory area.

Explanation

- * If a major accident or natural disaster has spread outside the factory area and poses a serious threat to the people outside the factory area, the chief emergency response commander of the factory area or the director of the factory where the accident occurred shall make full efforts to rescue in accordance with the "Factory Emergency Response Organization".
- * At the same time, request support from the relevant agencies of the central or local government.

Incident Notification Process



Disaster Prevention Drills

The Company has also established detailed contingency response policies and has held drills in preparation for various emergencies such as earthquakes, fires, chemical spills and leakages, and other natural disasters. The Company has trained its employees to be familiar with contingency response measures such as reporting, reaction, and containment of incident, and medical aid.

• The Effectiveness of Disaster prevention training in 2021



• The actual scene at the training





5.1 Neighborly Relations

NYPCB has been deeply cultivating in the local community for a long period of time. The management department in the plant has set up the Neighborhood Relations Team and a volunteer team. Through visits and communication, it has established a channel of mutual trust and assistance with the residents. At the same time, the Company 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 take part as a environmental protection volunteer. We hope that through the promotion of various activities, NYPCB will spread the seeds of love and hope with our neighbors to all corners of the society, and jointly create a "Factory and village family".

Each of the Company's plant promotes community outreach by cooperating with planning of the local management department. Taking the North Plant as an example, the community outreach works conducted in 2021 are listed as follows:

Item	Cooperative Units	Promotional Methods	Implementation Results in 2021
Visits and Communications	1.Neighborhood Offices 2. Local Residents	 Aperiodic visits to create communication channels. Invitation to participate in factory activities to promote harmonious relationship. 	Each factory area has a good interaction with the local residents. There have been no complaints or suggestions arising therefrom.
تعطی Traditional Culture Promotion	Ming Hwa Yuan Arts & Cultural Group (Jinxing Plant)	The Theater was sponsored to perform in plants.	Affected by the COVID-19 pandemic, the large-scale activities between the factory and local residents have been suspended, and they will be held at a later date after the pandemic is over.
Neighborhood Relationship	 District Office 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.	The total amount of sponsorship was NT\$ 2,783,536.
Environmental protection volunteering	Plant employees and families	Plant employees and their families were encouraged to become volunteers of environmental protection works to maintain a clean place in plants as well as the surroundings.	 A total of 18 street-sweeping environmental protection volunteer activities were organized in each factory area, and a total of 573 people participated in the volunteer services. The beach cleanup event was held at Zhuwei Fishing Harbor on Oct. 31, the river cleanup event was held at the Nankan River on Nov. 14th and 27th. About 3,300 employees and their family members participated and responded to environmental protection together.
Č Charity Service	 Charity Service Club of the Welfare Committee The Labor Union Local charity groups 	 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. 	 A total of 21 charity service activities were held with 456 persons participating. Accumulated donations amounted to NT\$1,228,274. The total amount of the "CHING PAO P.D. Charitable Foundation" emergency relief fund was NT\$406,000.



Group photo at the Zhuwei Fishing Harbor Beach Cleanup

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Group photo of volunteers in the river cleanup





Colleagues pick up trash at the Zhuwei Fishing Harbor Beach Cleanup



hoto of the little volunteers cleanin

5.2 Healthcare Promotions

5.2.1 Chang Gung Medical Care System

Seeing the lack of medical resources in Taiwan in the 1970s, the two founders of the parent company of NYPCB, 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.

5.2.2 Domestic and Overseas Medical Care and Assistance

Item	Explanations	Item	Explanations
Emergency relief	 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. First-rate emergency hospital designated by the Ministry of 	Community medical services	Acted according to national policies and conducts anuual free health counseling sessions, preventive services and screenings, and health promotion events, which helps local residents to identify health issues prior to experiencing advanced complications and thus allows them to seek treatment at an early stage.
Madical Assistance	 Health and Welfare. 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 indigenous tribes and villages throughout Taiwan. 		 In association with the Chang Gung Medical Care System, NYPCB makes good use of the hospital resources and arranges several health promotion activities at our industrial complexes. 4 times a week: Physicians from the Chang Gung Memorial Hospital are stationed in the factory to provide employee with medical consultation services.
and Caring for the Disadvantaged	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.	Plant Health Promotion	 Once a month: Professional nutritionists from Chang Gung Memorial Hospital were invited to design healthy menus for our employees. Chang Gung Monthly Medical Journal was printed every month to provide our employees with the latest health
International Assistance	In response to the government's diplomacy policy, the Hospital has demonstrated its vision for border-less medicine over the years through continuously assisting numerous nations to establish craniofacial centers and organ transplantation centers, and through organizing free medical consultations and	Activities	 Once a year: Physical Examination for Employees, Screening for 4 major cancers. Aperiodically: Lectures about the "4 Major Cancers Screening"
Social Service, Medical Aid, and Welfare Activities	 facilitating the training of overseas medical personnel. Monthly medical revenues and donations from all sectors of the society are used to set up a social service fund to engage in social services and social welfare-related activities as well as subsidize the disadvantaged groups in medical treatment. 		and "3 Highs" (high blood pressure, high blood sugar, and high blood cholesterol) prevention.

