

# 2015

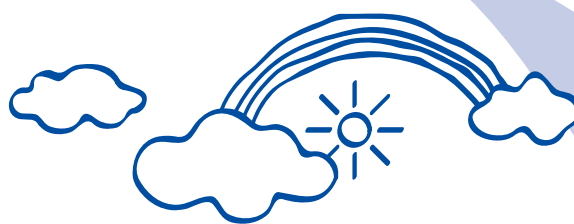
## Nan Ya Plastics Corporation Corporate Social Responsibility Report



台塑關係企業  
FORMOSA PLASTICS GROUP



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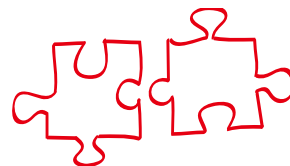
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The pursuit of knowledge of everything with a “diligence and frugality” attitude has always been the business concept of Nan Ya Plastics Corporation (The Company), and “ultimate excellence” has been our ultimate goal. Through the process of striving towards sustainable operations, we enhance the company’s competence while making contributions to society based on the principle of “Take from the society and use it for the society”, a responsibility of a good corporate citizen. Under such a concept, The Company works actively with a down-to-earth attitude in seek for the truth when facing issues such as environmental protection, public welfare, corporate governance and sustainable development. We continue to examine and improve ourselves, searching for logic in every detail, in the hope for a continuous contribution to society and sustainable operations.

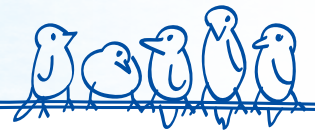
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Looking back over 2015, due to the recession of the global economy, the prices of energy, raw materials and other commodities decreased, a weaker trading economy and slower capital flows, major exporting countries around the world exhibited poor performance. When facing the challenging economic environment, The Company strived for the expansion of domestic and overseas markets and the development of products with a high value and distinctive quality. The adjustment of the distribution of product and sales, cost control and the hard work of all our staff resulted in a solid performance. Together, with the contribution from the transfer of investments, the annual profit increased by 26.6%, compared to that of 2014. In the future, The Company will continue to develop new materials, new methods of their usage and high value-added products all in line with an eco-friendly concept with the hope of expanding into new niche markets, and creating momentum of growth for The Company.

With regards to environmental protection, The Company has always adhered to the concept of maintaining a good balance between industrial development and environmental protection and has continually been promoting environmental protection efforts. From the establishment of the S.O.P, ISO-14001 certification, it has been implementing audit work, protecting against pollution, reducing industrial waste and exercising clean production methods. In 2015, the Kungsan Factory, the Hsinkang Factory and the transfer-invested company, PFG Fiber Glass Corporation, were selected by the Ministry of Economic Affairs as an “Industrial Voluntary Greenhouse Gas Reduction Manufacturer” for their outstanding performance. Hsinkang CCL 1<sup>st</sup> Plant proudly won the “ROC Enterprise Environmental Protection Award” for 3 consecutive years from 2013 for their excellence in the resource recycling and processing, waste reduction, steam saving and electricity saving. These are the solid examples of the environmental protection effort by Nan Ya Plastics Corporation. But this is just the beginning as we will continue to promote environmental protection and hold striving for the best international standards as our goal.

The Company has always regarded employees as its most valuable asset. In the pursuit of sustainable development, The Company is devoted to providing our employees with





a safe and secure working environment for cultivating a fair and respectful culture. Our staff works in an environment focused on "diligence and frugality" and "ultimate excellence" every day and focus on having a "down-to-earth, constantly seeking the truth" attitude and further spreading the workplace spirit among everyone else for a practical and positive influence on our society. In addition, we encourage our staff to show their concern for the community and disadvantaged groups by being a caretaker. As a start, based on the principle of "take from the society and use it for the society", The Formosa Plastics Group has not only established numerous education and medical institutions since 1960 - a contribution to educational and medical standards - but also assisted disadvantaged groups, reconstructed damaged school facilities following natural disasters, as well as promoted culture and sports, a true practice of humanity. For example, in 2015, we regularly made donations of the pneumococcal vaccines to "the Center for Disease Control, Ministry of Health and Welfare", and helped upgrade of service quality of the institution for children with mental and developmental disabilities. So far, we have adopted 75 schools damaged from the 921 Earthquake, Typhoon Morakot and Jiashian Earthquake in need of reconstruction. We have not only repaired the school facilities but enhanced the campus environment as well, so now the children have a chance to live and learn in a better environment.

Looking to the future, the implementation of the goal of corporate governance, sustainable environment and active participation of public welfare with the continuous execution of the business concept, "Diligence and simple perseverance, frugality and trustworthiness, achieving ultimate excellence and the sovereign good, sustainable operation and dedications to the society". While earnestly listening and responding to the demands of the environment and society, we transform reasonable suggestions into our goals in striving for a better corporation. We believe that the positive interaction and continuous pursuit of perfection and self-encouragement is the key to cultivating a strong and competent corporation, and this creates the foundation of the eternal development of an enterprise. Through friendly care to the environment and society, we protect our earth together with stakeholders in the hope for a better and happier world.

## Nan Ya Plastics Corporation

Chairman Chia-Chau Wu

2016







# 1. About The Report

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# 1.About the Report

## 1.1 Overview

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This is the second CSR report of Nan Ya Plastics Corporation, which states the achievements in the field of environmental protection, corporate governance and social welfare. The next report is currently estimated to be published in June, 2017.

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Information Period: Year 2015 (1/1/2015-12/31/2015)

Scope of Statistics: The information is gathered primarily from Nan Ya Plastics Corporation (Nan Ya Plastics, The Company, NPC) and does not include data from the domestic and overseas subsidiaries. Any other information with a different disclosure scope will be otherwise specified. For example, some data in the chapters "Company Profile" and "Transparent and Honest Corporate Governance" is partially derived from the consolidated financial statement which includes the subsidiaries listed in the statement). All of the financial statements have been duly verified by CPAs. Part of the statistics were provided by the Government and its affiliated agencies. The information is expressed in commonly accepted benchmarks. If other metrics are used, details are provided in the report. Moreover, there is no significant difference in the benchmark and report boundaries used in the report this year (2015) and last year (2014).

## 1.2 Guidelines of the Report

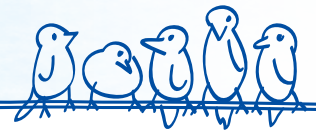
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The Company's CSR Report is compiled according to the "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies" of TWSE, the structure is designed in accordance with the core option in the Global Reporting Initiative (G4) guidelines, with the disclosure of significant sustainability subjects, strategies, goals and instructions. To enhance the comparability and substantiality of the report, all information published within the report this year is inspected and assured by the renowned British Standard Institution (BSI). The "Independent Assurance Opinion Statement" is attached in the appendix of the report, and is presented with international general index. Any estimation of data will be shown in the notes under each section.

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- Global Reporting Initiative (GRI) G4.0 version
- Materiality, Inclusivity, and Responsiveness of the Foundation Principle in AA 1000 (2008 version)
- Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies
- ISO 26000 Guidance on Social Responsibility
- United Nations Global Compact



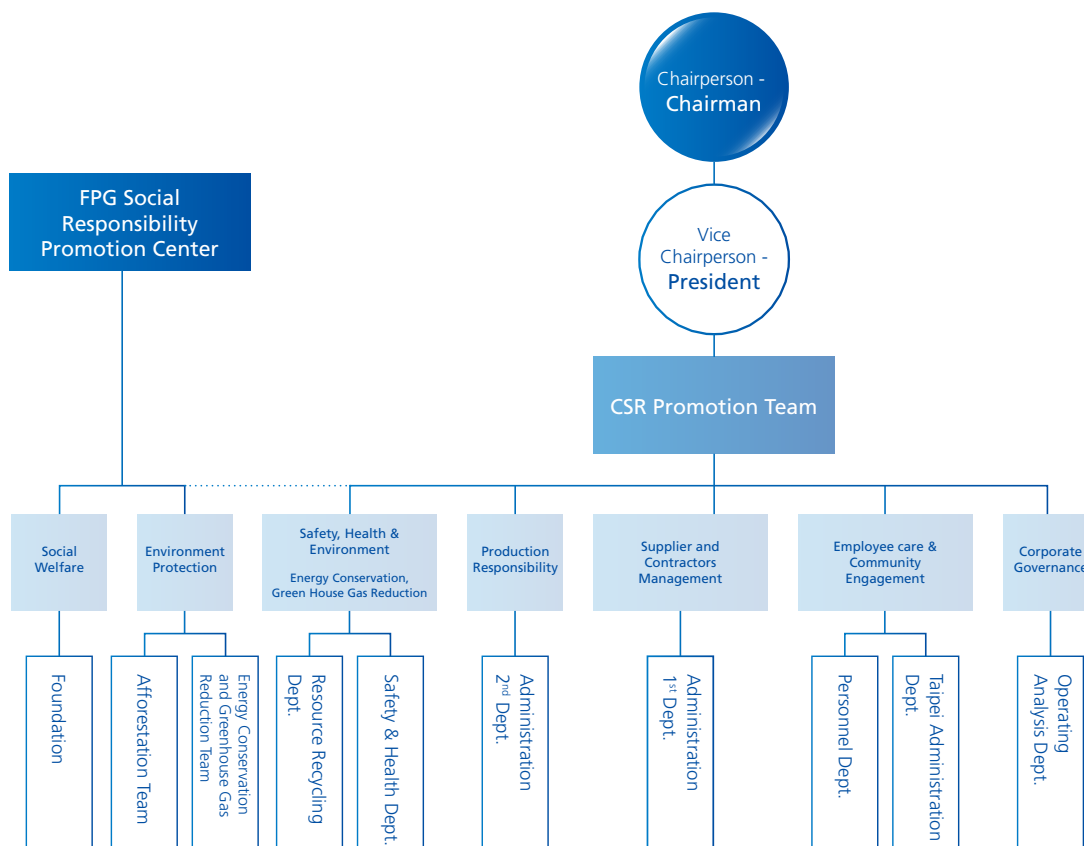


### 1.3 Report Compilation Process

For the integration and promotion of The Company's social responsibility affairs, the Company's chairman, as Chairperson, and President, as Vice Chairperson, who are in charge of the social responsibility strategy formulation and performance supervision, for the implementation of corporate governance, community engagement and environmental protection, the President's Office, Taipei Administration Dept., Safety & Health Dept., Resource Recycling Dept., and each business division of EHS units, work actively in order to achieve goals. Since The Company is a member of the Formosa Plastics Group (FPG), if the performance, mentioned in the chapter "Create a Prosperous Prospect with the Local Community" or "Active Social Participation and Feedback", belong to the common business of the FPG, it shall be overall executed by the "Foundation", "Energy Conservation and Greenhouse Gas Reduction Team" and "Afforestation Team" governed by the "FPG Social Responsibility Promotion Center".

Stakeholders of The Company include "residents of nearby factory operational areas", "government organizations", "experts and scholars and environmental protection groups", "shareholders and investors", "customers", "suppliers and contractors", and "employees". The concerns of the stakeholders are reviewed by the members of CSR Promotion Team and arranged in this report according to various topics and levels of significance. These topics are then reviewed by Head of the CSR Promotion Organization to ensure that the topics of interest match the stakeholders' needs, and then submit to the Board of Directors for check and reference.

#### NPC Social Responsibility Promotion Organization Chart



Note: "FPG Social Responsibility Promotion Center" executes the tasks belong to the common business of FPG.



# 1.About the Report

## 1.4 Identification of Stakeholders and Critical Issues

The core job of the CSR is to identify the stakeholders and critical issues. The members of CSR Promotion Team are convened for compiling an annual CSR report. The main concerned parties and relevant subjects are brought forward and are subject to discussion until a consensus is reached. This would be the reference for the disclosure of the report.

### (1) Identification of Stakeholders

The identification is conducted by the CSR Promotion Team according to international trends, industrial features, frequent interaction with stakeholders, extents of stakeholders concerns, and the impact on corporate operations, together with the adoption of the five significant principles outlined in "AA1000 Stakeholder Engagement Standard (AA 1000 SES)" including "dependency, responsibility, influence, diverse perspectives and tension". The main stakeholders are identified as "residents of nearby factory operational areas", "government organizations", "experts and scholars and environmental protection groups", "shareholders and investors", "customers", "suppliers and contractors", and "employees".

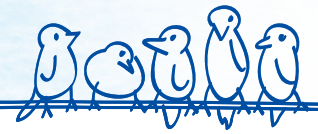


### (2) Communication with Stakeholders

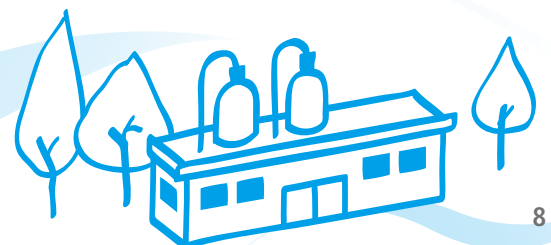
The Company values the rights and opinions of stakeholders. We have built diverse and user-friendly communication channels for each stakeholder, where information on corporate sustainable development, the prompt awareness of important subjects and response to the stakeholders as well as the inspection and the improvement of CSR performance are executed and maintained.

Stakeholders	Importance to NPC	Communication Channel/Method	Frequency of Communication	Critical Issues	Chapters and Sections in Responses
<b>Residents of Nearby Factory Operational Areas</b>	The Company's operations continually focus on creating a prosperous vision with the community. Residents living near the operational areas and their social care are important factors for us when executing evaluations on annual strategies and targets of The Company.	1. Meetings [such as Neighborhood Residents Assembly, conference of construction (expansion) of factory (ies), forum, demonstrations, associations, etc.] 2. Arrange a trip to visit 3. Email/Telephone	On irregular basis  Monthly On irregular basis	· Air Pollutant Management · Water Use and Waste · Water discharge Management · Community Participation and Public Welfare	5. Environmental Sustainability 6. Create a Prosperous Prospect with the Local Community 7. Active Social Participation and Feedback
<b>Government Organizations</b>	Government organizations are the constitutors of related policies, we follow the acts and regulations and communicate with the organizations to make contributions to the sustainable development of the industry.	1. Meetings (such as public hearings, seminars, etc.) 2. Official document 3. Arrange a trip to visit 4. Email/Telephone	On irregular basis  On irregular basis On irregular basis	· Moral/Ethical Code of Conduct · Environmental Regulatory Compliance · Occupational Health and Safety	3.1 A Trustworthy Corporation for Investors 5.5 Environmental Protection at the Plants 4.4 Work Environment 6.3 Healthcare





Stakeholders	Importance to NPC	Communication Channel/Method	Frequency of Communication	Critical Issues	Chapters and Sections in Responses
Experts and Scholars and Environmental Protection Groups	As well as academic suggestions on environmental issues, we value environmental sustainability just as much as environmental groups do. We wish to make efforts to improve Taiwan's overall industrial competitiveness and environmental sustainability.	1. Meetings [ex, EIA of New construction (expansion) and the supervision of implementation of EIA conclusion] 2. Email/Telephone	On irregular basis  On irregular basis	· GHG Emissions Management · Air Pollutant Management · Water Use and Waste Water discharge Management · Waste Management · Environmental Protection-related Investments · Biodiversity and Habitat Conservation	5. Environmental Sustainability 6.2 Eco-Friendliness 6.3 Healthcare 6.4 Dedication to the Local Industry Development
Shareholders/Investors	Shareholders/investors are the holders of The Company, since non-financial disclosure information has become a reference for investors to choose their targets, we stay firm and strong on our sustainable operation and eternal profit.	1. Shareholders' meeting 2. Board of directors 3. MOPS 4. "Investor relations" on Company's website 5. Corporate conference 6. Email/Telephone	Annually Quarterly On irregular basis On irregular basis  On irregular basis On irregular basis	· Operation Financial Performance · Corporate Governance	2.6 Corporate Social Responsibility Goals 3.1 A Trustworthy Corporation for Investors
Customers	Support from our customers is valuable to continue operating, their feedback is our motivation towards improvement.	1. Agent exhibition 2. Product exhibition 3. Arrange a trip to visit 4. Customer Satisfaction Survey, Customer Complaint form 5. Customer complaint Channel 6. Email/Telephone	Annually On irregular basis On irregular basis On irregular basis  On irregular basis On irregular basis	· Product Service and Customer Relations	3.2 A Corporation that Grows with Customers 5.6 Responsibility for Product Safety and Hygiene
Suppliers and Contractors	The cooperation and support from our working partners is one of the key factor to the success and sustainable development of NPC.	1. Corporate conference 2. Customer service center of Formosa Technologies E-Market Place 3. Supplier/contractor complaint Channel 4. Email/Telephone	Annually 24 hours  On irregular basis On irregular basis	· Procurement Practices	3.3 Creating a Business Relation based on Mutual Trust and Interest
Employees	Our employees are the most important assets in The Company, the foundation to strong competence. Through complete education, training and a friendly work environment to united staff and sustainable operation.	1. Morning Meeting 2. Virtual and online opinion letter box (Notes, Outlook) 3. Intra-factory hotline 799 4. The bimonthly FPG Magazine 5. Executives to communicate directly with union representatives 6. Trade unions ( Labour Council), the benefits committee, etc. 7. Employee satisfaction survey 8. Suggestion form for improvement of management systems	Daily 24 hours  24 hours Monthly On irregular basis  On irregular basis  Annually On irregular basis	· Talent Recruitment and Retention · Employee Welfare and Remuneration · Gender Equality	4. A Happy and Healthy Working Environment





# 1.About the Report

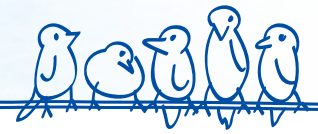
## (3) Critical Issues Discrimination

CSR conference is held based on "Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies", "ISO 26000 Guidance on Social Responsibility", "United Nations Global Compact", industry issues and news reports, with the GRI G4 as guidance alongside suggestions from employees and stakeholders.

### Analysis flowchart of critical issues by Nan Ya Plastics

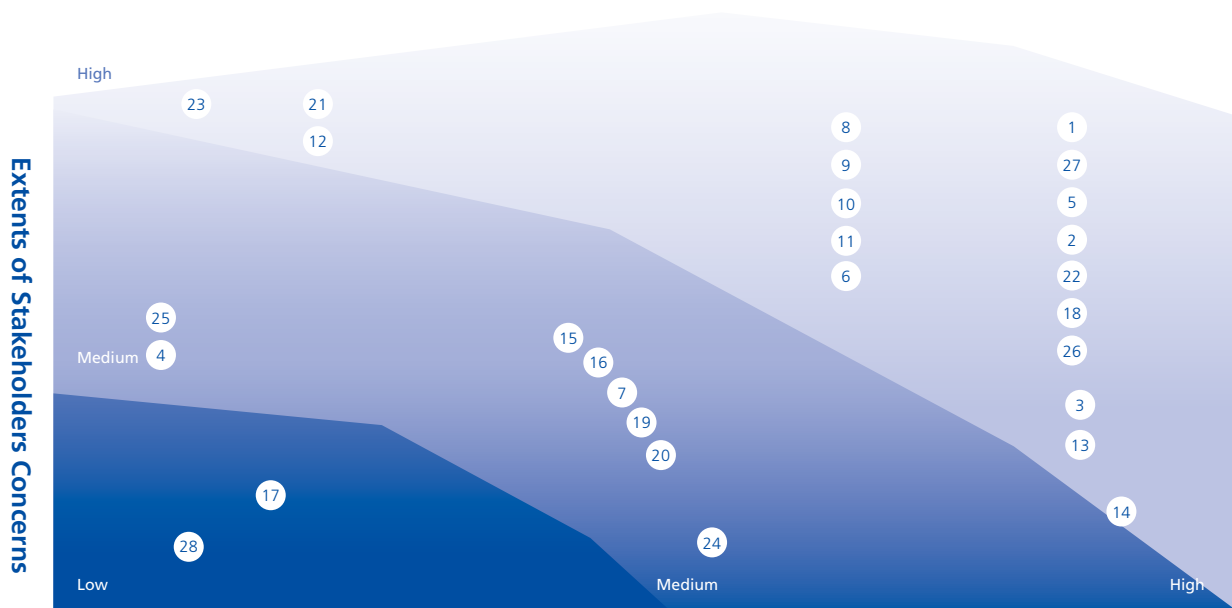






The importance of each subject is divided into high, medium and low intensity based on two aspects: stakeholders concerned level and impact on The Company. To prioritize them, subjects located at the upper right of the matrix are the most concerned issues, which are fully disclosed in the report with the goal of making improvements as well as continuous communication with stakeholders in the future. Deficiencies are listed as the focus of improvement as The Company is committed to maintaining good interaction and cooperation with interested parties.

## 2015 Significant Subjects Matrix



### Impacts on Corporate Operations

- |  |   |  |   |
|--|---|--|---|
| 1 Corporate Governance                 | 2 Operation Financial Performance                 | 3 Risk Management                              | 4 Privacy policy                          |
| 5 Moral/Ethical Code of Conduct        | 6 Procurement Practices                           | 7 Environmental Grievance Mechanism            | 8 GHG Emissions Management                |
| 9 Air Pollutant Management             | 10 Water Use and Waste Water discharge Management | 11 Waste Management                            | 12 Biodiversity and Habitat Conservation  |
| 13 Environmental Regulatory Compliance | 14 Environmental Protection-related Investments   | 15 Product and Package Material Recovery Ratio | 16 Materials                              |
| 17 Supplier Environmental Assessment   | 18 Occupational Health and Safety                 | 19 Labor/Management Relations                  | 20 Labor Practices                        |
| 21 Employee Welfare and Remuneration   | 22 Talent Recruitment and Retention               | 23 Gender Equality                             | 24 Employee Satisfaction Survey           |
| 25 Career Development and Training     | 26 Product Service and Customer Relations         | 27 Community Participation and Public Welfare  | 28 Supplier Social Performance Management |



# 1.About the Report

## Identified Material Aspect and Boundaries

Category	Related issue	Boundary inside NPC	Boundary outside NPC	Aspect	GRI	Corresponding Chapter
Governance	Corporate Governance	Nan Ya Plastics	-	-	G4-34	1.3, 3.1
	Risk Management	Nan Ya Plastics	-	-	G4-2	2.5, 2.6, 3.1, 6
	Moral/Ethical Code of Conduct	Nan Ya Plastics	-	-	G4-56	2.1
		Nan Ya Plastics	Supplier / Contractor	Anti-corruptionr	S04-5	3.1
Economy	Operation Financial Performance	Nan Ya Plastics, subsidiaries listed in the consolidated financial statements	Investor, Customer	Economic Performance	EC1-3	2.1, 2.2, 2.5, 4.2, 5.2, 5.3, 5.6, 7.1
	Procurement Practices	Nan Ya Plastics	Supplier/ Contractor	Procurement Practices	EC9	3.3
Environment	GHG Emissions Management	Nan Ya Plastics	Community, Government Organization	Emissions	EN15-16, EN18-19	5.3, 5.5
	Air Pollutant Management	Nan Ya Plastics	Community	Emissions	EN21	5.3, 5.5
	Water Use and Waste Water discharge Management	Nan Ya Plastics	Community, Government Organization	Water	EN8-10	5.3, 6.2
		Nan Ya Plastics	Community, Government Organization	Effluents and Waste	EN22, 26	5.5, 6.4
	Waste Management	Nan Ya Plastics	Community, Government Organization	Effluents and Waste	EN23-25	5.5
	Biodiversity and Habitat Conservation	Nan Ya Plastics (Mailiao)	Community	Biodiversity	EN11-14	6.2, 6.4
	Environmental Regulatory Compliance	Nan Ya Plastics	Community, Government Organization	Compliance	EN29	5.5
	Environmental Protection-related Investments	Nan Ya Plastics	-	Overall	EN31	5.2, 5.5, 6.4





Category	Related issue	Boundary inside NPC	Boundary outside NPC	Aspect	GRI	Corresponding Chapter
Society	Occupational Health and Safety	Nan Ya Plastics	Contractor	Occupational Health and Safety	LA5-8	4.4
	Employee Welfare and Remuneration	Nan Ya Plastics	-	Employment	LA2-3	4.2
		Nan Ya Plastics	-	Market Presence	EC6	4.1
		Nan Ya Plastics	-	Employment	LA1-3	4.1, 4.2
	Talent Recruitment and Retention	Nan Ya Plastics	-	Training and Education	LA10-11	4.1, 4.3
		Nan Ya Plastics	-	Diversity and Equal Opportunity	LA12	4.1
		Nan Ya Plastics	-	Non-discrimination	HR3	4
	Gender Equality	Nan Ya Plastics	-	Equal Remuneration for Women and Men	LA13	4.2
	Product Service and Customer Relations	Nan Ya Plastics	Customer	Product and Service Labeling	PR4-5	3.2, 5.6
		Nan Ya Plastics	Customer	Customer Privacy	PR8	3.2
		Nan Ya Plastics	Customer	Compliance	PR9	3.2
	Community Participation and Public Welfare	Nan Ya Plastics, FPG	Community	Local Communities	S02	6.1, 6.2, 6.3
		Nan Ya Plastics, FPG	Community	Grievance Mechanisms for Impacts on Society	S011	6.2, 6.3



## 1.5 CSR Achievement at a Glance

### Corporate Governance



Net profit pre tax

NT\$ **43.644** billion

(26.45% increase compared to 2014)



Extremely high directors and supervisors shareholding ratio is

**17.79%**

extremely low pledge ratio is 5.83%.  
The minimum directors and supervisors shareholding percentage requirement of Financial Supervisory Commission to the public issuing corporation of the same scale is 2%.



Average Customer Satisfaction

**4.2**

(Top Score 5; score 4 in 2014)



Abnormal number of  
working safety audit

**0.08** time/factory

(0.15 time /factory in 2014)



Employment:  
full time staff

**90%**

99% of which are Taiwanese.

The resignation rate over  
the past 5 years

less than **0.1%**





## 1.5 CSR Achievement at a Glance

### Environmental Sustainability



Electricity usage of unit product in  
Mailiao factory in 2015

**503.5** mt/mt

(10.88% less than year 2014)



Steam usage of unit product  
in Mailiao factory in 2015

**1.21** mt/mt

(9.02% less than year 2014)

Water usage of unit product  
in Mailiao factory in 2015

**3.5** mt/mt

(14.22% less than year 2014)





Rainwater collection rate  
in 2015

**58.5%**

(102.42% more than year 2014)



Environmental  
Violations in 2015

**0** case

(1 case in 2014)



Electronic invoicing usage ratio

**80.11%**

(14.34% more than year 2014)





## 1.5 CSR Achievement at a Glance

### Social Welfare and Local Prosperity (FPG)

Upgrading of agricultural  
and fishery technology

**100** farmer  
households counseled



Public welfare investment amount

NT\$ **51.82** billion

Benefits for disability:  
Established early treatment  
service in

**20** locations

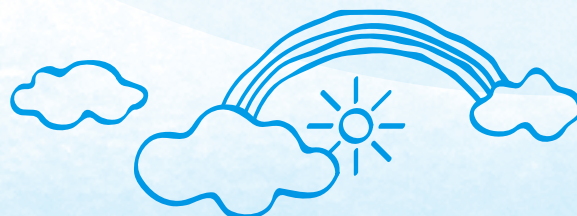
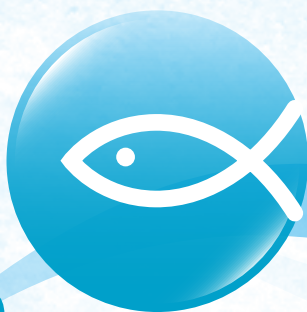
first professional online exchange  
platform for early treatment.



Total released fry

Over **3.2** million

(2008~2015)







**Sports and culture  
promotion:**

NT\$ **0.15** billion

invested in developing unique culture and sports talent.

**Welfare of women, children  
and teenagers: More than**

NT\$ **1.7** billion

invested in fostering aboriginal  
children's employability.



**Elderly welfare:  
Donation of**

**1** million

**Pneumonia vaccines**

(2007~2015)

With vaccination plan at least NT\$ 11.1  
billion saved for the government on  
medical expenses on pneumonia.









## **2. Company Overview**

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## 2. Company Overview

### 2.1 Company Profile and Concept of Management

<b>Company Name</b>	Nan Ya Plastics Corporation
<b>Date of Founding</b>	August 22 <sup>nd</sup> , 1958
<b>Business Items</b>	Plastic Processing, Petrochemicals, Electronic Materials, Polyester, Electro-Mechanical Engineering
<b>Amount of Capital</b>	NT\$ 79,308,215,890
<b>Number of employees (2015)</b>	33,849 (Based on no. of employees as 11,615, excluding subsidiaries listed in consolidated financial statements)
<b>Revenue (2015)</b>	NT\$ 299,781,410 thousand
<b>Global Locations</b>	Taiwan, China, USA (including 5 subsidiaries in Taiwan and 25 overseas which listed in consolidated financial statements)
<b>Operations Base</b>	Registered address: No.101, Shuiguan Rd., Renwu Dist., Kaohsiung City 814, Taiwan (R.O.C.) Taipei office: 3rd front building of Formosa Plastic Building, 201 Tnug Hwa N Rd, Taipei City
<b>Management Concept</b>	Diligence and simple perseverance, frugality and trustworthiness, achieving ultimate excellence and the sovereign good, sustainable operation and dedications to the society

Note1: Source of employee number: 2015 annual report (date counted to December 31<sup>st</sup>, 2015, including subsidiaries listed in consolidated financial statement)

Note2: Data of Revenue, global locations and subsidiaries based on consolidated financial statement of 2015

Note3: List of subsidiaries consolidated financial statements is in Appendix 5.

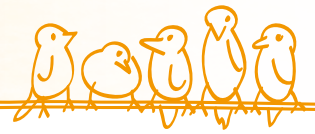
#### 2.1.1 Company History

The Company, one of the main businesses under the Formosa Plastics Group, was established in 1958 and originally named "Nan Ya Plastics Processing Plant Corporation", which mainly engaged in the plastics secondary processing production such as PVC pipes, PVC film, and plastic leather in Kaohsiung Plant at the beginning after founding. In August of 1967, it merged the New Eastern Corporation, which producing the plastics tertiary processing products, and officially changed the name to "Nan Ya Plastics Corporation". Along with the gradual expansion of business scale, the plant site is expanded from Kaohsiung to Linkou, Kungshan, Shulin, Hsinkang, and Chiayi, gradually becomes the largest secondary plastics processor in the world.

To diversify the business scopes and products, The Company prepared to build the polyester factory to start a new product line. In addition, The Company invested and

established its own factory to start producing PCBs and CCLs in 1984. The business expanded to cover upstream production such as glass fiber cloth, epoxy resin and copper foil; a vertical integration of electronic material production. In 1995 The Company invested the "Nan Ya Technology Corp." for DRAM production, and the "Nan Ya Printed Circuit Board Corporation" for PCB production in 1997. Furthermore, The Company participated in the Sixth Naphtha Cracker Project of Formosa Plastics Group in 1995. To follow up on the vertical integration of petrochemical raw materials manufacture policy, factories for EG, BPA, bisphenol and plasticizer production were established in the Mailiao offshore industrial district. By 1999, the majority of the factories were operating to produce a good amount of petrochemical raw materials. With the start of business in the U.S. in 1979, and the business in China in 1994, the corporation diversified into international business with various products throughout the years.

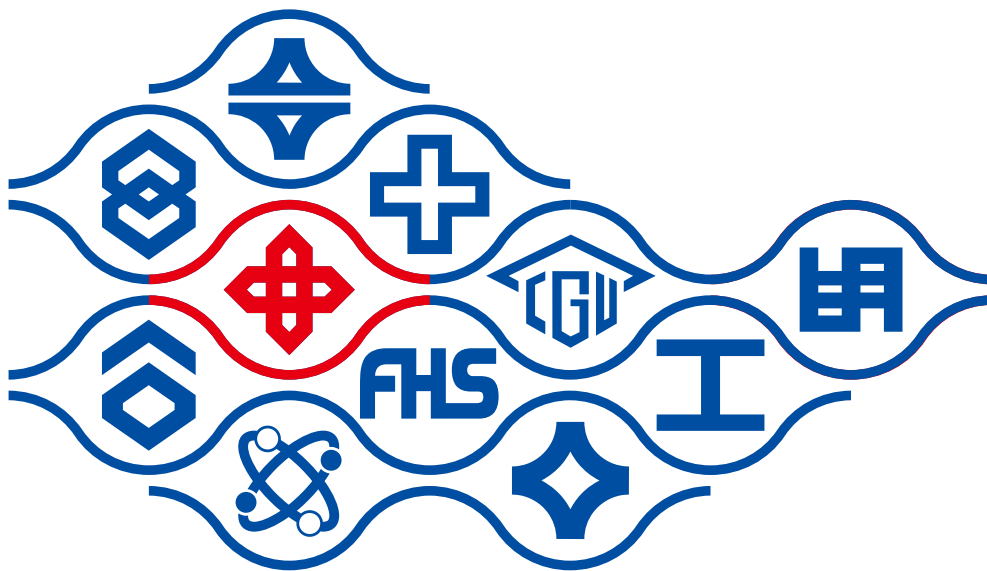




### 2.1.2 Corporate Identity System

The Formosa Plastics Group shares a chained graphics as the Corporate Identity System, which represents the significance of interactive connections, harmony, consistency, and the endless, unbroken, and powerful development capacity. Each icon borrows meaning from Chinese characters, amongst which the symbol representing our company is a transformation of the word “亞”(Ya) to ensure it is kept relatively similar to our logo.

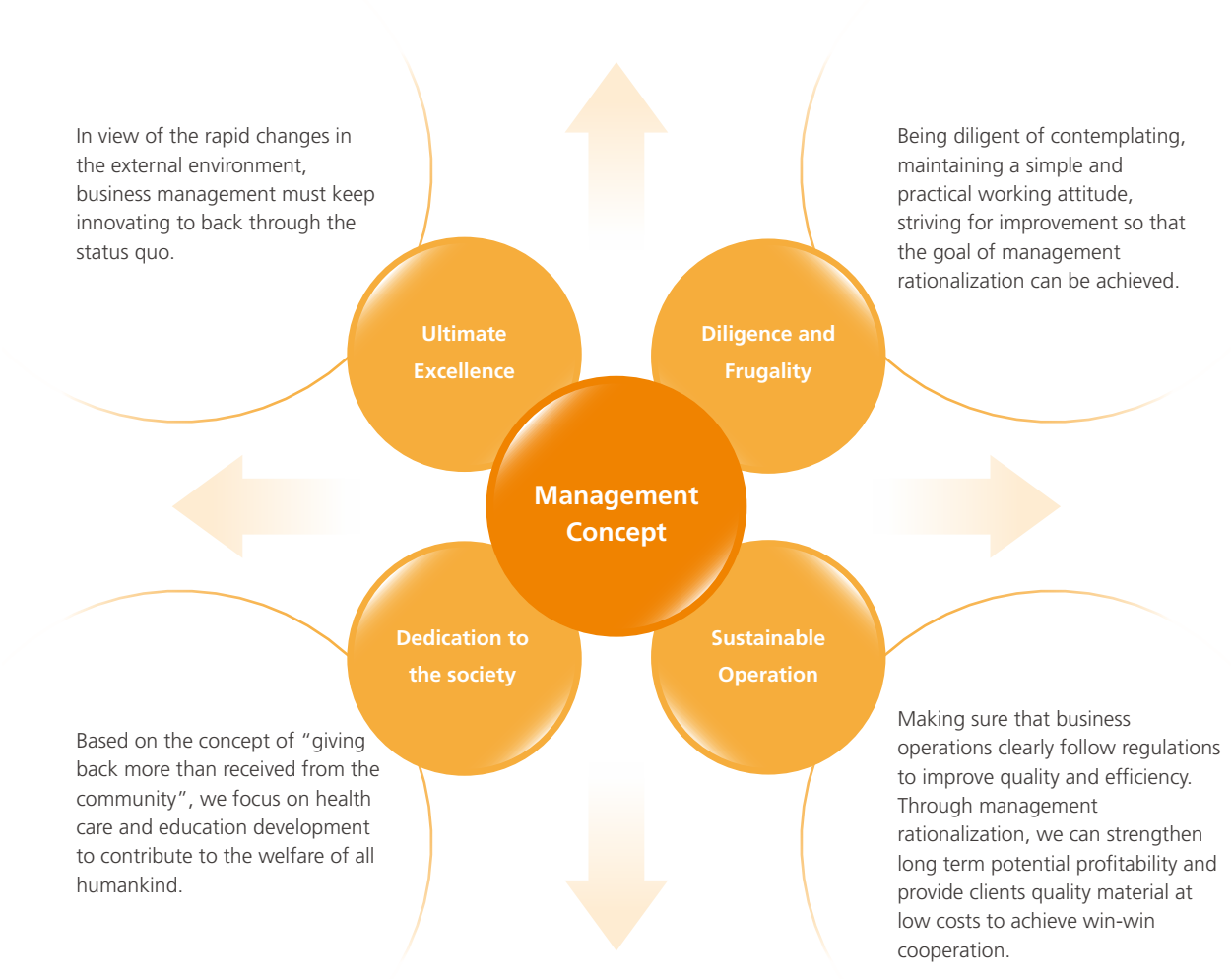
The meaning of our symbol is to promote our outstanding traditional culture and to enhance the positive image of trustworthiness among international players with its unique, simple, and powerful style.



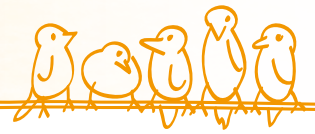


2.1.3Management Concept

The Company's core belief of "Diligence and Frugality" backs its commitment to excellence. As the society advances, the subject to strive for excellence can never be compromised because of the ever-changing environment and there will be always room for improvement. This is the major driving force of our endeavor and we always seek for opportunities to further refine. In addition to the pursuit of business sustainability we manage to contribute to society through business activities. It is our goal to become the world's leading corporation in which employees have security, investors find condition, and society places trust.