5.3 Community Building

5.3.1 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. The three universities take "Be diligent and plain" as their motto and implements cooperative education and work-and-study internship system to cultivate the independent and hardworking attitude of the students and achieve the objective of theory combining with practices while training the professional talents having outstanding knowledge and skills.



5.3.2 Assisting indigenous youths in schooling and employment

In order to take care of the disadvantaged groups of the indigenous peoples, Formosa Plastics has spared no effort to help indigenous students to attend school since 1995. In order to acquire a skill, Chang Gung University of Science and Technology has successively recruited indigenous girls to study nursing, and trained them to become professional nurses. Ming Chi University of Technology offers the "Technical Training Class" and Indigenous Technical and Vocational Specialized Classes to help indigenous youths who do not want to continue their studies to develop their employability, and provide schooling opportunities for students who want to further their studies. In addition, in order to enable indigenous students to concentrate on their studies, all of their tuition and miscellaneous expenses during their studies are covered by the donations of the two founders. At the same time, work-study internship opportunities were provided to reduce the financial burden of students' families. There were more than 5,500 participants, and the amount of grants exceeded more than NT\$1.7 billion.

5.3.3 Other public welfare projects

Item	Public welfare project	Cumulative effect
	Scholarship for the disadvantaged students	Cumulative amount of more than NT\$100 million, benefiting more than 8,500 students
Warran ² a and Children ² a	Diligent (Social Welfare Organization) Work-Study Program	Cumulative amount of more than NT\$56 million, benefiting more than 1,300 students
Welfare	Patient Medical and Financial Assistance Program for Rare Diseases	Cumulative amount of more than NT\$118 million, benefiting close to 8,000 patients
Disability Benefits	Promoted the "Early Intervention Effectiveness Improvement Program", which is based on the principles of evidence, family, and integration, and focuses on improving the quality of institutions, personnel capabilities, and the parents' knowledge and ability as the main focus, as well as promoted evaluation mechanisms, community services and inclusive education and other projects, so that children with developmental delays can obtain high- quality early intervention services	Accumulated investment of more than NT\$810 million, benefited about 23,000 person, and 92 units from received counseling and subsidies from 2006 to 2020
	Donations made to the arts/cultural groups in Taiwan	Donation amounted to more than NT\$107 million and more than 360,000 viewers
Sports and Cultural Cultivation	Cultivated outstanding talents in tennis, table tennis, billiards, badminton and golf, and provide medical protection such as physical checkups for the players, sports medicine clinics, and athletic trainers working in conjunction with Chang Gung Memorial Hospital	The total investment amounted to more than NT\$290 million, accumulatively assisting athletes
	The "Rainbow Project" from the Wang Jhan-Yang social welfare Foundation provides counselling to drug addicts and AIDs Shelters in Yunlin, Taipei, and Kaohsiung	The recidivism rate is only about 10% (much lower than the general average of 70-80%)
Prisoner Assistance	The "Sunshine Project" from the Wang Jhan-Yang Professional Charitable trust fund sets counseling measures for drug prisoners	There were less than 10% of repeated offenders (much lower than the general average of 60-70%)
	Promoted the "Senior Health and Wellness Center" from 2013 to date	Helped more than 15,000 seniors to promote health and delay aging
	Promoted the "Elderly Home Improvement and Home Appliance Subsidy Program" in all 19 counties and cities in Taiwan	1,350 households have been renovated so far
Elderly Welfare	Promoted "The Pneumococcal Conjugate Vaccination Program for the Elderly" from 2007 to present	Donated a total of 1.15 million doses of vaccines, and the vaccination plan saved the government nearly NT\$14.3 billion in medical expenses

6 Appendix Appendix 1. Appendix 2. Appendix 3. Appendix 4.

Appendix 1.Global Reporting Initiative Standards (GRI Standards) Comparison Table

Disclosure 1	Title	Description	Reference Chapter	Note
GRI 102: Genera	l Disclos	sures		
	102-1	Name of Organization	1.1 Operational Overview (1) Company Profile	
	102-2	Activities, Brands, Products, and Services	 1.1 Operational Overview (2) Market Overview and Vision of Development 1.2 Product Innovation and Research & Development (1) Main Product Development 	
	102-3	Location of Headquarters	1.1 Operational Overview (1) Company Profile	
	102-4	Operating Location	1.1 Operational Overview (1) Company Profile	
Organizational Profile	102-5	Nature of Ownership and Legal Form	1.1 Operational Overview (1) Company Profile	
(2016 Version)	102-6	Market Served	1.1 Operational Overview(2) Market Overview and Vision of Development	
	102-7	Scale of the Organization	 1.1 Operational Overview (1) Company Profile (2) Market Overview and Vision of Development (3) Financial Performance 	
	102-8	Information on employees and other workers	4.1 Employment(1) NYPCB's Manpower Structure in 2021	
	102-9	Supply Chain	2.5Supply Chain and Contractor Management(1) Supplier and contractor management	

	Disclosure T	itle	Description	Reference Chapter	Note
		102-10	Significant changes to the organization and its supply chain	_	There were no significant changes to the company in 2021.
Organizational Profile	102-11	Precautionary Principle or Policy	2.1 Governance Structure(4) Operational Risk Management3.2 Action on Climate Change(1) Climate Change Management Framework		
	(2010 VEISION)	102-12	External Initiatives	 1.3Awards and participation of external associations (2) Participation of external associations 	
		102-13	Membership of the Associations	 1.3Awards and participation of external associations (2) Participation of external associations 	
	Strategy (2016 Version)	102-14	Statement from senior decision- maker	Message from the President	
		102-15	Key impacts, risks, and opportunities	1.1 Operational Overview(2) Market Overview and Vision of Development	
	Ethics and	102-16	Values, principles, standards, and norms of behavior	2.3 Internal Control (4) Anti-Corruption	
	Integrity (2016 Version)	102-17	Mechanisms for Ethical Advice and Concerns	2.3 Internal Control (4) Anti-Corruption	
	Governance	102-18	Governance Structure	2.1 Governance Structure(1) Operation of Board of Directors(2) Functional Committees	
		102-19	Authority Granted	About this Report	
(2016 Version)	102-20	Management is responsible for economic, environmental and social topics	About this Report		

Disclosure 1	Title	Description	Reference Chapter	Note
	102-21	Consulting stakeholders on economic, environmental, and social topics	 1.4 Stakeholders negotiation (2) Communication Channels and Issues of Concern 	
	102-22	Composition of the highest governance body and its committees	2.1 Governance Structure(1) Operation of Board of Directors	
	102-23	Chairman of the highest governance body	2.1 Governance Structure(1) Operation of Board of Directors	
Governance (2016 Version)	102-24	Nomination and selection of the highest governance body	2.1 Governance Structure(1) Operation of Board of Directors	
	102-25	Conflict of Interest	2.1 Governance Structure(1) Operation of Board of Directors	
	102-26	Role of highest governance body in setting purpose, values, and strategy	2.1 Governance Structure(1) Operation of Board of Directors	
	102-27	The Crowd Intelligence of the Highest Governing Body	2.1 Governance Structure(1) Operation of Board of Directors	
	102-28	Performance evaluation of the highest governance body	2.1 Governance Structure(1) Operation of Board of Directors	
	102-29	Identify and manage economic, environmental and social impacts	1.4 Stakeholders negotiation	
	102-30	Effectiveness of risk management procedures	2.1 Governance Structure(4) Operational Risk Management	

Disclosure Title		Description	Reference Chapter	Note
	102-32	102-32 Highest governance body's role in sustainability reporting	2.1 Governance Structure(1) Operation of Board of Directors	
	102-33	Communicate important key issues	2.1 Governance Structure(1) Operation of Board of Directors	
	102-34	Nature and total number of key issues	2.1 Governance Structure(1) Operation of Board of Directors	
Governance (2016 Version)	102-35	Remuneration Policy	2.1 Governance Structure(1) Operation of Board of Directors	
	102-36	Decision Process of the Remuneration System	2.1 Governance Structure(1) Operation of Board of Directors	
	102-37	Stakeholder's participation	4.1 Employment (1) Employee Remuneration	
	102-38	Annual Total Compensation Ratio	2.1 Governance Structure(1) Operation of Board of Directors	
	102-39	Percentage increase in the annual total compensation ratio	2.1 Governance Structure(1) Operation of Board of Directors	
	102-40	List of stakeholder groups	1.4 Stakeholders' Negotiation(1) 7 Types of Stakeholders	
	102-41	Collective bargaining agreements	4.4Employee Communication and Care(3) Respect for Human Rights	
Stakeholder Communication (2016 Version)	102-42	Identifying and selecting stakeholders	1.4 Stakeholders' Negotiation (1) 7 Types of Stakeholders	
	102-43	Approach to stakeholder engagement	 1.4 Stakeholders' Negotiation (2) Communication Channels and Issues of Concern 	
	102-44	Key topics and concerns raised	1.4 Stakeholders' Negotiation(2) Communication Channels and Issues of Concern	

Disclosure 1	Title	Description	Reference Chapter	Note
	102-45	Entities included in the consolidated financial statements	1.1 Operational Overview (1) Company Profile	
	102-46	Defining report content and topic Boundaries	Identification of Material Issues Material Issues and Value Chains	
	102-47	List of Material Topics	Identification of Material Issues Material Issues and Value Chains	
Reporting	102-48	Restatements of information	_	No restatements in the company in 2021.
	102-49	Changes in reporting	Identification of Material Issues Material Topic Identification Procedure	
(2016 Version)	102-50	Reporting Period	About this Report	
	102-51	Date of most recent report	About this Report	
	102-52	Reporting cycle	About this Report	
	102-53	Contact point for questions regarding the report	About this Report	
	102-54	Calms of reporting in accordance with the GRI Standards	Appendix I: Comparison Table of the Global Sustainability Reporting Standards (GRI Standards)	
	102-55	GRI content index	Appendix I: Comparison Table of the Global Sustainability Reporting Standards (GRI Standards)	
	102-56	External assurance	Appendix III: Assurance	