## 2.2 Main Products and Application

### 2.2.1 Product Introductions

The Company belongs to the Formosa Plastics Group and is developing horizontally based on petrochemical industry as well as reducing its costs by integrating vertically and applying economies of scale, as it better satisfies the demands of the clients and enhances the competence of The Company. Formosa Plastics Group has completed the overall vertical integration from upstream to downstream in the industries of petroleum refining, petrochemical raw materials, plastics, fibers, and electronics, etc. Through the integration of raw materials manufacturing, our competitive products are:

#### (1) Processed plastic products

Multiple plastic products are manufactured based on PVC, PE, PP, PS and ABS as raw materials provided by the Formosa Plastics Corp. (FPC) and the Formosa Chemicals & Fibre Corp. (FCFC). The main purpose of the products includes:

Product	Main Purposes
Flexible PVC Film	inflatable commodities, rainwear, electrical tape, floor tiles, closets, shower curtains, tablecloths, tags, water bed mattresses and table mats, etc.
Soft PVC Leather	vehicles, furniture, ships, shoes, leather purses, clothing, rainwear, toys, gloves, etc.
Rigid PVC/ Metallized PET Film	vacuum forming, food packing, credit card intermediates, floor tile laminating, wood laminating, printing, stationery, electroplating, photo albums, folding forming, water tower plates
PP Synthetic Paper	stationery, labels, advertising tags, cards, lithographic printing
A-PET Film	food packaging, printing, stationery, folding, high frequency plastic heat sealing
PU Leather	shoe materials, leather purses, furniture, cover cases for digital product
Vinyl Windows & Doors	architectural energy-saver doors & windows, curtain walls
SMC Door	SMC interior doors, fire-proof doors, entrance doors
PEPA Synthetic Paper	advertising printing, printed book paper, label paper, stationery
Rigid PVC Pipe	engineering, water works, electrical, drainage and general construction pipes
Bopp Film	tape, pockets, food packaging, photo albums
Unsaturated Polyester Resin	artwork, transparent shower and bath equipment, artificial stone, shipbuilding industry, furniture and building materials
Engineering plastics	electronics, sports equipment, home appliances, automotive materials



## 2. Company Overview

### (2) Petrochemicals products

Raw materials like propylene, ethylene and butyl that are provided by the Formosa Petrochemicals Corp. (FPCC) are used to produce ethylene glycol, plasticizers, bisphenol, butanediol, tetrahydrofuran, phthalic anhydride, 2-Ethyl hexanol and maleic anhydride for plastic processing and chemical fiber industrial use. Production realized the benefit of vertical integration as well as to meet diverse industrial demands. The main uses of these products are:

Product	Main Uses
Bisphenol-A (BPA)	EPOXY resin, polycarbonate resin
Ethylene Glycol(EG)	polyester fiber, PET, polyester Film, antifreezing agents
Plasticizers	wires and cables, plastic leather and plastic cloth, building materials, medical equipment, PVC film
1,4-butanediol	PU resin, PBT resin, COPE TPE, GBL
Tetrahydrofuran	PTMEG resin, medical intermediates, solvents, etc.
Maleic Anhydride	unsaturated polyester resin, lubricant additives, coating

### (3) Electronic Materials Products

The raw materials of PCB, CCL, base materials, copper-clad, EPOXY resin, electronic grade and industrial grade glass fiber cloth, LCD Monitors, capacitive touch panels. From glass fiber yarn to circuit boards, the upstream and downstream processes are fully integrated. The main uses of these products are:

Product	Main Uses
CCL	PCB
EPOXY Resin	electronics, civil engineering, coating, composite materials
Printed Circuit Board(PCB)	desktop PCs, notebooks, workstations, servers, mobile phones, tablets, game consoles
IC substrate surface	CPU, chipset , 3G mobile phones, mobile phone chip RF modules (RF modules), network communications chips and digital TV and set-top box chipset





#### (4) Polyester Fiber

Using PTA provided by FCFC and self-manufactured Ethylene Glycol as main raw materials to produce polyester fiber including the polyester pellets, staple fiber, partial orientated yarn, fully drawn yarn, textured yarn, dyeing yarn, industrial yarn, knitted fabric, SPP pellets, polyester film and other processed dyed silk, yarn, and cloth. The main uses of these products are:

Product	Main Uses
Polyester Staple Fiber	fabrics, filling material, nonwoven
Polyester Chips	fiber, bottle, film, sheet
Polyester Fully Oriented Yarn	woven fabrics, knitted fabric, umbrella, tailor thread, fishing net, and fishing gear.
Polyester Textured Yarn	woven fabric, knitted fabric, and braid

#### (5) Electrical Engineering

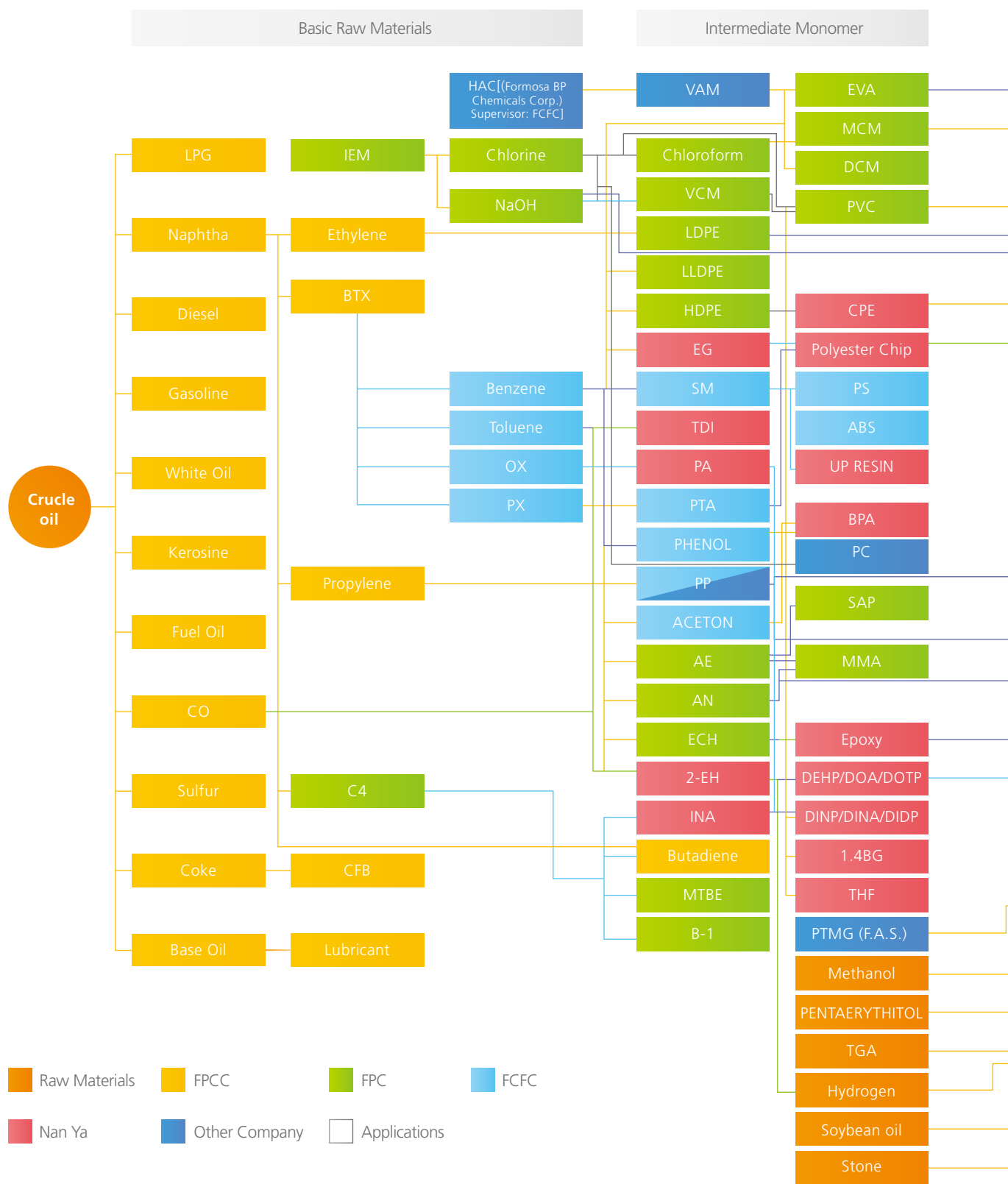
Factories in Taiwan and Nantong, China. Collaboration with electrical technicians and major engineering companies such as CTCI Corporation, Harvest, Fu-Tai Engineering and CTCI Smart Engineering to execute the contracts of MRT, CPC Corporation, TRA, Great Dome, hotels, CSC and buildings of financial holdings, the main business of distribution plate products of the mother company in Taiwan. We aim for government-owned enterprises and public works contracts. Branches in China work with engineering companies and equipment installation companies to aim for contracts released by the China Construction Fourth Engineering Division Corp, Shanghai Baosteel, Grandsun Engineering, etc. Major large engineering contracts to be covered by our company as the contractor. Mechanical equipment design, distribution plate, cast resin Transformer, vacuum contactor, common fluid, etc.



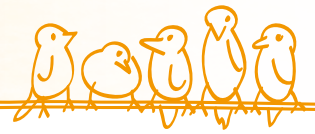


# 2. Company Overview

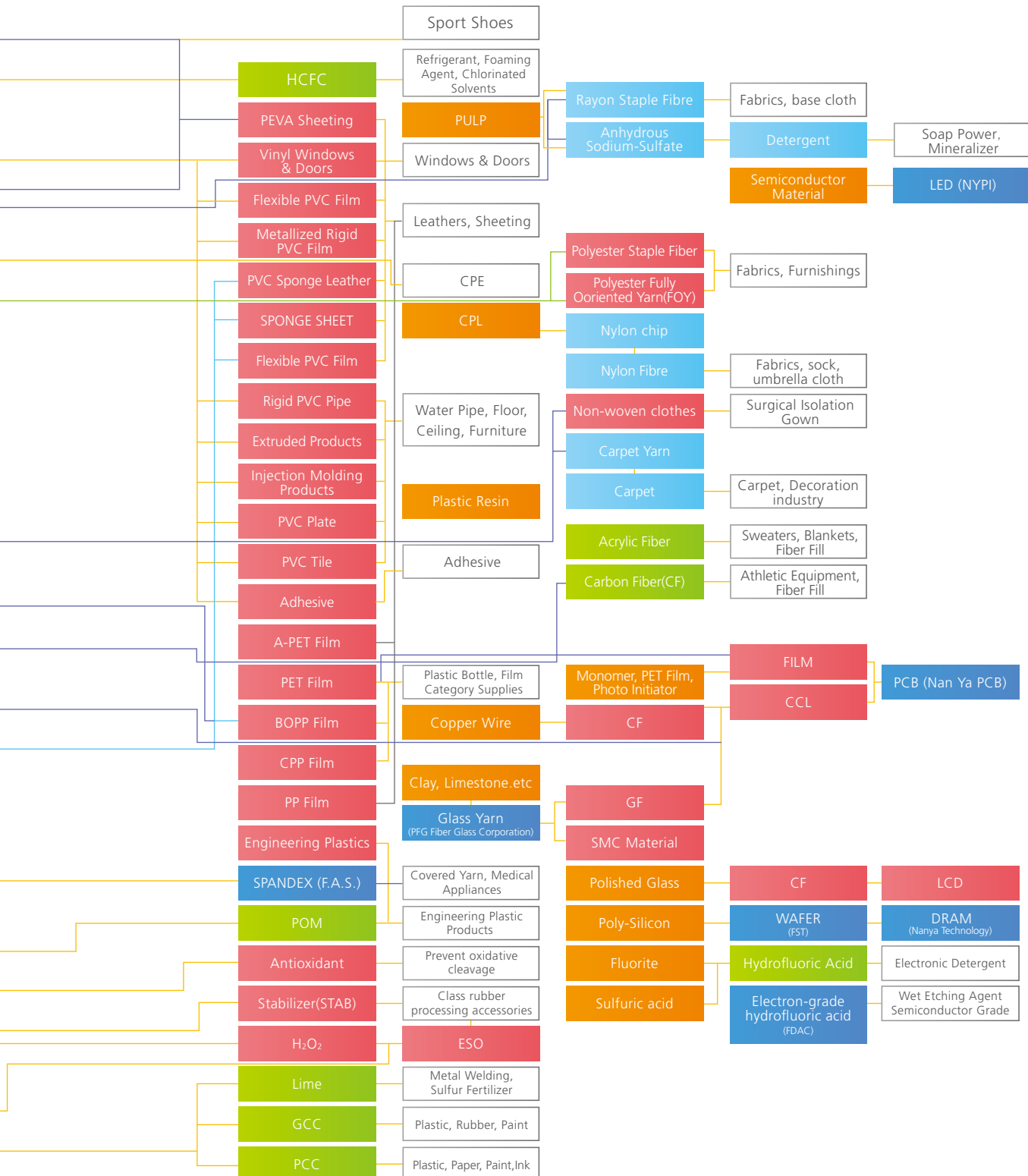
Relationship Diagram of FPG Products







Plastics & Fiber, Textile and Dyeing & Electronics




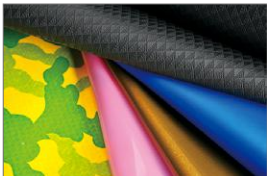







## 2. Company Overview

### 2.2.2 Main Brand

The Company branched out into five major areas of plastics, electronics, chemicals, polyester fiber, electrical and mechanical production, with main products under the brand of Nan Ya  to be sold all over the world. After years of effort, the products have a good reputation in the industry, Nan Ya WRAP and Deluxe Vinyl Composition Tile are two of our most popular products, to name a few.

Main Brands	Photos	Products	Uses
Nan Ya WRAP		PVC Cling Film	Package
TAIRILIN		Polyester fiber	Cloth
Neuma		Neuma windows, Neuma fire rated door, SMC Door	Building Material
Artificial Leather		Artificial leather, Plastic leather, Synthetic leather	Sofa, Office chair, Automobile cushion
PEPA Synthetic Paper(PEPA)		Iridescent paper	Printing, hang tag
Eco		Celuka boards, Plastic decking, Plastic lumber, Plastic panel	Interior and outdoor building material
Deluxe		Vinyl composition tile, Plastic flooring, Vinyl sheet	Flooring, Boards for furniture and door





## 2.2.3 Raw Material Consumption

### The main raw material usage and sources in 2015

Raw Materials Type	Unit	Quantity	Main Suppliers
PVC Resin	mt	338,771	FPC, Formosa Industries (Ningbo), Formosa Plastics Corporation, U.S.A
Stabilizer	mt	11,149	Internal transfer
Plasticizer	mt	47,846	Internal transfer
Fillers	mt	40,308	FPC
Modifier	mt	26,633	FPC
Solvent	mt	35,112	FCFC
Woven fabrics	thousand yards	17,593	FCFC
Knitted	mt	4,501	FCFC
Epichlorohydrin	mt	162,442	FPC
Pigment	mt	15,163	Internal transfer
Glass Fiber Yarn	mt	102,156	PFG Fiber Glass Corporation of Taiwan, PFG Fiber Glass (Kunshan) Co., Ltd.
EG	mt	391,492	Internal transfer
PTA	mt	1,009,263	FCFC, BP AMOCO
Ethylene	mt	1,247,403	FPCC, Formosa Plastics Corporation, U.S.A
PA	mt	101,315	Internal transfer
2EH	mt	205,867	Internal transfer
INA	mt	38,642	Internal transfer
CCL	SH	5,703,434	Internal transfer

Note: Data source: annual report preparation according to the principles of statistics and consolidated financial statements.



2.2.4 Product Research & Development

The Company, one of the major members of Formosa Plastics Group, pursues the product innovation in the fields of plastics, petrochemical, electronics, fiber, and chemical engineering. Moreover, through the vertical integration model, we have enabled our employees to accumulate R&D experiences and professional competency with regard to raw materials, product manufacturing and processing. Through interdepartmental cooperation and R&D management, we have been able to fully integrate and optimize our R&D resources and continuously invest in innovative ideas to develop products that meet market demands.

(1) Establish R&D culture of “professional technical services”

To promote the atmosphere of R&D and product value, the “technical service-orientated” research culture is established. Each R&D colleague could realize that materials with high performance, products with multiple functions, and process with high-level control are important approaches for development. They contribute not only to the extension of end product’s life, improvement of materials’ processing performance, ensuring the safety of manufacturers of industries, customer usage and environment, but also expand the functionality and the usage of general-purpose and inexpensive materials. We manufacture with the most advanced and eco-friendly production systems, so that our customers are able to produce a variety products with different functions. In addition, to facilitate our customers and to let consumers be able to identify the quality, we send each product to a third party notary to ensure that products meet international specifications and quality standards.

(2) Realize the management of vertical integration

To provide our customers with superior quality, eco-friendly products, we have participated in the seminars held by the government and research institutes to enrich our professional competency. Cross-Departmental Economic Development Team also conducts regular meetings to discuss about product technology, industry analysis and the comparisons between industry competitors in order to enhance our vertical integration advantage and ensure the complete horizontal development of our products.

Moreover, we set R&D center to develop high-end products, integrate the cross-departmental resources, and assist the relevant sections in expanding the new niche market. As a consequence, we have developed many eco-friendly products and evaluated several major investments. In the future, we will continue our R&D plan in the direction of high performance, ease of processing, durability, recyclable without toxins, decreased costs, lightness, and compactness. Furthermore, we will strengthen the overall R&D performance to aid the sustainable growth of our company.

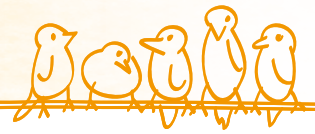
Recent 5 years of  
NPC R&D Costs

unit: NT\$ thousand

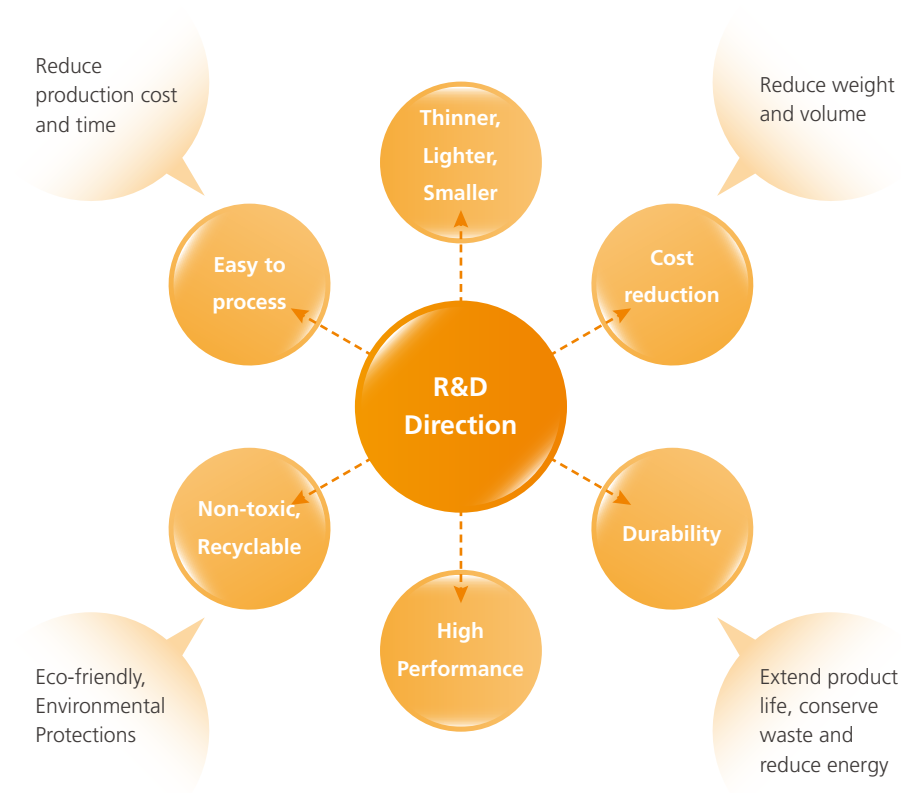
Category	2011	2012	2013	2014	2015
R&D Costs	963,638	908,795	958,328	962,267	1,008,049







## R&D Direction



## (3) Encourage innovation by honoring outstanding teams

To encourage innovation, Formosa Plastics Group has set up a variety of encouragement measures aimed at patent proposal, certified patents, key products or patents addressed to significant benefits. In addition, each department is regularly invited to participate in the "FPG Technology Application Seminar" each year, and the most innovative ones will be selected to join a competition. Judges will award departments with outstanding R&D outcomes.

## The 13th "FPG Technology Application Seminar"





## 2. Company Overview

### 2.3 Awards and Honors

Acknowledging the responsibility to environment, shareholders, customers, suppliers, employees and the community, and to fulfill our corporate citizenship responsibilities, The Company bears the concept of "Diligence and Frugality, Ultimate Excellence, Sustainable Operation, Dedication to the society " in mind, with the pursuit of self-improvement and commitment to the community in the fields of corporate governance, environmental protection and social welfare to achieve our goals of commitment to society. The process of obtaining recognition from the government and other outside agencies is our motivation to keep moving forward.

Award Unit	Awards	Winning Units
Environmental Protection Administration	The 24th ROC Enterprise Environmental Protection Award (Copper Class Award)	Nan Ya Plastics Corporation Hsinkang CCL 1 <sup>st</sup> Plant
Environmental Protection Administration	National emergency response exercise for toxic chemicals hazard of year 2015	Nan Ya Plastics Corporation Shulin Plant
Ministry of Economic Affairs	Top Manufacturer of Industry voluntary greenhouse gas reductions of year 2015	Nan Ya Plastics Corporation Kungsan Plant & Hsinkang Plant
New Taipei City Government	Top Manufacturer of "Improve marketing channels and procurement of environmentally friendly products" of year 2015	Nan Ya Plastics Corporation
Ministry of Labor	OSH excellence unit	Nan Ya Plastics Corporation Chiayi Plant

### 2.4 Participation in 3<sup>rd</sup> Party Associations

In order to help establish a sound operating system for Taiwan industry, The Company has participated eagerly in several external associations and groups from various industries, and taken the post of director or supervisor of some associations or groups to help develop business operating systems in Taiwan. Through our communications and interactions with these associations and the respective international conferences, we are able to share and procure knowledge of various market trends. This allows us to contribute to numerous industries and provide our Government with pertinent experience and advice.

#### Participation in major external associations:

##### Associations List

- Petrochemical Industry Association of Taiwan
- Taiwan Synthetic Resins Manufacturers Association
- Taiwan Plastic Industry Association
- Taiwan Responsible Care Association
- Taiwan Electrical and Electronic Manufacturers' Association
- Taiwan Printed Circuit Association
- Taiwan Man-Made Fiber Industries Association
- Taiwan Knitting Industry Association
- Fire Door Association of R.O.C
- Taiwan Fire Safety & Material Association
- Low Carbon Building Alliance





## 2.5 Operational Performance and Risk Management

### 2.5.1 Operational Performance

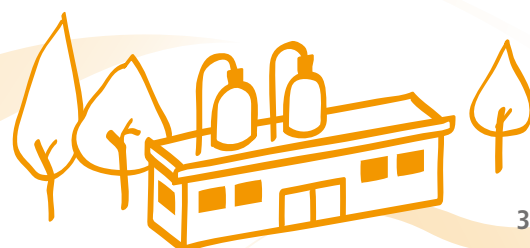
Due to economic fluctuations, the only way to ensure existence and development of enterprises is to continually strive for improvement and enhance global competitiveness. Despite the severe decrease in price of energy, raw materials and other commodities, weak trade and capital flows in year 2015, with an annual income of NT\$ 299.78 billion, the Nan Ya Plastics Corp., with the distribution of product and sales, cost control, together with the contribution from the transfer investments, increased its profits to NT\$ 43.64 billion. According to Forbes magazine, which announced the two thousand largest companies in the world rankings, The Company ranked 662nd in 2015, demonstrating its performance on a global level.

#### NPC Operational performance

unit: NT\$ thousand

Category	2013	2014	2015
Operating Revenues	311,005,289	325,473,146	299,781,414
Operating Costs	278,344,062	296,440,048	263,425,610
Income before income tax	30,957,463	34,516,098	43,644,537
Retained Earnings	138,092,702	154,809,420	169,705,210
EPS (NT\$)	3.19	4.01	4.50
ROE (%)	9.56	10.90	11.23
Total Tax (Excluding sales tax)	2,294,609	2,490,396	1,622,935

Data resource: annual consolidated financial statements and annual reports





## 2. Company Overview

### 2.5.2 Risk Management

A variety of potential risk issues and operational assessments must be put into consideration for business sustainability. Planning and the assessment of the effect of risks and impact should be planned by relevant departments, and a proper strategy implemented accordingly. Main risk types and the contingency plan are as follows:

Risk Category	Potential Risks	Strategy
Financial Risk	Interest rate fluctuations	In view of the long-term liabilities with fluctuating interest rates, the financial market situation should be carefully assessed. Sign contracts of interest exchange with banks when the interest rate is relatively low, for reducing the risk of interest rate fluctuations and exchange rate risk.
	Exchange rate changes	Buy in spot/forward foreign exchange when the market exchange rate is favorable to cover the insufficient foreign exchange funds for daily operations. For long-term liabilities of foreign currency, sign a long term forward exchange contract or cross-currency swap when the exchange rate is relatively low to reduce the impact of exchange rate changes to a minimum.
	Loans	The objects to which the company loans are mainly affiliated enterprises under unified capital operation. Credit limit is in accordance with the provisions of rule fifteen of "Company Act" and approved by the Board of Directors.
	Endorsements and Guarantees	The endorsement and guarantee object is of parent company, subsidiary, and correlation or business affiliated company and is in principle affiliated enterprises under unified capital operation. Endorsement and guarantee projects are predominantly financing and import tax guarantees.
	Financial Derivatives Trading	Financial derivatives trading is aimed to avoid market risks caused by fluctuations in exchange rates, interest rates, etc., not for speculation and arbitrage purposes.
Raw Materials Risk	Feeding Interruption	Expand supply vendor options by developing qualified suppliers; the establishment of raw material inventories, control mechanisms and safety stocks, monitor and suggest a reasonable number of requisitions accordingly; keep abreast of the demand and supply of the market and marketing material source supply status, be prepared accordingly.
Market Risk	Sales Concentration	Avert excessive concentration of sales to a single specific region (ex, China), expand new market demands (ex, southeast Asia, Europe, central and south America).
	Imbalance of Production and Marketing	When sales do not meet product manufactured amount, adjust capacity use or capacity during annual maintenance scheduling. In order to meet customer and market demand, sales staff should actively visit customers and, in good time, adjust production specifications and production when creating the production and marketing plan.
Equipment Maintenance Risks	Equipment Maintenance	Establish safety components stocks for equipment maintenance, implement control to maintain spare parts through information system control. Establish equipment maintenance S.O.P job references with the use of IT tools to strengthen the management of information for maintaining the functionality of equipment.
The risk of SHE	Industrial Safety Accident Abnormal	Hazard identification and risk assessment to be accordingly arranged, and conduct risk reduction measures and emergency response exercises. Safety to be the essential criteria when promoting all business processes with "Zero injury, zero disaster, no pollution" as our goal.
	Environmental Protection	Reducing environmental pollution, improving waste treatment technology, establish water-saving and energy-saving promotion team, encouraging research and development of specific programs from greenhouse gas reduction in reaction to climate change, regular counseling, mutual observation workshops to be held to promote energy-saving projects and focus on the reduction of pollution, and recycling of waste and water.

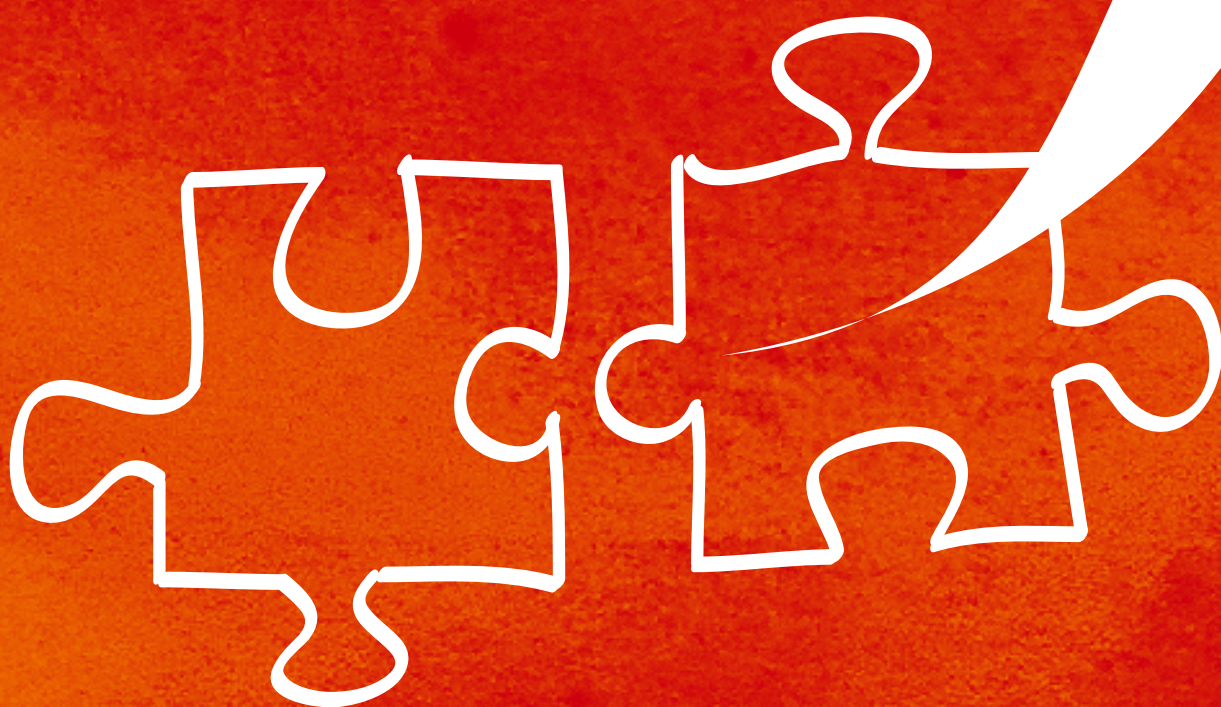




## 2.6 Corporate Social Responsibility Goals

Sustainable Operation	Perpetual Commitment	Sustainable Development Promotion	Progress of Implementation in 2015	Goal of 2016
<b>Implement of Corporate Governance</b>	<ul style="list-style-type: none"> <li>• Obedience of law and industrial moral regulation, establishment of proper system and the maintenance of corporate governance.</li> <li>• Developing with international vision, increase corporate competency and shareholders' profit</li> <li>• Training and promotion provided for directors, supervisors and employees on a regular basis; setting explicit regulations on promotions, assessment, trainings and reward and punishment for employees.</li> </ul>	<ul style="list-style-type: none"> <li>• "Corporate Social Responsibility Principles" established according to laws and acts.</li> <li>• Audit Committee to be formed in 2016, the internal control system of the committee is to be created in 2015.</li> <li>• Fortification of internal control system in coordination of acts and needs, for example, "Technical Audit Team" to inspect the appropriateness of special purchase such as exclusive purchase, emergent purchase and specified purchase.</li> </ul>	<ul style="list-style-type: none"> <li>• August 12<sup>th</sup>, 2015, "Corporate Social Responsibility Principles" to be established under the Board of Directors' decision.</li> <li>• November 11<sup>th</sup>, 2015, "Management of Audit Committee Meeting Operations" to be set under the Board of Directors' decision as part of internal control system.</li> <li>• In August 2015, the Group Administration and The Company were respectively provided with a "Materials Inspection Group" and "Technical Audit Team" to inspect the appropriateness of special purchase such as exclusive purchase, emergent purchase and specified purchase.</li> </ul>	<ul style="list-style-type: none"> <li>• The Company intends to set up the Audit Committee in 2016, and the members served by the independent directors, as an implementation of the spirit of corporate governance.</li> <li>• Review and maintain the internal control system in a timely fashion so as to comply with statutory and internal control requirements, and strengthen corporate governance.</li> <li>• Implementation of internal control cycle audit operations for achieving the effect and purpose of internal control.</li> </ul>
<b>Development of Sustainable Environment</b>	<ul style="list-style-type: none"> <li>• Respect industrial development as well as environment protection, moving towards creating an ecological industrial district. Optimize manufacturing processes, prevent and control pollution, keep manufacturing processes clean and tidy, save energy and reduce carbon emissions, and save water, etc.</li> <li>• To save energy, reduce carbon emissions and live eco-friendly, we put it into practice by choosing green buildings, green materials and green daily necessities which are recyclable, of low pollution, and are saving more energy.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish annual targets for environment protection purposes the promotion of water and energy savings as well as reduction of CO<sub>2</sub> can be put into practice. We have report made by our staff to track for the schedule of the scheme.</li> <li>• Implementation of advanced energy saving, water saving and environment protection technology to achieve the purpose of waste water recycling and better use of water, a truly environmentally-friendly act.</li> <li>• Enhance environment protection technology together with academia and the industry.</li> <li>• Increase resource recycling and education of environment protection, a friendly corporate to our community.</li> </ul>	<ul style="list-style-type: none"> <li>• No major environmental pollution incidents occurred in the year 2015.</li> <li>• In year 2015 the water usage amount of Maillao factory was 3.5mt, 0.58 mt less than the amount of 4.08 mt used in year 2014; unit product with 1.21 mt of steam usage, 0.12 mt less than the 1.33 mt usage in 2014; unit product with 503.5 degrees of electricity usage, 61.5 degrees less than the 565.0 degrees usage in 2014.</li> <li>• Total purchase of green products NT\$ 10,940 thousand.</li> </ul>	<ul style="list-style-type: none"> <li>• The Company will continue to promote energy conservation and pollution prevention and control work our goal in 2016 to have a 2% reduction in water usage, 3% in energy usage, 1% in waste, 5% in emissions of source of waste water pollution based on the entire company as an unit.</li> </ul>
<b>Maintenance of Social Welfare</b>	<ul style="list-style-type: none"> <li>• To protect employees' rights and interests, we provide complete trainings and promotion systems as well as safe and hygienic workplace.</li> <li>• We regard highly of social issues and participate in proper social welfare activities.</li> <li>• Work to the perfection is our motto, creating the best welfare and benefit of the social welfare.</li> </ul>	<ul style="list-style-type: none"> <li>• Handle employee complaints with discretion, emphasize the importance of communication between employees and The Company and retain superior staff.</li> <li>• Encourage employees' participation in community activity and promote the harmonious between factory and village.</li> <li>• Emphasize and expand local traditional arts.</li> </ul>	<ul style="list-style-type: none"> <li>• Beginning of August 2014, "personnel counsellor" system is provided for interviewing college graduated management trainees on a regular basis to help their stable learning and development through care and counseling. "Personnel counsellor" system is also provided on corporate website to set a two-way communication platform for colleagues to express themselves and receive appropriate assistance.</li> <li>• Annual environmental volunteer activities were held 39 times in 2015 with total of 855 volunteers joined.</li> <li>• Corporate volunteer teams were formed by each factory for caring of disadvantage groups (children's home, nursing home). In 2015, total of 29 times were held with 1,965 volunteers participated in.</li> <li>• "Township and the factories are a family" event was held with fairs in October 3, 2015. Borough office, local communities, children's home and nursing home were invited, welfare committee "Loving Community" joined public interests group to hold "Aixin Market" activity, 3,600 people participated. The sale income of NT\$ 117,735 donated to charitable organizations.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous interviews and conversations with new staff, taking care of our staff and assisting them with difficulties, retaining valuable staff.</li> <li>• Community and area nearby the factory to be cleaned before work by our volunteer staff as environmental workers on the environmental day scheduled once every month.</li> <li>• The promotion of corporate volunteers carried out as implementation of disadvantage group care.</li> <li>• The troupe "Paperwindmill Theatre" will be performed together with "Township and the factories are a family" event in the midst 2016 as an act of promoting traditional art.</li> </ul>







### **3. Transparent and Honest Corporate Governance**

<b>3.1 A Trustworthy Corporation for Investors</b>	<b>39</b>
<b>3.2 A Corporation that Grows with Customers</b>	<b>46</b>
<b>3.3 Creating a Business Relation based on Mutual Trust and Interest</b>	<b>49</b>



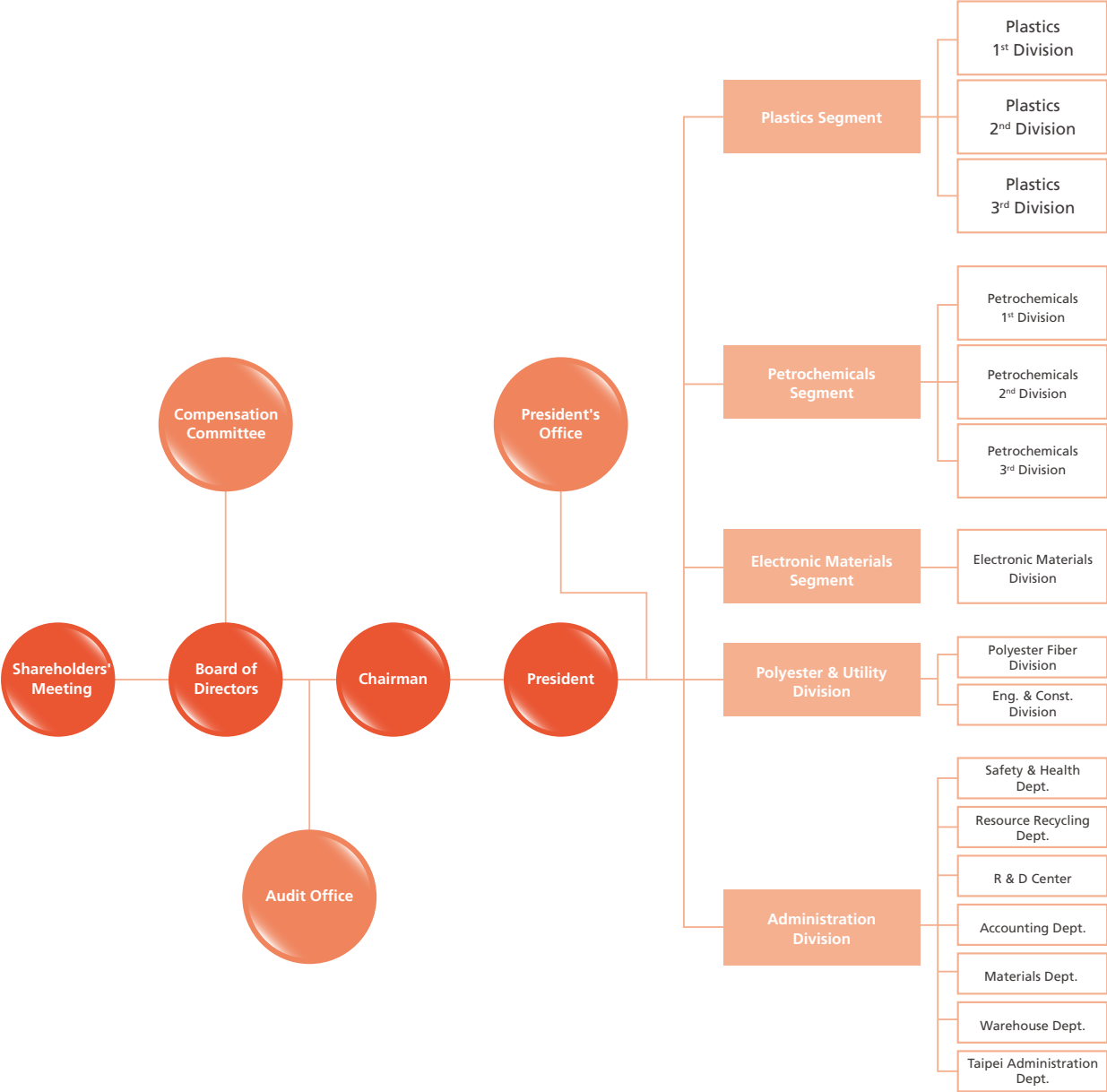
# 3. Transparent and Honest Corporate Governance

## 3.1 A Trustworthy Corporation for Investors

It is the basic conviction of The Company that shareholders should be provided with reasonable returns and that the only way to achieve this is through a profitable organization. To gain the trust of our investors, we believe that it is necessary for us to earn sufficient profit to ensure our employees' welfare and increase the tax revenue for the government. By doing so, we can fulfill our responsibility to all interested parties, promote both the growth of society and the success of The Company.

### 3.1.1 Corporate Governance Overview

#### (1) Organization structure of the corporate governance of 2015







## (2) Professional and Effective Board of Directors

The board of directors is the highest governance unit and the core for making business decisions. Entrusted by the shareholders, the board of directors executes the resolutions made by shareholders' meetings, while its operation complies with "the Taiwan Company Act", "the Securities and Exchange Act", "the Company Articles of Incorporation" and Regulations Governing Procedure for Board of Directors Meetings, etc. Furthermore, to prevent the occurrence of damage to the interests of the company and its shareholders, The Company has established "A Code of Ethical Conduct for Directors, Supervisors, and Managerial Officers", which demands that the relevant personnel comply with the code of ethics when performing their duties.

The candidate nomination system is used to elect directors and supervisors. After the qualification review of the candidates, the list is then submitted to the shareholders' meeting for the final decision. Each term is at least three years with at least one meeting every quarter. The board of directors of The Company consists of 15 directors (including 3 independent directors) and 3 supervisors, with the ages of members varying between 50 and 80 years old. The members are either experts or have rich operating experience in the industry. In particular, several directors have decades of background in operating petrochemical and plastic businesses, knowledgeable management know-how, and distinguished abilities that enable them to offer the best judgment and guidance for The Company's future. To fulfil the independence and diversity of corporate governance, we also have elections for independent directors and female directors. The members of the board of directors are listed below:

Title	Name	Education	Position in Company or in other Companies
Chairman	Chia-Chau Wu	B.S. in Business Administration, National Chengchi University	- Chairman of Nanya Technology Corp. - Chairman of Nan Ya PCB Corp.
Executive Director	William Wong	M.S. in Industrial Engineering, University of Houston, USA	- Chairman of Formosa Chemicals & Fibre Corp. - Chairman of Formosa Taffeta Co., Ltd. - Chairman of Formosa Advanced Technologies Co., Ltd.
	Representative: Wilfred Wang (Formosa Petrochemical Corp.)	B.S. in Mechanical Engineering, University of London	- Chairman of Nan Ya Photonics Inc. - Chairman of Formosa Plastic Marine Corp. - Executive Director of Formosa Plastics Corp. - Executive Director of Formosa Chemicals & Fibre Corp. - Executive Director of Formosa Petrochemical Corp.
	Ruey-Yu Wang	M.S. in International Business Management, National Taiwan University	- Executive Director of Formosa Chemicals & Fibre Corp. - Chairman of Formosa Biomedical Technology Corp.
Executive Director (Independent Director)	Chih-Kang Wang	Ph.D. in Business Administration, Texas A&M University, USA	- Top Advisor of TAITRA, Taiwan - Chairman of CTBC Venture Capital Co., Ltd. - Independent Director of Formosa Sunco Technology Corp
Independent Director	Yung-San Lee	Ph.D. in Economics, University of Wisconsin, USA	- Independent Director of Goldsun Development & Construction Co., Ltd. - Director of eMemory Technology Inc. - Chairman of Deutron Education Foundation
	Yun-Peng Chu	Ph.D. in Economics, University of Maryland, USA	- Independent Director of Adimmune Corp. - Independent Director of China Petrochemical Development Corp.
Director	Chin-Jen Wu	B.S. in Chemical Engineering, National Cheng Kung University	- Nan Ya Plastics Supreme Advisor
	Ming-Jen Tzou	Chemical Engineering, Provincial Taipei Institute of Technology	- President of NPC
	Kuei-Yung Wang	B.S. in Chemistry, University of London	- Vice President of NPC
	Representative: Shen-Yi Lee (Formosa Chemicals & Fibre Corporation)	Ph.D. in Law, Chinese Culture University	- General Secretary, Dharma Drum Mountain Humanity and Social - Foundation Managing Partner Emeritus - Independent Director of EnTie Commercial Bank.
	Fong-Chin Lin	M.S. in Business Administration, National Chengchi University	- Senior Vice President, NPC
	Yuan-Shan Liu	B.S. in Chemistry, National Taiwan University	-
	Zo-Chun Jen	B.S. in Electrical Engineering, Tatung Institute of Technology	- Advisor, NPC
	Representative: Ching-Cheng Chang (Freedom International Enterprise Company)	B.S. in Business Administration, Tunghai University	- Director of Fu Tak Investment Company
Supervisor	Representative: Chen-Ching Fu (Formosa Plastics Corporation)	B.S. in Law, Chung Hsing University	-
	Te-Yao Chen	Industrial Design, Ming Chi Institute of Technology	-
	Cheng-Hsiao Lei	Executive Master of Business Administration, National Taiwan University	Finance Manager of Formosa Plastics Corp.



### 3. Transparent and Honest Corporate Governance

#### List of directors

Corporate	Director seats (including independent directors)	Independent Directors		Female Directors	
		Seats	Proportion	Seats	Proportion
NPC	15	3	20%	2	13%

#### (3) Independent monitoring mechanism

Our independent supervision mechanism has been professionally constructed through supervisors, independent directors, and a thorough audit management system. The core responsibility of supervisors is to manage the business execution and financial situation of The Company, audit The Company's financial records and documents, and take responsibility consulted by the act and obligations of the shareholders with an independent principle of integrity.

Furthermore, The Company actively recruits experts and scholars from all walks of life with appropriate professional background and experience to act as independent directors; with reasonable suggestions from external individuals, The Company is under superior guide and supervision. We plan to establish an audit committee in 2016, which shall consist of independent directors, to assist the board of directors with supervision and to be responsible for the mission described in "the Taiwan Company Act", "the Securities and Exchange Act", and other relevant regulations.

#### (4) Board of Directors in relation to Interested Parties

To prevent conflicts of interest, The Company's Board of Directors can't lift the restrictions of the prohibition from participation in competitive business without the consents of shareholders' meeting and needs to abide by the domestic Company Act. With regards to the avoidance of conflicts of self-interest of the directors, clauses are also stipulated in "Rules of Procedure for Board of Directors Meeting" and "Corporate Governance Principles". If any director or a juristic person represented by a director is an interested party with respect to any agenda item, the director shall state the important aspects of the interested party relationship at the respective meeting. When the relationship is likely to prejudice the interests of The Company, the director may not participate in discussion or voting on that agenda item and shall recuse him/herself during discussion and voting on that item and may not act as another director's proxy to exercise voting rights on that matter. (See the 2015 annual report for recusal execution.)