Disclosure Title		Description	Reference Chapter	Note
GRI 103 Manage	ment Ap	oproach		
Management Approach (2016 Version)	103-1	Explanation of the material topic and its Boundary	Identification of Material Issues Material Issues and Value Chains	
GRI 200: Specifi	c Topic E	xposure - The Econo	omy	
Material Issues:	Operati	ng Financial Perforn	nance	
Economic Performance (2016 Version)	201-1	Direct economic value generated and distributed	 1.1 Operational Overview (3) Financial Performance 4.2 Salaries and Welfare (1) Employee Remuneration (2) Employee Benefits 5.1 Neighborhood Relations 	
Management Approach (2016 Version)	103-2	The management approach and its components	1.1 Operational Overview (3) Financial Performance	
	103-3	Evaluation of the management approach	1.1 Operational Overview (3) Financial Performance	
Market Presence (2016 Version)	202-2	Proportion of senior management hired from the local community	4.1 Employment Proportion of local supervisory positions	
Procurement Practices (2016 Version)	204-1	Proportion of spending on local suppliers	2.5Supplier and contractor management(4) Local Procurement	
Anti-Corruption	205-2	Communication and training about anti-corruption policies and procedures	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations	
(2010 VEISION)	205-3	Confirmed incidents of corruption and actions taken	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations	

Disclosure 1	Title	Description	Reference Chapter	Note	
Anti-competitive behavior (2016 Version)	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2.3 Internal Control(3) Employee Behaviors and Code of Ethical Conduct		
GRI 300: Specifi	c Topic I	Disclosure - Environ	ment		
Energy (2016 Version)	302-1	Energy consumption within the organization	3.2 Climate Change Action(4) Greenhouse Gas and Energy Management		
Material Topic:	Water us	age and wastewate	r discharge management		
	303-1	Interactions with water as a shared source	3.3 Water Resources Management(1) Water source(3) Water Management Measures		
Water and	303-2	Management of water discharge- related impacts	3.3 Water Resources Management Waste water disposal		
Effluent (2018 Version)	303-3	Water withdrawal	3.3 Water Resources Management (1) Water source		
	303-4	Water Discharge	3.3 Water Resources Management Waste water disposal		
	303-5	Water Consumption	3.3 Water Resources Management Water management		
Management	103-2	The management approach and its components	2.2 Water resource management		
Approach (2016 Version)	103-3	Evaluation of the management approach	2.2 Water resource management		
Material Topic: Greenhouse gas emissions management					
Emissions	305-1	Direct (Scope 1) Greenhouse Gas Emissions	3.2 Action on Climate Change(4) Greenhouse Gas and Energy Management		
(2016 Version)	305-2	Indirect (Scope 2) Greenhouse Gas Emissions	3.2 Action on Climate Change(4) Greenhouse Gas and Energy Management		

Disclosure 1	Title	Description	Reference Chapter	Note
	305-3	Other indirect (Scope 3) GHG emissions	3.2 Action on Climate Change(4) Greenhouse Gas and EnergyManagement	
Emissions (2016 Version)	305-4	GHG emissions intensity	3.2 Action on Climate Change(4) Greenhouse Gas and EnergyManagement	
	305-5	Reduction of GHG emissions	3.2 Action on Climate Change(4) Greenhouse Gas and Energy Management	
Management	103-2	The management approach and its components	3.2 Action on Climate Change	
(2016 Version)	103-3	Evaluation of the management approach	3.2 Action on Climate Change	
Material Topic:	Air Pollu	tion Control		
Emissions (2016 Version)	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	3.4 Air Pollution Prevention and Control	
Management	103-2	The management approach and its components	3.4 Air Pollution Prevention and Control	
(2016 Version)	103-3	Evaluation of the management approach	3.4 Air Pollution Prevention and Control	
Material Topic:	Waste M	anagement		
Waste (2020 Version)	306-1	Waste generation and significant waste-related impacts	3.5 Waste Management (1) Waste Management	
	306-2	Management of significant waste- related impacts	3.5 Waste Management (1) Waste Management	
	306-3	Waste Generation	3.5 Waste Management (1) Waste Management	

Disclosure Title		Description	Reference Chapter	Note
Waste	306-4	Disposal and transfer of waste	3.5 Waste Management (1) Waste Management	
(2020 Version)	306-5	Direct disposal of waste	3.5 Waste Management (1) Waste Management	
Management	103-2	The management approach and its components	3.5 Waste Management	
(2016 Version)	103-3	Evaluation of the management approach	3.5 Waste Management	
Environmental Protection Compliance (2016 Version)	307-1	Violation of environmental regulations	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations	
Material Topics:	Supplie	er and contractor ma	anagement	
Supplier Environmental Assessment (2016 Version)	308-1	New suppliers that were screened using environmental criteria	2.5 Supply Chain and Contractor Management(2) Evaluation and classification of suppliers and contractors	
	308-2	Negative environmental impacts in the supply chain and actions taken	2.5 Supply Chain and Contractor Management(2) Evaluation and classification of suppliers and contractors	
Supplier Social	414-1	New suppliers that were screened using social criteria	2.5 Supply Chain and Contractor Management(2) Evaluation and classification of suppliers and contractors	
(2016 Version)	414-2	Negative social impacts in the supply chain and actions taken	2.5 Supply Chain and Contractor Management(2) Evaluation and classification of suppliers and contractors	
Management	103-2	The management approach and its components	2.5 Supplier and contractor management	
Approach (2016 Version)	103-3	Evaluation of the management approach	2.5 Supplier and contractor management	

Disclosure Title		Description	Reference Chapter	Note
GRI 400: Specifi	c Topic I	Disclosure - Society		
Employment (2016 Version)	401-1	New employee hires and employee 64 turnover	4.1 Employment(2) Age and regional distribution of new employees4.2 Remuneration and Welfare(4) Excellent Job Security	
Material Topic:	Employe	e Benefits and Com	pensation	
Employment (2016 Version)	401-2	Benefits provided to full-time employees (excluding temporary or part- time employees)	4.2 Remuneration and Welfare (1) Employee Benefits	
	401-3	Parental Leave	4.2 Remuneration and Welfare (1) Employee Benefits	
Diversity and Equal Opportunity (2016 Version)	405-2	Ratio of basic salary and remuneration of women to men	4.2 Remuneration and Welfare (1) Employee Salary	
Management	103-2	The management approach and its components	4.2 Remuneration and Welfare	
(2016 Version)	103-3	Evaluation of the management approach	4.2 Remuneration and Welfare	
Material Topic:	Occupat	ional Health and Saf	fety	
	403-1	Occupational Health and Safety Management System	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
Occupational Health and Safety (2018 Version)	403-2	Hazard identification, risk assessment, and accident investigation	 4.5 Occupational Health and Safety (1) Occupational Health and Safety 	
	403-3	Occupational Health Services	4.5 Occupational Health and Safety (1) Occupational Health and Safety	

Disclosure Title		Description	Reference Chapter	Note
	403-4	Worker participation, consultation, and communication on occupational health and safety	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
Occupational Health and Safety (2018 Version)	403-5	Worker Training on Occupational Health and Safety	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
	403-6	Promotion of worker health	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.5 Occupational Health and Safety(2) Industrial and Public Safety(3) Factory emergency response mechanism	
	403-8	Workers covered by an occupational safety and health management system	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
	403-9	Work-related injuries	 4.5 Occupational Health and Safety (1) Occupational Health and Safety (2) Industrial and Public Safety 	
	403-10	Occupational Diseases	4.5 Occupational Health and Safety(1) Occupational Health and Safety	

Disclosure 7	Title	Description	Reference Chapter	Note
Management	103-2	The management approach and its components	4.5 Occupational Health and Safety(1) Occupational Health and Safety	
(2016 Version)	103-3	Evaluation of the management approach	 4.5 Occupational Safety and Health (1) Occupational Health and Safety 	
Material Topics	: Career	development and E	ducation & Training	
	404-1	Average hours of training per year per employee	4.3 Talent Cultivation and Development Employee training implementation	
Education and Training (2016 Version)	404-2	Enhancement of staff capabilities and transition assistance programs	4.3 Talent Cultivation and Development(1) Career Learning Map	
(2016 Version)	404-3	Percentage of employees receiving regular performance and career development reviews	4.2 Remuneration and Welfare (3) Employee Evaluation	
Management	103-2	The management approach and its components	4.3 Talent Cultivation and Development	
(2016 Version)	103-3	Evaluation of the management approach	4.3 Talent Cultivation and Development	
Material Topics	: Employ	vee diversity and equ	ual opportunities	
Diversity and Equal Opportunity (2016 Version)	405-1	Diversity of governance bodies and employees	4.1 Employment(1) NYPCB's Manpower Structure in 2021	

Disclosure 7	Title	Description	Reference Chapter	Note	Disclosure ⁻	Disclosure Title		Reference Chapter
Management	103-2	The management approach and its	4.1 Employment		Material Topics	: Legal C	ompliance	3.1 Commitments to
Approach (2016 Version)	103-3	Evaluation of the management approach	4.1 Employment		Environmental Compliance (2016)	307-1	Violation of environmental regulations	(1) Environmental Sustainability Policy
Freedom of association and Collective Bargaining (2016 Version)	407-1	Operations and suppliers in which the right to freedom of associationand collective bargaining may	4.4Employee Communication and Care (3) Respect for Human Rights		Compliance with laws and regulations in the social and economic area (2016 Version)	419-1	Non-compliance with laws and regulations in the social and economic area	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations
		beat risk Significant investment			Management	103-2	The management approach and its components	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations
Human Rights Assessment (2016 Version)	412-3	contracts that contain human rights provisions or have undergone review for human	4.4Employee Communication and Care(3) Respect for Human Rights		Approacn (2016 Version)	103-3	Evaluation of the management approach	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations
Material Topics	: Informa	ation Security						
Customer Privacy (2016 Version)	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	2.2 Information Security					
Management	103-2	The management approach and its components	2.2 Information Security					
(2016 Version)	103-3	Evaluation of the management approach	2.2 Information Security					