In addition, The Company's Board of Directors has the following 2 features to ensure that they share loss and benefit with shareholders.

#### A. Shareholding and Hypothecation Proportion

The shareholding and hypothecation proportion of directors and supervisors is key to minimizing agency issues and ensuring the interests of the shareholders and the Board of Directors are aligned. The shareholding proportion of directors and supervisors of The Company was much higher than the requirement from the Financial Supervisory Commission and reflects mutual trust between shareholders and the Board of Directors.

#### Shareholding and Hypothecation Proportion of Nan Ya Plastics Corporation's Board of Directors

Unit: %

Item	End of 2011	End of 2012	End of 2013	End of 2014	End of 2015
Shareholding Proportion	17.54	17.55	17.79	17.79	17.79
Hypothecation Proportion	7.15	7.23	7.06	5.83	5.83

Note: The Shareholding Proportion is the proportion held by the Board of Directors and the outflow shares; the Hypothecation Proportion is the proportion held by the Board of Directors with that of the total shares.





## B. Remuneration of directors and supervisors

The two founders of The Company have never received remuneration during their terms of the Board of Directors. Their core belief lies in that the directors will benefit from dividends since they are also members of the shareholders. This philosophy reflects our dedications to ensure that all shareholders receive their fair share of the corporation's profits. The investors and public have acknowledged the Founders' approach.

To implement and consolidate the compensation system of the company's directors and managers, The Company established the Remuneration Committee in 2011, which consists of three independent directors. The committee evaluates the salary policy of the directors, supervisors and management team. They provide stewardship to prevent these aforementioned members from making unnecessary risky decisions for the Company. In 2015, the committee convened twice and the members' attendance of these two meetings was 100%.

### Board of Director Salary (After Tax) of Nan Ya Plastics Corporation

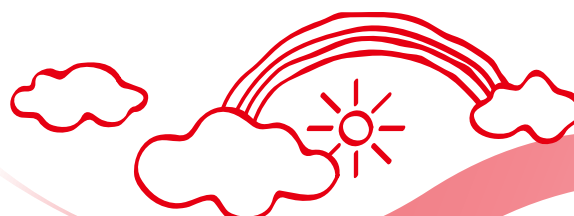
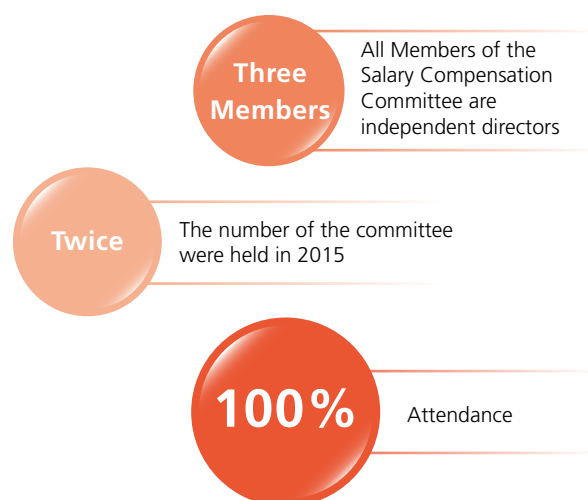
Unit: NT\$ thousand

Item	2011	2012	2013	2014	2015
Salary	17,511	17,871	8,350	6,018	14,498
Proportion(%)	0.08	0.43	0.03	0.02	0.04

Note: The proportion is the ratio of the remuneration paid to the directors and supervisors compared to the post-tax profit.

## C. Remuneration of managers

The annual salary of The Company's managers includes wages, annual bonus, executives' incentives, pensions, and employees' welfare funds. Salary standards and their structures are evaluated and approved by the Remuneration Committee and the board of directors. Managers' performance evaluation is conducted by the Chairman according to the overall performance within the managers' job scopes and their individual "Annual Objectives" to achieve a comprehensive assessment in order to make sure that the company's strategy and goals are recognized and in progress. The excitation system is applicable to the personal performance of executives and the company.





### 3. Transparent and Honest Corporate Governance

#### (5) Seminar Courses for Board of Directors and Supervisors

To keep up with the daily changes of the global economy, corporate operations, and updates to laws and regulations, Seminar Courses are arranged every year according to the “Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEx Listed Companies” so that the members of the board of directors can understand the most updated situation and develop operation plans accordingly.

#### Directors and Supervisors' Continuing Education Statistics in 2015

Title	Name	Date	Host	Course	Hours
Chairman	Chia-Chau Wu	2015/11/20	DDMHSIF (Dharma Drum Mountain Humanities and Social Improvement Foundation)	Corporate Social Responsibility Series – The Key to a Happy Enterprise	3
Executive Director	William Wong Ruey-Yu Wang				
Independent Director	Yun-Peng Chu				
Director	Chin-Jen Wu; Kuei-Yung Wang; Ming-Jen Tzou; Fong-Chin Lin; Zo-Chun Jen; Ching-Cheng Chang		Securities & Futures Institute	Corporate Governance Blueprint and Corporate Social Responsibility Vision	3
Supervisor	Chen-Ching Fu; Te-Yao Chen; Cheng-Hsiao Lei				
Executive Director (Independent Director)	Chih-Kang Wang	2015/10/06	Taiwan Corporate Governance Association	Laws, Regulations and Governance - Business and Corporate Governance, the Use of CSR to Create shared Value between Society and Enterprises	6
Independent Director	Yung-San Lee	2015/08/22	Taiwan Academy of Banking and Finance	Legal Issues that Directors and Supervisors of Public Companies Should Know	3
		2015/11/21		The Company, the Board of Directors, and Supervisors' Obligations under the “Securities and Exchange Act” and Relevant Case Analysis	3
Director	Shen-Yi Lee	2015/07/17	DDMHSIF	Corporate Social Responsibility Series – The Key to a Happy Enterprise	3
		2015/08/21		Corporate Social Responsibility Series – From Regulatory	3
		2015/11/20		Corporate Social Responsibility Series – The Key to a Happy Enterprise	3

Source: NPC 2015 annual report

#### (6) The effectiveness of corporate governance

The company's actual governance outcomes are reflected through the external evaluation. Since 2014, when the first Corporate Governance Evaluation was implemented, The Company has ranked within the top 20% among the 798 listed companies in the assessment and ranked in the top 5% among the 824 listed companies in 2015. The company will continue to evolve and do its best for our shareholders and continuous development, as our motto is to look only for the truth and work only until perfection.





### 3.1.2. Investor Relations

#### (1) Shareholder Service

In order to improve shareholder service, the Financial Department established a Shareholder Service Department. The department serves as communication channel between the corporation and the shareholders and strives to elevate the service standard, including the development of a seal verification system and strengthening of storage security. In addition, the shareholders' stocks are now fully computerized to ensure better services.

We also maintain an "Investors Relations" on the corporate website to answer Investors' inquiries. All statistics and relevant data are timely disclosed in the Market Observation Post System (M.O.P.S.).

#### (2) Relation with Institutional Investors

We have established the role of spokesperson to ensure there is an efficient communication channel with the institutional investors, thus receiving investment institutions' suggestions and explaining any doubts in a timely manner. In addition, we not only participate in the investment forum held by domestic or international securities firms, but also periodically engages in one-on-one dialogues with investor. We have established a face-to-face communication channel for institutional investors.

### 3.1.3 Internal Control Mechanism

The internal control mechanisms of The Company feature an integrated system to increase operational efficiency and minimize risks. The system ensures that the shareholders' rights are protected. Details are provided below:

#### (1) Computerized Management Procedures

We implemented an integrated management system with goal-orientated procedures in 1968. The management system has been computerized since 1982 and features the following four strengths:

- One entry with multiple output
- Interlink between the 6 main management systems
- Consistency of information
- Management of abnormalities

The management system of The Company is divided into several segments: HR, Finance, Sales, Production, Materials & Resources, and Engineering. All information is shared among different systems and checks are available between all links with an automated logic deduction system. System warnings

are provided to relevant personnel when an abnormality is detected. A final report is available for all segments of the operation. This feature – unique to The Company - uses a computerized management system, which minimizes human error.

#### A Daily Analysis System:

Another achievement of The Company's computerized management system is the daily analysis system, which was completed in May 2001. A daily analysis is provided and the Management Team is able to access the monthly P&L on the first day of the following month. This system has enabled the Management Team to respond and rapidly make any necessary adjustment to operations.

#### (2) Professional and Independent Internal Auditing System

The Audit Office of The Company was established to be subject to the Board of Directors, and the internal audit employees must attend audit business-related courses organized by professional training institutions to enhance their professionalism. Through audit work, the implementation of the management system inspected and the function of the computerized system are reinforced on an irregular basis, and management and project improvements are supervised and promoted in order to ensure operation efficiency.

The scope of internal audits includes:

- Validation and verification of financial and operational information
- Monitoring policy, system, procedural, and legal compliance
- Evaluation of asset protection measures
- Evaluation of the efficiency of resource consumptions
- Evaluation of operations or project plans to ensure consistency with the set goal

Each and every Department is required to conduct operational examinations of their own accord, on a regular or internal basis. They report their findings to the internal audit department for further evaluation.



### 3. Transparent and Honest Corporate Governance

#### (3) Anti-Corruption

##### A. Specific methods and complaint channel

In order to uphold the spirit of Diligence and Frugality, The Company has implemented a strict Code of Ethics, including the “Ethical Corporate Management Best Practice Principles”, “A Code of Ethical Conduct for Directors, Supervisors, and Managerial Officers”, and “Employee work rules”. We expect all employees to comply with norms and ethical standards in a responsible manner. We have set up strict rules and regulations to prevent the leak of classified data, false reports, misconduct, negligence, violence, embezzlement, misuse, instigation, rumor mongering, and sexual discrimination. The measures are as follows:

###### Anti-corruption

No business entertainment or gift shall be accepted. Based on the “Regulations for Personnel Management”, those found guilty of graft or embezzlement of public funds, or taking bribes or commissions, will be dismissed.

###### Anti-fraud

Personnel from sales, procurement, product warehousing, construction oversight, and budget division are required to rotate regularly to prevent the occurrence of any kickbacks.

###### Strict Discipline

We take strict actions toward those who go against the regulations. There will be no conducting of improper behavior and even direct supervisors are monitored and given warnings.

By implementing business, The Company hopes to guide every employee to follow the specific moral and ethical standards in work and life and further cultivate a corporate culture of “Diligence and Frugality”. Furthermore, through institutionalization of the “Key Points of Employee Appeals”, an internal channel is provided for reporting illegal acts. When discovering illegal or improper behavior that may cause a negative impact on an individual’s or company’s rights or intention of improper benefit with the advantage of one’s position, our employees can make appeals by submitting the appeal form and reporting it to respective executives according to the respondent’s position.

##### B. Follow-up of “Employees suspected of accepting bribes in July 2015”:

The computerization and systematization of FPG’s purchasing procedure, online bidding, and encrypted data regarding vendors’ offers before bidding starts, all such operations prevent the handling personnel from knowing such information in advance. Though bribery cases occurred in 2015 due to employees’ morality issues, the employees involved were punished according to the working rules and regulations after the discovery of the case. The follow-up actions taken to reinforce anti-fraud mechanisms are as follows:

- a. After the incident, in addition to strengthening the publicity of work rules and relevant employee punishments, internal audits, autonomous inspections, regular rotations, and employees’ appeals channel will be enhanced for internal control.
- b. In August 2015, the Group Administration and NPC were provided with the “Materials Inspection Group” and “Technical Audit Team” to inspect the appropriateness of special purchases, such as exclusive purchases, emergent purchases, and specified purchases; by doing so, we hope to prevent illegal criminal violations in the future.
- c. In 2016, the publicity of “The Concept of the Rule of Law” was an additional training course for our newly entered college graduated personnel to acquaint them with the corporate regulations, the legal responsibility of breach of duty, and the damages caused to the corporation if accepting any bribes or improper benefit during employment. In addition to overall comprehension of the course for all personnel in the contracting, purchasing, or import & export departments, they are also obliged to sign “The Self-Discipline Convention for Purchasing & Contracting Employees”, which regulates the discipline and attitude that one should hold when performing their duties and work in accordance with the law.





## 3.2 A Corporation that Grows with Customers

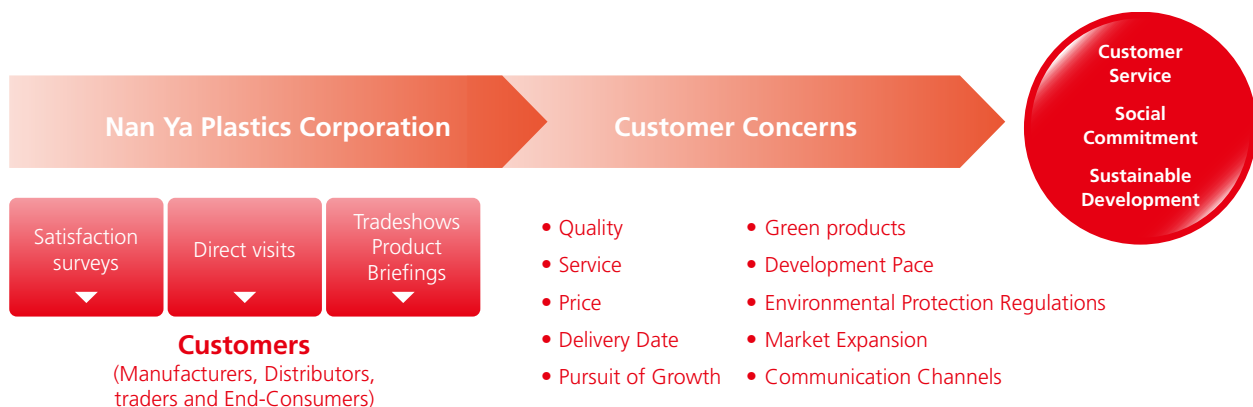
It is the foundation and core value of the enterprise that customers always come first. When cooperating with our customers, we focus on their hardships just as much as their prosperity. For us, our sales staff serves as a bridge between the enterprise and our customers, and not only the business department but all our employees aim for customer satisfaction. Daily business operations and management procedures are implemented to create an environment in which we can grow with our customers. We value customers' rights and opinions, and smooth business development with downstream customers means the support and affirmation of our company. We hope to form a positive cycle, where we grow with customers and pursue a win-win partnership.

### 3.2.1 Customer Collaborations

#### (1) Positive interactive mode

Although the customers and The Company are interdependent, we aim to become a business partner that is trusted by customers and can evolve with them. To enhance the connection, regular visits by business departments for customers' opinions on existing or new products helps cultivate an interactive communication channel. Through exhibition of our products, we take advantage of the opportunity to exchange market information with our customers and obtain precious opinions that become important references for the future operations and improvements of The Company.

#### Stakeholder Communication Mechanism



#### (2) Disclosure of product information

The "Product Map" has been updated on the official website to provide comprehensive information, such as catalogs, specifications, uses, properties, and certification of our products.

#### (3) Customer feedback and response

Customer relationship management plays an important part of the company's sustainable management. To hear customers' voices, we offer a customer appeals channel, return/exchange of goods, and compensation SOP; opinions can be expressed through the customer feedback form, and product complaints are accepted by customer complaint forms filled out by our sales personnel. For customer complaints, the case goes to the manager's office of the abnormality Division for the attribution of responsibility; the case is then approved by the department authority for the follow up of the respective SOP, and return/exchange, discount/compensation, and every other process goes into the computer records. For customer feedback, a customer service hotline and an e-mail address are available on our website as feedback channels. All topics and feedbacks are sorted, classified, and analyzed to prioritize them based on importance and timeliness so that we can take care of everyone's needs.



# 3. Transparent and Honest Corporate Governance

## 3.2.2 Customer Satisfaction Survey

“Diligence and simple perseverance, frugality and trustworthiness, achieving ultimate excellence and the sovereign good, sustainable operation and dedications to the society” make up the spirit that we cherish while developing local and international markets. We always aim for the truth, pursue lower costs, and give back to our customers. We passionately work to enhance service quality and efficiency and are committed to developing market-oriented products while aligning service with customers’ needs to thus lead the industry with the most valuable products.

ISO 9001 evaluates the quality of products and customer satisfaction, so we arrange customer satisfaction surveys for domestic and international customers at least once a year; the survey covers eight aspects, including product features, product quality, product delivery, product price, service attitude, technical and R&D assistance, brand image, and overall satisfaction, and detailed questions are adjusted according to customers’ feedback. This is to collect customers’ opinions and suggestions as a reference for operational improvement and to ensure that our products and services meet customers’ demands and expectations.

According to the 2015 customer satisfaction survey results, the overall satisfaction was 4.1 points, accounting for 82% of the average score. Our performance in seven areas ranked higher than “satisfied”. However, certain product prices did not meet customer expectations due to the drop of raw material prices. Our goal is to pursue low costs and ease the impacts caused by raw material price fluctuations.

### Customer satisfaction degree investigation mode



### Customer satisfaction survey results in 2015



Note: 5- very satisfied, 4- satisfied, 3- no comment, 2- dissatisfied, 1- very dissatisfied





Year	Technique and R&D Assistance	Service Attitude	Brand Image	Product Delivery	Product Quality	Product Features	Product Price	Overall Satisfaction	Average score
2014	4.1	4.3	4.1	3.9	4.1	4.1	3.4	4.1	4.0
2015	4.1	4.6	4.2	4.3	4.1	4.1	3.7	4.4	4.2

Note: 5- very satisfied, 4- satisfied, 3- no comment, 2- dissatisfied, 1- very dissatisfied

### 3.2.3 Regulation Compliance

The company's production and sales operations comply with the provisions of the law. We work hard to contribute to environmental sustainability and customers' health and safety by developing green construction materials and green energy products that comply with RoHS and REACH regulations. The product information is properly disclosed pursuant to existing laws and regulations, and for certain non-food/feed additives, "Not fit for human or animal consumption" is marked on the package of the products and delivery bills as requested by the industrial bureau of the Ministry of Economic Affairs.

For personal information protection, The Company has established "personal information management practices" and demanded that they be on the list of autonomous inspection. In addition to the authority, the "personal information collection, processing, and utilization" application form needs to be filled out and signed for standard procedure and compliance with relevant rules to obtain access to it in the case of business operation requirements; the usage is strictly specified. No violations of the above regulations occurred in The Company in 2015.

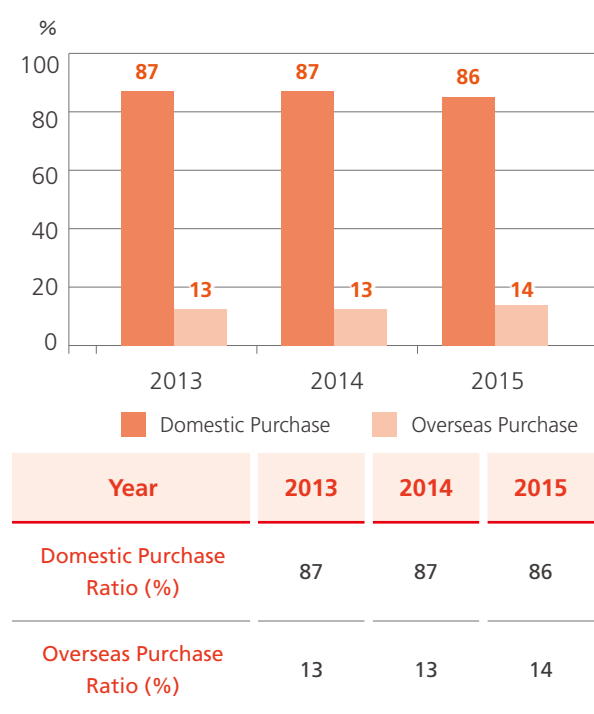




## 3. Transparent and Honest Corporate Governance

### 3.3 Creating a Business Relation based on Mutual Trust and Interest

The purchasing and contracting policy of The Company is based on local purchasing and contracting; if an item is not available locally, it is purchased from/contracted to abroad. According to statistics, the domestic and overseas purchase ratios over the past three years are as follows:



All procedures are digitalized and the vendors/contractors have priority to deliver goods, if they can offer the lowest price and delivery time with product quality that meets relevant standard. Procedures have been established to be in an open, fair, and equal environment with a peaceful atmosphere. The replacement of vendors/contractors who do not meet our standards and long-term cooperation with good manufacturers can be completed through a solid manufacturer management system.

Furthermore, with reference to international standards, national regulations, and environmental requirements of special processes, the company has participated in the compilation of a total of 276 technical specifications related to Formosa Plastics Groups' machinery, instruments, common and construction, four aspects, the standards applied for purchase request regulations, project budgets, and construction drawings when performing equipment purchases and construction contracts. Therefore, vendors and contractors can have a thorough comprehension of the content and acceptance criteria of the case prior to making offers. These regulations are also applied to regular construction supervision and irregular inspection to confirm compliance status in order to ensure the safety of process operations, equipment operations, and repair work in the future.

#### 3.3.1 Relationships with Suppliers and Contractors

Purchasing and contracting are made through "open bidding". On the Formosa Technology E-Market Place, the inquiry, quotation, negotiation, order, delivery, payment schedule, and a number of operating functions can be performed. The regular explanations and Q&A sessions aim to enhance mutual communication and publicity.

To reduce carbon emissions from delivery vans, the company has launched cooperation with "Kerry TJ Logistics" and the "digitalization of centralized supplier goods delivery" operation. The online delivery arrangement service centralizes the goods and then dispatches them into minimum delivery vehicles. Presentation and Q&A sessions have been arranged across Taiwan since March 2009 for a more thorough understanding of this system. The statistics show that 98.61% of the goods were delivered through this system in 2015.

To save the cost of invoice paperwork, improve the efficiency of invoice data management, and reduce the cost of traditional invoice management, The Company has actively launched the use of electronic invoices, with 80.11% of clients being issued an electronic invoice so far, thus effectively reducing the time of manual operation and the cost of paper and postage.

Year	2013	2014	2015
Paper Invoice (%)	33.12	29.94	19.89
Electronic Invoice (%)	66.88	70.06	80.11

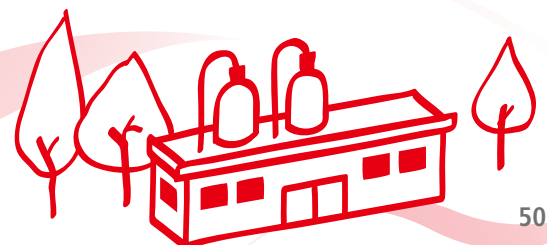
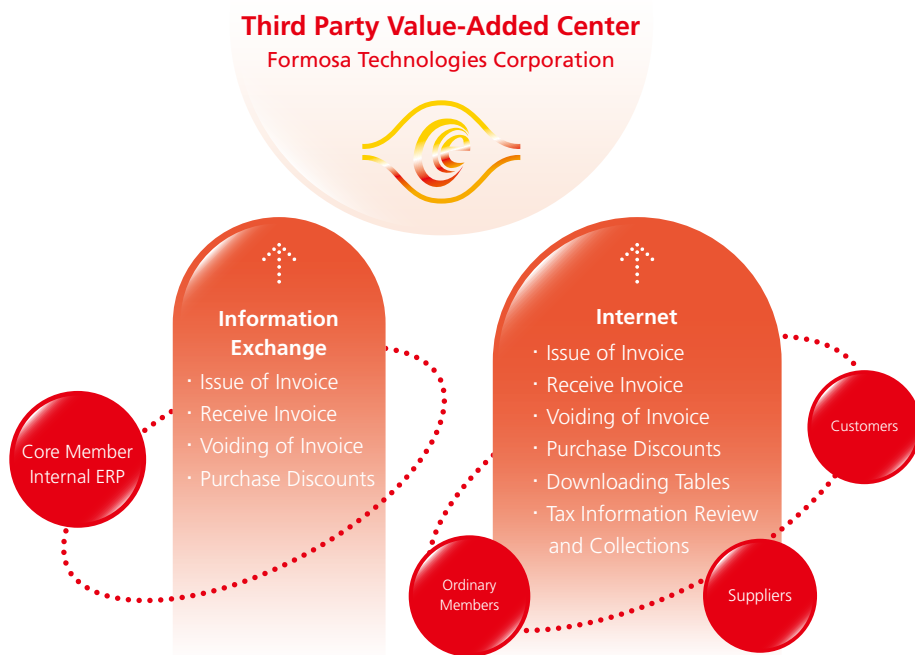




## e-Invoice

Since 2001, The Company has participated in the e-Invoice system established by Formosa Technologies Corporate. In addition to the issuance, void, and discount of invoices and tax reports, the integration of purchasing, financial, and business operations have not only reduced the cost of the manual invoice issuance, but also enhanced the connections between other relevant operations, as well as shortened the reaction process and increased operation efficiency. To achieve the privacy, wholeness, source identification, and non-repudiation of invoice data transmissions, digital signature and encrypted invoice data technology have been developed using SSL3 and PKI frame. This feature provides instant print functions to reproduce every page of original invoice copies and sales return discount certificates.

## FPG e-Invoice Model





## 3. Transparent and Honest Corporate Governance

### 3.3.2 Supplier Management

#### (1) Supplier Qualification

Suppliers and contractors who wish to cooperate with The Company should pass a written evaluation. They should also pass on-site evaluation when necessary. The passed results will be recorded before signing the contract. Overdue delivery (project), poor quality, and violation of labor safety regulations are automatically recorded and will be reviewed when assessing long-term cooperation with the vendors.

#### (2) Sustainability of Supplier

The purchasing department will choose delivery conditions according to the demands of materials, such as RoHS, national industrial safety qualified companies, ISO, notice and icons attached to hazardous goods and containers/vessels to be properly returned and reused. The preferential purchase of goods produced by disability groups, non-radiation pollution proof attached with the goods, or any requirement of the above conditions will be commented in the inquiry form and the order notice for vendors to follow. The above procedure reflects The Company's desire to uphold the spirit of sustainable management and fair trade observance of The Company. We demand that our current vendors meet the needs of environmental protection, safety, and human rights; therefore, disqualified suppliers/contractors will be rejected and recorded in the assessment operation. In recent years, international human rights have gradually become more important. Therefore, whenever the purchased materials, parts, or products contain metal, suppliers are requested to provide proof of conflict-free metals and confirm that the materials have been legally acquired. All electronic technology companies that serve as our suppliers are requested to sign EICC in order to assure the protection and respect of employees' rights, the prevention of process and product pollution, and the fulfillment of social responsibility.



#### (3) Contractor Category Management System

The contractors' classification management system aims to strengthen safety management and contractor quality to prevent occupational hazards. We collect various information regarding plant site evaluation, engineering equipment, construction site safety management capability, skills and techniques, and actual performed cases. The capabilities are classified into A, B, and C levels. For contractors with poor construction quality, delays, improper management, borrowing an engineer license to engage in business, subcontracting without permission, etc., improvement will be requested or contracts will be ceased. In order to end child labor and compulsory labor, human rights and relevant regulations will be considered when viewing and signing contracts, so that the contractors are obliged to comply with the government's labor and occupational safety regulations. The engineering contract sets out in the contract notice that the contractors must hire workers over the age of 16. No workers below the age of 16 years old or compulsory labor was found in 2015. Safety and health management costs are considered as necessary budget in the salary, and the safety and health management facility that should be executed should be detailed in the contract. In order to make sure the provision of the safety and health management budget, the budget amount is automatically provided by the system; to prevent contractors from leaving out the safety and health management budget when bidding for contracts, the cost is automatically included in the inquiry and cannot be lower than the estimated cost.







### 3.3.3 Contractor/Agency Safety

The Company upholds the spirit of Formosa Plastics Corporation, where contractors are more than a working partner, they are also an interested party of The Company. To build mutual trust and cross-supervision, we can achieve zero accidents by maintaining proper relationships and promoting contractors' autonomous management. Our actual practices are as follows:

- ◎ Protocol meeting: Meetings related to work environment hazards are held on a regular basis to improve and ensure the safety of operations.
- ◎ Entry/exit management: The number of employees working is maintained through access control; contractors are trained and tested prior to entering the jobsite to ensure the safety and hygiene of the environment.
- ◎ Toolbox meetings: Everyday before starting work, the contractor's employees are reminded of the possible work hazards, and employees' status is inspected to avoid negligence that results in industrial accidents during the operation.

We demand that contractors and our own employees follow SOP in all operations and that they bring forward any abnormality inspected during auditing in the meeting on the same day. Prompt improvement is necessary to prevent similar issues from occurring in the future.

#### (1) Contractor/Agency Safety

Inspection work is performed according to The Company's safety and health checklist, which is made pursuant to existing laws and acts. The Contractor shall set up safety and health management personnel in accordance with the relevant laws and regulations on occupational safety and health when signing contracts with contractors. All contractors' employees are requested to attend safety and health education and hazard identification training, and only those who pass the tests are allowed to enter the jobsite. We further reinforce compliance through audits of contractors' safety and sanitation protection facilities, automatic inspection operation, the implementation of cooperative agreements, severe restriction control on vehicles and electric and mechanic equipment at the entrance of the factory, and no entry for disqualified equipment. No cigarettes or ignition devices may be carried into the jobsite without permission in order to prevent fire hazards in the factory.

Non-fixed point safety inspections are conducted on an irregular basis with no prior warning. Reinforced inspections are carried out on those construction sites that are at high risks or have accidents. Punishment and the reason for the incident will be notified and explained on the spot to direct the staff about proper operation. To achieve work safety, all incidents are gathered as training materials to reinforce contractors' safety and health knowledge.



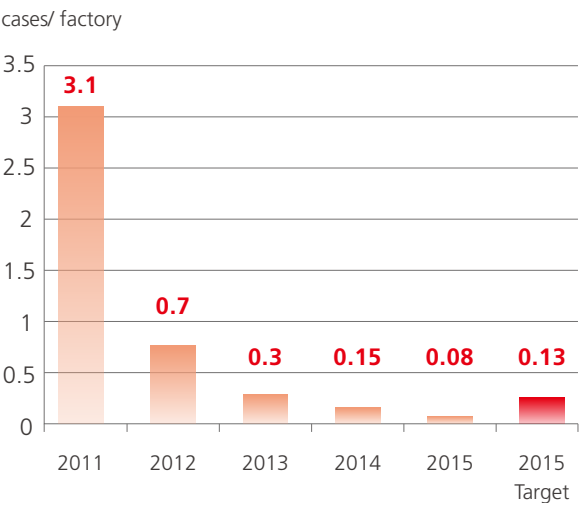


# 3. Transparent and Honest Corporate Governance

## (2) Engineering Safety Inspections in Mailiao Industrial Complex

As a member of Formosa Plastics Group, factory EG and 2EH are two factories that The Company operates in the Mailiao factory zone. In view of the operation risks of starting and suspending petrochemical processes, Formosa Plastics, Nan Ya Plastics, Formosa Chemicals & Fibre, and Formosa Petrochemical Corporation, have joined together to establish a joint safety inspection and audit team for the Mailiao factory zone in order to promote work safety. For the suspension and start-up of the process, regular inspection, annual repairs and maintenance, fire accident prevention, and high risk operation areas, the observance of onsite workers and the integrity of safety devices are audited, and the daily results are reported to the executives of the jobsite and SHE centers of FPG, after which improvements are discussed.

### Abnormalities of Engineering Security



The joint safety inspections and audits for the Mailiao factory zone began in September 2011, and the average incidents have decreased annually from 3.1 cases/ factory in 2011 to 0.08 cases/ factory in 2015, which is within the annual average target of 0.13 cases/ factory. The preliminary achievement of working safety autonomous management has been reached through hard work and the promotion of contractors' safety management of construction work. The safety management of process factories is our goal in 2016. By analyzing the statistics of fire accidents and occupational hazard cases of 2013~2015, inspections will be reinforced on the factories with high accident frequency and high occupational hazard categories to prevent the same accidents from occurring in the future.

## (3) Safety and Quality Assessment System for Hazardous Goods from Contractors and Suppliers

To promote the transportation safety of The Company, we have implemented SQAS and added self-pickup vendors into the system. All dangerous goods contracts and pickups are carried out by SQAS certified companies. As our corporate citizen responsibility, contractors which doesn't acquire SQAS certification can not contract or carry dangerous goods of business by themselves, we manage the safety and correctness of our transportation methods.

All SQAS certified transporters must have every vehicle equipped with GPS or dashboard camera, and safety equipment that has passed regular quality tests should be installed according to the properties of dangerous goods in order to perform the work.

## (4) Training and Certification of Safety Supervisors

To ensure the safety of all operations and construction, safety and health personnel are provided that exceed existing regulations, and safety supervisors are scheduled onsite to remind employees of operation safety when necessary, so that the contractors observe safety standard procedures. To promote safety concepts and maintain contractors and processes in a safe working environment, contractors are accompanied in conducting autonomous inspections before and during operations.

Related training and certification began to be promoted in 2011, as were classes about the relevant national industrial safety laws and regulations. The safety of the construction work and occupational hazard cases are presented together with field trips to reinforce professional skills. In 2015, 354 people were sent for training, and a total of 871 people have passed training so far.





### Continuous promotion of industrial safety concepts for employees



Contractors' labor safety and health management personnel training



Demonstration of confined space and electricity operation training by construction personnel

### 3.3.4 Eco-friendly Material Procurement

Since 2007, the environmental protection department has vigorously pursued green product policies. Products with environmental protection standards reduce the consumption of resources, pollution to the environment, and impact on the earth. The Company has purchased the same or similar products that are recyclable or made of recycled materials, of low pollution or energy saving, and products of the second category of environmental protection or others that benefit society or reduce social costs (e.g., energy label, water label, and energy star label). Products such as detergent, toner cartridges, fluorescent lamps, etc. are among such products. We have received several excellent green consumption awards, and the total green procurement amount reached NT\$ 10,940 thousand in 2015.











## **4. A Happy and Healthy Working Environment**

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## 4. A Happy and Healthy Working Environment

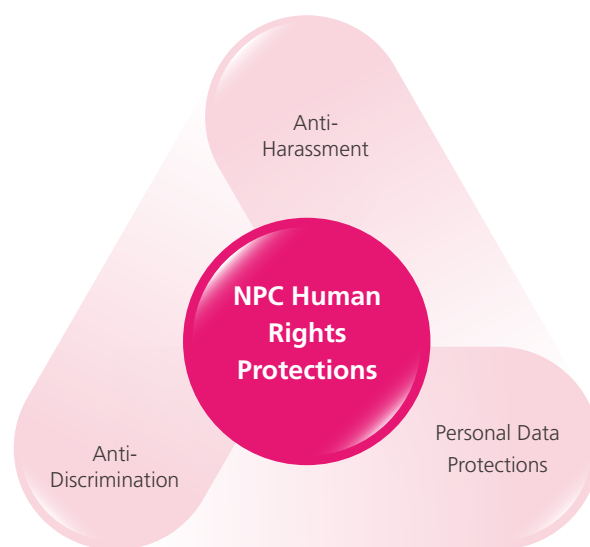
### 4.1 Protection of Human Rights and Recruitment

One of our goals is to build a safe environment where our employees can exert their expertise. To recruit and retain superior talent, we provide stable yet competitive wages, sound education and training, a promotion system, enhanced personnel professionalism with complete welfare and benefit policies, and a safe and healthy working environment in order to take proper care of the physical and mental health of our employees. As a result, the full performance of all manpower can be achieved as one of our basic policies. Multiple communication channels are provided to get employee feedback and protect workers' rights as our foundation for running a sustainable corporation. To create a working environment where personnel have the opportunity to challenge themselves, a "regular work assessment" that outlines the method of evaluating our employees and provides assessment criteria is carried out every one to six months according to the employee's position.

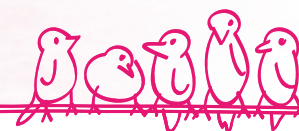
#### 4.1.1 Protection of Human Rights

We strictly observe both domestic and international laws related to labor and human rights, and all employees are treated equally. Our efforts related to such laws include:

- A. Development of working conditions in accordance with government laws.
- B. Job opportunities are offered openly, fairly, and impartially pursuant to the "Employment Service Act".
- C. Along with the development of "Guidelines for Employee Appeals", multiple channels are provided for employees who encounter violations or the improper disposal of rights and interests.
- D. The "Human Rights Assessment Meetings" is provided for senior officers to discuss and determine the significant rewards and punishments of employees.
- E. Regulations related to "prevention, treatment, appeals and punishment of sexual harassment in the workplace" are developed to strengthen the prevention of sexual harassment. To protect employees' rights, employees are informed of the proper channels for making appeals.
- F. "Regulation of Personal Data Management" is developed to regulate the keeping and handling of employees' personal data.







## 4.1.2 Recruitment

Recruitment is conducted openly, fairly, and impartially. Performance and professionalism is considered with full observance of the "Labor Standards Act". No child laborer has ever been employed. Based on equal employment opportunities, the recruitment process only considers personal professionalism and experience. Age, race, gender, sexual orientation, religion, political party, place of birth, marital status, appearance, and disabilities are not considered during recruitment. Promotions, assessment, training, rewards, and punishment are all explicitly specified and conducted equally. The Company had no violations of human rights or discrimination in 2015.

### Distribution of Age and Area for New Recruits in 2015

Unit: number of people

Classification	Group	Female	Male
Age	≤29	28	311
	30-39	5	106
	40-49	0	0
	50-59	0	0
	≥60	0	0
Area	North	21	243
	Central	0	47
	South	12	127
	East	0	0
Total		33	417
Percentage		1.9%	4.2%





## 4. A Happy and Healthy Working Environment

### 4.1.3 Human Capital Structure

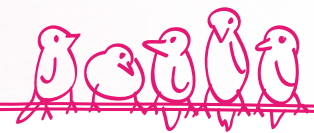
In 2015, our staff was made up of 98.4% of full-time employees, while employees that are no full-time (e.g., consultants, regular contract personnel, foreign workers, and part-time employees) rate is 1.6%. For the past five years, the proportion of full-time employees has remained above 90%, with 99% of them being from Taiwan. With regard to outsourcing, The Company had a total of 182 workers in 2015, with 117 of them being male, 65 of them being female, and all of them from Taiwan. The manpower characteristics of local full-time employees are 5.6 male to 1 female, the average age of employees is 46.5 years old, and the average length of service is 21.8 years.

#### Structure of Human Resource of NPC in 2015

Item	Category	Female		Male		Total
		Number of People	Ratio to The Group	Number of People	Ratio to The Group	
Position	Senior Managerial Level	2	0.1%	56	0.6%	58
	Junior Managerial Level	51	2.9%	1,926	19.5%	1,977
	Entry Level of Management and Staff	1,707	97.0%	7,873	79.9%	9,580
Locations	Northern Part of Taiwan	1,076	61.1%	4,698	47.7%	5,774
	Middle Part of Taiwan	59	3.4%	1,369	13.9%	1,428
	Southern Part of Taiwan	625	35.5%	3,788	38.4%	4,413
	Eastern Part of Taiwan	0	0.0%	0	0.0%	0
Age	Under 29 Years Old	42	2.4%	656	6.7%	698
	30~39 Years Old	509	28.9%	1,179	12.0%	1,688
	40~49 Years Old	787	44.7%	4,073	41.3%	4,860
	50~59 Years Old	372	21.2%	3,217	32.6%	3,589
	Above 60 Years Old	50	2.8%	730	7.4%	780
Service Year	Less than 10Years	72	4.1%	1,105	11.2%	1,177
	11~20 Years	677	38.5%	2,845	28.9%	3,522
	20~30 Years	690	39.2%	4,118	41.8%	4,808
	Above 30 Years	321	18.2%	1,787	18.1%	2,108
Education	Doctor's Degree	0	0.0%	25	0.3%	25
	Master's Degree	22	1.3%	396	4.0%	418
	Bachelor's Degree	79	4.5%	2,735	27.8%	2,814
	Others	1,659	94.2%	6,699	68.0%	8,358
Sum (by Gender)		1,760	100%	9,855	100%	11,615

Note: The human resource structure represents the number of employees employed by Nan Ya Plastics Corporation on December 31<sup>st</sup>, 2015 as a statistical standard.





#### 4.1.4 Percentage of Local Recruits as Senior Management Level

The supervisors and executives of The Company are local Taiwanese individuals that are trained and cultivated within The Company as a way to encourage all of our employees and provide stable local job opportunities with the development of The Company. To contribute to local communities, residents are given priority when recruiting basic employees. Local residents are also encouraged and cultivated to become outstanding senior managers. In the past five years, at least 46% of senior managers were from the local communities.

#### Percentage of Local Recruits as Senior Managers in Recent 5 Years

Year	2011	2012	2013	2014	2015
Number of People	2,221	2,162	2,138	2,088	2,334
Percentage of Local Recruits (%)	47.6%	46.7%	46.7%	47.5%	53.9%

Notes: Senior managers in this chart refer to those people with 5 service years and above, and the birthplace is identical with his working place.





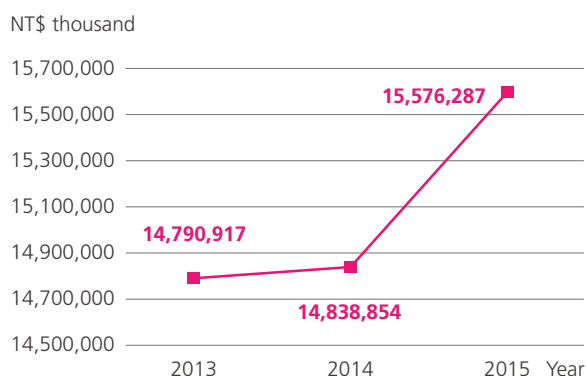
## 4. A Happy and Healthy Working Environment

### 4.2 Rights and Welfare of Employees

#### 4.2.1 Remuneration

Our salary package is superior to the local minimum wage. To attract and retain outstanding personnel, our pay and benefits are ranked above average in the industry. The pay standard of recruits is set depending on the educational background and the experiences of each new employee. Under the policy of "equal salary for equal work", our basic salary ratio for female and male employees is 1:1 for the same position and same position level. Annual pay adjustments and promotions shall be based on performance.

#### Employees' Welfare Expenses of NPC



#### Female/Male Salaries of Same Positions Ratio

Unit: %

Position	Female	Male
Junior Management Level and Above	100	125
Entry Level of Executives and Below	100	140

Note: Male workers received higher pay in 2015 due to the length of service of junior management level and above; for entry level of executives and below, different shift workers are compensated with shift allowances.

#### 4.2.2 Employment Security

The Company maintains reasonable management despite the rapid changes of the industrial environment. To

protect our employees' right to work, we have developed a manpower integration mechanism. Our employees are transferred instead of laid off; outsourcing and foreign worker vacancies are filled by employees of the department to be downsized. In addition to the advance notice made in accordance with the Labor Standard Law (LSL), the department's head will fully communicate with the parties and proceed in accordance with the relevant regulations. The resignation rate over the past five years has been lower than 0.1% (0-0.2% monthly), with an absence rate of only 0.30% (male 0.30%, female 0.28%). These outstanding results of staff care and job security also represent strong trust and recognition towards The Company.

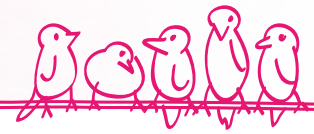
#### Age and Area Distribution of Resigned Colleagues in 2015

Unit: number of people

Item	Category	Female	Male
Age	≤29	6	59
	30-39	4	54
	40-49	6	41
	50-59	13	112
	≥60	2	67
	Compulsory Retirement	0	59
Area	Northern Taiwan	17	218
	Central Taiwan	0	42
	Southern Taiwan	14	132
	Eastern Taiwan	0	0
	Total	31	392
Percentage		1.8%	4.0%

Note: the number of resigned colleagues in the above table includes retired and lay-off staffs.





### 4.2.3 Employee Welfare

To establish a safe work environment where our employees can perform their skills, we value the concept of "employees are our family members". Each factory was built with a priority on solid food, lodging, and recreational facilities, as well as the long-term welfare of our employees and a comprehensive welfare system.

The system comprises enterprise culture, national laws and acts, society customs, and international trends and provides the essential needs of daily life for our employees and their families. This sound system takes care of all aspects so that our employees can fully concentrate on their work. We have established an Employees' Benefits Committee at each factory to organize annual trips, birthday gifts, presents for major festivals, scholarships for employees' children, insurance, social funds, etc. The management section in each factory supports and aids welfare-related business. To better understand service performance and promote its quality, evaluation and satisfaction surveys are conducted every year.

Multiple employee-related welfare provisions exceed the existing requirements, including:

#### A. Leave Benefits

We provide annual leave, marital leave, bereavement leave, official leave, occupational injury leave, paternity leave, maternity leave, sick leave, menstrual leave, personal leave, family care leave, relocation leave, quarantine leave, and family visit leave for expatriates returning to Taiwan. Among these, the salary standards of sick leave, bereavement leave for some relatives, and typhoon leave are all better than those required by the "Labor Standards Act".

#### B. Insurance Benefits

In addition to labor insurance and national health insurance, the Welfare Committee in each factory provides casualty insurance and medical insurance. Employees are offered a variety of group insurance policies with discounted premiums, such as casualty insurance, medical insurance, and cancer insurance so that they can freely select more comprehensive insurance plans.

#### C. Retirement Benefits

With monthly contributions to workers' pension funds and retirement reserves, we give pensions to employees with retirement plans when they meet legal retirement conditions.

#### D. Marital and Parental Benefits

- (A) Wedding or bereavement cash gifts and subsidies will be given when employees or their relatives marry or pass away.
- (B) There are breastfeeding rooms at some factories when needed during office hours.
- (C) Parental leave is provided. Qualified employees can adjust their working hours based on their needs.
- (D) Parental unpaid leave system is provided. In 2015, 14 females applied, with 0 applications from male, for a total of 14 applications. The reinstatement rate is 100%.

### Applications for Parental Unpaid Leave and Reinstatement Rates

Unit: number of people

	2013			2014			2015		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Actual applications for parental unpaid leave	15	5	20	13	1	14	9	3	12
Employee reinstatement in current year (A)	5	5	10	19	3	22	14	0	14
Reinstatement applications in current year (B)	5	4	9	13	1	14	14	0	14
Reinstatement rate % (B/A)	100	80	90	68.4	33.3	63.6	100	0	100
Retention rate %	100	100	100	92.3	100	92.9	100	100	100

Note: "Retention rate" indicates the rate of employees retained more than one year after unpaid parental leave.



## 4. A Happy and Healthy Working Environment

### E. Healthcare Benefits

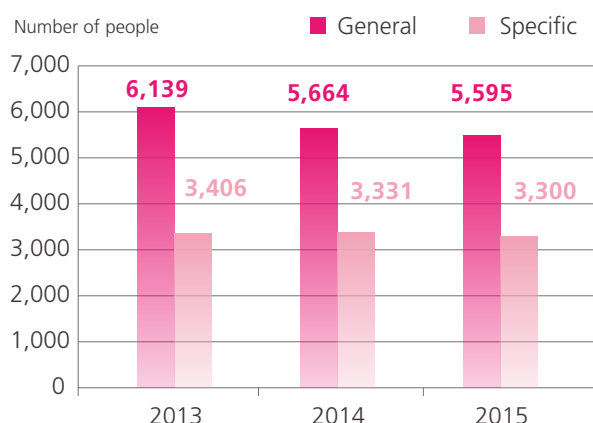
- (A) Provide routine checkups to employees with more favorable age requirements than that of relevant laws.
- (B) Take the initiative to arrange special checkups and health management at different levels for employees who perform specific operations with health hazards such as noise and specific chemicals. Those checkups include metabolic syndromes such as high density lipoprotein (HDL) cholesterol, alpha-fetoprotein (AFP), carcinoembryonic antigen (CEA), as well as oral examinations and cancer screening. No abnormal occupational disease cases were found by examinations of specific health checks in 2015.
- (C) Subsidies are provided for employees and their families receiving medical services at Chang Gung Memorial Hospital. Discounts are given for items not covered by the National Health Insurance, as well.

- (D) Set up fitness and entertainment facilities at some factories, such as basketball courts, volleyball courts, table tennis courts and fitness rooms.
- (E) Send health care information and conduct health lectures at each plant from time to time.
- (F) Allocate infirmary and medical staff at each factory to provide medical services and counseling. Hold activities for weight management, smoking cessation clinics, and preventive health care on occasion. Partner with the John Tung Foundation to hold "Pressure Release Day".

### F. Employee Welfare

- (A) Cash prizes for Chinese New Year, Boat Festival and Mid-Autumn Festival are provided.
- (B) Gifts for birthday and 3 major holidays.
- (C) Subsidies for employee annual tour and gathering.
- (D) Establish employee cafeterias, dormitories for single employees and dependents, welfare buildings, canteens, salons, libraries, guest houses, and recreational facilities at each factory.
- (E) Cash prizes for buying stocks of FPG listed affiliated companies.
- (F) Provide scholarships for employees' children.
- (G) Provide favorable bank-issued mortgages.
- (H) Share resources between subsidiaries and offer discounts from cooperative stores.

### 2013-2015 Employee Health Examinations



### Medical service and consultation in the factory



Health instruction provided by medical personnel in the factory



Respiratory syndrome prevention lecture



Stretching and relaxation session



CPR+AED First Aid Training

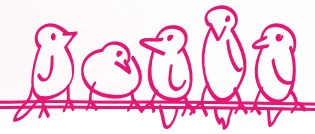


Healthy weight loss teaching



Diet guidance from nutritionists





## G. Welfare for Employee Cafeteria

- (A) Subsidies for daily meals.
- (B) Periodically check pesticide residues of ingredients used in the cafeteria.
- (C) Have dietitians continuously improve cooking, spices, ingredient selection and menus to provide low-oil and low-sodium dining. For example, our employee cafeteria provides over 4,000 dishes each month with less than 6% of fried dishes.
- (D) Occasional meals were provided for special holidays and Chinese New Year to treat hardworking employees.

## H. Enhance Employee Interactions

- (A) Plan a spectacular year-end party and lottery each year.
- (B) Subsidize club activities.
- (C) Hold Corporate Sports Day to encourage sports, and recognize outstanding employees with rewards and prizes.
- (D) Commemorative gold coins are sent to employees with 5 years of service to express our gratitude.
- (E) Have a variety of trips, hiking, sports competitions, art exhibitions and lifestyle seminars to help employees cultivate healthy bodies and strong minds.

## I. Self-Learning Benefits

Provide comprehensive educational training and opportunities for further study to encourage employees to achieve professional certificates and foreign language study. They are given rewards after certification is achieved.

## J. Personal Safety and Family Care

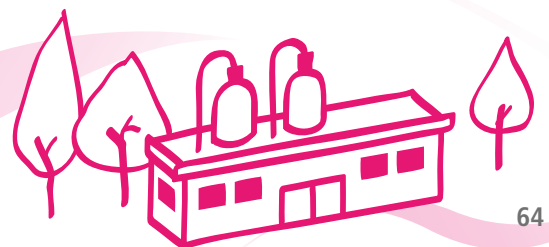
- (A) We provide employees with flame-retardant uniforms and steel-toed shoes.
- (B) We compensate for on-the-job death better than legally required without offsetting labor insurance benefits (although offsetting is allowable under the law). In addition, we provide benefits that are better than legally required for deaths that are unrelated to business. The minimum benefits are more than 6 months' average salary.
- (C) NT\$ 0.65 million ~ NT\$ 2.57 million will be provided as compensation (death cause of on-duty/off-duty).

## K. Expatriates Welfare

- (A) Casualty insurance and travel accident insurance are provided for expatriates and business trips.
- (B) Subsidies for family visits, health and relocation of family members to the new post are provided for expatriates in China and Vietnam.
- (C) Health examinations for expatriates are provided prior to dispatch, and once every two years thereafter.

## L. Retirees Association

In appreciation of the tremendous contribution from retired employees, we established a "Retirees Association" in 2013. Each year, we subsidize them to strengthen connections between our retirees.





# 4. A Happy and Healthy Working Environment

## 4.2.4 We Value Employees' Suggestions

Employees are among the corporation's most important assets. To pursue a harmonious labor relation, The Company pays attention to the rights of employees to express their views and provides various smooth communication channels so that employees can express their innovative thoughts.

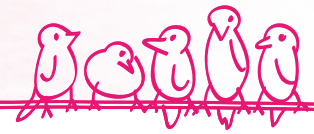
Through participation in Labor Unions and Welfare Committees, recommendations to and settlement with the corporation can be achieved with periodic meetings. Meetings of directors, Labor and Management Meeting routinely held by the Labor Unions are joined by the department heads of each company to have full discussion and communication with labor representatives. For significant subjects, unions' opinions will be prioritized, and conferences will be held by high-level executives to discuss such issues with unions' representatives to reach a consensus on the subject. A harmonious labor relationship is one of the keys to sustainable corporate development. All employees are under the protection of mutual agreement between employers and employees.

Furthermore, regarding welfare issues, employees can provide feedback through the welfare committee. Suggestion boxes are available online and in locations often frequented by employees, as is a "799 hotline", in each factory so that employees can report the problems they encounter in their work or their lives. Designated personnel will file the case, start processing, and respond in order to ensure smooth communication channels between employees and the corporation.

### NPC Internal Communication Channels







## 4.3 Human Capital Cultivation

Since employees are the most important asset of a corporation and the foundation of sustainable operation, The Company has developed a sound training system, which is divided into different phases and can be completed step-by-step through online management. The training system includes recruit orientation, basic training, professional training by function, and management trainee training. The required training courses and completion time limit are organized and managed electronically, and the computer system will remind each department to conduct training when necessary and have it completed on time. To implement the goal of cultivating employees with various capabilities, overdue training will be followed up by the system until it is completed.

### 4.3.1 Employee Training

In 2015, the average training of each employee consisted of 49 hours, with an average of 10 hours for senior managers, 27 hours for junior managers, 58 hours for entry level managers, and 51 hours for regular employees. Training is conducted according to the safety and operation of each unit and the acquirement of professional qualifications of employees. Other study courses, such as "Specialized Business English Courses", "Visual Inspection Training", and "Basic Safety Training for Supervisors" are conducted sporadically to enhance individual professionalism and professional management capability. To strengthen the concept of human rights and working safety of employees, information such as the "Occupational Safety and Health Act", "Labor Standard Law", "Sexual Harassment Prevention Act", and "Act of Gender Equality in Employment" are published and put into agenda in meetings, 10-minute education sessions, communication meetings, pre-work briefings, affair meetings, and official training.

#### NPC Employee Education System



#### Employee Training Overview (2013-2015)

Unit: Hours

Year \ Position	1 <sup>st</sup> Level Directors	2 <sup>nd</sup> Level Director	Entry Level Managers	Entry Level Staff
2013	9,117	31,184	130,806	298,045
2014	13,478	40,944	189,158	448,688
2015	8,014	31,447	140,691	364,213



## 4. A Happy and Healthy Working Environment

Completion Rate of Training(2013-2015)

Unit: %

Year \ Training courses	Basic Training	Professional Training	Annual Training Program
2013	98.8	99.2	99.7
2014	99.8	96.1	99.7
2015	99.9	93.3	99.9

Note: The completion rate refers to the percentage of courses that have been completed on schedule.

### 4.3.2 Security Personnel Training

Access to each plant and the Formosa building is controlled by internal security personnel, the front line that must be passed by people, vehicles and materials entering plants and office buildings. All security guards are required to pass all professional trainings, including industrial safety (fire-fighting, first aid, safety and health), security work regulations, principles and relevant rules for access management, the common sense of relevant laws (criminal law and civil law), physical training and combat skills such as grappling and taekwondo, and fire engine, ambulance, and other driving training. To maintain professionalism and fitness, monthly tests of the rules and regulations and physical fitness tests are conducted as well. Furthermore, to avoid over-execution of the duty code and human rights violations, examples and cases encountered when performing duties, such as emergency response management, telephone etiquette, and on-duty etiquette, are shared.

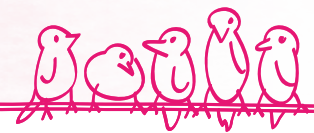
### 4.3.3 E-learning Platform for Digital Learning and Knowledge Management System

For employees' autonomous learning, FPG has been developing e-learning since 2000. The Employee Learning Website provides diverse online courses, articles, newly published books, lectures, and speeches so that employees can arrange their own learning schedules. With 87 new courses added in 2015, the learning pool has a total of 902 courses. Electronic learning paper has been issued monthly since April 2005 to remind employees of learning times and updated learning information.

Furthermore, we started implementing the Knowledge Management System in 2000, collecting and building every corporation system, referable or inspiring knowledge experiences, and skills from every unit onto this platform. Employees are free to access any of this information and even share it at any time, a step that effectively shares corporation knowledge management. Currently, 11 categories have been established according to function, and more than 20,525 pieces of information and 56 pieces of data have been added, with 155,414 views in 2015.







## 4.4 Work Environment

Regarding the work environment, all personnel should actively participate in SHE management activities and make proper corrections to reduce exceptions through company inspection, audit, communication, education, training, and demands. The reinforcement of the SHE request in the purchasing and contracting system is to achieve the goal of “zero work injuries, zero hazards, and zero pollution” and create a sustainable operation environment. To provide a safe environment for working personnel, all operations should be processed following SOP, and essential safety should be strictly observed when operating every device or piece of equipment. To enhance work safety, applications for operations on public holidays or of high risk must be submitted in advance and receive the approval of high-level executives. It is our responsibility to provide a safe work environment and to listen to employees’ feedback, and take “safety & care” as our management principles. Proper feedback channels are provided for every suggestion on safety and health management to make instant improvements. Moreover, medical personnel in the factories provide professional medical guides and consultation.

Cooperating with government authorities to enhance operational environment safety, we hold high-risk operation safety reminder meetings and high-level executive conferences at Mailiao factory to discuss the improvement of various highly hazardous operational safety issues, such as fire, explosion, and confined space. Professional inspection of the factory is entrusted to foreign professional technicians for diverse suggestions and the safety of every device and piece of equipment. We hope to enhance our equipment, devices, and management to meet international standards and create a safe workplace.

The disabling injury frequency rate in 2015 was 0.36, the disabling injury severity rate was 275, and the Disabling Injury Index was 0.31, all lower than those of other plastics manufacturers.

### Comparison of occupational injury rate between NPC and other plastics manufacturers over the past three years

Year	Nan Ya Plastics Corporation			Plastics manufacturers		
	Disabling injury frequency rate	Disabling injury severity rate	Disabling Injury Index	Disabling injury frequency rate	Disabling injury severity rate	Disabling Injury Index
2013	0.26	270	0.26	2.34	217	0.71
2014	0.44	277	0.34	2.54	165	0.64
2015	0.36	275	0.31	2.07	340	0.84

Notes:

(1) Disabling injury frequency rate (FR) = Disabling injury times $\times 10^6 \div$  total man-hours worked

(2) Disabling injury severity rate (SR) = No. of injured days off work $\times 10^6 \div$  total man-hours worked

(3) Disabling Injury Index = (FR $\times$ SR $\div 1000$ )<sup>1/2</sup>



## 4. A Happy and Healthy Working Environment

Occupational injury data of NPC factories in 2015

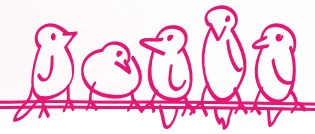
Occupational injury rate Factory	Male			Female		
	Disabling injury frequency rate	Disabling injury severity rate	Disabling Injury Index	Disabling injury frequency rate	Disabling injury severity rate	Disabling Injury Index
Taipei	0	0	0	0	0	0
Shulin	0.46	2	0.03	0	0	0
Linkou	0.46	1	0.02	0	0	0
Kungshan	0.33	12	0.06	0	0	0
Jingshin	0	0	0	0	0	0
Mailiao	0	0	0	0	0	0
Chiayi	1.05	3,171	1.82	5.49	21	0.33
Hsinkang	0.37	7	0.05	0	0	0
Renwu	0	0	0	0	0	0

Failing to observe the provisions of operation, one employee was caught between forks while reversing a forklift, causing one accidental death in 2015. The "investigation team" was formed immediately to gather every related department in pursuing the cause of the accident and to make a specific improvement plan and overall inspection of rules and regulations. All efforts, including the propriety of operational procedures, continuous endeavors for the most advanced management guidelines (e.g., increasing supervision frequency, closely examining the observance of safety standards, re-planning storage areas for finished products, and expanding the forklift operation area),

reinforcing trainings of each department, and the top observance of company regulations by all personnel, are made to completely eliminate the chance of incidents. "Solid execution of the SOP-Full participation" project is ongoing. Furthermore, overall inspection and discussion of SOP head to toe, full participation in revision and implementation of SOP, and rewards to excellent performing departments regarding SOP compliance all aim to encourage all personnel to follow, improve, and maintain a safe work environment.







#### 4.4.1 Workplace Safety Management

A Labor Safety and Health Committee is provided in each factory according to existing laws and regulations. We have 84 labor representatives, which accounts for 39% of the total 215 committee members, which surpasses the requirements of existing laws. The committee holds a meeting every quarter for the explicit establishment of the Occupational Safety and Health Organization. To obtain all kinds of professional knowledge, The Company has arranged lessons and courses with domestic and international experts for guidance and techniques, including regular organization of various seminars and demonstrations with labor inspection agencies, emergency drills with local executive organizations, real fire-fighting training with domestic professional fire-fighting training departments, TÜV Rheinland and Lloyd's Register Quality Assurance full inspection, verification, and suggestions, and PHA guidance from the American company IHS. All these efforts ensure that our guidelines for safety and health, risk assessment, and fire-fighting management are all in line with international standards. To maximize resources, we also support government agencies with related functions.

##### A. Process Safety Management, PSM

PSM, which includes 14 elements, is carried out according to enterprise regulations. So far, 155 PSM employees have been designated at various levels (91 in Taiwan, 61 in China, and 3 in Vietnam) to promote and control each department's PSM and maintain its quality. PSM operations include the following:

- a. Monthly audit of the 14 elements of PSM in each process factory to ensure that all aspects meet the requirements of the provisions of the enterprise and implement operations in accordance with standardized procedures and work practices.
- b. KPI results of PSM to be reported monthly by each factory in order to effectively control PSM risks (only in Taiwan)
- c. The "PSM operation and PSM personnel conference" is held every six months in order to exchange PSM operation experiences between each department and promote the quality of PSM.
- d. PSM achievements are announced every year in order to enhance overall PSM risk analysis and evaluate the quality of operations.

##### B. Process Hazards Analysis, PHA

To fully understand and control the possible risks of operating in factories, in addition to continuously reviewing the execution of PHA processes and personnel, suggestions regarding improvement are filed to make and control the progress.

Regarding PHA quality, the training and certification of PHA Facilitators have been entrusted to the American company, IHS. With a total of 30 qualified facilitators (22 in Taiwan and 8 in China), PHA is practiced every month to promote and assist the PHA of each factory, and the potential hazards of the work environment is now under control and being monitored.

##### C. Management of Change, MOC

When changes occur in design, equipment, raw materials, or operation conditions, MOC control personnel are provided to direct the changing procedure for the corresponding corporate regulations and to make sure that no negative effect is caused to the manufacturing process. The integrity of MOC analysis quality is examined and confirmed every month by district stationed safety and health service personnel and MOC personnel from the business department.



## 4. A Happy and Healthy Working Environment

### 4.4.2 Fire Control Management

To reinforce emergency response and firefighting ability, firefighting equipment and manpower support are available for fire cases that occur nearby any of the factories. Emergency response drills are held once every six months in each factory, and firefighting teams (to assist fire departments in fighting fire) have been formed by Formosa Plastics Corp., Nan Ya Plastics Corp., Formosa Chemical & Fibre Corp., and Formosa Petrochemical Corp., with 424 members and 1,689 trainees in Mailiao factory and 602 members in other factories. To increase the professional firefighting knowledge of our firefighting team, the team members of Mailiao factory have joined the plastics chemical firefighting team in real firefighting training within Mailiao factory. For other factories, firefighting skills are practiced at "Training Center of N.F.A. Ministry of the Interior, R.O.C" and "Hsinchu City Fire Training Facility" so that they can be properly prepared when encountering disasters.



Real firefighting training (Trainees wearing protective equipment)



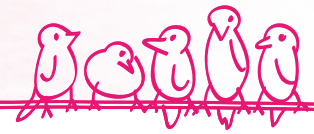
Real firefighting training (Fire pool practice)

### 4.4.3 Transportation Safety

To ensure transportation safety and reduce operation risks, each operation system and standard is set following the respective FPG regulations. "Transportation safety management measures" and "emergency reaction management approaches" and their implementation are observed through evaluation, educational training, and rescue exercises.

Practices	Description	2015 Execution Results
Evaluation	The transportation contractors must pass SQAS evaluation and acquire certification (once every three years)	A total of 54 factories evaluated
	Regular annual evaluations according to the grade evaluation (Grade A: every other year, Grade B: every year)	
Educational Training	Discussions of traffic accident cases and causes through regular construction safety meetings with each factory and agreement organization meetings with vendors and contractors	At least once a month
Rescue Exercise	Periodic disaster prevention trainings of each factory	Disaster prevention plan as described in CH6.3.4
	Joint exercises with authorities on an irregular basis	





#### 4.4.4 Healthcare for Employees

The Company has planned and organized to promote health improvement practices, a healthy and safe workplace, proper educational training and systems, explicit goals as targets, and above all, encouragement for employees to do what they are good at and the will to participate.

##### Healthcare Promotions of NPC

Category	Management Rule
Health Management	Health Management Policy
Dietary Hygiene	Health Management policy
Violence Free in Working Place	HR Management Policy
Tobacco Hazards Prevention Act	Entry and Exit of Factory Policy
Infectious Diseases Prevention Act	Health Management Policy
Recreational Activities	Social and Employee Welfare Policy
Charity(Blood Donation, Volunteer, Afforestation Activities)	Evaluation of the General Management Division
Gender Equality	Complaints, discipline, and prevention measures of workplace sexual harassment Policy
Human-based Management	Safety Observation and Discussion Measures
Well-placed Talents	Health Management Policy
Recreation Facilities	Social and Employee Welfare Act
Preventive Measures for Misc Occupational Hazards	Health Management Policy
Promotion of Reward System for Divisions and Employees with Outstanding Performance	Occupational Safety, Reward and Punishment Management Policy



## 4. A Happy and Healthy Working Environment

### (1) Entrust operation environment monitoring to an impartial third party

To depict the actual state of the work environment and risk factors exposure evaluation as a basis for improving the work environment, in addition to the existing laws and acts by the government, we entrust operation environment monitoring to a professional health management team, and Mailiao operation environment monitoring in 2015 was supervised by TOHA (Occupational Hygiene Association of Taiwan); 80 workplaces were inspected among five factories with a total of 234 issues exposed. Results of chemical substance inspections have been lower than the national and worldwide permissible concentration of occupational exposure.

### (2) Healthy diet

Health management measures have been developed to control the hygiene of the operation environment of employee canteens. Food inspection results are announced on a regular basis for food safety purposes. Nutrition and health education information is published every month, and, with the assistance of Chang Gung Memorial Hospital dietitians, cooking methods, seasoning, selection of ingredients, and meal designs are improved. Our goal is to control the rate of the deep frying cooking method under 7%. In 2015, less than 240 dishes were made with the deep frying method from a total of 4,000 dishes provided each month in the employee canteen.

### (3) Employee health management and continuous improvement of health reinforcement

To show concern for employees' health, in addition to statutory health check items, the following items have also been added: high density lipoprotein cholesterol, alpha-fetoprotein, metabolic syndromes such as cancer embryo antigen and oral mucosa, and cancer screening programs. For workers in particularly hazardous work environments, including high temperatures, noise, free radiation, lead, tetrachloroethane, dimethylformamide, hexane, benzene, TDI compound, arsenic and its compounds, dust and chromium, specific health checks, and health grading management. In 2015, no incidents of occupational diseases were found in the health check results. Furthermore, according to the emerging occupational disease prevention regulations outlined in the Occupational Safety Act, we also provide human factors engineering improvement, overwork prevention, workplace violence prevention and maternal health care.

Furthermore, medical personnel are stationed in factories to provide personal health guidance and consultation. Weight management, smoking prevention, health talks, and prevention and treatment of health care and injury are also available. The Medical Center grade of the medical treatment and health protection services are joined by Chang Gung Memorial Hospital in order to promote preventive medicine and disease prevention, as well as to strengthen the health awareness of employees.

Joined by the Community Development Center of Far Eastern Memorial Hospital, the health center of Shulin factory held "blood sugar, blood pressure, and bone density" check to remind employees that they can prevent cardiovascular disease through early discovery and early treatment. Professional practitioners on site can observe the workplaces, employees' work habits, and safety protection operations; by providing suggestions for improvement and medical consultation, employees' health can be protected.



Operational environment inspection certificate

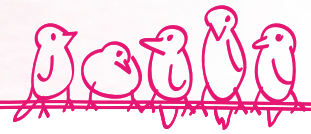


Registered nurse from Far Eastern Memorial Hospital carried out health check



Health instruction provided by medical personnel from Far Eastern Memorial Hospital





#### (4) Sharing experiences related to creating a healthy work environment

For the public to understand the efforts and achievements of creating a healthy work environment and suggestions provided by experts, The Company has applied for healthy work environment certification. In 2015, the Taipei business branch and Kungsan Factory have been granted the certification mark of a healthy work environment.









## 5. Environmental Sustainability

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## 5. Environmental Sustainability

### 5.1 Commitment to Environmental Sustainable Development

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We developed our Safety, Health, and Environment Policy in accordance with the " Environmental, Health, and Safety Policy of the Formosa Plastics Group ". Furthermore, we announced our strong determination to protect the environment and our community and demand every employee to take safety, health, and environmental protection as the fundament of any decision. It is everybody's obligation to protect our environment, safety, and health.

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#### 5.1.1 Environmental, Health, and Safety Policy of the Formosa Plastics Group and Environmental Protection Policy Promotion

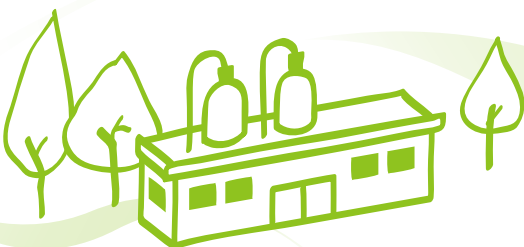
##### (1) Environmental, Health, and Safety Policy of the Formosa Plastics Group

It is our core belief that industrial development and environmental protection are equally important and can coexist. It is our social responsibility to provide our customers with products that are safe to use, while protecting the safety, health, and well-being of our employees, contractors, operations and neighboring communities. In this obligation, we will make our Group more competitive. We believe that all environmental, health, and safety incidents are preventable. Through adherence to our corporate values, while using our organizational strengths and implementing our systems and procedures, we can ensure that the performance at all Group manufacturing facilities meets, or exceeds, the acceptable industrial standard. To reach this goal, all levels of Management must be fully committed. They must understand our policies, provide sufficient training to their employees, demand strict implementation of our procedures, and foster continuous improvement.

Every individual within the Group must have sufficient professional knowledge to perform their job. With each decision they make, they must consider its potential impact on the overall environment, health, and safety. Everyone must have the fullest understanding of the policies/procedures governing their duties and follow them. When resolving problems, one must find the root cause, correct it, and make continuous improvements in keeping with the Best Industry Practices. It is our individual, and collective, responsibility to ensure the safety of our colleagues, neighbors, and ourselves, while safeguarding our environment and our corporate assets. The pursuit of a safe and sustainable operation must be our common goal.

##### (2) Environmental Protection Promotion

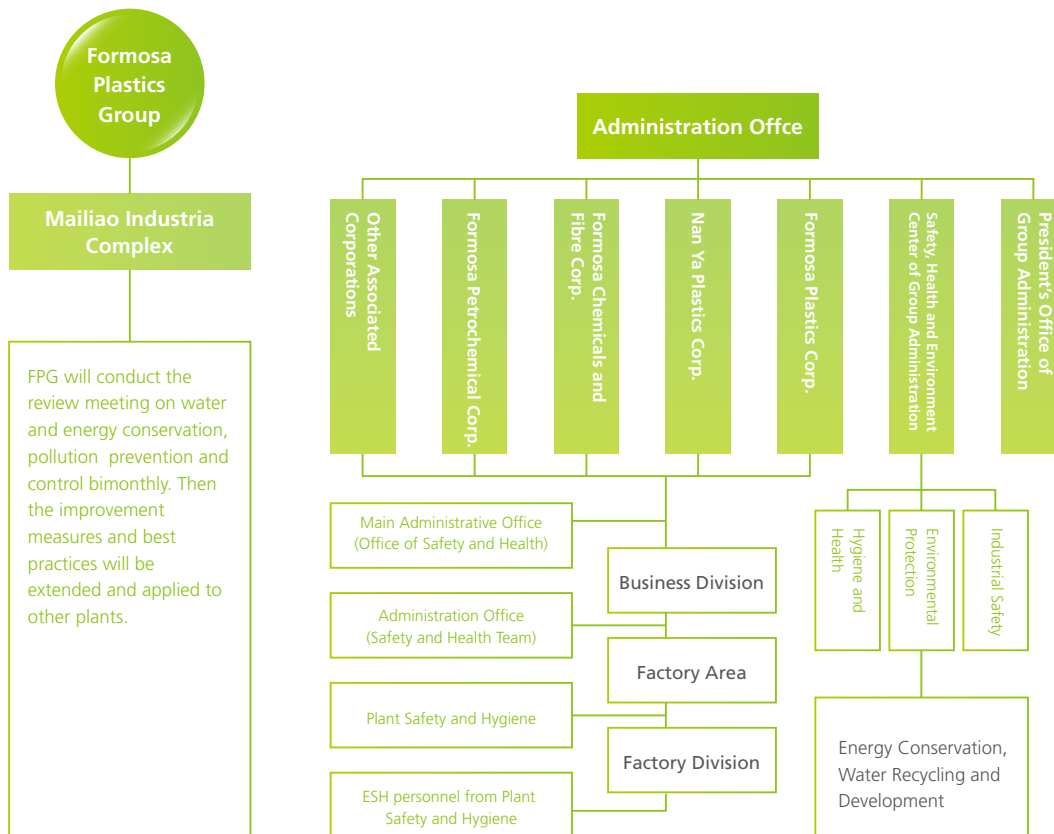
We are devoted to ensuring the safety of our work environment, avoiding the occurrence of accidents, and enhancing the implementation of water and energy saving measures in response to ecological issues. The " Carbon emission reduction and energy saving & pollution prevention and control promotion organization " of FPG, founded in 2006, organizes the development and improvement of water saving, energy saving, and pollution prevention measures. In 2008, the lighting, environmental accounting, green products, green procurement, environment protective office, and recycling and green buildings of FPG are all within the scale of environmental protection promotion.







## Formosa Plastics Group Energy Conservation, Green House Gas Reduction and Pollution Prevention and Control Promotion Organization Chart



Furthermore, advanced energy saving technologies have been introduced to support these efforts. Each month, our performance is inspected and discussed. Through project study, demonstration, and various plans, the improvement results have been duplicated in other factories. Above all, our efforts are particularly focused on pollution prevention and control. We reduce resource usage and three kinds of waste (water waste, exhaust gas, and wastes) and reinforce reduction at the beginning of each process, end-of-pipe recycling, and emission reduction. While ensuring the normal operation of production equipment and the environmental quality of our community, the usage of energy and resources is economized, operation costs are lessened, and projects are benefitted through various aspects.

### 5.1.2 Guidelines for Environmental Protection

Balancing environmental protection with industrial development has always been a significant concept for The Company. The idea of "Diligence and simple perseverance, achieving ultimate excellence and the sovereign good" is the principle that our founders have held since The Company's establishment to maintain good quality of production with a minimum use of energy and resources.

While contributing to the development of both the economy and society, as well as to promote pollution prevention and environment protection at the same level, we continue to emphasize the "balance between environment and economy". The standard of global environment protection has been enhanced, the treatment of wastes at the end tube has now been shifted to the reduction of process wastes, pollution prevention, and clean production. The company actively adopts advanced environmental protective technology to reduce its amount of wastes, recycle, reuse, and reproduce. Furthermore, The Company has introduced Cleaner Production Technology into the factories to reduce wastes and save more energy. The system has been upgraded as follows: a) the disposition, training and evaluation of SHE personnel, b) full participation of employees, the inclusion of standardized environmental protection rules into The Company's S.O.P., c) ISO-14001 certificate, and d) the implementation of audit operations.

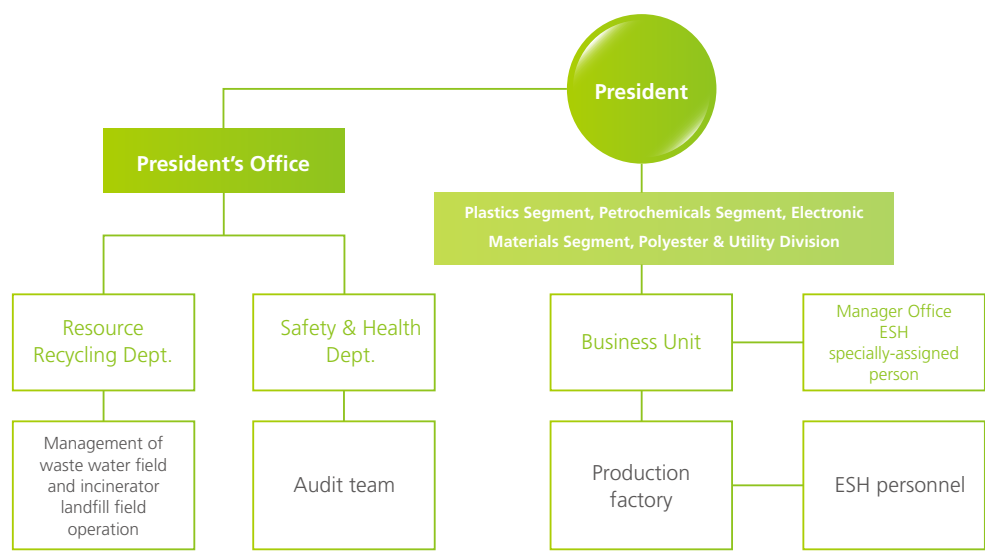


# 5. Environmental Sustainability

## 5.1.3 Organization and Responsibility of SHE (Safety, Health & Environment)

To strengthen the function of environmental protection and work safety management, the President's Office has been developed with "Safety & Health Dept." and "Resource Recycling Dept.", with each of the departments controlling and managing the respective affairs; meanwhile, the audit team is responsible for factory audit operations, following up issues, and suggesting improvements. Each department and factory also has SHE personnel for supervising and coordinating the implementation of improvement measures.

The Company's ESH system organization is as blow:



## 5.1.4 SHE Management

### (1) Full participation by each employee, SOP. Procedure implementation

It is critical that everybody joins the movement. The S.O.P. must cover SHE regulations so that all the employees can understand the importance of SHE protection and can thus follow the regulations while maintaining the efficiency and quality of production. The execution of SHE regulations shall improve the project.

### (2) Compliance with laws and regulations, continuous improvement

All of the 62 factories located in Shulin, Linkou, Kungsan, Jinghsin, Mailiao, Hsinkang, Chiayi, have passed ISO 14001, OHSAS 18001, and TOSHMS certification. We review the most updated rules and regulations regarding environmental protection to make sure that our operations constantly meet the standards. Furthermore, the problems found during annual SGS inspections will be filed as key improvement points.

### (3) Reinforced audit operations and SHE implementation

In order to strengthen SHE management, general autonomous inspection and the following audit operations are carried out: "thorough inspection", "key audit", and "audit according to the environmental protection agency in accordance with the law" conducted by "the Safety, Health and Environment Center of Group Administration" and NPC's audit team on an irregular basis. The operation helps to implement the regulations and expose any noncompliance. We make improvement accordingly so that the procedure can be thoroughly implemented regarding the health and safety ring.







## 5.2 Environmental Accounting

Defined by the EDP, environmental costs mainly refer to the enterprise investments into reducing, preventing, or removing the impact on the environment caused by operational activities, as well as improving the efficiency of resource use and the related expenses.

To serve as a responsible corporate citizen and maintain the sustainable development of the environment, The Company has upgraded computer operations to cover environmental protection work, and the environmental expenditures have been introduced into the environmental accounting system, with the related cost calculated based on the statistical data. We have also disclosed related information to interested parties.

Therefore, Nan Ya Plastics Corporation was the first one in the Formosa Plastics Group to finish the setup of environmental accounting system with the help of Industrial Development Bureau and National Chiao Tung University in 2003 and officially implemented the system in 2004. Together with Formosa Plastics, Formosa Chemical & Fibre, and Formosa Petrochemical Corp., we began implementing the environmental benefit accounting system in October 2009, making us the first enterprises in the country to integrate the information of direct environmental benefits into the environmental accounting system.

### Details of Nan Ya plastics Corporation

#### Environmental Costs in 2015

Unit: NT\$ thousand

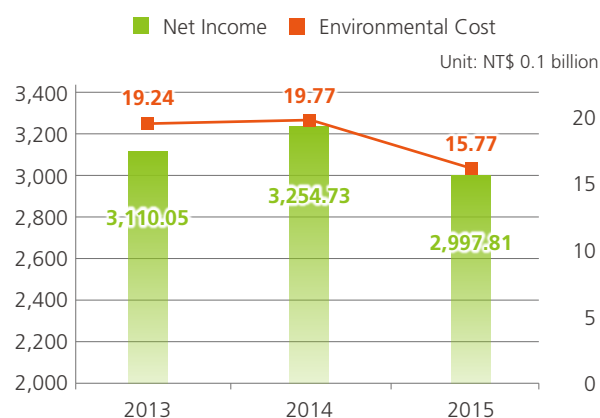
Category	Items	Amount
Environmental Cost	Operation Cost	1,443,734
	Supplier and Customer Chain Cost	22,569
	Management Cost	27,905
	Social Event Cost	16,735
	Loss and Compensation	57
	Policy and Energy Tax	66,391
	Total	1,577,391
2015 Net Income		299,781,414

Note 1: Data Source: the environmental accounting computer database and the data of "Net Income" comes from 2015 Consolidated Financial Statements.

Note 2: "Operation Cost" in the above table includes expenses derived from green procurement, expenses from recycled product manufacturing or sales, and product service expenses for promoting environmental protection.

The implementation of the environmental accounting system keeps clear records of fees and costs related to the investment, maintenance, and research and development of the environmental equipment. The data helps the operation policy analysis to be done in an eco-friendly way and enhances the competitiveness of The Company. Our environmental costs in 2015 totaled NT\$ 1.577 billion.

#### Trend of Environmental Cost to Net Income





## 5. Environmental Sustainability

### 5.3 Water and Energy Conservation and Greenhouse Gas Reduction

Since the Kyoto Protocol came into force on 14 February 2005, we have worked as much as possible to reduce GHG emissions. The operation of GHG emission examination and personnel training has been entrusted to the British Standards Institution (BSI) and System & Services Certification (SGS). GHG emission data is recorded into the ERP, and the OA system is administered to ensure the soundness and correctness of the GHG emission records, further facilitating the completion of the greenhouse gas emissions verification by the BSI and SGS within the legal period.

Although the 2015 verification is in progress, The Company completed the 2014 certification operation and received the certificate issued by the Taiwan Accreditation Foundation (TAF). Each process and production is planned and optimized with the best feasible technology, together with the annual projects on energy saving, electricity saving, and greenhouse gas reduction. Every year, we participate in the voluntary energy conservation and greenhouse gas emission reduction work promoted by the Industrial Development Bureau.

#### 5.3.1 Greenhouse Gases Emission

The EPA promulgated two regulations, the "Greenhouse Gas Emissions Reporting and Management Approach" and the "Report of Fixed Pollution Sources of Greenhouse Gas Emissions in Public and Private Space" at the end of 2012, which indicates that the listed pollution sources are required to submit the greenhouse gas emission amounts of 2013 and 2014, respectively. To fulfill our social responsibility, we have taken actions to promote the inspection of GHG and company-wide greenhouse gas emissions inventory and verification work according to ISO 14064-1 standards. The BSI and SGS have carried out the verification of greenhouse gas emissions from 2005 to 2014 to ensure their correctness.