Note

Disclosure Title		Description	Reference Chapter	Note
Custom theme	e for NY	PCB		
Material Topic	s: Ethic	al Corporate Management		
Management	103-2	The management approach and its components	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations	
(2016 Version)	103-3	Evaluation of the management approach	2.1 Governance Structure Ethical Corporate Management and Compliance with Laws and Regulations	
Material Topic	s: Prod	uct development and innovatio	1	
Management	103-2	The management approach and its components	1.2 Product Development and Innovation	
(2016 Version)	103-3	Evaluation of the management approach	1.2 Product Development and Innovation	
Material Topic	s: Oper	ational Risk Management		
Management	103-2	The management approach and its components	2.1 Governance Structure(4) Operational RiskManagement	
(2016 Version)	103-3	Evaluation of the management approach	2.1 Governance Structure(4) Operational RiskManagement	
Material Topic	s: Toxic	chemical substance control		
Management	103-2	The management approach and its components	3.5 Waste Management(2) Toxicity and concerned chemical substances	
Approach (2016 Version)	103-3	Evaluation of the management approach	3.5 Waste Management(2) Toxicity and concerned chemical substances	

Disclosure Title		Description	Reference Chapter	Note
Material Topic	s: Raw I	Material Management		
Management	103-2	The management approach and its components	2.5 Supplier and contractor management(3) Supply chain issues	
(2016 Version)	103-3	Evaluation of the management approach	2.5 Supplier and contractor management(3) Supply chain issues	
Material Topic	s: Emer	gency Response at the plant		
Management	103-2	The management approach and its components	4.5 Occupational Safety and Health(3) Factory emergency response mechanism	
Approach (2016 Version)	103-3	Evaluation of the management approach	4.5 Occupational Safety and Health(3) Factory emergency response mechanism	
Material Topic	s: Custo	omer Relationship Management		
Management	103-2	The management approach and its components	2.4 Customers Relationship	
(2016 Version)	103-3	Evaluation of the management approach	2.4 Customers Relationship	
Material Topic	s: Indus	strial and Public Safety		
Management Approach (2016 Version)	103-2	The management approach and its components	4.5 Occupational Safety and Health(2) Industrial and Public Safety	
	103-3	Evaluation of the management approach	4.5 Occupational Safety and Health(2) Industrial and Public Safety	

Appendix 2. Sustainability Accounting Standards Board (SASB) Comparison Table

		Topic of Disclosure: Produ	uct Security					
Indicator codo	Disclosura Indicatora		Corresponding Disclosures					Corresponding
indicator code	Disclosure	indicators	2018	2019	2020	2021	-	Chapters
TC-HW-230a.1	Description of how to identify and products	I resolve data security risks in	Products from produced in a therefore the	n NYPCB are no accordance wit re is no produc	ot final produc h customer pro t data risks.	ts, and are desig oduct design spe	ned and ecifications,	2.2 Information Security
		Disclosure Topic: Employee Div	ersity & Inclu	sion				
				Corres	ponding Discl	osures		
Indicator code	Disclosure	Indicators			2021			Corresponding
	Disclosure	Taiwan	National	Foreign N	ationality		Chapters	
			Male	Female	Male	Female	-	
	The percentage of gender and	Management Level	4.6%	0.5%	0.0%	0.0%	-	- / 1
TC-HW-330a.1	ethnic group representation of	Technician	6.8%	2.4%	0.0%	0.0%	-	4.1 – Employment
em	employees (unit: %)	All other Employees	48.1%	22.5%	7.1%	8.0%	-	
		Disclosure Topic: Product Life C	ycle Managen	nent				
Indicator code	Disclosure Indicators		Corresponding Disclosures					Corresponding
			2018	2019	2020	2021	-	Chapters
	The percentage of revenue that	ABFS	30%	40%	44%	50%	-	1.2
TC-HW-410a.1	includes products containing IEC	PPS	32%	29%	31%	30%	-	Product innovation
	(Unit: %)	РСВ	38%	31%	26%	20%	-	development (R&D)
TC-HW-410a.2	Percentage of products that meet equivalent, in terms of revenue (u	the requirements for EPEAT or nit: %)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	-	
TC-HW-410a.3	The percentage of qualified produce applying for Energy Star or equivational starts of the start	ucts that meet the requirements of alent, in terms of revenue (Unit: %)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	-	
TC-HW-410a.4	Product Weight of Recycling end- the recycling ratio (Unit: metric to	of-life and electronic wastes, and ns %)	77%	91%	91.4%	97.9	-	
		Disclosure Topic: Supply Chai	in Manageme	nt				
Indicator code	Disclosure	Indicators		Corres	ponding Discl	osures		Corresponding
					2021			Chapters
TC HW 4202 1	Tier 1 suppliers are suppliers subjected to RBA Validated Audit	The Overall Audit Ratio of Manufacturers (Unit: %)			100%			2.5 Supplier and
10-11W-450a.1	Process (VAP) or equivalent audits Proportion of high-risk suppliers (Unit: %)				None			Contractor Management