#### (1) Greenhouse gas emissions amount

According to the "N00170 GHG Reduction Measures" set by FPG, the results of the internal preliminary audit of The Company's annual greenhouse gases in 2015 have been divided into three categories: the total emissions in Scope I is about 3.02 million mt of CO<sub>2</sub>e, which accounts for 48.09% of the total emissions of The Company; Scope II is about 3.26 million mt of CO<sub>2</sub>e, accounting for 51.91% of the total emissions of The Company; as for Scope III, the calculation is based on data that either cannot be collected or whose data's precision is not feasible; therefore, the reference to the international common method and qualitative investigation is applied, with each project listed in the annual inventory and source identification table. According to ISO14064-1 regulations, they are not included in the measurement of the emission inventory.

The Company's annual greenhouse gas emissions are illustrated in the following table.

#### Greenhouse Gas Emissions of NPC

Unit: mt CO<sub>2</sub>e

Scope \ Year	2011	2012	2013	2014	2015 <sup>Note 3</sup>
Scope 1 <sup>note 1</sup>	2,813,212	2,644,748	2,837,770	2,900,221	3,021,453
Scope 2 <sup>note 2</sup>	3,160,970	2,931,241	2,996,396	3,133,603	3,261,590
Total Emission (Scope 1+2)	5,974,182	5,575,989	5,834,166	6,033,824	6,283,043

Sources: FPG Computer Data

Note 1: Direct emissions of greenhouse gases.

Note 2: Indirect emissions of greenhouse gases.

Note 3: Emissions of 2015 to be accredited. Data shown here is derived from the internal audit.





## (2) Use of biomass energy

Based on ISO 14064-1 standard, in the process of quantification, if biomass combustion is used, its carbon dioxide emissions should be quantified individually but not included in the total annual emissions. Considering public safety and the loss or damage of industry facilities, on May 5, 2014 the Ministry of Economic Affairs suspended regulations for the use of biodiesel for vehicles, so the diesel of Formosa Petrochemical production no longer blends biomass esters into the process; therefore, no biomass energy was used in 2015.

### 5.3.2 Greenhouse Effect Response

Due to the impact of global warming, energy conservation and carbon reduction have become important environmental issues around the world. The "Greenhouse Gas Reduction and Management Act" was formally adopted in July 2015, and as a responsible enterprise citizen, The Company has responded by implementing GHG monitoring and carbon reduction measures.

#### (1) Establishment of the GHG reduction team

In response to the "Kyoto Protocol", every nation is required to reduce its GHG emissions. As a result, The Company has established the GHG reduction team, and the overall inspection and carbon reduction operations are executed together with the setup for annual unit product consumption and GHG emission goals for each factory.

#### (2) Professional certification organization

Since 2009, we have entrusted the GHG emission inspection and certification to the SGS and BSI, so far completing certification and issuing certificates for years 2005 to 2014. The inspection and certification for 2015 is currently ongoing to meet the requirements of the "Greenhouse Gas Reduction and Management Act".

#### (3) Excellent energy saving and carbon reduction factories selection and demonstration

We participate in the contest for excellent energy saving and carbon reduction factories selection held by the corporation and the government. Through demonstrations and experience exchanges, we can promote our techniques for saving energy and reducing carbon emissions. Over the past few years, The Company has participated in the Industrial Development Bureau's award-winning manufacturer selection of carbon reduction performance, with the following achievements:

Year	Awards
2010	Shulin 1 <sup>st</sup> Plant won "Award of Ministry of Economic Affairs for Prominent Energy-Saving Performance"
2011	Cotton Plant won "Award of Ministry of Economic Affairs for Prominent Energy-Saving Performance"
2012	Hsinkang CCL 1 <sup>st</sup> Plant won "Award of Ministry of Economic Affairs for Prominent Energy-Saving Performance"
2013	Hsinkang CCL 1 <sup>st</sup> Plant was awarded the 22 <sup>nd</sup> ROC Corporate Environment Protection Award by the Environmental Protection Administration Executive Yuan, R.O.C (Taiwan) Hsinkang CCL 3 <sup>rd</sup> Plant won "Award of Ministry of Economic Affairs for Excellent Energy-Saving Performance" Kongsan Membrane Plant won "Award of Ministry of Economic Affairs for Prominent Energy-Saving Performance"
2014	Hsinkang CCL 1 <sup>st</sup> Plant was awarded the 23 <sup>rd</sup> ROC Corporate Environment Protection Award by the Environmental Protection Administration Executive Yuan, R.O.C (Taiwan) Polyester Fiber Division Spinning & Texturing 3 <sup>rd</sup> Plant won "Award of Ministry of Economic Affairs for Prominent Energy-Saving Performance"
2015	Hsinkang CCL 1 <sup>st</sup> Plant was awarded the 24 <sup>th</sup> ROC Corporate Environment Protection Award Bronze Prize by the Environmental Protection Administration Executive Yuan, R.O.C (Taiwan)



## 5. Environmental Sustainability

### (4) Digitalization of GHG reduction and examination

FPG declared and implemented its “GHG reduction measures” in 2006 for operation needs; the digitalization of GHG reduction and examination has also been carried out to save more manpower and ensure the correctness of the data for later analysis and control.

### (5) Afforestation

The CO<sub>2</sub> absorbed by afforestation can also be credited to compensating for GHG emissions. Over the past few years, FPG has joined the government in planting trees and reducing carbon emissions. From 2011 to 2015, we have adopted 1,100.39 hectares of land other than ours in Yunlin County and donated NT\$ 724 million to the local government to develop the forest. In the future, we plan to continue promoting this project for more emission trade credits.

### 5.3.3 Greenhouse Gas Emission Intensity and Reduction Result

According to the environmental protection department, greenhouse gas emissions intensity is defined as the ratio of annual emissions to annual output of a particular product, and the unit is metric ton -CO<sub>2</sub>e per metric ton of product, which is known as the unit product emissions of a particular product. The emission intensity of each factory is recorded on The Company inventory certification report with the formula: GHG emissions per unit production = total annual greenhouse gas emissions (t CO<sub>2</sub>e) / total production (t). Due to the variety of products, the emission intensity of The Company is based on revenue per year, and the data is used for annual GHG emission analysis.

#### NPC 2010~2015 Greenhouse Gas Emissions Intensity and Reduction Effectiveness

Corporation	Item	2010	2011	2012	2013	2014	2015
NPC	Greenhouse gas emissions (CO <sub>2</sub> e thousand metric ton)	6,705	5,974	5,576	5,834	6,033	6,283
	Business revenue (NT\$ 0.1 billion)	3,378	3,310	3,007	3,110	3,255	2,998
	Greenhouse gas emissions intensity (CO <sub>2</sub> e thousand metric ton/ NT\$ 0.1 billion)	1.98	1.80	1.85	1.88	1.85	2.10

Reference: FPG Greenhouse gas inventory database

Description: The emission amount of 2015 is higher than that of 2014 due to high production that year. According to the computer database of Mailiao Factory, compared to 2014, the average daily production increased by 13.94% in 2015, thus accounting for the higher amount of emissions. However, due to the low market demand caused by the dropping prices of resources and mass raw materials, some products prices decreased, and the turnover was low compared to 2014.







### 5.3.4 Water Conservation Performance

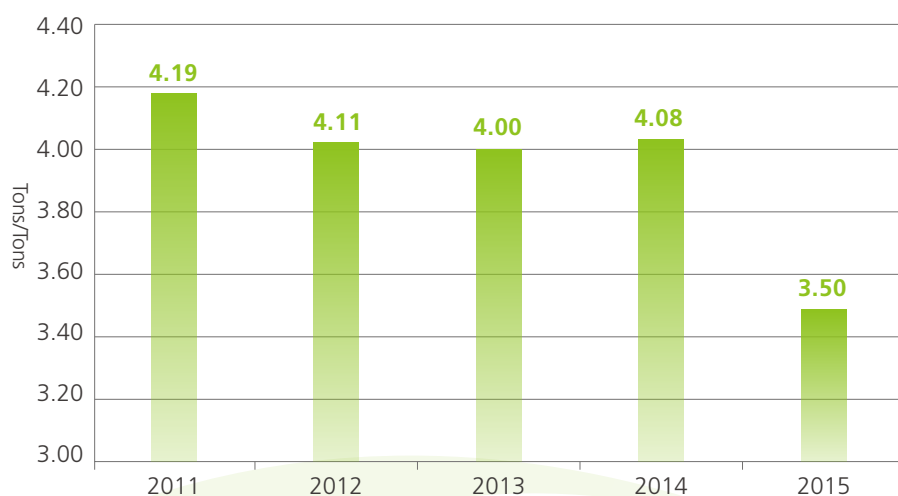
Water is one of the earth's limited resources. While the main water sources for the factories are from ground water and tap water, we seek every effort to reduce water usage, from the manufacturing process and water saving plan to evaporation loss control; wastewater is also recycled. To retain and reuse rainwater, we have reinforced our overall rainwater collection efforts and collection surfaces and set up containers to properly store rainwater. As of 2015, we have had a total of 431 improvement cases, with NT\$ 310 million invested, and the annual benefit has reached NT\$ 130 million (water saving performance is shown in the following table). For example, water usage reduction in Mailiao Factory continues every year; in 2015, the average water consumption was 31,556 mt/ day, unit product water consumption was 3.50 mt/ mt, rainwater recovery rate was 58.5%, and average rainwater recovery amount was 1,428 mt/ day. The unit water consumption amount and rainwater recovery amount in The Company's Mailiao factory are shown in the following two charts.

#### NPC Water Conservation Reservation Performance

Categories \ Year	1999~2014	2015	Accumulation (1999~2015)	Ongoing	Total
Improvement (Number of Cases)	376	55	431	52	483
Volume saved (tons/ day)	20,896	519	21,415	975	22,390
Investment ( NT\$ 0.1 billion)	3.0	0.1	3.1	0.8	3.9
Benefit ( NT\$ 0.1 billion/ year)	1.2	0.1	1.3	0.1	1.4

Reference: Database of FPG water and energy Conservation Performance.

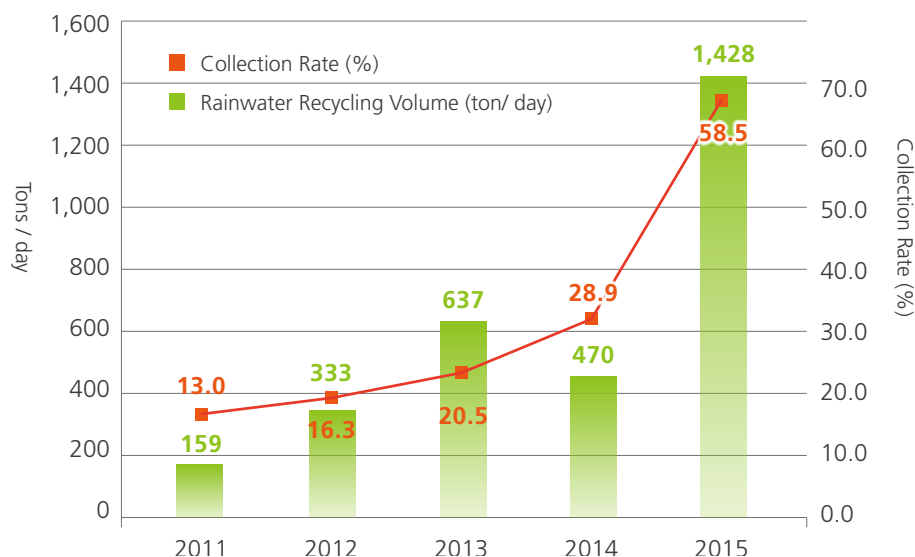
#### NPC Water Consumption by Year in Mailiao Complex (2011~2015)





## 5. Environmental Sustainability

### NPC Rainwater Recycling Volume and Collection Rate by Year in Mailiao Complex (2011~2015)



### 5.3.5 Energy Conservation Performance

Since the beginning, we have saved energy factory by factory and corporation by corporation. Though the energy was reused, waste heat recycled, equipment efficiency enhanced, and other measures for energy management carried out since the very early stage, only when we consolidated all the factories and corporations' resources data did we begin to significantly increase overall energy efficiency. Now, wasted heat is fully recycled, and carbon emissions are reduced; even hydrocarbon emissions have decreased annually. As of 2015, we have had a total of 2,548 improvement cases, with NT\$ 2.94 billion invested, and the annual benefits have reached NT\$ 3.55 billion. Refer to the table below for our achievements.

Using Mailiao Factory as an example, according to the statistics, the average amount of steam usage in 2015 was 455.5 mt/ h, with an average power consumption of 188,882 kwh/h, unit product with a steam volume of 1.21 tons/ton, and unit product power consumption of 503.5 kwh/ ton, all of which have respectively decreased compared to the previous years. The following chart illustrates the two unit steam consumption.

### NPC 1999-2015 Energy Conservation Achievement

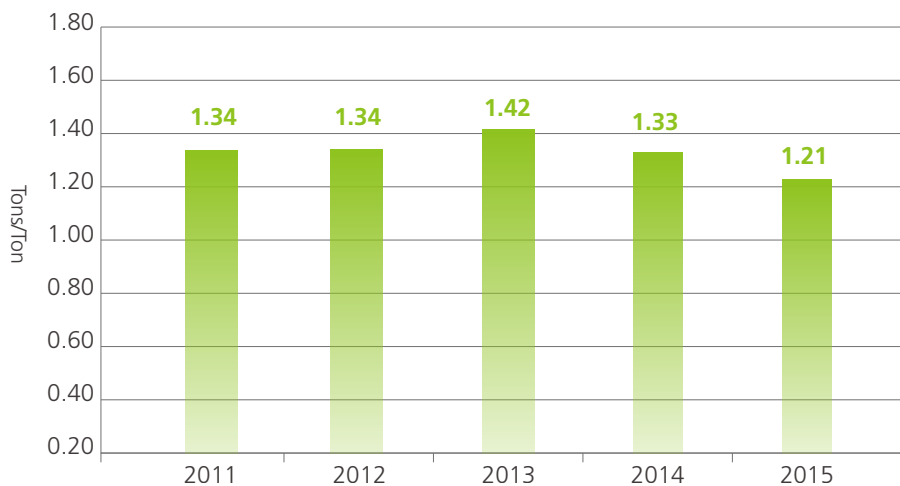
Categories \ Year	1999~2014	2015	Accumulation (1999~2015)	Ongoing	Total
Improvement (Number of Cases)	2,262	286	2,548	262	2,810
Steam Saved (Tons/ Hour)	346.0	47.1	393.1	73.2	466.3
Electricity Saved (1000 kWh/ Hour)	50.0	6.3	56.3	6.0	62.3
Fuel Saved (Tons/ Hour)	3.2	0.6	3.8	1.2	5.0
CO <sub>2</sub> e Emission Reductions (Ten Thousand Tons/ Year)	116.7	22.8	139.5	25.2	164.7
Investment ( NT\$ 0.1 Billion)	19.3	10.1	29.4	9.8	39.2
Benefits ( NT\$ 0.1 Billion/ Year)	30.2	5.3	35.5	6.9	42.4

Reference: FPG Environmental Protections Improvements Database

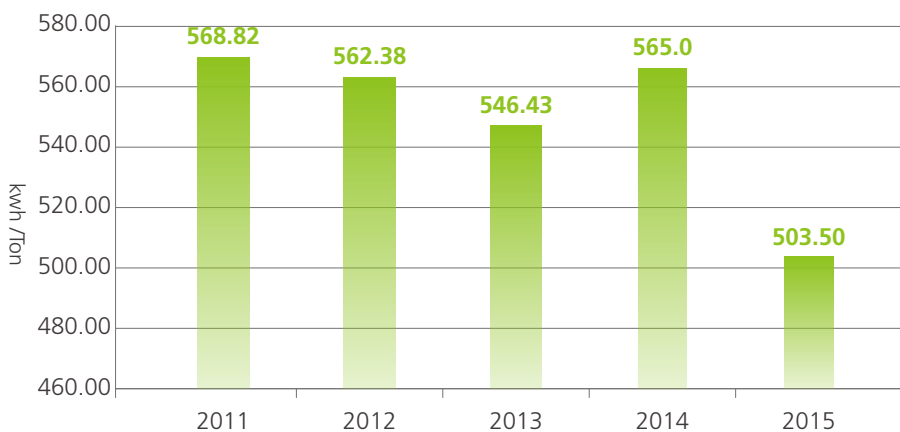




### NPC Steam Consumption by Year in Mailiao Complex (2011~2015)



### NPC Electricity Consumption by Year in Mailiao Complex (2011~2015)





## 5. Environmental Sustainability

### 5.3.6 Greenhouse Gas and Energy Reduction Achievements

To ensure that each factory has properly made improvements on water saving and energy saving, The Company has electronically integrated financial data and supplies and materials records to save time related to manual operations. Not only does this provide more comprehensive project progress, but timely adjustments can also be carried out to make sure that progress is on the right track. Monthly production of products, water, electricity, steam and fuel performance data, annual water saving and energy saving improvement cases, and efficiency statistics summary are all recorded in the system. With regard to saving water and energy and reducing waste, we have simultaneously carried out the establishment of the energy saving and water saving promotion project team, adoption of international production efficiency optimization process, annual energy and water consumption targets, and expansion of the promotion of energy conservation, water conservation, and greenhouse gas emissions reduction.

#### (1) Reduction of energy consumption

To improve the reduction of energy use and raw material usage amounts, we have reviewed the energy consumption goal settings, devised specialists to improve the manufacturing process, promoted projects to make improvements and a reward system for employees to show their creativity, and set up the GHG emission control standard for unit products. Descriptions are as follows.

No.	Category	Content
I	Inspect and set up energy consumption targets for each factory	When preparing an annual budget, inspect and set up energy consumption targets for each factory and make comparisons each month. Project and report for specific energy subjects.
II	Provide each factory with process improvement specialists	Continuous reduction of consumption of materials and energy.
III	Reward improvement project	Implementation of the incentive system for improvement projects. NT\$ 300~20,000 prize rewarded according to the project level.
IV	Encourage individual creativity	Incentive system for the IE improvement project, NT\$ 300~20,000 prize rewarded according to the project level.
V	Promote the announcement and demonstration of excellent improvement cases	Announcement and evaluation of excellent improvement cases related to environmental protection, energy saving, and water saving every six months.
VI	Active participation in the evaluation of the government's environmental protection companies award	Encourage the active participation of the factory in the annual Enterprise Environmental Protection Awards, excellent water and energy saving manufacturers recognized by the government.
VII	Greenhouse gas emission control standard of unit product	To understand the difference between actual greenhouse gas emissions and standard emissions in each factory and the improvements over time.

#### (2) Major emissions control

Emission reduction measures for major emission factories, such as power factories, common factories, and petrochemical factories, include the following:

- Saving energy: Enhance the combustion efficiency of power generation and cogeneration plants, improve the power transmission and distribution system.
- Reducing emissions: Improve the source of greenhouse gas emissions, reduce the consumption of unit raw material amounts.

- Substitution: Leakage control and recovery management of fluorine containing compounds (refrigerant, solvent); search for an alternate substance that causes less greenhouse effect.

#### (3) Movement and achievements

Over the past three years, GHG emission amount was 5,575,989 mt in 2012, 5,834,177 mt in 2013, and 6,032,668 mt in 2015. So far, NT\$ 3.25 billion has been invested since 1999, with 2,979 cases of improvement on energy saving and water saving and CO<sub>2</sub>e emissions reduced by 1,395,000 mt/year. In the future, we will implement 314 more energy saving projects, provide a budget of NT\$ 1.06 billion, and decrease CO<sub>2</sub>e emissions by 252,000 mt/year.





## 5.4 Energy Conservation in the Office

The planet has limited resources. Therefore, in order to achieve sustainable development, every country is actively working on recycling and reusing resources. "Waste is misplaced resources"; as long as we recycle and reuse the available resources in our daily life, not only can we extend the use of natural resources, but can also reduce the environmental pollution caused by processing waste.

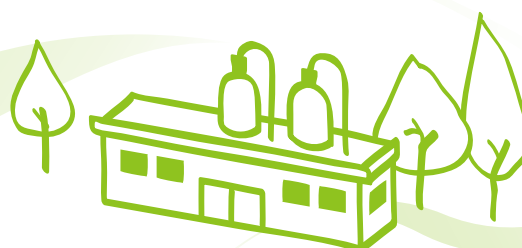
We perform office supplies recycling and daily waste classification, recovery, and reduction and have digitalized paperwork and encouraged the use of ball pen refills. All these details are significant as they protect our environment and reduce the use of resources.

According to the statistics, of all the electricity consumed in an office, about 20% of electricity is used for lighting. The poor efficiency of traditional lamps has now been replaced by LED lamps and illuminators in order to save more electricity. We have set up independent switches for lighting to save more energy.

## 5.5 Environmental Protection at the Plants

The balance between industrial development and environmental protection has been a belief that we have held since the establishment of The Company. We look at the foundation when facing environmental protection subjects; the factories have been built with BACT rules to optimize processes, pollution control equipment, and the eco-management system. We continuously pursue better control standards (a total of NT\$ 932 million invested into pollution prevention and control in 2015) in order to meet the legal standards for pollution discharge. The expenditure details of 2015 are as follows.

Category	Expense (unit: NT\$ thousand)
Air pollution control	284,614
Water pollution control	634,252
Soil and groundwater pollution control	11,219
Noise and vibration control	61
Control of land subsidence	13
Control of toxic pollution	56
Prevention of marine pollution	388
Other pollution prevention	1,511
Subtotal	932,114





## 5. Environmental Sustainability

### 5.5.1 Air Pollution Control

#### (1) Air pollution discharge

The pollution sources of each factory comply with the provisions of regular testing and meet (or are less than) the national standard; for Shulin, Linkou, Jinshing, and Chiayi factories, dioxin emission concentration is tested every other year in accordance with the provisions of regulations due to the cogeneration process, and the testing results comply with the national discharge standard (less than 1.0 ng-TEQ/Nm<sup>3</sup>). The 2015 quarterly average air pollution emissions are provided in the following table.

#### The quarterly average amount of factory air pollution emissions of NPC in 2015

Unit: mt/quarter

Factory	Oxysulfide	Nitrogen oxides	Volatile organic compounds	Particulate pollutants
Shulin	39.72	160.69	132.06	2.71
Linkou	19.43	137.71	4.46	3.32
Kungsan	1.42	28.60	6.43	3.03
Jinghsin	49.02	93.99	5.33	5.16
Mailiao	37.95	94.71	65.67	7.92
Hsinkang	0.46	1.75	343.97	5.00
Chiayi	18.89	115.33	35.78	39.87
Renwu	0.11	0.53	46.64	3.86
Linyuan	0.00	0.00	12.65	0.00
<b>Subtotal</b>	<b>167.00</b>	<b>633.31</b>	<b>652.99</b>	<b>70.87</b>

Source: The quarterly factory air pollution fee and emissions reporting data of FPG

#### (2) Air pollution control equipment optimization, VOC reduction, and odor control

Control equipment is optimized and maintained through employee training and operations for the best performance. An amendment of the air pollutant emission standards for electric power facilities was announced by the EPA on December 1<sup>st</sup>, 2014. To meet the new standard, Selective Catalytic Reduction (SCR) has been added in Shulin, Jinghsin, Linkou, and Chiayi and is scheduled to start at the end of April 2016.

With regard to odor control, The Company works to improve VOC reduction. Open aeration tanks are now covered; the evacuation of air pollution control is equipped with a pipeline to collect exhaust; and FLIR (Forward looking infrared) cameras have been purchased and installed to monitor leaks and make improvements.





### 5.5.2 Water Pollution Control

Wastewater is treated according to its property, with facilities divided into physical treatment, biological treatment, and chemical treatment. The wastewater treatment department was established, and employees are trained to work accordingly in order to control the discharge of water to comply with the national standards for discharged water.

The Company had a total of 7,082.7 mt of discharged water in 2015, with the discharged water quality from each factory meeting the national standards. The pH value of discharged water in Mailiao Factory was controlled between 6~9, chemical oxygen demand below 30 mg/ L, suspended solids below 5 mg/ L, and Ammonia nitrogen below 1 mg/ L. Furthermore, since May 2015, the EPA has begun levying water pollution control fees, and the annual total payment made by The Company is NT\$ 3,311,383.



Wastewater recycling equipment RO Module



Wastewater recycling equipment UF Module

Factory	Discharged water	Water released (mt/day)		
		2013	2014	2015
Shulin	Tahan River	2,185.1	2,327.3	2,323.9
Linkou	Tamsui River	2,874.4	2,869.5	2,940.1
Kungshan	Under industrial zone regulations	1,856.7	1,982.6	1,937.5
Jinghsin	Nankan River	1,053.3	1,134.5	1,245.2
Mailiao	Taiwan Strait	7,962.1	8,249.1	8,491.2
Hsinkang	Niuchou River	1,497.5	1,276.5	1,582.9
Chiayi	Puzi River	987.5	851.9	817.5
Renwu	Houjin River	64	60.2	60.2
Linyuan	Under industrial zone regulations	9.3	5.7	5.9
Subtotal		18,489.9	18,757.3	19,404.4





## 5. Environmental Sustainability

### 5.5.3 Waste Management

The Company's output is divided into general waste and hazardous waste, both of which are processed by recycling and reuse, incineration, and buried treatment. We classify, reduce, and recover wastes starting from the beginning of production.

In 2015, 84,366.6 mt of wastes were produced, with 78,184.5 mt of general waste and 6,182.1 mt of hazardous waste. Through classification, recycling, reuse, and reutilization, 54,554.9 mt of waste, accounting for 64.6%, has been recycled, and the remaining 29,811.7 mt of it was incinerated or buried.

### 5.5.4 Toxic Chemical Management

The operations and facilities that involve toxic chemical substances fall under the regulations of toxic chemical substance management. With legal paper issued by authorities and hazard prevention and contingency drill practice, we promote autonomous management to ensure daily normal operations and reduce hazards.

To understand the distribution of toxic chemical substances in the environment, we have entrusted the "Analysis of the Results from the Reaction of Toxic Chemicals in Mailiao Factory Zone" plan to professional institutions. So far, the first class to third class categories, a total of 10 factories, and 21 kinds of toxic chemical substances reaction results have been analyzed and reported for each factory and fire-fighting team as a reference for emergency response and risk management plan updates. Furthermore, in response to the "Registry method for new chemical substances and existing chemical substances" announced by the EPA, the chemical substances developed by The Company have been logged and have obtained a registry code.

### 5.5.5 Soil and Groundwater Management

We have performed quarterly groundwater monitoring since the beginning of factory operations in order to effectively control the quality of soil and groundwater. We recognize two situations: pollution and potential pollution. To ensure that leakage pollution accidents can be controlled as soon as possible, we developed the "Soil and Groundwater Pollution Remediation and Detection Management Plan" with reference to the soil and groundwater remediation process provided by the Industrial Development Bureau of the Department of Economics and advice from American experts.

### 5.5.6 Environmental Violations

The Company had no environmental violations in 2015. The cases from 2013 to 2015 are listed below (a total of eight cases), with a total penalty amount of NT\$ 800 thousand. We have actively made improvements and examined the cause of each case in order to prevent it from happening again in the future. Management has been reinforced in order to eliminate the possibility of abnormal occurrence. The amount and penalty has clearly dropped over the years, and we will continue to move towards the goal of "zero exceptions".

Category	2013	2014	2015
Air Pollution	7 cases/ NT\$ 700,000	1 case/ NT\$ 100,000	0 cases/ NT\$ 0
Water Pollution	0 cases/ NT\$ 0	0 cases/ NT\$ 0	0 cases/ NT\$ 0
Waste pollution	0 cases/ NT\$ 0	0 cases/ NT\$ 0	0 cases/ NT\$ 0
Other	0 cases/ NT\$ 0	0 cases/ NT\$ 0	0 cases/ NT\$ 0
Total	7 cases/ NT\$ 700,000	1 case/ NT\$ 100,000	0 cases/ NT\$ 0





### 5.5.7 Factory Greenification

We take environmental protection into account during our industrial development. Therefore, we actively promote green landscaping in the factories. Take Jinshing factory for example:

The factory zone covers an area of 15 hectares, with Nan Ya Plastics, Nan Ya PCB, Nanya Technology, and Vanguard International Semiconductor Corporation's factories all located in this factory zone, limiting the green area to just 12,859 m<sup>2</sup>. We planned and divided the factory zone into the administrative area, the factory production area, and the dormitory living area, with each area continuously improving towards refined development goals.



Banyan group around the administrative area



Refined landscaping around the administrative area



Seasonal flowers around the factories



Violets growing in the dormitory area





## 5. Environmental Sustainability

### 5.6 Responsibility for Product Safety and Hygiene

From raw material purchasing to product sales, we value the health and safety of customers in every phase. Production has moved toward non-toxic and eco-friendly, improved processes, green energy products, and other development trends (Reducing harmful formulas, energy saving, carbon reduction, green product development, etc.) in order to keep our customers satisfied. Our efforts are described below.

#### (1) Non-toxic products

Since long before the execution of WEEE and RoHS, The Company has been actively making plans in response to non-toxic product trends, such as the development of barium zinc soap salt stabilizer in 2001 in place of toxic barium cadmium zinc soap salt stabilizer; moreover, we developed the 3p-free stabilizer (free of phenol, BPA, and nonylphenol) in 2014. As for the phthalate plasticizer structure, which may cause harm to the human body, we developed Non-phthalate plasticizer and applied it to soft plastic products that come in contact with the human body. Since halogen will produce dioxin after burning and phosphorus-based flame retardants in water decomposition can cause water eutrophication, the development of halogen-free, phosphorus-free carrier and non-arsenic copper benefits the new generation of circuit boards, which can be used in the field of green home appliances. Waterborne epoxy resin, without volatile organic compounds, is applied in industrial environmental protection coatings and continues to reduce the burden on the environment.


#### (2) Eco-friendly products

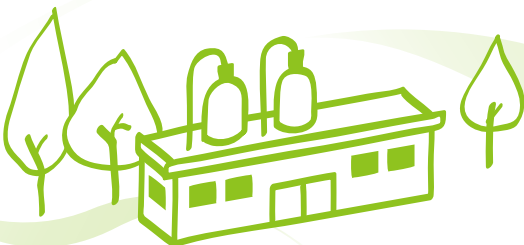
Our efforts have included: continuous replacement of equipment to improve the efficiency of energy use; the development and application of high efficiency catalyst; reducing the consumption of ethylene and energy by expanding ethylene recovery equipment; promoting rainwater recycling, improving water use efficiency, and reducing the overall environmental impact. Compared to 2014, carbon dioxide emissions were reduced by 98,430 tons in 2015.

#### (3) Improvement on water saving and energy saving

Take the improvement of the hydrogen peroxide production process as an example; a cooler and oil water separator are added after the purification tower; cooling causes the organic matter to be precipitated into granules and then filtered for removal; after the oil droplets condense into large droplets, they are separated and removed from the grease. The cost to increase the concentration of hydrogen peroxide from 35% to 65% has been reduced by NT\$ 229,000 per month in steam fees, NT\$ 24,000 per month in electricity fees, and NT\$ 17,000 per month in pure water fees.

#### (4) Green energy

The estimated amount of dry transformers sold in 2015 emitted 1,190 mt less carbon dioxide. Each manufacturing process strictly complies with the principles of waste control and reuses or recycles all materials as much as possible. The results are low pollution, energy saving, and reused resources. Dry transformer materials comply with environmental standards. For example, no cadmium, lead, hexavalent chromium, or mercury compounds were detected by the testing facility of the plastic part; powder coating is applied so no organic solvents nor pigments containing mercury, mercury compounds or mixed with lead, cadmium, chromium (+6) are used during production, thus resulting in no toxic pollution concerns. One high efficiency energy saving transformer (20KV 2500KVA) saves NT\$ 96,912 and emits 18.7 mt less of CO<sub>2</sub> per year, compared to the wet transformer. From raw materials, production, sales, use of waste, etc., every step of the product meets environmental demands. The "Green Mark" of the EPD  is shown on the product itself or on the package. In addition to the transformer, our distribution panel, vacuum contactor, and other products are on the eco-friendly track.







## Environmentally and consumer friendly products

No.	Product	Contribution to society, environment, and/or consumer
1	Non-phthalate plasticizer	Within EU norms and regulations, the non-phthalate plasticizer can be used in soft plastic products (such as toys, medical supplies, etc.) that come into contact with the human body.
2	Barium zinc soap salt stabilizer	Fully replaces toxic barium cadmium zinc stabilizer.
3	Epoxidized soybean oil	With edible soybean oil as the main material, the unsaturated bonds turn into epoxy bonds and are used in PVC products; the free radicals are captured before PVC degradation; the modified PVC products are heat resistant, weather resistant, and free of toxic additives. The product is recognized by JHPA for the purpose of food packaging and complies with FDA regulations, the mainstream of the future production of PVC non-toxic formula. It is suitable for food packing products, medical products, all kinds of films, sheets, tubes, refrigerator seals, artificial leather, plastic wallpaper, wires, cables, and other daily necessities, as well as for a special ink liquid composite stabilizer.
4	Vinyl Windows & Doors	A low carbon building material with non-corrosive, non-rusting, and low thermal conductivity properties, which can replace wood, aluminum, and iron windows/doors. It saves electricity and is 100% recyclable, a rare green building materials.
5	Medical liquid oxygen	Improves gas separation equipment to enhance industrial oxygen to meet the quality requirements of medical oxygen. It has obtained the good manufacturer of medicine certificate of the Ministry of Health and Welfare. Supply of major medical institutions for medical treatment and health care.
6	PP synthetic paper	Has good chemical resistance, grease resistance, high temperature resistance, and printability and is non-toxic, thus making it suitable for food packing, vacuum forming packaging, and stationery affair dossier purposes.
7	PP reflectors	The lampshade brightens light and saves energy and is suitable for all kinds of business premises and homes or places where light is considered inadequate or insufficient.
8	Solar cell panel PO film	Modified fluorine film for replacing the inner layer of the backing plate, protects and supports the battery module.
9	Heat insulation film	Application of nano paste technology, development of 99% UV CUT and above, high infrared barrier, can be used in automotive glass building insulation and heat insulation curtains.
10	Green Building Materials – PU waterproof resin	Green Building Materials mark issued by the Ministry of the Interior, PU waterproof resin can be applied to waterproof treatment of the roof and outdoor spaces.
11	TPU leather film/cloth	Solvents not used during the production process, no air pollution emissions. It is self-decomposable and can replace PVC materials.
12	Environmentally friendly bridging agent	The 100% TDI free bridging agent is developed with the same functionality and properties as traditional agents.
13	Non-tin matte printing rigid PVC tape	The Ca-Zn stabilizer has substituted tin stabilizer in accordance with the EN71-3:2013 new regulation on toys' safety instructions (2009/48/EC) and the provisions on the limit of transfer of organic tin.
14	TPO+PP FOAM leather film	Environmentally friendly, low volatile, low odor, and lightweight requirements follow the new trends of tape for vehicles, TPO+PP FOAM leather film replaces PVC material used in door panels and instrument panels.
15	TPO leather film/cloth	Green material TPO in place of PVC, mainly used in stationery, bags, baby cars, etc.
16	Calcium zinc stabilizer soft PVC film	To meet the regulatory requirements for Phenol (phenol) in both domestic and European regions, soft PVC tape with barium calcium zinc stabilizer has substituted zinc stabilizer.
17	Al-plastic film	Can be applied to soft packaging lithium battery pack, 3C products, vehicles, etc.



## 5. Environmental Sustainability

No.	Product	Contribution to society, environment, and/or consumer
18	PVC pipes, fittings, adhesives	PVC plastic powder is a stable, safe, non-toxic plastic raw material, water is added into VCM as a heat transfer medium to carry out polymerization, then the unreacted VCM is removed with most advanced technology. The continuous innovation and improvement process has controlled the residue of VCM inside the PVC tube within 1 ppm or less, which complies with CNS. VCM dissolution rate in PVC pipe is controlled below 0.0015 ppm, superior to the EPA drinking water regulation of 0.002 ppm. Non-lead stabilizer is used, meeting the sanitary standards of drinking water tubes in all countries of the world.
19	PVC plastic wrap	Non-heavy metal stabilizer and non-adjacent benzene two formic acid ester plasticizer as raw materials, reducing the impact on the environment and the exposure of consumers to hazardous substances.
20	PE film	For products, consolidated packaging, or pallet packing. Moisture-proof, dust-proof and labor reduction, improves efficiency, and achieves the goal of protecting products and reducing costs. Non hazardous substances, harmless process, reduces excessive packaging. With a quality management system and HACCP as the structure, the establishment of the management mechanism of hazardous substances achieves the goal of hazardous substance-free products. Recyclable material that produces no toxic gases when burned.
21	CPP film	The main raw material is polypropylene, which has good chemical resistance, grease resistance, high temperature, high transparency, printability, and heat-sealability. Non-toxic, in line with food hygiene. Can be used directly or after lamination for food packing, hygiene products, office stationery, and other aspects of packing. It can be used for other purposes after being recycled, and combustion will not produce toxic gases.
22	PP board	Main raw material is polypropylene, which has good chemical resistance, oil resistance, and high temperature resistance and is non-toxic, which is in line with food hygiene, suitable for food containers, tools and electronic components, and other packaging purposes after forming; can be used for other purposes after being recycled, combustion does not produce toxic gases.
23	PVC plastic tiles	Main raw materials are calcium carbonate and polyvinyl chloride with wear-resistant, anti-acid and alkali, pressure-resistant, flame retardant properties; PVC plastic tiles are non-flammable and non-conductive, and do not rot, complying with the regulations of green building materials standards and having a low impact on the environment.
24	Industrial board	The strong drug resistance and excellent corrosion resistance of hardboard makes it suitable for corrosion protection equipment in the chemical industry. The product complies with the regulations of SVHC and ROHS as no ROHS or SVHC listed substances are detected.
25	Amorphous Polyethylene Terephthalate board (A-PET board)	The heat and chemical resistance of the product produces non-toxic gases when burned. Good transparency, best safety material for use in food. Other versatility covers various processes, exhibition or display, vacuum forming, and other purposes. The product complies with the regulations of SVHC and ROHS as no ROHS or SVHC listed substances are detected.
26	EPE furniture board (Q-BOX)	Suitable for wet weather, the product is humidity and rot resistant, keeping pests from entering, thus ensuring the life of furniture and storage. The ROHS+7P test results as "not detected", and formaldehyde emission test results "not detected" as well.
27	Nan Ya crust foam board	Lightweight, low specific gravity, and fine foaming structure with hard crust layer surface. The pest control, termite resistance, chemical resistance, corrosion resistance, low thermal conductivity, high insulation, and good sound insulation effect of the product comply with the regulations of SVHC and ROHS as no ROHS or SVHC listed substances are detected.
28	Engineered plastic pellets	Conform to RoHS specifications and our environment, the engineer-grade plastic pellets, such as PBT, NYLON66, and PC, are now non-halogen, flame retardant, and eco-friendly.
29	Halogen-free board	Halogen produces dioxins as it burns. Halogen-free boards cause less impact on the environment and can be applied in the field of green home appliances.
30	Halogen-free, phosphate-free carrier board	Halogen produces dioxins as it burns, phosphorus-based flame retardants can cause water eutrophication when decomposed in water. The halogen-free, phosphate-free carrier board causes less impact on the environment and can be applied in the field of green home appliances.





No.	Product	Contribution to society, environment, and/or consumer
31	Epoxy resin for Wind turbine blade	Low viscosity, good maneuverability, and mechanical strength makes it an excellent composite material for wind turbine blades.
32	Phosphorus-based epoxy resin	Instead of brominated epoxy resin, which is landfill disposal-based, the better combustion of phosphorus-based epoxy has less impact on the environment.
33	Waterborne epoxy resin	Waterborne epoxy resin, a homemade emulsifier is a substitution for organic solvent-based epoxy resin. VOC evaporation reduced, environment protected.
34	Industrial grade fiberglass cloth	Fire resistance and corrosion resistance, application in building materials such as curtains, floor tiles, ceilings, etc. in place of plastics and woods. Reduces environmental load and provides consumers with a safer living environment.
35	Arsenic-free copper foil	Application in the field of green electronic products, mainly for circuit board materials. No arsenic, environmentally friendly.
36	Heavy metal free polyester fiber and pellets for bottle	Traditional polyester polymerization process use heavy metal antimony as catalyst, which produces a negative impact on the environment over the long term. However, the use of heavy metal free new catalyst, dyeing wastewater that is no longer treated by removing antimony, and the decomposition of waste fibers without residual heavy metals all comply with EU "ECO" standards.
37	Posted-consumer recycled Polyester fiber	Convert wasted PET bottle recycling materials into fiber through melting spinning process. This fiber not only reduces the impact of waste PET bottles on the environment, but also reduces the use of petrochemical raw materials and the CO <sub>2</sub> emission and energy consumption, thus contributing to the mitigation of global warming.
38	Bio-bass polyester for fiber and bottles	Ethylene glycol, one of raw materials polyester is changed to bio-base and it will reduce the use of petrochemical raw materials.
39	Atmospheric dyeable fiber	Traditional polyester dyeing is done at 120~135°C. After being specially modified, it can be dyed under 98°C, which will reduce the use of heat energy, thus contributing to the mitigation of global warming.
40	Dope-dyed fiber	A master batch is added to the fiber spinning to directly spin out color filaments, which will save energy consumption for dyeing and reduces polluted water.
41	Nano charcoal fiber	Recycling of waste coffee grounds or coconut shells, ground to nano size powders after carbonation process and added into polyester. The material is warm, anti-odor, far-infrared, and with anion function.
42	Switchboards, transformers (MTR), and the vacuum contactor (VCS)	<ol style="list-style-type: none"> <li>1. Clamp surface powder coating: The surface of sheet metal is powder coated, which requires no organic solvent. Granted the Taiwan Green Mark by the EPA, the method can be used on transformers and metal plate surface protection, waterproof, and anti-rust processes for indoor and outdoor building materials.</li> <li>2. Iron core metal coating: The coating method for silicon steel sheet was granted the "Green Mark" by the EPA, with applications such as protection of transformer silicon steel sheets and waterproof and anti-rust processes for indoor and outdoor building materials.</li> <li>3. Terminal cover plate for transformer: Granted the "Green Mark" by the EPA, the cover plate for copper conductor insulation can be used on the transformers' conductor insulation.</li> <li>4. Transformer resin + hardener: Granted the "Green Mark" by the EPA, the application of material for copper conductor insulation including transformer conductor covering, the water resistant and impact resistant waterproof and anti-rust processes for indoor and outdoor building materials.</li> </ol>
43	Plastic pallets	Products are classified into various grades, and certain products are made with PP and PE recycling materials, which involve less petrochemical processes and provide an alternative reuse of plastic wastes. It is 100% recyclable and reproducible. The product has been granted the Taiwan Green Mark by the EPA for its efforts to reduce wastes and contribute to the environment.
44	SMC door	Made with glass fiber and unsaturated resin, the new SMC technology replaces wood with plastic material, which reduces deforestation. The mold features wood texture with impact resistance and good strength, and the material is non-absorbent, non-corrosive, and non-deformation, a most fitting material for quality buildings.







## **6. Create a Prosperous Prospect with the Local Community**

<b>6.1 Community Engagement</b>	<b>99</b>
<b>6.2 Eco-Friendliness</b>	<b>102</b>
<b>6.3 Healthcare</b>	<b>110</b>
<b>6.4 Dedication to the Local Industry Development</b>	<b>115</b>



## 6. Create a Prosperous Prospect with the Local Community

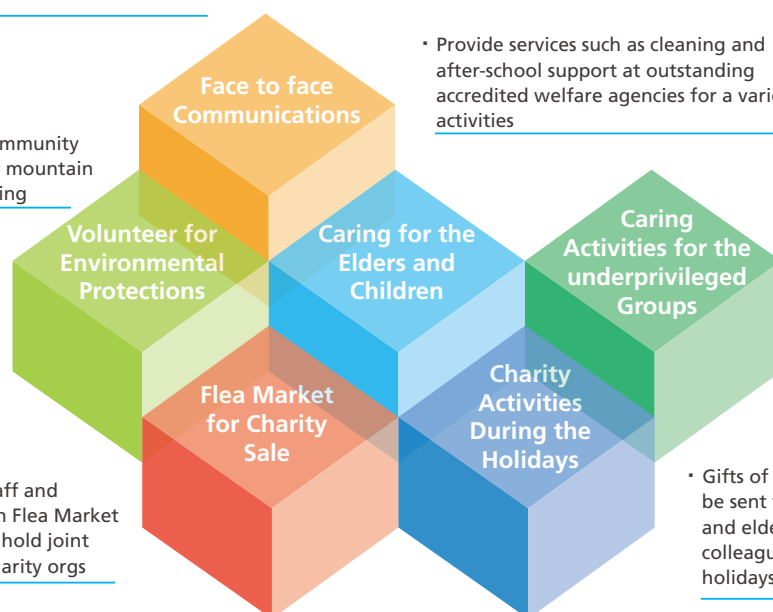
While working hard to contribute to society, we try to develop the community around us. We make every effort to deeply understand the demands of the local community by visiting to the community organizations, maintaining the Community environment, caring for vulnerable groups. To carry out the idea of "the balance between environmental protection and economic development", we have developed long-term plans for environmental and community protection. As the largest, most comprehensive, and most important of our factory zones, Mailiao factory zone is a model for the promotion of sustainable environment. Our efforts, which include environmentally friendly movements, health care, and industry promotion, are in response to the concern of our local residents.

### 6.1 Community Engagement

- Pay visits to the government agencies, community org., neighborhood to communicate our policies and address their concerns

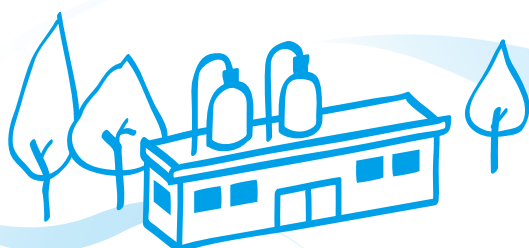
- Maintain the Community environment for mountain and beach cleaning

- Invite Nan Ya staff and neighbors to join Flea Market Charity Sales, or hold joint sales with the charity orgs

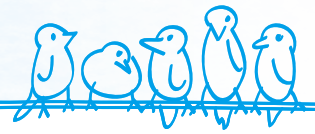


- Provide services such as cleaning and after-school support at outstanding accredited welfare agencies for a variety of activities

- Gifts of money and other gifts will be sent to low income families and elders living alone by our colleagues during three major holidays or special holidays







### (1) Building the Bridge of Mutual Trusts

To carry out the principle of "take from the society and use it for the society", each factory zone is provided a neighborhood care team and volunteer unit to be responsible for visits to government offices, local (environmental protection) groups, village offices, and neighborhoods. Through visits and communications, we build bridges between us and the communities. The neighborhood care team goes to village offices on a regular basis in order to listen to the needs and feedback of the neighborhood. In exchange, we share with them our policies about contributions to the communities and environmental protection achievements. The mutual trust between the enterprise and the surrounding neighborhoods is developed through such harmonious relationships.

### (2) Bring the Traditional Culture to Remote Townships

To assist in developing traditional art and local culture, as well as balance the resources between rural and urban areas, "Paperwindmill Theatre, Taiwan" put on performances for our neighborhoods. Families and neighbors were invited, and children who live in remote rural areas were sent to enjoy the performance, which is usually available only in the national theatre. More than 4,000 participants attended the event, the seeds of art and culture were planted and grew inside everyone.

### (3) "Factory and Community as One"-Community Engagement

To better connect with our residents, we have devoted ourselves to community contributions at the start of The Company. In 2015, a total of NT\$ 3,934,838 was donated from our employees and The Company, which was used to sponsor the citizen patrols, activities of local temples, festival evening parties, as well as to assist and donate to the solitary elderly and charitable organization, including nursing homes and children's homes. In implementing the concept of "take from the society and use it for the society", we will continue to focus on the needs of our neighborhood.

### (4) Volunteer for Environmental Day

We developed the "Environmental Protection Volunteer Day", on which we encourage our employees to volunteer for community services, such as neighborhood cleaning and other assistance during their days off. These activities not only keep our environment clean but also bring us closer to the neighborhood. In 2015, a total of 855 employees volunteered 39 times.



Paperwindmill Theatre Performance.



The interaction between kids and a character of Paperwindmill Theatre.



Environmental volunteers clean up the streets.



Environmental volunteers clean the streets.



## 6. Create a Prosperous Prospect with the Local Community



Kids in an Education and Nursing Institute enjoyed the dragon boat festival with Love Club members.



Employee sang Karaoke with a child in an Education and Nursing Institute.



Love Flying – Flea Market Carnival.



"Love in the winter" Performance.

### (5) Mountain Cleaning Activities

Volunteers from northern factory zones joined our welfare committee to co-host the hiking/clean-up event. The local clean squadron also joined this movement and assisted with garbage disposal. The activity campaigned for the protection to our earth and a determination to go green.

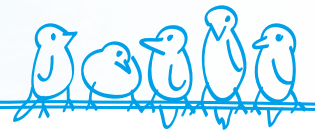
### (6) Kind-hearted Services

Contributing towards society and humanity has been a foundation of The Company's operations. To further expand the spirit, we cultivate our employees to volunteer for community service. Activities include local welfare and care for low-income families, goods donation for seniors, service and assistance for nursing and education institutions, volunteers for children's homes, homework assistance for children from disadvantaged families, and early intervention for developmental delayed child, just to name a few. For social welfare organizations listed by government authorities, we actively visit them and arrange goods donation and volunteer service according to their needs. For disadvantaged groups, we assisted in applying the "Ching Pao Charitable Trust Fund". For low-income families in Linkou factory zone, Shulin factory zone, Kungsan factory zone and Jinghsin factory, the donations assisted in the medical expenses and funeral services in 2015 reached NT\$ 267,000.

### (7) Public Welfare Activities and Flea Market for Charity

We have taken the opportunity to organize and promote charity bazaars in nearby factory evening events, fairs, and temple activities. With the assistance of the love and care foundation and our voluntary care team, the income of the sales was donated entirely to the social welfare foundation, spreading the seeds of hope to every corner of our world.





## 6.2 Eco-Friendliness

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Local environmental protection is a major focus for the Formosa Plastics Group. To fulfill our social responsibility, we have applied BAT (Best Available Technology) and BACT (Best Available Control Technology) at the Mailiao plant design stage, the best processes and equipment have been adopted to reduce wastes since the beginning of each process, and continuous improvements are made to operations with time to enhance environmental protection management in every aspect.

In 2010, in response to the concept of the "Human and Eco-Friendly Program" proposed by Yunlin County Government, starting from the environment, health, and industry, our company works diligently to enhance local development and the realization of coexistence and prosperity between Six Naphtha and the community.

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The projects, which include friendly environmental, health care, and industrial development, have been planned and organized by the enterprise. We follow those plans and are always looking for the best solution or room to make improvements. Through the sustainable development of the economy, we wish to fulfill the goal of social responsibility. Such promoted cases shall be described later.

### 6.2.1 Dedicated Research Unit

#### (1) Evaluation and Counseling Committee for Air Quality Impact

The impact of Mailiao Plant air pollution emissions on air quality in the Yulin, Chiayi and Nantou has been a concern of the local residents, so the "Evaluation and Counseling Committee for Air Quality Impact" was established in September 2011 within the FPG organization. In 2014 to 2015, seven articles were submitted to world-renowned journals, and we were invited to publish our research results at international conferences; this research clarified the irrelevance between Six Naphtha and the hazardous purple rating PM2.5 from September to November of 2015. The results have further urged the environmental protection authorities to face the impact of open burning related to the PM2.5 rating. With rigorous scientific research, the correct analysis of the air pollution issue can be performed, thus preventing misinterpretations.

Our study found that the air quality in the towns near the park was actually better than that in the western counties of Taiwan, thus indicating that the impact of the park on local air quality is insignificant. The severe air quality issues of the areas in Douliu, Puli and Chiayi have long an issue; now, the data analysis has shown that the emissions from the park located on the west coast is negligible, but the impact of open burning, vehicle emissions, and catering fumes on the ratings should be considered more carefully by

our government. These are the factors that have worsened the air quality in Taiwan over the years. Therefore, in order to improve the air quality, more important than regulating industrial emissions, the overall planning and control of various sources are a rational method for establishing a reasonable standard of air quality management and reducing liability.

The actual impact of the Mailiao Zone air pollution emissions on surrounding air quality will be explained through various channels in the hopes of easing social disturbances.

#### (2) Evaluation of Wastewater Disposal Influences on Marine Ecosystem Committee

The goal of continuous improvement in pursuing the best technology and best operation pattern has been executed through the 2010 establishment of "The Formosa Plastics Group Evaluation of Wastewater Disposal Influences on Marine Ecosystem Committee" by the enterprise. We invited experts and scholars from home and abroad to review whether the water quality of the discharge impacted the ecology of the sea based on scientific data. The reached consensus was then put forward with feasible suggestions to serve as references for the enterprise's improvements. The results of the projects, including integrated sea water quality and ecology, fishery economic activities, biological toxicity



## 6. Create a Prosperous Prospect with the Local Community

and beach maintenance, with the effective use of scientific demonstration, have been able to further clarify the effect of Mailiao Factory Zone's discharged water into nearby sea waters. Regarding the low pH of water discharged into nearby sea areas being the potential factor of the unbalanced pH of seawater, in accordance with the committee's proposal, we have invested NT\$ 2 billion into new aeration tank facilities and completed their installation in December 2014, and now the pH value of regional seawater has returned to a pH of 8 and higher.

To continue research operations related to the marine environment, execution has been entrusted to professional institutions to clarify the impact of Mailiao Factory Zone on the surrounding areas. As of 2015, the results, including integrated sea water quality and ecology, fishery economic activity, aquaculture and fishery resources, and beach maintenance, revealed no detectable harm. Operations will be continued to ensure the living quality and safety of local residents, as well as the sustainable stability of the marine ecological environment.

### 6.2.2 Environmental Impact Evaluation

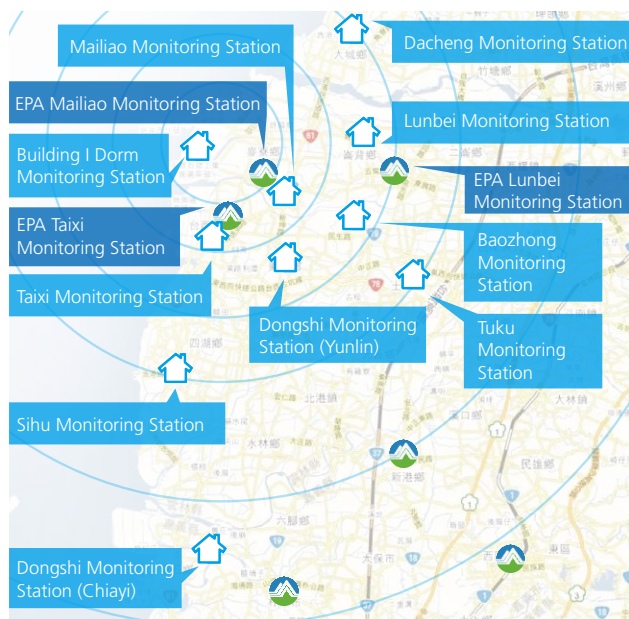
#### (1) Air Quality



##### A. Strict monitoring

To ensure that all the environmental indicators are under control in a timely manner, we built a comprehensive environmental monitoring network which has layers of intense monitoring control. We also take local prevailing directions into consideration. They include 8,109 fixed gas detectors, 39 GasFindIR thermal imaging cameras used by the American military, 33 CEMS fixed pollutants sequential monitoring systems, 39 FLARE fixed pollutants sequential

monitoring systems, 6 mobile FTIR monitors, and 8 fixed FTIR monitors in the Mailiao Plant, as well as 1 VOC monitoring station, 10 photochemical assessment monitoring stations, 12 automatic odor sampling stations, 10 fixed air quality monitoring stations, and 1 air quality monitoring vehicle in a nearby township to search for emission sources as fast as possible and ensure local air quality.

#### 8 Layers of Environment Monitoring Network



 No.6 Naphtha Cracking Plant Air Quality Monitoring Station  
 Environmental Protection Administration (EPA) Air Quality Monitoring Station

#### Sites of Automatic Sampling for Abnormal Odor



• Date from automatic Sampling of Odor Sensor are analyzed through NIEA715.13B



8 fixed FTIR monitoring stations were set up around the plant, with 6 mobile FTIR in the plant to effectively monitor VOC leakage inside and outside of the plant.

The map illustrates the layout of the Formosa Plastics Corporation plant, with various buildings and areas color-coded. Eight fixed FTIR monitoring stations are marked with blue dots and labeled with callouts:

- FTIR-14 South Gate Monitoring Station
- FTIR-02 EG4 Monitoring Station
- FTIR-13 OL3 Monitoring Station
- FTIR-12 CF Monitoring Station
- FTIR-11 Formosa Plastics Transport Corp. Monitoring Station
- FTIR-01 Administration Building Monitoring Station
- FTIR-10 FPCC Plant Monitoring Station
- FTIR-07 North Gate Monitoring Station

A compass rose in the top right corner indicates the orientation, with North (N) at the top, South (S) at the bottom, East (E) to the right, and West (W) to the left.



The diagram illustrates a leak detection system for a gas cylinder. A vertical cylinder has two sensors attached: a "不透氣率檢測儀" (Impermeability Detection Instrument) at the top and a "液位流量檢測儀" (Liquid Level and Flow Detection Instrument) lower down. Red arrows indicate potential leak points from the cylinder. To the right, a control unit labeled "型號：數顯式 液晶電腦" (Model: Digital Display LCD Computer) is connected via a cable labeled "通訊線" (Communication Line). The control unit features a digital display showing "0.00" and several buttons. Below the control unit, a power supply section includes a transformer labeled "變壓器" (Transformer), a switch labeled "開關" (Switch), and a fuse labeled "保險絲".

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## 6. Create a Prosperous Prospect with the Local Community

### Comparison of Air Quality detected by Environmental Protection Bureau and the Statistics of the No. 6 Naphtha

Item	Monitoring Station	Background Value Before Construction 1993/7~1994/5	During Construction 1994/6~1998/12	Phase 1 1999/1~2001/3	Phase 2 2001/4~2002/3	Phase 3 2002/4~2004/6	Phase 4 2004/7~2010/3	Final Phase 2010/4~2014/12	Control Standard
SO <sub>2</sub> (ppb)	No. 6 Naphtha	4	6.8	6.1	3.9	5.2	4.2	4.1	250
	Tucheng (Northern Taiwan)	7.9	6.3	4.1	3.8	3.6	4.4	3.3	
	Hsienhsi (Middle Taiwan)	6.4	5.7	4.5	3.6	3.4	4.5	4.2	
	Taixi (Yunlin - Chiayi - Tainan)	3.7	3.3	2.5	3.0	3.2	4.6	3.1	
	Hsiaokang (Kaohsiung-Pingtung)	19.4	18.9	16.2	13.3	11.1	12.7	8.7	
NO <sub>2</sub> (ppb)	No. 6 Naphtha	7	8.2	17.8	17.2	14.3	9.8	9.1	250
	Tucheng (Northern Taiwan)	27.0	25.2	26.1	24.3	23.5	22.6	18	
	Hsienhsi (Middle Taiwan)	18.0	18.3	18.7	18.2	16.5	14.8	12.8	
	Taixi (Yunlin - Chiayi - Tainan)	12.0	9.9	11.3	11.5	10.7	10.1	8	
	Hsiaokang (Kaohsiung-Pingtung)	34.2	34.0	35.3	32.8	29.3	27.8	23.2	
O <sub>3</sub> (ppb)	No. 6 Naphtha	30	24	31.3	35.5	35.0	32.9	28.8	120
	Tucheng (Northern Taiwan)	19.1	19.6	22.0	25.6	24.3	26.9	27.4	
	Hsienhsi (Middle Taiwan)	-	-	-	-	30.9	29.9	30.6	
	Taixi (Yunlin - Chiayi - Tainan)	28.5	30.9	32.4	30.2	33.9	36.5	35.8	
	Hsiaokang (Kaohsiung-Pingtung)	16.0	21.0	22.9	26.3	24.9	26.0	25.8	
CO (ppm)	No. 6 Naphtha	0.6	0.5	0.4	0.4	0.4	0.4	0.4	35
	Tucheng (Northern Taiwan)	1.0	0.9	0.8	0.8	0.7	0.6	0.5	
	Hsienhsi (Middle Taiwan)	-	-	-	-	0.3	0.4	0.4	
	Taixi (Yunlin - Chiayi - Tainan)	0.5	0.4	0.4	0.4	0.4	0.3	0.3	
	Hsiaokang (Kaohsiung-Pingtung)	1.1	1.0	0.9	0.8	0.7	0.6	0.5	





Item	Monitoring Station	Background Value Before Construction 1993/7~1994/5	During Construction 1994/6~1998/12	Phase 1 1999/1~2001/3	Phase 2 2001/4~2002/3	Phase 3 2002/4~2004/6	Phase 4 2004/7~2010/3	Final Phase 2010/4~2014/12	Control Standard
PM10 ( $\mu\text{g} / \text{m}^3$ )	No. 6 Naphtha	69	106	63	71	69	63	54.6	125
	Tucheng (Northern Taiwan)	73	53	46	45	43	50	41.9	
	Hsienhsi (Middle Taiwan)	57	53	52	56	60	61	52.4	
	Taixi (Yunlin - Chiayi - Tainan)	67	70	62	64	61	56	50.2	
	Hsiaokang(Kaohsiung-Pingtung)	103	89	93	72	73	81	67.6	
PM2.5 ( $\mu\text{g} / \text{m}^3$ )	No. 6 Naphtha	-	-	-	-	-	30	30.1	35
	Tucheng (Northern Taiwan)	-	-	-	-	-	29	25.4	
	Hsienhsi (Middle Taiwan)	-	-	-	-	-	34	28.6	
	Taixi (Yunlin - Chiayi - Tainan)	-	-	-	-	-	31	27.7	
	Hsiaokang(Kaohsiung-Pingtung)	-	-	-	-	-	52	41.7	
NMHC (ppm)	No. 6 Naphtha	0.28	0.4	0.46	0.45	0.3	0.3	0.2	-
	Tucheng (Northern Taiwan)	-	-	-	-	0.3	0.3	0.3	
	Hsienhsi (Middle Taiwan)	0.2	0.1	0.1	0.1	0.3	0.2	0.2	
	Taixi (Yunlin - Chiayi - Tainan)	-	-	-	-	-	0.1	0.1	
	Hsiaokang(Kaohsiung-Pingtung)	0.5	0.4	0.5	0.4	0.5	0.3	0.3	

Notes

- 2012 particulate matters (PM2.5) detected by the Mailiao Monitoring station was acquired by an automated system. All records after April 2010 were acquired manually. Records provided by the monitoring stations of the Environmental Protection Administration (EPA) were all acquired through an automated system.
- EPA sets the standard as an average amount per hour. The value of particulate matter 2.5 (PM 2.5) in the Mailiao monitoring station is lower than the Hsiaokang monitoring station and similar to monitoring stations in other air quality or industrial zones.

Source: Monitoring stations of the Environmental Protection Administration and No. 6 Naphtha Cracker Project



## 6. Create a Prosperous Prospect with the Local Community

### (3) Water Consumption

According to the “Monthly Report of Industrial and Public Water Consumption from Agriculture Water in Jiji Weir” provided by the Industrial Development Bureau, Ministry of Economic Affairs, over the past five years (2011~2015), the annual water supply was around 2.45 to 6.97 billion tons, with the average annual industrial water consumption accounting for 2.9% of the total water supply; the average annual use of agricultural water shifted from public water accounted for only 1.9% of total agricultural water consumption. In 2015, the industry accounted for a higher water usage due to the low flow of water into Jiji Weir. The relevant water consumption is shown in the following table.

**Statistics of Water Supplied by Jiji Weir from Year 2011 to 2015**

Unit: 10 thousand tons

Year	Inflow	For agriculture	For industry			
	(A)	Average consumption (B)	Average consumption (C)	Percentage of Inflow (C)/(A)	Water from Agricultural Purposes (D)	Percentage of Water from Agricultural Purposes (D)/(B)
2011	245,401	175,162	9,830	4.0%	3,469	2.0%
2012	696,942	205,742	10,215	1.5%	3,527	1.7%
2013	622,348	218,289	10,075	1.6%	3,294	1.5%
2014	315,258	182,795	10,462	3.3%	3,646	2.0%
2015	247,589	144,380	9,999	4.0%	3,632	2.5%
Annual Average	425,508	185,274	10,116	2.9%	3,514	1.9%

Data Source: Annual Report of Jiji Weir Operations, Central Region Water Resources Office, Water Resources Agency, Ministry of Economic Affairs.

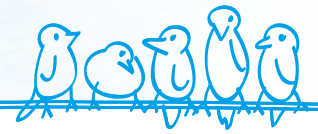
In conclusion, although the water usage of Mailiao Industrial Complex is not crowding out other industries' usage nor agricultural water usage, in order to effectively use precious national water resources and fulfill our community responsibility, we work hard to enhance water use efficiency by improving our process, enhancing equipment performance, optimizing operational conditions, and recycling and reusing wastewater; we have even started to recycle rainwater to get the most use of it.

### (4) Ecology

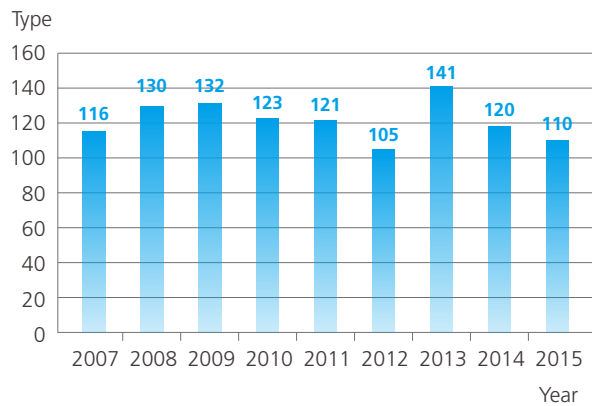
#### A. Terrestrial Ecology Survey

In order to understand the impact of Mailiao Industrial Complex on the environment and the dynamic ecological change of nearby plants, with the assistance of professional organizations, we have investigated the ecology of plants and animals (birds, mammals, amphibians, reptiles, butterflies). Analysis of species composition, population dynamics, quantity change, and other related projects provides better insight into how the operation of Six Naphtha impacts local ecology. According to the survey, the number of species is stable, and animals are mainly affected by seasonal changes, with the seasonal stable solar terms' ups and downs, but the setup of factories in Mailiao have not caused any significant changes.

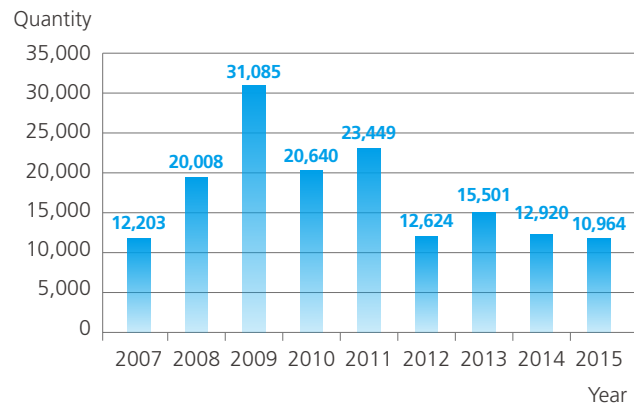




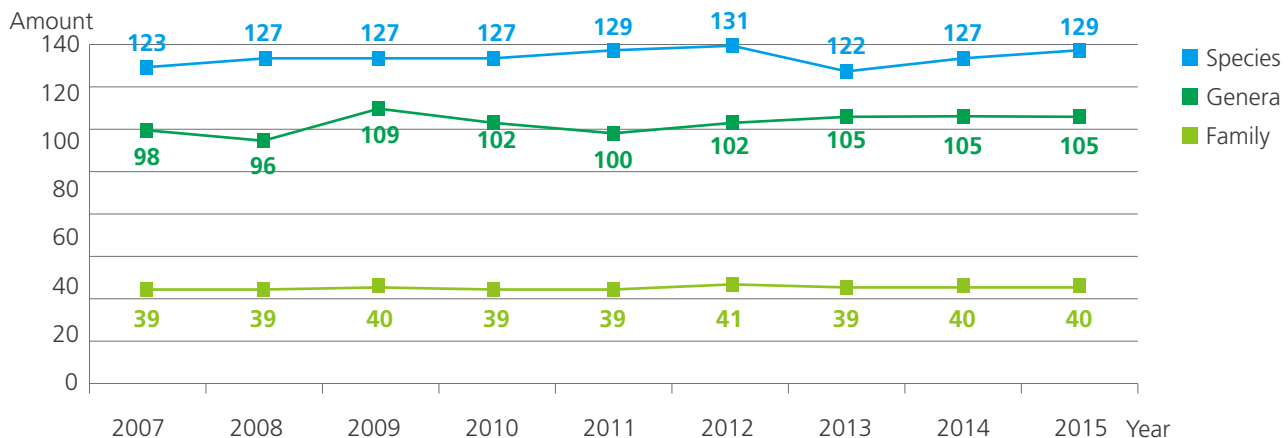
### The total number of animal species in Mailiao, Taixi area between 2007~2015



### The total number of animals counted in Mailiao, Taixi area between 2007~2015



### Plant ecological investigation: the number of all families, genera, and species between 2007~2015



## B. Marine Ecology

In 2015, the average daily discharged water amount was around 71,144 to 90,725 tons by Mailiao Industrial Complex. Not only is that number lower than the limited amount of 187,638 tons regulated by environmental evaluation, but the wastewater is treated to meet the required conditions before being discharged. Our system records the temperature, electrical conductivity, and pH value of the water and collects samples on a regular basis. All results over the years have met the requirements of discharged water.

The data of the Mailiao marine ecological status monitor have shown that the plankton around Mailiao sea area reaches higher amounts in summer and fall and lower amounts in spring and winter; those changes and its diversity resemble those of other areas along the west coast of Taiwan. In addition to the changing seasons, waves, clarity of water, and suspended matter concentration are main factors affecting sampling results.

The investigation of the amount and variety of benthos and fish resources was made by dragging fishnets along the sea bed. The seasons are the major factors affecting the changes of their amount. In general, spring and fall are the high seasons, while summer and winter were relatively low. The main catches are of high market value, such as shrimps and bony fishes like Sciaenidae, Ariidae, and Cynoglossidae.



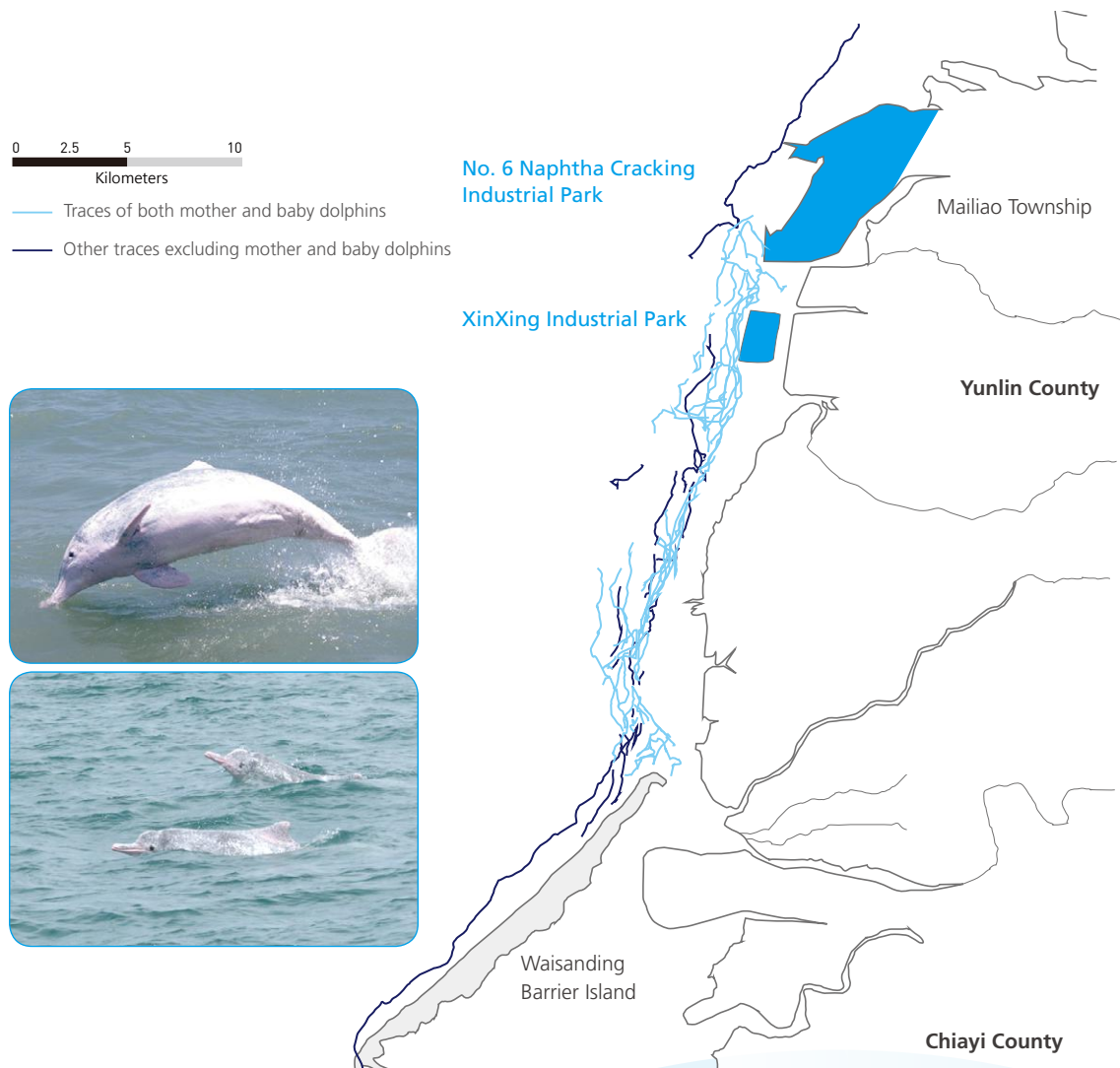
## 6. Create a Prosperous Prospect with the Local Community

### C. Impact on Chinese White Dolphins' Ecosystem

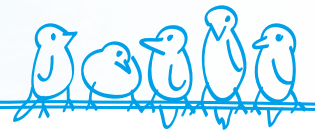
Listed as a Critically Endangered species in the ICUN Red Data Book, the habitat range of Chinese white dolphins around Taiwan's sea coast is 3 km away from the coast, from Miaoli to Tainan.

To understand and protect the ecology of white dolphins, we have entrusted a seven-year project to a professional organization to assist in the observation of white dolphins' living area. During the 182 observation actions, 192 groups and 948 dolphins were observed. According to the pictures, 54 adult dolphins are living in the Yunlin sea area, around 33-42 dolphins observed each year, with a high annual repetition rate (60%-90%). Based on the observation results, the coastal area of Yunlin is the main area for them to raise their young, as each year, 25% of the groups were babies, and 87% were young. They generally move along the coast (less than 3 km away from the coast, in depths less than 15 meters).

White dolphins were spotted 105 meters from the discharge exit in 2012, thus demonstrating that the discharged water had no influence on the migration of dolphins and the ecology sustained together with the operation of Mailiao Complex.







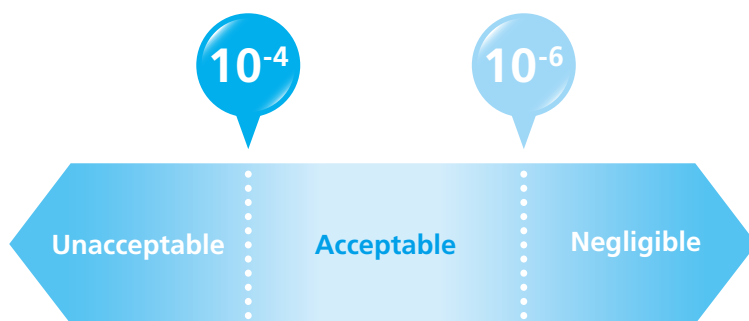
## 6.3 Healthcare

### 6.3.1 Risk Assessment and Improvement

#### (1) Health Risk Evaluation

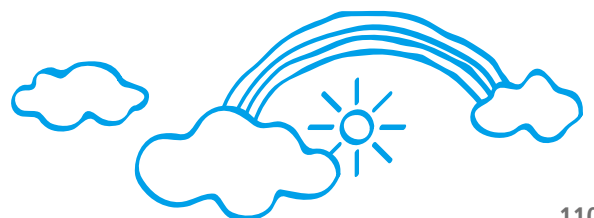
In 2009, National Cheng Kung University was entrusted to run the evaluation for health risks caused by certain hazardous air pollutants. As of 2012, a total of 32 pollutants were evaluated under the scale 20skm of the Sixth Naphtha Zone, including Mailiao, Taixi, Dongshi, Lunbei and Baozhong Township, and the average total cancer risk value was  $2.30 \times 10^{-6}$ , with a maximum total carcinogenic risk  $2.76 \times 10^{-5}$ , both of which were between  $(10^{-6})$  and  $(10^{-4})$ . Meanwhile, the maximum total non-carcinogenic risk value was lower than 1, which indicates a value acceptable for the impact on the human body. Another 30 pollutants were included in the 2013 health risk evaluation, with the project scale covering 30skm of the Sixth Naphtha Industrial Zone, and this evaluation is scheduled to be completed by the end of 2016.

#### Criteria for determining the degree of impact of cancer risk



#### Taixi Township litigation case

The southwest coastal region has always been a region with a high incidence of cancer in Taiwan. Some of the residents themselves or their relatives who have been diagnosed or have died of cancer believed in the reports regarding a higher likelihood of cancer around petrochemical operation areas and filed for civil action against five companies located in Formosa Plastics Group Mailiao Industrial complex in August 2015, requesting compensation of more than \$ 70 million. According to the national statistical data provided by the Ministry of Health and Welfare, the crude incidence rate of cancer from 2008 to 2010 was 0.40 times higher than the years from 1999 till 2001, less than the national increase. There is a significant difference between this and the figures proposed by certain articles. No scientific proof on the proposed figures or responsibility has been clarified through judicial proceedings. Nevertheless, we continue to provide environmental protection and neighborhood care in the hopes of keeping the balance between economic development and environmental sustainability.





## 6. Create a Prosperous Prospect with the Local Community

### (2) Health Promotion

As a good neighbor, we care about local residents' health, and Chang Gung Hospital Yunlin Branch was established to provide for the community. With the resources of Chang Gung Hospital group, we have organized health education in the community. In the future, we hope to make Mailiao a model community for health promotion.

#### A. Improving the Quality of Medical Services in Mailiao

The poor resources of medical treatment in Mailiao Township were improved with 24-hour ER service in December 2009. Chang Gung Hospital Yunlin Branch has received the "Excellence" award inform the Department of Health's new hospital evaluation in 2010 and "Excellence" award inform the hospital evaluation by the Ministry of Health and Welfare in 2014. In 2015, 522 beds were served by 296 employees of our medical team and 25 western medicine and Chinese medicine clinics, with 120,234 outpatients, 14,625 ER patients, and 18,530 beds/ day. We will continue to expand the services and enhance the medical treatment quality for the Yunlin coastal area.



24-hour-emergency room in coastal areas to enhance the medical quality of Chang Gung Hospital in Yunlin.



DXA Bone density tester helps strengthen the prevention and treatment of osteoporosis in local residents.



Digital mammography X-ray machine assists local women in the detection of breast cancer.

#### B. Free Health Checkups for Residents of the Mailiao Area

To offer our concerns and medical assistance to the residents of Mailiao, we have entrusted Chang Gung Hospital Yunlin Branch to provide free health checkups to residents of Mailiao and Taixi Township since 2010. In 2015, 10,488 residents participated, with 1,501 people continuing the health checkup follow-up for abnormal results. The residents are now more aware of their own health conditions and can get medical treatment in earlier stages.



The health checkups for local residents in Mailiao and Taixi have gained public recognition. From 2010 to 2015, a total 43,419 health checkups have been performed for 31,301 residents (non-repeated head counts during these years)

**台塑企業敦親睦鄰 營造健康社區**

**麥寮、台西鄉民 免費健康檢查活動**

台塑企業關心在地鄉親的健康狀況，希望藉由提供最實質與貼心的醫療協助與關懷，達成促進社區健康的目標。委託雲林長庚醫院辦理健康檢查活動，敬請踴躍參加。

主辦單位：台塑企業麥寮管理處  
執行單位：長庚醫療財團法人雲林長庚紀念醫院(地點：六樓健康檢查中心)  
健康檢查資格：  
1.設籍麥寮、台西鄉者(健康當日請攜帶身分證或戶口名簿)  
2.二級公務機關服務人員(請攜帶職員證)

活動期間：103/12/01~104/08/31 每週一至週日(國定節日除外)  
健檢時段：週一~週日 上午08:00~11:00

健康檢查項目：

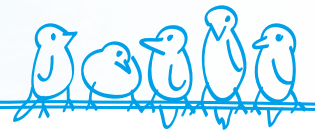
項目	健檢項目	項目	健檢項目	項目	健檢項目	項目	健檢項目
1. 體溫測量	6. 肝功健檢	11. 膽(黃)功健	16. 癌症篩檢	21. 癌症篩檢			
2. 一般身體檢查	7. 肝功健檢	12. 心臟檢查	17. 腸胃檢查	22. 腸胃檢查			
3. 視力檢查	8. 膽功健檢	13. 肺結核檢查	18. 腎臟檢查				
4. 血脂檢查	9. 腎功健檢	14. 腦部檢查	19. 口腔檢查				
5. 尿酸檢查	10. 血脂檢查	15. 尿酸檢查	20. 乳房檢查				

報名方式：  
1.現場報名：六樓健康檢查中心櫃台  
2.網路網路：<https://www.lcgmh.org.tw/branch/mil/index.htm>  
3.預約專線：(05)691-6768

**雲林長庚紀念醫院關心您!**

The free health checkup project covers vision, liver function, cancer screening, mammograms, and Sinopec metabolic substances in the human body, such as 1-OHP and 21 other categories for Mailiao and Taixi residents. Free appointment with experienced specialists can provide advisory services about health reports.





## C. Health Promotion for Residents

In order to jointly promote health education in the Mailiao area, hepatitis prevention, healthy weight promotion, and disease prevention work, we have aimed to enhance the health of local residents since the operation of Chang Gung Hospital Yunlin Branch began in December 2009.



Community health education: a total 3,585 of community residents participated in health education activities in 2015.



Hepatitis Prevention: 325 residents received the Hepatitis B vaccination in 2015. A total of 305 people have the Anti-HBs.



Healthy weight loss camp: 187 children participated in the weight loss camp of Six elementary schools for the promotion of healthy body weight education in 2015.

## 6.3.2 Improvement of Living Quality

### (1) Improvement on Transportation

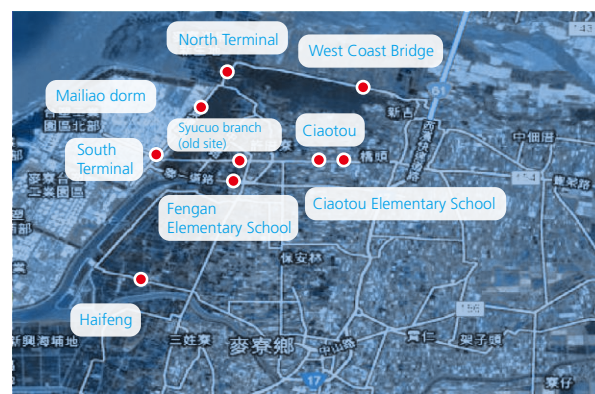
To ease traffic during daily work hours for the employees coming to and leaving work and contractors' vehicles, we have developed different time shifts for employees and contractors to work. Employee transport vehicles are provided, Lianyi Road is used for our employees and contractors, and volunteers offer assistance crossing major intersections to ensure traffic order and the safety of our school children. Furthermore, volunteers guide our school children to cross the streets near Chiaotou Elementary School every morning.