Indiantan and a Dialanama Indiantan			Corresponding Disclosures					
indicator code					2021			Chapters
		Audit Orientation	Labor	Health and Safety	Environmental	Morals	Management	
TC 1984 420- 2	Tier 1 suppliers are suppliers subjected to RBA Validated Audit	Percentage that failed to pass the audit (Unit: %)	0%	0%	0%	0%	0%	2.5 Supplier and
ТС-нш-430а.2	Process (VAP) or equivalent audits	Improvement rate of major mishaps	NA	NA	NA	NA	NA	Contractor Management
		Other mishap improvement rates	100%	100%	100%	100%	100%	
		Disclosure Topic: Mate	rials Sourcing					
Indicator code	Disclosure	Indicators		Corre	sponding Disclo	sures		Corresponding
		inuicators	2018	2019	2020	2021		Chapters
TC-HW-440a.1	Describe the risk management approach to the use of key raw materials		establish an Company m requires sup	oplier of the top d update a bus anages and co ppliers to condu	20 key suppliers iness continuity ntrols the emerge ict self-assess the	s in annual plan (BCP) e ency respor eir risks eve	purchases must every year. The nse plan, and ery year.	2.5 Supplier and Contractor Management
	Operatio	onal indicators: Number of units	s produced by p	roduct catego	ry			
Indicator code	Disclosure	Disclosure Indicators		Corresponding Disclosures				
malcutor couc				2019	2020	2021	-	Chapters
TC-HW-000.A	Explain the production quantity c (Unit: quantity)	f different types products	It will not be disclosed due to trade secrets					-
		Operational Indicators: Area of r	manufacturing	facilities				
Indicator code	Disclosure	Indicators		Corre	sponding Disclo	sures		Corresponding
		indicators	2018	2019	2020	2021	-	Chapters
TC-HW-000.B	Plant area (Unit: square feet)		It will not be	disclosed due	to trade secrets			-
	Operati	onal Indicator: Percentage of pr	oduction from	owned facilitie	S			
Indicator code	Disclosure	Disclosura Indicatora		Corresponding Disclosures				Corresponding
	Disclosure	maleators	2018	2019	2020	2021	-	Chapters
TC-HW-000.C	Percentage of production from se	Percentage of production from self-owned facilities (Unit: %) It will not be disclosed due to trade secrets			-			

Appendix 3. Disclosure Topics from the Corporate Governance Evaluation ESG Indicators

Торіс	Indicator Topics	Explanations	2021 Outcome data results	Additional Notes
Environmental Issues				
	Direct (Scope I) GHG Emissions	Ton CO ₂	10,099.46	Due to the fact that the warification date from
	Indirect Energy (Scope 2) GHG Emissions	Ton CO ₂	409,213.61	2021 will receive a verification statement in
GHG Emissions	Other indirect (Scope 3) GHG emissions	Ton CO ₂	367,819.47	August 2022, this report discloses the data
	GHG emissions intensity	tons CO ₂ /turnover	10.60	- 101 2020.
	Strategies, methods and goals of GHG management	Qualitative Narrative	3.2 Climate Change Action	
	Usage of Renewable energy	Renewable Energy/Total Energy	0	The company did not consume renewable energy in electricity consumption in 2020.
Energy Management	Energy Efficiency	Qualitative Narrative	3.2 Climate Change Action	
	Policy of the Usage of Recycled Materials	Qualitative Narrative	1.2 Product Innovation and Research & Development	
	Water Consumption	Metric tons	5,480,000	
Water Resources	Water usage density	Water consumption per unit of product, service or turnover	80.7 tons/million NT\$	
	Water Resources Management or Reduction Targets	Qualitative Narrative	2.2 Water resource management	
	Volume of Hazardous Waste	Metric tons	5,135	
	Volume of Non-Hazardous Waste	Metric tons	17,342	
Waste	Total weight (hazardous + non-hazardous)	Metric tons	22,477	
	Waste Density	Amount of waste per unit of product, service or turnover	30kg/million NT\$	
	Waste management or reduction targets	Qualitative Narrative	3.5 Waste	

Торіс	Indicator Topics	Explanations	2021 Outcome data results	Additional Notes
Social Topics				
	Average salary of employees	NT\$/Person	1,196	
Manpower Development	Average number of employee benefits	NT\$/Person	1,334	
	Average salary of full-time employees who are not in supervisory positions	NT\$/Person	1,184	
	Median salary of full-time employees in non- supervisory positions	NT\$/Person	1,147	
	Proportion of female supervisors in management positions	Ratio	1.81%	Calculated based on managers or above
	Number of Occupational Accidents	Number of employees	0	
	Occupational Hazard Rate	Ratio	0	
Governance issues				
	Board Seats	Number	9	
	Number of Independent Directors	Number	3	
	Proportion of female directors	Ratio	0%	
Board of Directors Meeting	Attendance rate of directors attending the Board of Director meeting	Ratio	100.00%	
	The number of training hours for directors and supervisors is in line with the ratio of training specifications	Ratio	100%	
Communication with Investors	Number of annual legal meetings held by the Company	Sessions	5	

Appendix 4. Assurance

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獨立保證意見聲明書

2021年南亞電路板股份有限公司永續報告書

英國標準協會與南亞電路板股份有限公司(簡稱南電)為相互獨立的公司,英國標準協會除了針對 2021 年南亞電路板股份有限公司永續報告書進行評估和查證外,與南電並無任何財務上的關係。

本獨立保證意見聲明書之目的,僅作為對 2021 年南亞電路板股份有限公司永續報告書所界定範圍內的相關事項進行 保證之結論,而不作為其他之用途。除計查證事實提出獨立保證意見聲明書外,對於其他目的之使用。或閱讀此獨立 保證意見聲明書的任何人,英國操準局會並不負有或承擔任何有關法律成其他之責任。