In order to maintain Yunlin County's air quality, diesel vehicles that enter Mailiao Zone must have smoke detection qualified documents. Any disqualified vehicles will be requested to get inspected and obtain the qualification papers. According to previous EPA diesel smoke detection statistics announced by Yunlin County, in 2015, a total of 330 diesel vehicles were stopped during 11 inspections near Mailiao Zone, with only eight found to be unqualified (2.4% failure rate).

### (2) Improvement on Noise Pollutions

In order to study the noise patterns near Mailiao Factory Zone, regular inspections are carried out by the agencies in the vicinity near the factory zone, including North Terminal, South Terminal, Mailiao dorm, West Coast Bridge, Ciaotou Elementary School, Syucuo branch (old site), Fengan Elementary School, Ciaotou, and Haifeng, with noise monitoring stations set up to monitor operations. The monitoring results show that except by the night market, temple events, school bells, the influence of human activities, and the biological sounds of frogs and cicadas, resulting in an occasionally high value of the measures, the measured values always comply with the regulation standards, indicating that the operation of Mailiao Industrial complex causes little local noise.

### Locations of Noise Monitoring Stations Around the Mailiao Complex





## 6. Create a Prosperous Prospect with the Local Community

### (3) Road Maintenance Fund

To improve the quality of the surrounding roads during operation of Mailiao Industrial complex, FPG and Yunlin County Government have established the "Road Maintenance Fund", which provides road maintenance and a clean environment through monthly assistance to the three main roads connected to the factory zone.

Road Name	Starting Point	Distance (km)	Number of Time Swept (trips)	Distance Swept (km)
No. 1 Union Road	Mailiao Industrial Complex to Taiwan Highway 61	6.0	16	96
154 Road	Mailiao Industrial Complex to SanSheng office	0.7	16	11.2
	XuChu Bridge to Sansheng. Town 16th neighborhood	1.8	16	28.8
Beiti Sand stone vehicle road	Mailiao Industrial Complex to Taiwan Highway 17	6.4	16	102.4
Total	--	--	--	238.4

### 6.3.3 Education Improvement

For any chemical odor leakage from Mailiao Industrial complex, the health of our students is protected by the implementation of "localized campus disaster prevention". With the participation of Shin-shing Elementary School, FPG has developed contingency plans and disaster prevention on campus for drill exercises in order to enhance the schoolchildren's concept of disaster prevention.

The previous exercise simulated a chemical odor leakage around the campus from the sixth naphtha factory. The students were guided to proceed to the shelter in a hidden place in the school; class was resumed after the air quality returned to the normal unpolluted status. The school indicated that the FPG has helped the school to strengthen disaster prevention and education work, build new classrooms, changed old windows for airtight windows, and donated masks, goggles, and other protective equipment for children to wear during the exercises. Campus-stationed

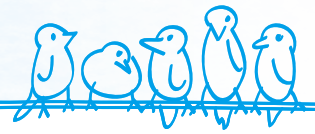
personnel in all schools near the factory zone shall notify the school of any odor leakage and react accordingly, while air samples are immediately collected for testing. FPG has always focused on campus safety with the intention of disaster prevention education.

On the date of exercise (September 17, 2015), Education Department, Yunlin County Government designated each school principal and director to team up as a "disaster prevention counseling group" to observe the demonstration. The procedure and handling of the odor leakage, including guiding students to the shelters and preliminary disposition of the students' emotional comfort and physical discomfort, was recognized by Yunlin County government. Videos regarding the shelter exercise were also made with the assistance of LunFeng Elementary School of Taixi Township in 2013 and distributed to the schools near the factory as education material.

### Children accepting masking drill in Shin-shing Elementary School







### 6.3.4 Promotion of Emergency Plans

To strengthen and enhance disaster response capabilities, in addition to regular training for disaster prevention, each factory of The Company also participates in joint exercises organized by competent authorities. Through the simulation of rescue operation procedures and assignment of tasks, the responders can become more acquainted with the potential factors and causes of disaster and hazards. The contents of the exercises include toxic hazard accidents and plant compound disaster response drills.

A total of six joint training and collaborative support simulation exercises during 2015 enhanced the ability of emergency rescue and disaster relief personnel. We were also invited to participate in the campus safety campaign to reduce toxic hazards and laboratory toxic disasters, thus further contributing to the safety of our residents and students.

Date	Factory zone	Subject
May 27 <sup>th</sup>	Shulin	The promotion of safety guide of toxic chemicals disasters for college campuses in 2015
August 13 <sup>th</sup>	Mailiao	Joint trainings of regional response and prevention of toxic chemical disasters in 2015
August 18 <sup>th</sup>	Mailiao	No warning test for toxic chemical transportation
October 2 <sup>nd</sup>	Chiayi	Disaster response to toxic chemical storage tank leak
November 20 <sup>th</sup>	Shulin	National disaster response drill for toxic chemicals in 2015
November 27 <sup>th</sup>	Mailiao	Marine Pollution Emergency Response



Emergency equipment introduction and campaign



Grade A protective clothing process



Leakage control and prevention



"The promotion of the safety guide of toxic chemical disasters for college campuses in 2015" — Through the posters and demonstration campaigns on campus together with the authorities, the laws and regulations were better introduced to and understood by our citizens and students.



Leakage check and repair by responders

"No warning test for toxic chemical transportation" — Simulation of toxic chemical substance leakage from tank truck during delivery. Immediate response of leakage blockade and pollution cleansing by NPC and the regional defense organization.



"National disaster response drill for toxic chemicals in 2015" — Simulation of leakage and fire hazards caused by traffic accidents during the transportation of toxic chemical substances. Equipment support and hazard control accompanied by the toxic disaster defense team help avoid the expansion of disaster and loss.



## 6. Create a Prosperous Prospect with the Local Community

### 6.4 Dedication to the Local Industry Development

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To show our determination to care for local people's livelihoods and implement measures for coexistence and mutual development, conducted by FPG, the enterprise has an overall plan to enhancing the economic value of crops and aquaculture in Mailiao, Taixi, Dongshi, Sihui and Kouhu by offering consultation and assistance for our locals engaged in agricultural production and fishery.

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#### 6.4.1 Agricultural Counseling

##### (1) Agricultural products quality improvement and business strategy counseling

The "Production and quality of crops and farm management strategy counseling for Mailiao, Taixi, Dongshi, and Sihui" project was entrusted to Chaoyang University of Technology by FPG. Over the past five years, 100 farmers have joined the project to enhance production through scientific technology. The amount and quality have been superior to the yields of previous years.

The project combines Industry and academic resources. Founded by FPG, Chaoyang University of Technology executed the project according to five themes: "Soil Fertility Investigation", "Healthy Cultivation and Management", "Meteorological Data Analysis", "Pesticide Residue Inspection" and "Agricultural Economy". We hope to introduce healthy and safe methods for growing crops, "safe and excellent" products through "scientific management", and "less pesticides, less fertilizer". The ultimate goals are to establish product brands, boost farmers' income, and improve their living standards.

We have also contributed to food safety. Staple crops such as peanuts and garlic and protected culture that many farmers have focused on in the recent years are the main consulting points. To produce safe and quality food, we have introduced a health management system with the provision and judgment of the scientific information of soil water quality analysis and weather analysis and forecasts, accompanied by nutrition, irrigation, pruning, and pest

control. The implementation has resulted in less chemical fertilizers, less pesticides, and high quality and quantity harvests.

Soil fertility investigation provides the farmers with comprehensive information about the soil's condition, so that organic fertilizers can be effectively applied to improve soil quality. With preventive materials to reduce the usage of pesticides, the concept of a large number of agricultural fertilizers has been updated, as has the amount and quality of the crops. For peanuts, 22 farmers have joined the project, and the annual yields of 2015 was 348 kg/970 m<sup>2</sup>, 75% more than the predicted 198.6 kg/970 m<sup>2</sup>. Furthermore, irrigation water quality analysis, meteorological information through smartphone messages, and economic analysis feedback allow farmers to maintain the updated environmental conditions for farming and make necessary preparations in advance.

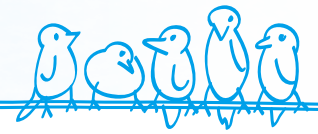
Moreover, the pesticide residue tests have shown the obvious results of the efforts we have made, with a 100% passing rate and zero pesticides detected in 95% of the crops.

Consultation was offered for the application for traceability system and organic certifications, which are beneficial to the sale of crops. In the future, we plan to introduce these certified products to the country through 7-ELEVEN, furthering our plan for continuous mutual existence and development for the community and the enterprise.

##### (2) Subsidy for Afforestation and Reduction of CO<sub>2</sub> Emissions

To align with Yunlin County government's campaign in afforestation and carbon dioxide reduction, we launched a 10-year subsidy program for the afforestation of urban regions since 2011. Until Year 2015, the involved area of lands have reached 1,100.39 HA, and we've also contributed 0.724 billion as subsidy for applicants.

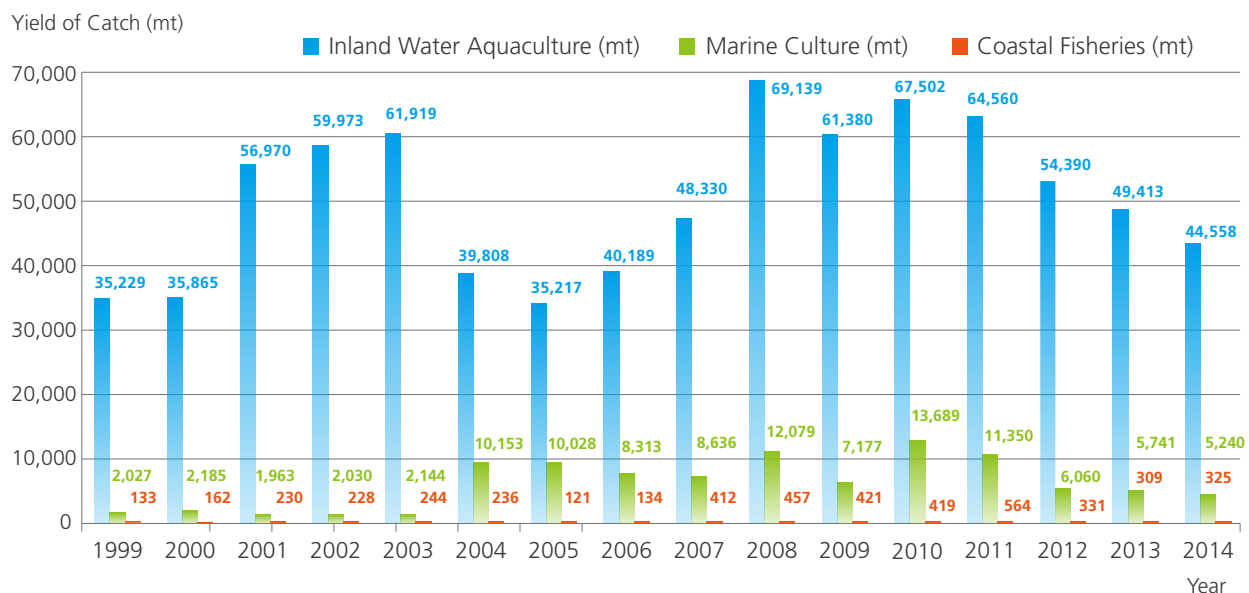




## 6.4.2 Fishery Counseling

According to the annual report provided by the Fisheries Agency, from 1993, the establishment of the Mailiao Industrial Complex, to 2013, the average catches each year in Yunlin County reached 53,325 metric tons. Among that, 0.62% (331 metric tons) was contributed by coastal fisheries, 12.20% (6,506 mt) from marine culture, and 87.18% (46,488 mt) from inland water aquaculture. This indicated the dominance of inland water aquaculture. In recent years, catches have gradually decreased due to the reduction of inland water aquaculture in Yunlin County since 2011. No significant influence on fishery activities near the Mailiao Industrial Complex was detected.

Mailiao and Taixi area are located in the region that is commonly dubbed “head of the windstorm and end of the waterfowl,” with the northeast monsoon blowing half of the year. It has been a critical challenge for inland water aquaculture to develop due to the severe natural circumstances in the Mailiao and Taixi area. To expand our resources in community mutual prosperity, we have joined professional academic groups to conduct “the Increment of Added Value to Fishing Industries Neighboring the Mailiao Industrial Complex project”. Starting with 21 fishermen in May 2009, 56 fishermen joined the second year, and now a total of 100 fishermen have currently joined the project.



Source: Annual Report of the Fisheries Agency

A series of cultivation technologies, including “Stationed Service”, “Probiotic Application”, “Water Quality and Parasite Pathology Testing Services”, and “Aquaculture Pathogenic Biological Water Quality Testing and Immune Enhancement Response”, were developed and introduced to enhance the development of local farming technology and the aquaculture industry while reducing the use of drugs during breeding processes. Furthermore, the quality of aquatic products can be ensured through the promotion of “Environmental Testing and Aquatic Product Testing” and the “Traceability System”.

Technical guidance and daily patrol by our stationed personnel have kept water conditions on track, while local fishermen have consulted with our stationed personnel for technical support, with over 500 cases studied and improved during early breeding. An environmental modifier, probiotics have been applied to effectively improve the water quality in a shorter time and prevent fishery losses.

As the results have shown, the survival rate of clams has increased by 20%-30% with the fermented additives, and the breeding time has been shortened by two to three months. For the fishes, health management was introduced to increase their survival rate and control disease through prevention rather than treatment. We also assisted with the application of the Traceability System, from four fishermen in 2013 to 36 fishermen in 2015, with 100% passing the drug residue tests and analysis, a significant improvement in the safe breeding section.

The Sixth Naphtha Plant was built on reclaimed land along the coast of Mailiao Township, Yunlin County. Through long-term and continuous monitoring of the marine environment and ecology, the seawater quality and fishery resources were tracked during construction and operation. We have also enriched the fishery resources by releasing fry in the surrounding areas.



## 6. Create a Prosperous Prospect with the Local Community

In 2008, FPG entrusted the annual fry releasing project to the Yunlin Fishermen's Association; as of the end of 2015, a total of 3,207,200 fishes have been released. FPG was awarded for sea proliferation at the Ocean Oscar Awards held by the Fisheries Agency, Council of Agriculture. This is our goal, and the recognition by the authority showed that we care about the sustainability of local fishery business, the prosperity of our neighbors, and the co-existence of Sixth Naphtha Plant and the community.

Regarding the education of fishery resources protection and cultivation, FPG has invited professors to teach about fishery resources protection in elementary school every year; through lectures on "Marine Ecological Conservation" and "Fish Stocking Introduction", both the teachers and students have a better knowledge of marine ecological characteristics, as well as the projects and procedures of fry releasing for the marine ecology and resource conservation. The environmental sustainability efforts of the corporation can be clearly seen and hope to be expanded to society.

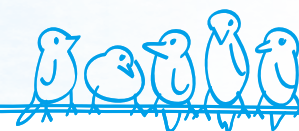


Fry releasing project



Awarded for sea proliferation at the Ocean Oscar Awards





## 2008~2015 Fish Fry Releasing Near the Mailiao Complex

Fish Fry	Releasing Quantity (10 thousand fish fry)								
	2008	2009	2010	2011	2012	2013	2014	2015	Total
Asian Pompano	5.5	16.3	0	1.8	0	0	0	0	23.6
Silver Grunt	3	0	0	0	0	0	0	0	3
Goldlined Seabream	2	0	4.56	0	0	0	0	0	6.56
East Asian Fourfinger Threadfin	15	0	0	0.2	19.37	10	38.84	37.89	121.3
Silver Perch	0	2	3.1	2.2	0	3.55	4	0	14.85
Pink Snapper	0	0	2.6	0	0	0	0	0	2.6
Mud Bream	0	0	2.67	0	0	0	0	0	2.67
Red Striped Snapper Fly	0	0	0	16.3	7.06	0	0	0	23.36
Snub-nose Dart	0	0	0	0	7.79	13.2	30.98	28.17	80.14
Silver Striped Snapper Fly	0	0	0	0	0	10	0	0	10
Cobia	0	0	0	0	0	0	1.28	0	1.28
Black Seabream	0	0	0	0	0	0	0	31.36	31.36
<b>Total</b>	<b>25.5</b>	<b>18.3</b>	<b>12.93</b>	<b>20.5</b>	<b>34.22</b>	<b>36.75</b>	<b>75.1</b>	<b>97.42</b>	<b>320.72</b>

Source: FPG Database









## **7. Active Social Participation and Feedback**

<b>7.1 Charitable Donations</b>	<b>121</b>
<b>7.2 Promotion of Medical Services and Education</b>	<b>122</b>
<b>7.3 Social Support</b>	<b>125</b>



## 7. Active Social Participation and Feedback

### 7.1 Charitable Donations

In order to taking care of the needs of the local communities, and implementing the two founders' concept of "take from the society and use it for the society", FPG has cooperated with the government and social organizations in looking after the needs of our communities and disadvantaged groups. FPG has contributed long-term efforts in the areas of education, medical treatment, community welfare, and other social welfare business. In 2015, NT\$ 1.4 billion was contributed to all social welfare aspects, for a total of NT\$ 51.82 billion accumulated in giving so far. Of that, The Company assisted in applying for emergency relief grants through the "Ching Pao Charitable Trust Fund" for medical expenses and funeral fees for low-income families near Linkou, Shulin, Kungsan, and Jinghsin factories.

#### Summary of Charitable Donations Made by Formosa Plastics Group

Unit: NT\$ 0.1 Billion

Year	Category	Charity Content	Donations
1960   1980	Education	Founding of Ming Chi University of Technology and subsequent donations	278.4
		Founding of Chang Gung University and subsequent donations	
		Founding of Chang Gung University of Science and Technology and subsequent donations	
	Medical	Founding of Chang Gung Memorial Hospital	28.4
		* Assisting the poor with access to medical services	
1990	Care for the infirm	Assisting indigenous students with receiving education, employment, and other subsidies	29.2
		*Donation of cochlear implants	
		Improve service quality of physically and mentally disabled welfare groups	
		Children's and women's welfare	
2000   Now	Environmental Care	Donation to Taipei, Kaohsiung, and Yunlin Second prisons for the Rainbow Project and drug withdrawal program for prisoners with AIDS	12.2
		Recycling of kitchen waste	
		Planting of organic crops	
	Care for the Elderly	Afforestation	4.7
		*Establishment of Chang Gung Health and Culture Village	
	Reconstruction of Disaster Zones	Donation of pneumococcal vaccines to the elderly	47.1
		** Donations for the reconstruction of 68 old and dangerous schools in areas damaged by the 921 Earthquake and hurricane Morakot, as well as other counties/cities	
	Cultural Promotion	Donations to local culture and performance groups	0.6
	Sports Promotion	Promotion of sports and training of athletic talents	1.5
	Health Promotion	Health promotion and related academic research	1.7
	Community Investment	A variety of involvement in partnerships with FPG factories' neighboring communities to address social issues	107.6
	Others	Chang Gung Social Welfare Fund and other donations	6.8
Total			518.2

Notes: 1.\*:Denotes donations that are contributed from the profits of Chang Gung Memorial Hospital and are not included in the total donation amount.

2.\*\*:Denotes reconstruction of old and dangerous schools, including those under construction.

3. The chart only records those donations in Taiwan only.





## 7.2 Promotion of Medical Services and Education

### 7.2.1 Chang Gung Medical System

"Chang Gung Memorial Hospital" was founded by our two corporate founders in March 1973, a time when medical resources in Taiwan were seriously lacking. In December 1976, Taipei Chang Gung Memorial Hospital opened, followed by Linkou, Keelung, Kaohsiung, Chiayi, Taoyuan, and Yunlin Chang Gung Memorial Hospitals over the past 40 years, to provide preventive medicine, acute medical care, chronic medical care, traditional Chinese medicine, long-term care services, and health care for the elderly. To further improve medical treatment for cancer and ensure the health of our citizens, the Yong-qing Tech Medical Area was established in Linkou Chang Gung Hospital, and Taiwan's first and largest proton radiation therapy center in Asia opened on October 15, 2015 to serve cancer patients.

Since its inception, Chang Gung Memorial Hospital has prioritized providing high-quality, safe medical treatment. The hospitalization deposit system was canceled, no red envelopes are allowed for physicians, the cost of dialysis was lowered, etc. to improve hospital standards and customs, and the results have been proven by the statistics published by the Ministry of Health and Welfare: The average number of hospital beds has increased from 19 to 69 beds per ten thousand persons in Taiwan, a better ratio than in the UK and the US. Chang Gung Memorial Hospital is one of the largest general hospitals in Taiwan and is internationally competent at every level with regard to medical equipment and treatment and features more than 9,000 beds, 22,000 employees, 9 million outpatient and emergency patients, and 289,000 inpatients as of 2015 (average 28,500 arrivals daily).

"A hospital not-for-profit, but for the welfare of the public", Chang Gung Memorial Hospital has also provided medical treatment outside the hospital, to society and overseas through international medical support; the spirit of mutual assistance and mutual love is spread through the following approaches.

#### (1) Emergency Medical Services

The hospital offers emergency medical response capabilities for major disasters. Each Chang Gung Hospital assumes responsibility in emergency medical conditions and provides primary training for regional disaster responses and seed instructor training. Listed as one of the hospitals with first-rate first-aid capability by the Ministry of Health and Welfare, Chang Gung Memorial Hospital has always been eager to participate in helping people and offering medical assistance when significant disasters take place.

#### (2) Medical Assistance

For regions that lack medical resources, Chang Gung Memorial Hospitals offer necessary medical assistance. Since 2002, Linkou, Kaohsiung, Chiayi, and Keelung Chang Gung Memorial Hospitals have provided medical services, health education lectures, long-term care plans, and other services to Fuxing District, Liukuei District, Jiashian District, Budai Town, Mei Fung in Gongliao Township, and Shulang Li in Pingshi Township. A survey of local residents showed 100% satisfaction with the assistance that Chang Gung Memorial Hospitals provided. In the meantime, every Chang Gung Memorial Hospital serves as a designated newborn referral center, accepting cases of high-risk newborns delivered in birth clinics or hospitals with inadequate medical equipment.

The hospital provides living care for juveniles under protective measures, children in nursery school, and elder people living alone, while it offers job openings to mouth and foot painting artists and people with visual disabilities to assist them with a better income and a more stable life.

#### (3) International Medical Assistance and Diplomacy

Chiayi and Linkou Chang Gung Hospitals have provided volunteer medical consultations in Indonesia and Vietnam, while Keelung Chang Gung Hospital has signed a medical cooperation agreement with a local Vietnamese hospital, where it provides free physical examinations, medical consultations, and health education lectures.

Entrusted by the Ministry of Foreign Affairs, Kaohsiung Chang Gung Hospital established a team to assist Guatemala, Paraguay, and Dominique in developing liver transplant medical technology, and arranged for their medical personnel to come to Taiwan to receive professional training. Physicians were also sent to these countries to assist their medical personnel in enhancing skills and technology. Our efforts inspired the head of Guatemala's Health Department to complete its national transplant center within six months by purchasing all the necessary medical equipment for a liver transplant operation.

The medical assistance given to Central and South America has established the international image of Chang Gung Memorial Hospital and assisted the government in achieving its medical diplomacy mission.



## 7. Active Social Participation and Feedback

### (4) Welfare Service and Medical Subsidy

The community service fund combines the donations and partial income of the hospital and is applied to community services and medical subsidies, cochlear implants, cord blood transplantations, and DBS. The medical costs are covered in the cases of elderly patients, low-income families, and people with disabilities. Discounted or free registration fee for emergency and clinic visits is offered for patients in severe circumstances, as are subsidies for medical costs,

emergency cases, and caretaker expenses. This allows people with difficult financial conditions to get appropriate care. Furthermore, inpatient group activities, community service, organ donation promotion, and other social welfare activities, over NT\$ 0.56 billion was given through medical subsidies in 2015, for a total of NT\$ 7.03 billion in grants so far.

### (5) Health Promotion – Community Services

In Taiwan, chronic disease has increased with time. Therefore, we aim to help promote national health care policies, volunteer medical counsel, disease prevention and screening, as well as health educational activities so that people can learn more about proper health care and receive treatment in earlier stages.

#### Community Health Promotion and Lecture Activities

Item \ Year	2011	2012	2013	2014	2015
Number of Activities	1,979	1,928	1,846	1,345	1,373
Number of People Served	135,500	132,561	116,939	106,321	117,418
Expenses (NT\$ Thousand)	10,060	10,610	11,630	14,260	21,380

### 7.2.2 The Establishment and Current Profile of the Three Universities

Technology and economy in Taiwan were thriving in the 1960s, and the increased need for industrial technology engineers led to the establishment of "Ming Chi Institute of Technology" (now Ming Chi University of Technology) in 1963 to nurture industrial talents. Likewise, with the establishment of Taipei Chang Gung Memorial Hospital in 1976, a time when medical resources were lacking in Taiwan, the need for proper medical personnel and better medical treatment was met with the establishment of Chang Gung Medical College (now Chang Gung University) in 1987 and Chang Gung Institute of Nursing (now Chang Gung University of Science and Technology) in 1988. With "Hardworking" as the schools' motto, all three focus on cultivating students to be diligent, patient, modest, and practical. The Cooperative Education System and trainee system have been implemented to prepare students that are independent and hardworking. Training is theoretical yet practical in effort to develop pupils with professionalism and proper skills.

#### (1) Ming Chi University of Technology

Since its establishment, Ming Chi University of Technology has been following the concept of "delicate teaching, practical content". With the Department of Engineering, Department of Environment Resources, and Department of Management and Design, the Ministry of Education has evaluated it as an outstanding school for several years, with the average amount of subsidies and grants that each student receives surpassing those of most technology and vocational schools. Each department and graduate school is IEET and ACCSB certified and have been evaluated by the Higher Education Evaluation & Accreditation Council

of Taiwan and the Chinese Institute of Engineers to be an outstanding school for collaboration. We ranked 3<sup>rd</sup> in average pieces of SCI and SSCI-related essays published by assistant professors and above. Currently, six research centers have been established, including Biochemical Technology R&D Center, Center for Thin Film Technologies, Biochemical Engineering Research Center and Application, and Battery Research Center for Green Energy, making it a university with proper traditions and excellent teaching performance.





## (2) Chang Gung University

Chang Gung University consists of the College of Medicine, College of Engineering, and College of Management. "Research-led teaching" has been the school's policy since its establishment. We aim to be a specialized research-based university to cultivate young generations with proper knowledge, an ability to manage, and most importantly, good ethics.

The university research centers (or institutes) and hospital-level research centers that have been established under the integration of research resources include the following: Molecular Medicine Research Center, Chang Gung Biomarker, Healthy Aging Research Center, and Institute for Radiological Research. The combination of basic and clinical or industrial efforts in promoting the development of translational research has obtained repeated success. Cross-field biomarker research conducted by the Molecular

Medicine Research Center has commenced cancer screening operations in Taiwan to be utilized in clinical screenings and follow-up treatment in the future. With the most advanced metabolomics core laboratory in Taiwan, the Healthy Aging Research Center has joined together with the Phenome Center. With the resources of Chang Gung Memorial Hospital and Chang Gung University, the Institute for Radiological Research has developed advanced particle therapy technology in Radiation Medicine and established the first Proton Therapy Center in Taiwan. Furthermore, according to Shanghai Jiao Tong University's "Academic Ranking of World Universities", Chang Gung University has been ranked in the top 500 since 2008 to 2015 and ranked 6<sup>th</sup> in Taiwan, indicating that it is a great model for excellent teaching.

## (3) Chang Gung University of Science and Technology

Our vision is to "cultivate the industry's top practical talents and become a first-class health care institution." To do so, Chang Gung University of Science and Technology has established three colleges: the College of Nursing, the College of Human Ecology, and the Center for General Education, and three research centers: the Chronic Diseases and Health Promotion Research Center, the Clinical Competency Center, and the Research Center for Industry of Human Ecology. It is committed to nurturing excellent health care professionals.

### 7.2.3 Education and Employment Assistance for Aboriginal Children

To help aboriginal youths, FPG has assisted them in receiving education since 1995. Young aboriginal girls are recruited by Chang Gung University of Science and Technology to study nursing to become professional medical personnel in the future. Furthermore, "Technical Training Classes for Aboriginals" and aboriginal junior college are provided by Ming Chi University of Technology to help aboriginal teenagers that discontinued education to develop professional skills, as well as a path to continue education for those who wish to pursue their studies. All expenses and costs during the education period are covered by the two founders' donation so that they can fully concentrate on their studies. Opportunities as trainees are also provided to ease the economic burden on the family. So far, more than 5,000 students have been covered in the program, with NT\$ 1.69 billion scholarships in total.

Schools	Classes Offered	Number of Students	Amount of subsidies
Chang Gung University of Science and Technology	Nursing Classes for Aboriginals	Approx. 3,500	Approx. NT\$ 1.27 billion
	Technical Training Classes for Aboriginals		
Ming Chi University of Technology	Diploma Classes for Aboriginals	Approx. 1,770	Approx. NT\$ 0.42 billion
	Advanced Industrial Diploma Classes for Aboriginals		
	Technical Diploma Classes for Aboriginals		



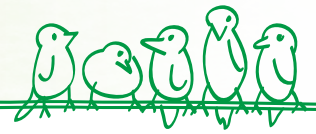
7.3 Social Support

The two founders of FPG have devoted a lot to community welfare, developing seven foundations and trusts with the minimum of expense so that they could instead put that money toward assisting disadvantaged groups and social welfare organizations and promote all kinds of programs joined by non-governmental professional organizations, scholars, and experts under “comprehensive, holistic, and systematic” principles. By gradually enhancing overall public welfare and creating greater benefit with every pioneering project, we can comprehensively upgrade service quality and sustainable management purposes.

The Seven Foundations, Trust Funds, and Their Projects







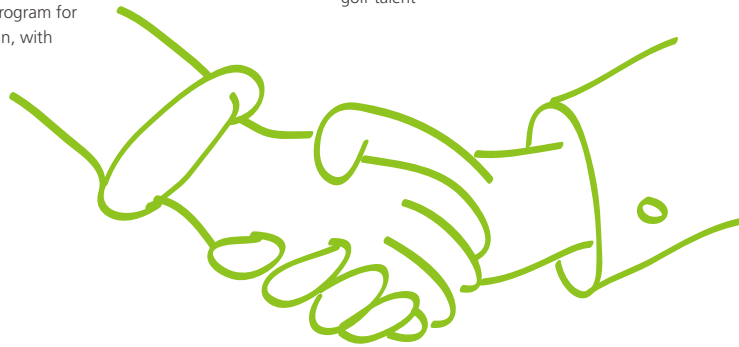
## Social Responsibility Performance

### Benefits for elders

1. Donated a total of 1,000,000 doses to "the Pneumococcal Conjugate Vaccine Program for Elderly people over 75 Years Old" from 2007 to 2015. It is expected to donate 60,000 doses in 2016
2. The vaccine program saved at least NT\$ 11.1 billion in medical expenses for the government
3. Promoted the "Residence Improvements Program for the Solitary Elderly" in 8 counties in Taiwan, with 457 houses repaired so far

### Nurturing sports and culture talent

1. Donated NT\$ 0.06 billion to local cultural troupes
2. Donated NT\$ 0.15 billion for the cultivation of outstanding tennis, table tennis, billiard, badminton, and golf talent



### Benefits for women and children

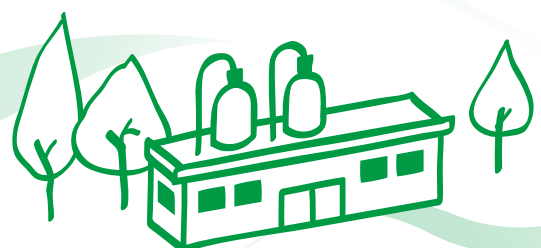
1. Cumulative donations of scholarships for poor students total NT\$ 69.77 million, benefitting 4,956 students
2. Donated nearly NT\$ 1.3 billion for Aborigine Nursing Classes to train aboriginal women to be professional registered nurses
3. Donated over NT\$ 0.4 billion for Aborigine Skills Classes to cultivate the employability to aboriginal youths

### Assistance for inmates

1. Rainbow Program to counsel inmates addicted to drug with AIDS in Yunlin, Taipei, and Kaohsiung so as to reduce the recidivism rate to only 1 out of 4, which is far below the average rate of 70%-80%
2. Provided professional counseling in a Drug Cessation Class for inmates to reduce the recidivism rate to only 13.4%, which is far below the average rate of 60%-70%

### Benefits for the physically and mentally challenged

1. Initiated the first online Early Intervention Exchange Platform with a total of 3,800 professional members, self-developed professional teaching materials were downloaded over 80,000 times
2. Initiated the Subsidy Program for Early Intervention Community with 20 sites in Taiwan in order to balance resources for vulnerable social groups



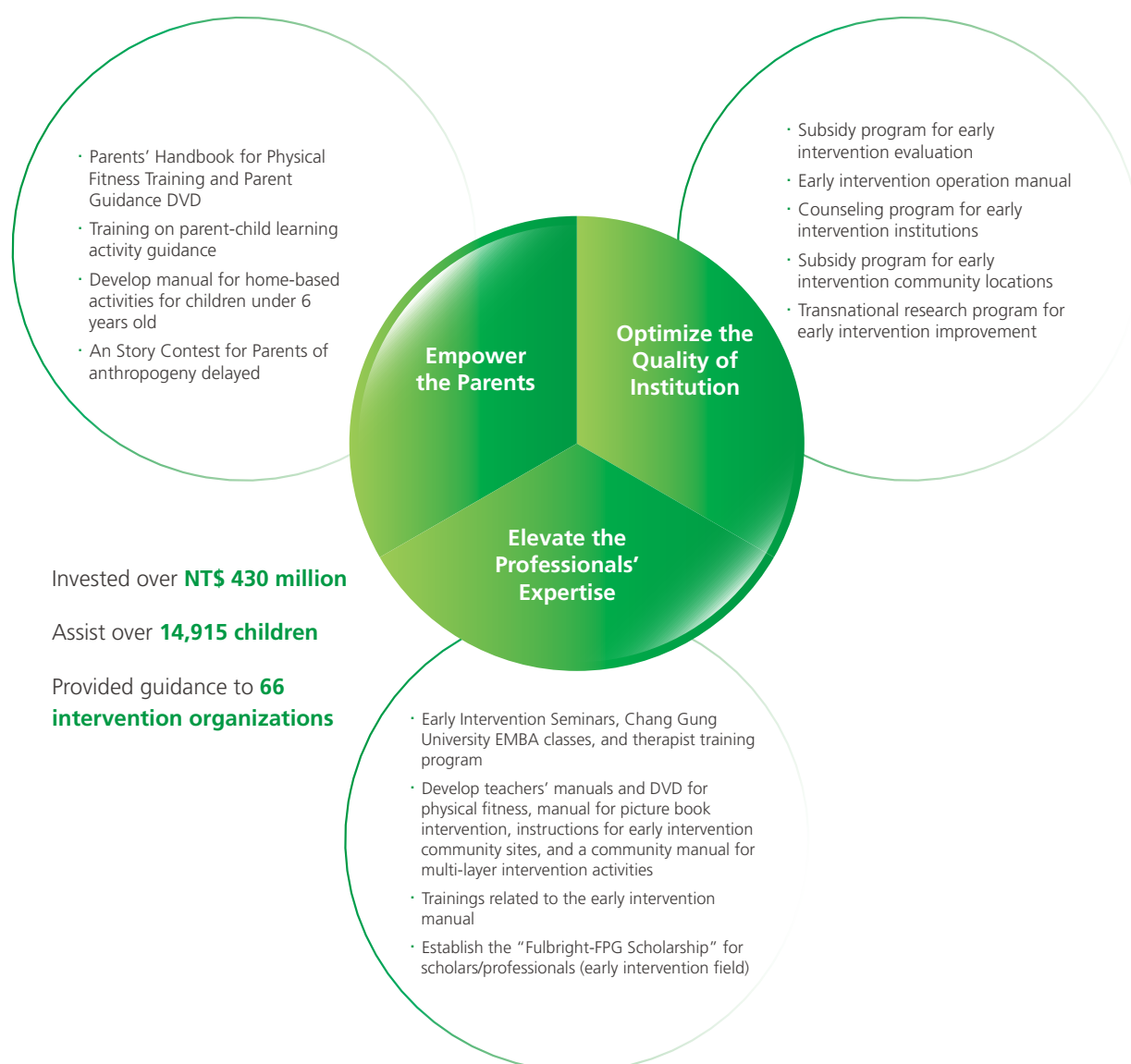


## 7. Active Social Participation and Feedback

### 7.3.1 Early Intervention Plan for Patients with Mental and/or Physical Impairments

The golden period of early treatment is 6 years old and under, but the results of early treatment before 3 years old are 10 times better and even allows such children to have the opportunity to receive general education and then have normal jobs and lives, further reducing the burden on families and society. We plan and contribute to all kinds of projects in the interest of increasing the quality of institutes, the professionalism of the personnel, and the parents' knowledge of early treatment in the shortest time possible so that more children can benefit from the program. From 2006 to 2015, more than NT\$ 0.43 billion has been invested, 14,915 children served, and 66 institutes assisted.

#### The Three Approaches of FPG's Early Intervention Services







## (1) Quality Improvement of Organizations

- A. There are four categories and 19 aspects in the evaluation; 40 applications were received in 2015, and 39 were qualified, with total grants of NT\$ 26,837 thousand.
- B. "Early treatment locations grant scheme of 2015" was continuously promoted. To better assist developmentally delayed children, 20 early treatment locations were established by well performing institutes in areas where early treatment resources were inadequate.

## (2) Improvement of professional skills

### A. Early treatment demonstration camp

Early treatment demonstration camp has been arranged annually since 2009, and the courses are organized according to the evaluation results of the previous year. In 2015, 90 units (196 people) joined the demo to learn about methods and actual practices in order to promote treatment quality.

### B. "Early treatment information exchange" platform

To encourage people to exchange experiences and knowledge about early treatment, the "early treatment information exchange" platform is provided on the WJY foundation website; information about early treatment activities, knowledge updates, and educational files are welcomed to be uploaded to the platform. Professional early treatment brochures and educational videos provided by the foundation and local universities are also available online for free download. Since the establishment of the platform in May 2015, it has served 1,230 thousand visitors and more than 3,800 members, with up to four thousand related activities, articles, and educational files so far in 2015 and nearly 80 thousand total downloads of the brochures and videos.

## (3) Early Intervention Training for Parents

### A. Stories about taking care of developmentally delayed children wanted

To support and learn from each other, we encourage parents to share their experiences and stories of taking care of developmentally delayed children. In 2015, FPG held the 6<sup>th</sup> national writing contest, which received 35 stories from contestants, and nine stories were awarded and published on the foundation website.

## Early treatment demonstration

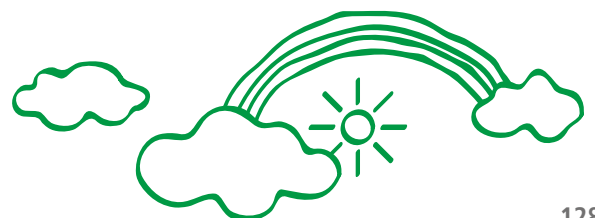


To enhance professionalism of our personnel, the costs, meals, and accommodation of the demo camp is fully subsidized by FPG.

## Writing contest of taking care of developmentally delayed child



We encourage parents to share their experiences and stories to support and learn from each other.





# 7. Active Social Participation and Feedback

## 7.3.2 Donation of Pneumococcal Vaccines for the Elderly

The Formosa Plastics Group (FPG) is especially concerned with the health issues of aging population. In 2007, the founders of FPG decided to donate pneumococcal vaccines to “the Center for Disease Control, Ministry of Health and Welfare”, and collaborate to promote this program for seniors over the age of 75 since then. As of the end of 2015, FPG has donated total of 1,000,000 vaccines. It has been estimated that the donation has helped the government to reduce medical expenses by NT\$ 11.1 billion, in addition to providing the elderly with better quality of life. In order to enhance the health of the elderly, FPG decided to donate another 60 thousand vaccines, for a total of 1,060,000 vaccine donations.

## 7.3.3 The Rainbow Program

Operated by the Wang, Chan-Yang Charity Foundation, the Rainbow Project promotion in Yunlin’s 2<sup>nd</sup> Prison has been fully supported since 2006 and for Taipei Prison and Kaohsiung Prison since 2008. This project has assisted HIV positive drug addicts in prison to learn skills in order to return to society and family life, while rehabilitation of Yunlin 2<sup>nd</sup> Prison and Kaohsiung Prison are subsidized by the WJY public trust to aid general drug offenders in returning to normal life.

## Donation of Pneumococcal Vaccines for the Elderly

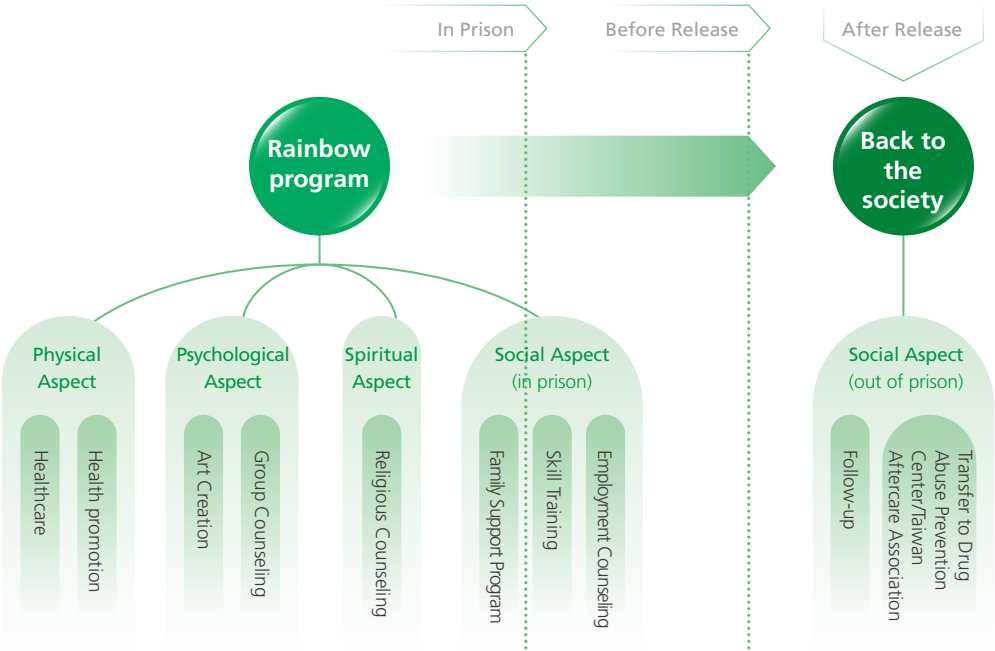


Free Pneumococcal Vaccine to the DCD of the Ministry of Health and Welfare in 2015.



Vaccine of flu shot in the left hand and PCV shot in the right hand. Effects are better if both vaccines are taken at the same time.

## Rainbow Program and Drug Cessation Class







## Number of People and Aftermath of the Rainbow Program & Drug Cessation Class Participants

Program	Item	The 2 <sup>nd</sup> Prison in Yunlin	Taipei Prison	Kaohsiung Prison	Total
Rainbow Program	Number of Inmates Counseled as of 2015	361	293	322	922
	In counseling or awaiting counseling	125	40	150	315
	Recidivism/ Released	40/295	13/73	14/158	67/526
	Percentage	13.6%	17.8%	8.9%	12.7%
Drug Cessation Class	Number of Inmates Counseled as of 2015	347	-	247	594
	In counseling or awaiting counseling	165	-	150	315
	Recidivism/ Released	30/169	-	3/78	33/247
	Percentage	17.8%	-	3.8%	13.4%

The recidivism rate of general inmates addicted to drugs with AIDS is 70%-80%.

The recidivism rate of general inmates addicted to drugs is 60%-70%.



Bicycle Maintenance Training Course



Funeral Service Training Course

### 7.3.4 Senior Wellness Center

Taiwan has gradually become an aging society. With grownup children working during the day, elderly health promotion services must be provided by communities. FPG makes effort to take care of and improve the health of elders and relieve the intensity of care and medical treatment that family members encounter, as well as further remove the burden from society. Together with the Pro-Diligence Charitable Foundation and Federation for the Welfare of the Elderly, FPG established the "Senior Wellness Center" to provide "health, strength, vitality, mental ability, and social involvement", in the hopes of creating safe and proper locations for daytime activities. The maintenance of healthy bodies and brains delays the aging process and helps contribute to society.

We gathered public health, social work, nursing, occupational therapy, sports, and Medicare experts to form a team working on audit and revision of the frame, service contents, and evaluation index of projects. The projects are organized and inspected by the experts before being trial run in Taichung, Tainan, Pingtung, Taitung, Taipei, and Hsinchu. The service has covered 2,320 people from July 2013 to the end of 2015, with a satisfaction rate of 90%. The index for each aspect properly indicated successful operations. We plan to provide these services throughout Taiwan in the near future.

#### Senior Health Center – IT Cass



Student feedback: Family members are surprised and happy to receive line messages from us!



## 7. Active Social Participation and Feedback

### 7.3.5 Residence Improvements for Solitary Elderly

In Taiwan, falling down is the main factor causing accidental death and degradation of bodily functions of elderly people. Therefore, a safe living space is clearly very important in order to prevent falls. Most families cannot afford to remodel damaged homes due to inconsistent income, so the Pro-Diligence Charitable Foundation and Ching Pao Charitable Trust Fund have implemented the house remodeling plan for seniors to assist in enhancing the safety of living spaces. Together with the "Federation for the Welfare of the Elderly" and the "Elderly Welfare Association in Yunlin country", the Pro-Diligence Charitable Foundation and Ching Pao

Charitable Trust Fund have provided remodeling plans for elderly people's living spaces in Pingtung County, Taitung County, Taoyuan City, Yunlin County, Chiayi County, Hualien County, Hsinchu County and Ilan County since 2011. As of the end of 2015, 428 households have been remodeled and 29 are currently in progress. Changhua County and Miaoli County will be covered in the future, and single cases will be studied with local governments to benefit more people.

#### House remodeling for seniors living alone



Before (restroom, uneven floor, damaged door)



Before (limited functionality, damaged toilet)



After (new restroom, paved floor)



After (new toilet, sink, and other equipment)

Mr. and Mrs. Chu, residents of Taoyuan City, have daughters married outside the city, and their sons are deceased. The house is old-fashioned, and the shower room and toilet located behind the house barely function; the door was damaged, the floor is uneven and slippery when it rains, and there is no lighting, thus creating a hazardous living environment. A total of NT\$ 150 thousand was invested to assist in remodeling the restroom and walkway.



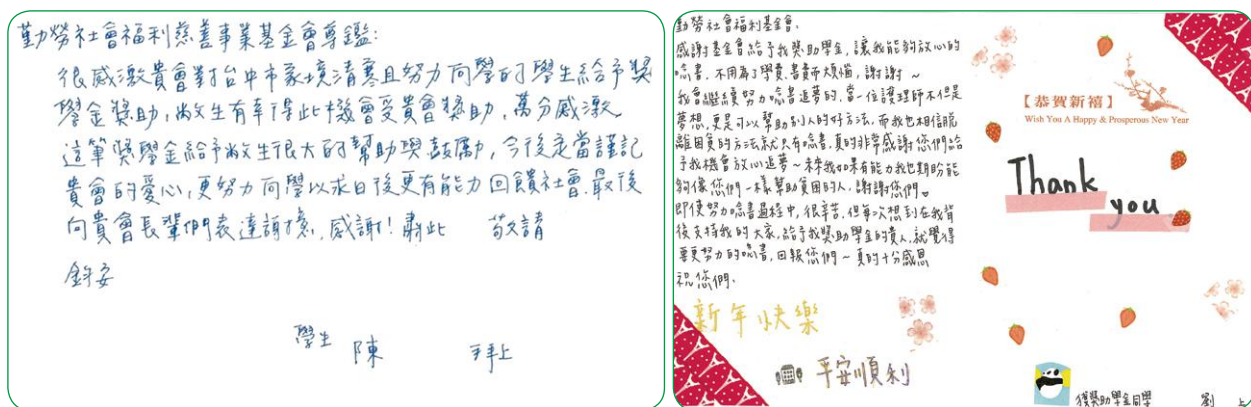




### 7.3.6 Scholarships for Underprivileged Students

The Pro-Diligence Charitable Foundation assists high school and college students from low-income families perform well in school and in life. To make sure that the students can complete courses without having to worry about their families' economic situation, those who receive the foundation's support will be seen through all their schooling (when qualified for the application of the scholarship and not receiving another scholarship), with the promise to assist other people in need in the future. As of 2015, a total of 4,956 students have been helped through this program.

#### Scholarship to assist students from low-income families



Thank you note from a student



Thank you card from a student







## Appendix

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## Appendix I. Global Reporting Initiative (GRI) Comparison Chart

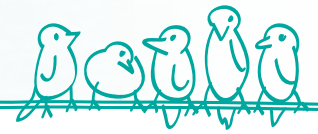
The following standards refer to the Global Reporting Initiative (GRI) Version G4.0, and the criteria's corresponding contents in the Report are described below. As shown in the external review statement, relevant information has already been checked to meet the G4 requirements on the external review list:

◎ Complete Disclosure ○ Partial Disclosure

Aspect		Content description	Disclosure	Reference chapter	Remark
Strategy and Analysis	G4-1*	Provide a statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	◎	Preface –A Message from the Management Team	
	G4-2	Provide a description of key impacts, risks, and opportunities.	◎	Preface –A Message from the Management Team 2.5 Operational Performance and Risk Management 2.6 Corporate Social Responsibility Goals 3.1.3 Internal Control Mechanism 6. Create a Prosperous Prospect with the Local Community	
Organizational Profile	G4-3*	Report the name of the organization.	◎	2.1 Company Profile and Concept of Management	
	G4-4*	Report the primary brands, products, and services.	◎	2.2 Main Products and Applications	
	G4-5*	Report the location of the organization's headquarters.	◎	2.1 Company Profile and Concept of Management	
	G4-6*	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	◎	2.1 Company Profile and Concept of Management	
	G4-7*	Report the nature of ownership and legal form.	◎	2.1 Company Profile and Concept of Management	
	G4-8*	Report the markets served.	◎	2.1 Company Profile and Concept of Management	
	G4-9*	Report the scale of the organization.	◎	2.1 Company Profile and Concept of Management 2.5 Operational Performance and Risk Management 3.1.1 Corporate Governance Overview Appendix 6. Production and Sales Value Table	
	G4-10*	Report the total number of employees.	◎	4.1 Protection of Human Rights and Recruitment	
	G4-11*	Report the percentage of total employees covered by collective bargaining agreements.	◎	4.2 Rights and Welfare of Employees	

General standard disclosure (\*Core Items)





Aspect		Content description	Disclosure	Reference chapter	Remark
General standard disclosure (*Core Items)	Organizational Profile	G4-12* Describe the organization's supply chain.	◎	2.2 Main Products and Applications  3.3 Creating a Business Relation based on Mutual Trust and Interest	
		G4-13* Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.	◎	-	The Company had no major changes in 2015.
		G4-14* Report whether and how the precautionary approach or principle is addressed by the organization.	◎	2.5 Operational Performance and Risk Management	
		G4-15* List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	◎	5.1 Commitment to Environmental Sustainable Development	
		G4-16* List memberships of associations and national or international advocacy organizations in which the organization.	◎	2.4 Participation in 3rd Party Associations	
	Identified Material Aspects and Boundaries	G4-17* a. List all entities included in the organization's consolidated financial statements or equivalent documents. b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	◎	1.1 Overview  Appendix 5. List of subsidiaries included in the consolidated financial statements	
		G4-18* a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	◎	1.4 Identification of Stakeholders and Critical Issues	
		G4-19* List all the material Aspects identified in the process for defining report content.	◎	1.4 Identification of Stakeholders and Critical Issues	
		G4-20* For each material Aspect, report the Aspect Boundary within the organization.	◎	1.4 Identification of Stakeholders and Critical Issues	
		G4-21* For each material Aspect, report the Aspect Boundary outside the organization.	◎	1.4 Identification of Stakeholders and Critical Issues	
	G4-22* Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	◎	1.1 Overview	No restatements.	
	G4-23* Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	◎	1.1 Overview	No significant changes.	



Aspect		Content description	Disclosure	Reference chapter	Remark
General standard disclosure (*Core Items)	Stakeholder Engagement	G4-24* Provide a list of stakeholder groups engaged by the organization.	◎	1.4 Identification of Stakeholders and Critical Issues	
		G4-25* Report the basis for identification and selection of stakeholders with whom to engage.	◎	1.4 Identification of Stakeholders and Critical Issues	
		G4-26* Report the organization's approach to stakeholder engagement.	◎	1.4 Identification of Stakeholders and Critical Issues 3.1.2 Investor Relations 3.2 A Corporation that Grows with Customers 3.3.1 Relationships with Suppliers and Contractors 4.2.4 We Value Employees' Suggestions	
		G4-27* Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns.	◎	1.4 Identification of Stakeholders and Critical Issues 6. Create a Prosperous Prospect with the Local Community	
	Report Profile	G4-28* Reporting period for information provided.	◎	1.1 Overview	
		G4-29* Date of most recent previous report.	◎	1.1 Overview	
		G4-30* Reporting cycle.	◎	1.1 Overview	
		G4-31* Provide the contact point for questions regarding the report or its contents.	◎	Back Cover	
		G4-32* a. Report the "in accordance" option the organization has chosen. b. Report the GRI Content Index for the chosen option. c. Report the reference to the External Assurance Report	◎	Appendix 1. Global Reporting Initiative (GRI) Comparison Chart	
		G4-33* a. Report the organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Report the relationship between the organization and the assurance providers. d. Report whether the highest governance body or senior executives are involved.	◎	Appendix 7. Independent Assurance Opinion Statement	
	Governance	G4-34* Report the governance structure of the organization, including committees of the highest governance body Identify any committees responsible for decision-making on economic, environmental and social impacts.	◎	1.3 Report Compilation Process 3.1.1 Corporate Governance Overview	
	Ethics and Integrity	G4-56* Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	◎	2.1 Company Profile and Concept of Management	





Aspect	Content description	Disclosure	Reference chapter	Remark
Economic Performance	G4-DMA	Managerial principles	◎	2. Company Overview
	G4-EC1*	Direct economic value generated and distributed from the organization.	◎	2.1 Company Profile and Concept of Management 2.5 Operational Performance and Risk Management 4.2 Rights and Welfare of Employees 7.1 Charitable Donations
	G4-EC2*	Financial implications and other risks and opportunities on the organization's activities due to climate change.	◎	2.5 Operational Performance and Risk Management 5.3 Water and Energy Conservation and Greenhouse Gas Reduction 5.6 Responsibility for Product Safety and Hygiene
	G4-EC3*	Coverage of the organization's defined benefit plan obligations.	◎	4.2 Rights and Welfare of Employees
Market Presence	G4-DMA	Managerial principles	◎	4.1 Protection of Human Rights and Recruitment
	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	○	4.2 Rights and Welfare of Employees
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation.	◎	4.1 Protection of Human Rights and Recruitment
Indirect Economic Impacts	G4-DMA	Managerial principles	○	2. Company Overview 5. Environmental Sustainability 6. Create a Prosperous Prospect with the Local Community 7. Active Social Participation and Feedback
	G4-EC7	Development and impact of infrastructure investments and supporting services.	○	2.1 Company Profile and Concept of Management 5.1 Commitment to Environmental Sustainable Development 6.3 Healthcare 6.4 Dedication to the Local Industry Development 7. Active Social Participation and Feedback
Procurement Practices	G4-DMA	Managerial principles	◎	3.3 Creating a Business Relation based on Mutual Trust and Interest
	G4-EC9*	Proportion of spending on local suppliers at significant locations of operation.	◎	3.3 Creating a Business Relation based on Mutual Trust and Interest Calculation principles are differentiated by "Whether customs clearance is handled in the name of the Company".

Specific standard disclosure (\* Material Aspects)



Aspect		Content description	Disclosure	Reference chapter	Remark
Materials	G4-DMA	Managerial principles	⊙	5. Environmental Sustainability	
	G4-EN1	The weight or volume of Materials used	⊙	2.2 Main Products and Applications	
Energy	G4-DMA	Managerial principles	⊙	5. Environmental Sustainability	
	G4-EN5	Energy intensity	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction	
	G4-EN6	Reduction of energy consumption	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction	
	G4-EN7	Reductions in energy demands of products and services	○	5.3 Water and Energy Conservation and Greenhouse Gas Reduction 5.4 Energy Conservation in the Office	
Water	G4-DMA	Managerial principles	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction	
	G4-EN8*	Total water withdrawn classified according to sources.	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction	
	G4-EN9*	Water sources significantly affected by withdrawal of water.	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction 6.2 Eco-Friendliness	
	G4-EN10*	Percentage and total volume of water recycled and reused.	⊙	5.3 Water and Energy Conservation and Greenhouse Gas Reduction 6.2 Eco-Friendliness	
Biodiversity	G4-DMA	Managerial principles	⊙	6.2 Eco-Friendliness 6.4 Dedication to the Local Industry Development	
	G4-EN11*	Operation sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	⊙	6.2 Eco-Friendliness 6.4 Dedication to the Local Industry Development	We are not located in an ecological preservation area, but are close to the habitat of endangered species.
	G4-EN12*	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	⊙	6.2 Eco-Friendliness 6.4 Dedication to the Local Industry Development	We are not located in an ecological preservation area, but are close to the habitat of endangered species.
	G4-EN13*	Protected or restored habitats.	⊙	6.2 Eco-Friendliness	We are not located in an ecological preservation area, but are close to the habitat of endangered species.
	G4-EN14*	Explain the total number of species listed on IUCN Red List and national conservation list in the habitats affected by operations according to the level of extinction risk.	⊙	6.2 Eco-Friendliness 6.4 Dedication to the Local Industry Development	We are not located in an ecological preservation area, but are close to the habitat of endangered species.

Specific standard disclosure (\* Material Aspects)





Aspect		Content description	Disclosure	Reference chapter	Remark
Specific standard disclosure (* Material Aspects)	Emissions	G4-DMA	Managerial principles	◎	5.3 Water and Energy Conservation and Greenhouse Gas Reduction
		G4-EN15	Direct greenhouse gas (GHG) emission	◎	5.3 Water and Energy Conservation and Greenhouse Gas Reduction
		G4-EN16*	Indirect greenhouse gas (GHG) emission of energy	◎	5.3 Water and Energy Conservation and Greenhouse Gas Reduction
		G4-EN18*	The intensity of Greenhouse gas emissions	◎	5.3 Water and Energy Conservation and Greenhouse Gas Reduction
		G4-EN19*	Reduction of greenhouse gas (GHG) emissions	◎	5.3 Water and Energy Conservation and Greenhouse Gas Reduction
		G4-EN21*	NOx, SOx, and other significant air emissions.	◎	5.5 Environmental Protection at the Plants
	Effluents and Waste	G4-DMA	Managerial principles	◎	5.5 Environmental Protection at the Plants
		G4-EN22*	Total water discharge classified according to quality and destination.	◎	5.5 Environmental Protection at the Plants
		G4-EN23*	Total weight of waste classified according to type and disposal method.	◎	5.5 Environmental Protection at the Plants
		G4-EN24*	Total number and volume of significant spills.	◎	5.5 Environmental Protection at the Plants
	G4-EN25*	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	◎	-	No toxic waste or residue exported in 2015.
	G4-EN26*	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff.	◎	6.4 Dedication to the Local Industry Development	
Products and Services	G4-DMA	Managerial principles	◎	5.6 Responsibility for Product Safety and Hygiene	
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services.	○	2.2 Main Products and Applications 5.1 Commitment to Environmental Sustainable Development 5.6 Responsibility for Product Safety and Hygiene	
Compliance	G4-DMA	Managerial principles	◎	5.5 Environmental Protection at the Plants	
	G4-EN29*	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	◎	5.5 Environmental Protection at the Plants	



Aspect		Content description	Disclosure	Reference chapter	Remark
Transport	G4-DMA	Managerial principles	☉	3.3 Creating a Business Relation based on Mutual Trust and Interest	
	G4-EN30	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	☉	3.3 Creating a Business Relation based on Mutual Trust and Interest	
Overall	G4-DMA	Managerial principles	☉	5.2 Environmental Accounting 5.5 Environmental Protection at the Plants 6.4 Dedication to the Local Industry Development	
	G4-EN31*	Total environmental protection expenditures and investments by type.	☉	5.2 Environmental Accounting 5.5 Environmental Protection at the Plants 6.4 Dedication to the Local Industry Development	
Environmental Grievance Mechanisms	G4-DMA	Managerial principles	☉	6.2 Eco-Friendliness	
	G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms.	☉	6.2 Eco-Friendliness	
Employment	G4-DMA	Managerial principles	☉	4.1 Protection of Human Rights and Recruitment	
	G4-LA1*	Total number and rates of new employee hires and employee turnover by age group, gender, and region.	☉	4.1 Protection of Human Rights and Recruitment	
	G4-LA2*	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	☉	4.2 Rights and Welfare of Employees	
	G4-LA3*	Return to work and retention rates after parental leave, by gender.	☉	4.2 Rights and Welfare of Employees	
Labor/Management Relations	G4-DMA	Managerial principles	☉	4.2 Rights and Welfare of Employees	
	G4-LA4	Minimum notice periods regarding operational changes, including whether there are specified in collective agreements.	☉	4.2 Rights and Welfare of Employees	
Occupational Health and Safety	G4-DMA	Workers with high incidence or high risk of diseases related to their occupation.	☉	4.4 Work Environment	
	G4-LA5*	Health and safety topics covered in formal agreements with trade unions.	☉	4.4 Work Environment	
	G4-LA6*	Workers with high incidence or high risk of diseases related to their occupation.	☉	4.4 Work Environment	
	G4-LA7*	Workers with high incidence or high risk of diseases related to their occupation.	☉	4.4 Work Environment	
	G4-LA8*	Health and safety topics covered in formal agreements with trade unions.	☉	4.4 Work Environment	

Specific standard disclosure (\* Material Aspects)





Aspect	Content description	Disclosure	Reference chapter	Remark
Training and Education	G4-DMA	Managerial principles	◎	4.3 Human Capital Cultivation
	G4-LA9*	Average hours of training per year per employee by gender and by employee category.	○	4.3 Human Capital Cultivation
	G4-LA10*	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	◎	4.3 Human Capital Cultivation
	G4-LA11*	Percentage of employees receiving regular performance and career development reviews by gender and by employee category.	◎	4.1 Protection of Human Rights and Recruitment
Diversity and Equal Opportunity	G4-DMA	Managerial principles	◎	4.1 Protection of Human Rights and Recruitment
	G4-LA12*	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	◎	4.1 Protection of Human Rights and Recruitment
Equal Remuneration for Women and Men	G4-DMA	Managerial principles	◎	4.2 Rights and Welfare of Employees
	G4-LA13*	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	◎	4.2 Rights and Welfare of Employees
Labor Practices Grievance Mechanisms	G4-DMA	Managerial principles	◎	4.2 Rights and Welfare of Employees
	G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms.	◎	- No grievance about labor conditions in 2015.
Non-discrimination	G4-DMA	Managerial principles	◎	4. A Happy and Healthy Working Environment
	G4-HR3*	Total number of incidents of discrimination and corrective actions taken.	◎	- No discrimination incidents in 2015.
Local Communities	G4-DMA	Managerial principles	◎	6. Create a Prosperous Prospect with the Local Community
	G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	○	6.1 Community Engagement 6.2 Eco-Friendliness 6.3 Healthcare
	G4-SO2	Operations with significant actual and potential negative impacts on local communities.	◎	6.2 Eco-Friendliness

Specific standard disclosure (\* Material Aspects)



Aspect	Content description	Disclosure	Reference chapter	Remark
Anti-corruption	G4-DMA	Managerial principles	3.1 A Trustworthy Corporation for Investors	
	G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified.	3.1 A Trustworthy Corporation for Investors	1. Internal corruption punishment was regulated. 2. Regular rotation for units with high corruption risk.
	G4-SO4	Communication and training on anti-corruption policies and procedures.	3.1 A Trustworthy Corporation for Investors	
	G4-SO5	Confirmed incidents of corruption and actions taken	3.1 A Trustworthy Corporation for Investors	
Grievance Mechanisms for Impacts on Society	G4-DMA	Managerial principles	6. Create a Prosperous Prospect with the Local Community	
	G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.	6.2 Eco-Friendliness 6.3 Healthcare	
Customer Health and Safety	G4-DMA	Managerial principles	5.6 Responsibility for Product Safety and Hygiene	
	G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement.	5.6 Responsibility for Product Safety and Hygiene	
	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.	-	No violations in 2015.
Product and Service Labeling	G4-DMA	Managerial principles	3.2 A Corporation that Grows with Customers 5.6 Responsibility for Product Safety and Hygiene	
	G4-PR4*	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	-	No violations in 2015.
	G4-PR5*	Results of surveys measuring customer satisfaction.	3.2 A Corporation that Grows with Customers	
Customer Privacy	G4-DMA	Managerial principles	3.2 A Corporation that Grows with Customers	
	G4-PR8*	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	-	No violations in 2015.
Compliance	G4-DMA	Managerial principles	3.2 A Corporation that Grows with Customers	
	G4-RR9*	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	-	No violations in 2015.

Specific standard disclosure (\* Material Aspects)





## Appendix 2: Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies

Subjects	Content	Reference Chapter	Remark
<b>Chapter I</b> General Principles	List development purpose, applicable object, and principles of practice	1.About The Report	
<b>Chapter II</b> Exercising Corporate Governance	Regulations for the implementation of corporate governance	3.Transparent and Honest Corporate Governance	
<b>Chapter III</b> Fostering a Sustainable Environment	Regulations for sustainable environment development	5.Environmental Sustainability 6.Create a Prosperous Prospect with the Local Community	
<b>Chapter IV</b> Preserving Public Welfare	Regulations for public welfare preservation	7.Active Social Participation and Feedback	
<b>Chapter V</b> Enhancing Disclosure of Corporate Social Responsibility Information	Regulations for improvement of social responsibility information disclosure	1.About The Report	
<b>Chapter VI</b> Supplementary Provisions	Regulations for social responsibility system improvement and review	1.About The Report	





## Appendix 3: ISO 26000 Guidance for Social Responsibility

	Subject	Reference Chapter	Remark
Organizational Governance	Decision-making processes and structures	3. Transparent and Honest Corporate Governance	
Human Rights	Due diligence	4.1 Protection of Human Rights and Recruitment	
	Human rights risk situations	4.1 Protection of Human Rights and Recruitment	
	Avoidance of complicity	4.1 Protection of Human Rights and Recruitment	
	Resolving grievances	4.1 Protection of Human Rights and Recruitment	
	Discrimination and vulnerable groups	4.1 Protection of Human Rights and Recruitment	
	Civil and political rights	4.1 Protection of Human Rights and Recruitment	
	Economic, social and cultural rights	4.1 Protection of Human Rights and Recruitment	
	Fundamental principles and rights at work	4.1 Protection of Human Rights and Recruitment	
Labor Practices	Employment and employment relationships	4.1 Protection of Human Rights and Recruitment	
	Conditions of work and social protection	4.1 Protection of Human Rights and Recruitment	
	Social dialogue	4.1 Protection of Human Rights and Recruitment	
	Health and safety at work	4.4 Work Environment	
	Human development and training in the workplace	4.3 Human Capital Cultivation	
The Environment	Prevention of pollution	5. Environmental Sustainability	
	Sustainable resource use	5. Environmental Sustainability	
	Climate change mitigation and adaptation	5.3 Water and Energy Conservation and Greenhouse Gas Reduction	
	Protection of the environment, biodiversity and restoration of natural habitats	5. Environmental Sustainability 6. Create a Prosperous Prospect with the Local Community	
Fair Operating	Anti-corruption	3. Transparent and Honest Corporate Governance	





Subject		Reference Chapter	Remark
Practices	Responsible political involvement	2.4 Participation in 3rd Party Associations 2.5 Operational Performance and Risk Management	
	Fair competition	3.3 Creating a Business Relation based on Mutual Trust and Interest	
	Promoting social responsibility in the value chain	Preface – A Message from the Management Team 2.1 Company Profile and Concept of Management	
	Respect for property rights	-	All of our employees must sign "Statement of Respecting Intellectual Property Rights" to announce our policy and opposition of illegal software. Those who violate it will be punished by internal provisions and regulations.
Consumer Issues	Fair marketing, factual and unbiased information and fair contractual practices	3.2 A Corporation that Grows with Customers	
	Protecting consumers' health and safety	3.2 A Corporation that Grows with Customers	
	Sustainable consumption	5.6 Responsibility for Product Safety and Hygiene	
	Consumer service, support, and complaint and dispute resolution	3.2 A Corporation that Grows with Customers	
	Consumer data protection and privacy	3.2 A Corporation that Grows with Customers	No violations in 2015.
	Access to essential services	3.2 A Corporation that Grows with Customers	
	Education and Awareness	3.2 A Corporation that Grows with Customers	

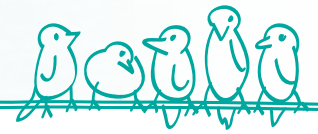




Subject		Reference Chapter	Remark
Community Involvement and Development	Community involvement	6.3 Healthcare 6.4 Dedication to the Local Industry Development 7. Active Social Participation and Feedback	
	Education and culture	6.1 Community Engagement 7.2 Promotion of Medical Services and Education	
	Employment creation and skills development	6.4 Dedication to the Local Industry Development 7.2 Promotion of Medical Services and Education	
	Technology development and access	6.4 Dedication to the Local Industry Development	
	Wealth and income creation	6.4 Dedication to the Local Industry Development 7.2 Promotion of Medical Services and Education	
	Health	6.3 Healthcare 6.4 Dedication to the Local Industry Development 7.3 Social Support	
	Social investment	7. Active Social Participation and Feedback	







## Appendix 4: United Nations Global Compact

Category	Principle	Reference Chapter	Remark
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.	3.3 Creating a Business Relation based on Mutual Trust and Interest 4.1 Protection of Human Rights and Recruitment	
	Principle 2: Make sure that they are not complicit in human rights abuses.	3.3 Creating a Business Relation based on Mutual Trust and Interest	
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	4.2 Rights and Welfare of Employees	
	Principle 4: The elimination of all forms of forced and compulsory labour.	4.1 Protection of Human Rights and Recruitment	
	Principle 5: The effective abolition of child labour.	4.1 Protection of Human Rights and Recruitment	
	Principle 6: The elimination of discrimination in respect of employment and occupation.	4.1 Protection of Human Rights and Recruitment	
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges.	5.6 Responsibility for Product Safety and Hygiene	
	Principle 8: Undertake initiatives to promote greater environmental responsibility.	5. Environmental Sustainability	
	Principle 9: Encourage the development and diffusion of environmentally friendly technologies.	5.6 Responsibility for Product Safety and Hygiene	
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	3. Transparent and Honest Corporate Governance	



## Appendix 5: List of subsidiaries included in the consolidated financial statements

Investor	The name of subsidiaries	Business activity	December 31 <sup>st</sup> , 2014	December 31 <sup>st</sup> , 2015
The Company	Nan Ya Plastics Corporation U.S.A.	production of plastic products	100.00%	100.00%
The Company	Nan Ya Plastics Corporation America	production of plastic, polyester and chemical products	100.00%	100.00%
The Company	Formosa Plastics Group Investment Corp.	investment	100.00%	100.00%
The Company	Nan Ya Plastics (Hong Kong) Co., Ltd.	plastics trading, investment holding	100.00%	100.00%
The Company	Superior World Wide Trading Co., Ltd.	plastics trading, investment holding	99.99%	100.00%
The Company	Nan Ya PCB Corporation	production of printed circuit board	66.97%	66.97%
The Company	Wen Fung Industrial Co., Ltd.	plastics processing	100.00%	100.00%
The Company	Nan Chung Petrochemical Corporation	production of chemical products	50.00%	50.00%
Nan Ya PCB Corporation	Nan Ya PCB (U.S.A.) Corporation	electronic materials repair	100.00%	100.00%
Nan Ya PCB Corporation	Nan Ya PCB (HK) Corporation	electronic materials trading, investment holding	100.00%	100.00%
Nan Ya PCB (HK) Corporation	Nan Ya PCB (Kunshan) Corporation	production of printed circuit board	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Nantong) Co., Ltd.	production of plastic products, production of steam and electricity	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Electric (Nantong) Co., Ltd.	production of switch gear and control panel	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics Film (Nantong) Co., Ltd.	production of plastic products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	China Nantong Huafeng Co., Ltd.	production of plastic products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nantong Huafu Plastics Co., Ltd.	production of plastic products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Electronic Materials (Kunshan) Co., Ltd.	production of electronic materials	100.00%	100.00%





Investor	The name of subsidiaries	Business activity	December 31 <sup>st</sup> , 2014	December 31 <sup>st</sup> , 2015
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Polyester Fiber (Kunshan) Corporation	production of polyester products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Guangzhou) Co., Ltd.	production of polyester products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics Construction Materials (Guangzhou) Co., Ltd.(Note1)	production of polyester products	100.00%	-
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Rigid Film (Guangzhou) Co.,Ltd. (Note1)	production of polyester products	100.00%	-
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Huizhou) Co.,Ltd.	production of polyester products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics Film (Huizhou) Co.,Ltd.	production of polyester products	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Electronic Materials (Huizhou) Co., Ltd.	production of electronic materials	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Trading (Huizhou) Co.,Ltd.	trading	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Hsiamen) Co., Ltd.	production of plastic products	85.00%	85.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Ningbo) Co., Ltd.	production of plastic products and plasticizer	100.00%	100.00%
Nan Ya Plastics (Hong Kong) Co., Ltd.	Nan Ya Plastics (Anshan) Co., Ltd.	production of plastic products	100.00%	-
Wen Fung Industrial Co., Ltd.	Wenling Technology Corporation	production of electronic components	100.00%	100.00%
Nan Ya Electronic Materials (Kunshan) Co., Ltd.	Nan Ya Property (Kunshan) Co., Ltd.	real estate development	100.00%	-
Nan Ya Plastics Corporation America	Nan Ya Plastics Corporation Texas	production of plastic, polyester and chemical products	-	100.00%

Note1: Nan Ya Plastics (Guangzhou) Co., Ltd. merged with Nan Ya Plastics Construction Materials (Guangzhou) Co. Ltd and Nan Ya Rigid Film (Guangzhou) Co., Ltd. on July 1<sup>st</sup>, 2015 and was renamed as Nan Ya Plastics (Guangzhou) Co., Ltd.

Note2: The Consolidated Company holds fifty-percent voting shares of Nan Chung Petrochemical Corporation, and the general manager of Nan Chung Petrochemical Corporation was designated by the Company. As the Consolidated Company has control over the operations of Nan Chung Petrochemical Corp, the Consolidated Company included Nan Chung Petrochemical Corporation, a subsidiary company, in its consolidated financial statements.



## Appendix 6. Production and Sales Value Table

(1) Production value of quantity in the past two years

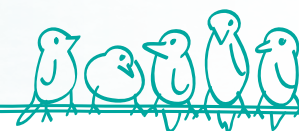
Production value: NT\$ Thousand

Production value of quantity Main products	Year	2015			2014		
		Capacity	Productivity	Production value	Capacity	Productivity	Production value
Flexible Sheeting	metric ton	255,600	128,084	8,728,844	258,000	133,382	9,353,010
Rigid PVC/ Metallized PET	metric ton	264,600	136,425	8,932,733	264,600	138,982	9,446,868
PU synthetic leather	kiloyards	39,600	19,152	3,068,610	39,600	18,077	2,765,981
Plastic doors and windows	metric ton	28,860	22,952	3,843,433	28,860	22,807	3,710,899
PVC pipes	metric ton	241,400	133,752	6,037,382	238,200	134,639	6,200,609
BOPP	metric ton	104,000	84,670	6,040,282	149,760	86,270	6,597,469
Plasticizers and curing agent	metric ton	498,000	381,679	13,133,671	498,000	182,534	9,112,882
PA	metric ton	228,000	177,192	4,880,634	228,000	129,541	4,841,661
BPA	metric ton	550,000	509,051	18,085,578	420,000	372,607	18,959,645
Butanediol	metric ton	100,000	98,802	4,840,642	100,000	100,755	6,582,499
EG	metric ton	2,160,000	2,343,749	56,135,038	2,160,000	2,294,429	63,324,316
Copper Clad Laminates	Thousand sheet	69,400	54,044	30,014,302	85,200	57,643	30,090,083
Epoxy resin	metric ton	461,000	391,599	26,263,588	451,000	361,486	28,064,046
Glass fabric	kilometer	582,000	472,602	12,057,287	612,000	524,037	12,562,630
Copper foil	metric ton	74,400	64,827	18,180,882	74,400	64,196	19,799,221
PCB	thousand square feet	31,440	19,207	30,182,622	31,440	21,713	31,416,796
Polyester fiber	metric ton	1,646,200	1,162,892	54,171,512	1,617,300	1,153,160	60,614,386
Polyester film	metric ton	108,000	49,998	3,562,436	72,600	54,458	4,236,574

Note 1: Capacity refers to the Company's production quantity under normal operation by making use of current production equipment after considering necessary shut-downs, holidays, and other factors.

Note 2: Capacity of each product's production with substitutions shall be calculated together, and explanatory notes shall be provided.





(2) Sales value and quantity in the past two years

Sales value: NT\$ Thousand

Sales value of quantity Main products	Year	Unit	2015				2014			
			Domestic market sales		Foreign market sales		Domestic market sales		Foreign market sales	
			Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Flexible Sheeting		metric ton	47,073	3,235,031	76,775	5,205,132	48,753	3,662,281	80,912	5,430,086
Rigid PVC/Metallized PET		metric ton	25,401	1,678,194	108,763	7,106,495	24,095	1,962,321	112,265	7,306,325
PU synthetic leather		kiloyards	4,042	691,413	15,250	2,399,628	4,613	782,513	17,934	2,667,427
Plastic doors and windows		metric ton	8,380	1,091,101	14,217	2,692,885	7,754	1,098,075	14,656	2,548,229
PVC pipes		metric ton	102,575	4,801,030	31,362	1,244,703	102,781	5,485,183	32,480	744,071
BOPP		metric ton	36,136	2,408,784	12,572	1,066,001	35,365	2,876,324	16,188	1,066,174
Plasticizers and curing agent		metric ton	47,746	1,796,760	304,088	10,309,937	44,815	2,257,368	99,874	4,966,129
PA		metric ton	32,363	934,609	46,645	1,241,613	29,005	1,157,176	71,307	2,592,036
BPA		metric ton	171,714	6,012,305	133,100	4,817,135	160,922	8,055,714	108,121	5,634,205
Butanediol		metric ton	49,771	2,126,655	37,419	2,145,027	54,019	3,117,536	35,694	2,743,570
EG		metric ton	347,250	7,784,613	1,373,055	33,418,343	340,206	9,527,484	1,378,043	37,894,747
Copper Clad Laminates		Thousand sheet	7,196	3,835,170	30,892	17,317,682	7,791	4,431,745	36,395	18,633,682
Epoxy resin		metric ton	30,580	2,294,601	280,225	18,550,331	29,733	2,492,257	243,119	18,690,669
Glass fabric		kilometer	32,995	921,439	162,584	4,068,282	38,002	1,022,207	174,506	4,072,203
Copper foil		metric ton	3,702	1,148,309	27,058	7,478,404	3,344	1,150,912	23,307	7,068,744
PCB		thousand square fee	3,870	9,215,105	17,916	20,023,129	4,135	9,889,597	24,759	24,351,832
Polyester fiber		metric ton	266,391	12,293,507	859,774	40,167,134	249,324	17,119,590	915,510	44,108,425
Polyester film		metric ton	12,880	1,038,561	35,691	2,422,199	17,051	1,460,985	39,941	2,972,722
Others				15,021,937		39,778,230		11,729,154		42,703,448
Total				78,329,124		221,452,290		89,278,422		236,194,724

Note: Data sourced from the 2015 annual report. The statistics are analyzed according to the principles of the consolidated financial statement.



## Appendix 7. Independent Assurance Opinion Statement

### INDEPENDENT ASSURANCE OPINION STATEMENT

#### Nan Ya Plastics Corporation 2015 Corporate Social Responsibility Report

The British Standards Institution is independent to Nan Ya Plastics Corporation (hereafter referred to as Nan Ya Plastics) and has no financial interest in the operation of Nan Ya Plastics other than for the assessment and assurance of this report.

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

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

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to Nan Ya Plastics only.

#### Scope

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

1. The assurance covers the whole report focused on systems and activities during the 2015 calendar year on the Nan Ya Plastics's headquarter and relevant operations in Taiwan.
2. The evaluation of the nature and extent of the Nan Ya Plastics's adherence to all three AA1000 Account Ability Principles in this report as conducted in accordance with type 1 of AA1000AS (2008) assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

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

#### Opinion Statement

We conclude that the Nan Ya Plastics 2015 Corporate Social Responsibility Report provides a fair view of the Nan Ya Plastics CSR programmes and performances during 2015. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the Nan Ya Plastics and the sample taken. We believe that the 2015 economic, social and environmental performance indicators are fairly represented. The CSR performance indicators disclosed in the report demonstrate Nan Ya Plastics's efforts recognized by its stakeholders.

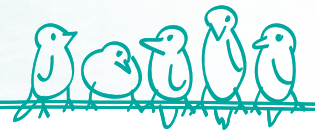
Our work was carried out by a team of CSR report assurers in accordance with the AA1000 Assurance Standard (2008). We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that Nan Ya Plastics's description of their approach to AA1000 Assurance Standard and their self-declaration in accordance with the core option of GRI G4 guidelines were fairly stated.

#### Methodology

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

- review of issues raised by external parties that could be relevant to Nan Ya Plastics's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 12 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the company's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality and Responsiveness as described in the AA1000 Account Ability Principles Standard (2008).





## Conclusions

A detailed review against the AA1000 Account Ability Principles of Inclusivity, Materiality and Responsiveness and the GRI G4 guidelines is set out below:

### Inclusivity

This report has reflected a fact that Nan Ya Plastics has continually made a commitment to its stakeholders, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. The reporting systems are being developed to deliver the required information. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the Nan Ya Plastics's inclusivity issues.

### Materiality

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

### Responsiveness

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

### GRI-reporting

Nan Ya Plastics provided us with their self-declaration of 'in accordance' with the G4 sustainability reporting guidelines: the Core option (at least one Indicator related to each identified material Aspect). Based on our review, we confirm that social responsibility and sustainable development indicators with reference to the GRI Index are reported, partially reported or omitted. In our professional opinion the self-declaration covers the Nan Ya Plastics's social responsibility and sustainability issues.

### Assurance level

The moderate level assurance provided is in accordance with AA1000 Assurance Standard (2008) in our review, as defined by the scope and methodology described in this statement.

### Responsibility

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

### Competency and Independence

The assurance team was composed of Lead Auditors and Carbon Footprint Verifiers experienced in industrial sector, and trained in a range of sustainability, environmental and social standards including AA1000 AS, ISO14001, OHSAS18001, ISO14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu  
Managing Director BSI Taiwan  
24 May, 2016

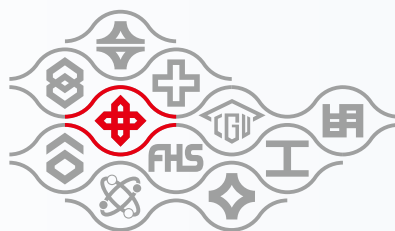
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**台塑關係企業**  
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