本獨立保證意見聲明書係英國標準協會審查南電提供之相關資訊所作成之結論,因此審查範圍乃基於並偽限在這些提 供的資訊內容之內,英國標準協會認為這些資訊內容都是完整且準確的。

對於這份獨立保證意見聲明書所載內容或相關事項之任何疑問,將由南電一併回覆。

查證範圍

南電與英國標準協會協議的查證範圍包括:

1.本查證作業範疇與2021年南亞電路板股份有限公司永續報告書揭露之報告範疇一致。
2.依照AA1000保證標準 v3 的第1為開展型評估南電遵循 AA1000當責性原則(2018)的本質和程度,不包括對於報告 書揭露的資訊數據之可信額度的查證。
未聲明書以葉文作成並已翻譯為中文以供參考。

意見聲明

我們總結 2021 年南亞電路板股份有限公司永續報告書內容,對於南電之相關運作與績效則提供了一個公平的觀點。 基於保證範圍限制事項、南電所提供資訊與載據以及抽樣之測試,此報告書並無重大之不實陳述。我們相信有關南電 2021 年的環境,社會段治理等績效資訊是被正確無誤地呈現。報告書所揭露之績效資訊展現了南電對識別利害關係人 的努力。

我們的工作是由一組具有依據 AA1000 保證標準 V3 查證能力之團隊執行,以及策劃和執行這部分的工作,以獲得必要 之訊息資料及說明。我們認為就南電所提供之足夠證據,表明其依循 AA1000 保證標準 V3 的報告方法與自我擊明符合 GRI 永續性報導準則核心選項係屬公允的。

查證方法

為了收集與作成結論有關的證據,我們執行了以下工作:

- 一對來自外部團體的議題相關於南電政策進行訪談,以確認本報告書中聲明書的合適性
- —與管理者討論有關利害關係人參與的方式,然而,我們並無直接接觸外部利害關係人
- 訪談5位與永續性管理、報告書編製及資訊提供有關的員工
- 審查有關組織的關鍵性發展
- 審查內部稽核的發現
- 審查報告書中所作宣告的支持性證據
- 一針對公司報告書及其相關AA1000 當責性原則(2018)中有關包容性、重大性、回應性及衝擊性原則之流程管理進行審查

結論

針對 AA1000 當責性原則(2018)之包容性、重大性、回應性及衝擊性與 GRI 永續性報導準則的詳細審查結果如下:

包容性

2021 年報告書反映出南電已持續尊求利客關係人的參與,並建立重大永續主題,以發展及達成對永續具有責任且策略 性的回應。報告書中已公正地報告與揭露環境、社會和治理的訊息,足以支持適當的計畫與目標設定。以我們的專業 意見而言,這份報告書涵蓋了南電之包容性議題。

重大性

南電公布對組織及其利害關係人之評估、決策、行動和績效會產生實質性影響與衝擊之重大主題。永續性資訊揭露使 利害關係人得以對公司之管理與績效進行判斷。以我們的專業意見而言,這份報告書通切地涵蓋了南電之重大性議題。

回慮性

南電執行來自利客關係人的期待與看法之曰應。南電已發展相關道德政策,作為提供進一步回應利客關係人的機會, 並能對利客關係人所關切之議題作出及時性回應。以我們的專業意見而言,這份報告書涵蓋了南電之回應性議題。

衛業性

南電已鑑別並以平衡和有效之量測及揭露方式公正展現其衝擊。南電已經建立監督、量測、評估和管理衝擊之流程, 從而在組織內實現更有效之決策和結果管理。以我們的專業意見而言,這份報告書涵蓋了南電之衝擊性議題。

GRI 永續性報導準則

南電提供有關依循GRI永續性報等準則之自我宣告,與相當於"核心選項"(每個涵蓋转定主題GRI準則之重大主題,至 少一個特定主題的揭落項目依領其全部的報等要求)的相關資料,基於客量的結果,我們嚐認報告書中參照GRI永續性 報導準則的永續發展相關揭露項目已被報告、部分報告或省略,以我們的專業意見而言,此自我宣告涵蓋了南電的永 續性主題。

保證等級

依據 AA1000 保證標準 v3 我們審查本聲明書為中度保證等級,如同本聲明書中所描述之範圍與方法。

責任

這份水續報告書所屬責任,如同責任信中所宣稱,為南電負責人所有。我們的責任為基於所描述之範圍與方法,提供 專業意見並提供利害關係人一個獨立的保證意見聲明書。

能力奥獨立性

英國標準協會於 1901 年成立,為立線標準與驗證的領導者,本查證團隊係由具專案背景,且接受過和 AA1000AS、ISO 14001、ISO 15001、ISO 14064 及 ISO 9001 之一条列水鏡位、環境及社會等管理標準的訓練,具有主導稽核員資格 之成員組成。本保證依依據 BSI 公平交易率則執行。

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan



...making excellence a habit."

Statement No: SRA-TW-2021044 2022-04-26

Taiwan Headquarters: 2nd Floor, No. 37, Ji-Hu Rd., Ni-Hu Dist., Taipei 114, Taiwan, R.O.C. A Member of the BSI Group of Companies.