

台塑企業
FORMOSA PLASTICS GROUP



2019 CSR Report

Formosa Chemicals & Fibre Corporation

Corporate Social
Responsibility Report

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About the Report

Overview

The corporate social responsibility report of Formosa Chemicals & Fibre Corporation was written in accordance with the "GRI Standards" issued by the Global Report Initiative (GRI) in 2016. It is expected to issue one report every year to introduce in detail the sustainable actions we are actively engaged in the economic, environmental and social fields.

Report Scope and Boundary







The Report mainly refers to Formosa Chemicals & Fiber Corp. (hereinafter referred to as "FCFC" or "the Company") and its domestic subsidiaries listed in the consolidated financial statements, including Formosa Idemitsu Petrochemical Corp., Formosa BP Chemicals Corp., Formosa FCFC Carpet Co., Ltd., Tah Shin Spinning Corporation, Formosa Biomedical Technology Corp., and Hong Jing Resource Co. Ltd. Benchmarks and the report scope and boundaries used in the 2019 Report are identical to those in 2018. All of the financial statements have been duly verified by our CPAs. All figures are expressed in New Taiwan Dollar (NTD) unless otherwise specified. Some of the statistics are provided by the government agencies and related websites, and expressed in either descriptive or numerical forms. Other measurements used, if any, will be specifically described in the Report.

Duration and Issuance Date

The duration of the Report is from January 1, 2019 to December 31, 2019. The Report is expected to be issued in June 2020, and the previous version was issued in June 2019.

Report Guideline

The report is prepared in accordance with the "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies". The content structure is based on the 2016 GRI Standards. However, the topics of "GRI 303: Water and Drainage Water" and "GRI 403: Occupational Safety and Health" have prioritized the use of the 2018 updated version of the GRI Standards, and are written in accordance with the guidelines and structure listed in the core options, disclosing the Company's main sustainability issues, strategies, goals and measures.

-  GRI Standards: 2016 and 2018
-  Materiality, Inclusivity, Responsiveness, and Impacts of AA1000 Accountability Principles Standard 2018
-  Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies
-  ISO 26000 Guidance on Social Responsibility
-  United Nations Global Compact
-  Sustainable Development Goals (SDGs)

Third Party Verification

To reinforce comparability and substantiality, all of the information disclosed in the Report has been verified by the British Standards Institution (BSI). For more information on BSI's Independent Assurance Opinion Statement, refer to Appendix 5. The Independent Assurance Opinion Statement is presented using international common indicators, and notes are provided in related sections of the Report in case of any estimation.

Contact Information

If you have any questions or suggestions about the contents of the Report, please contact us using the following information:



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GOALS OF CORPORATE SOCIAL RESPONSIBILITY

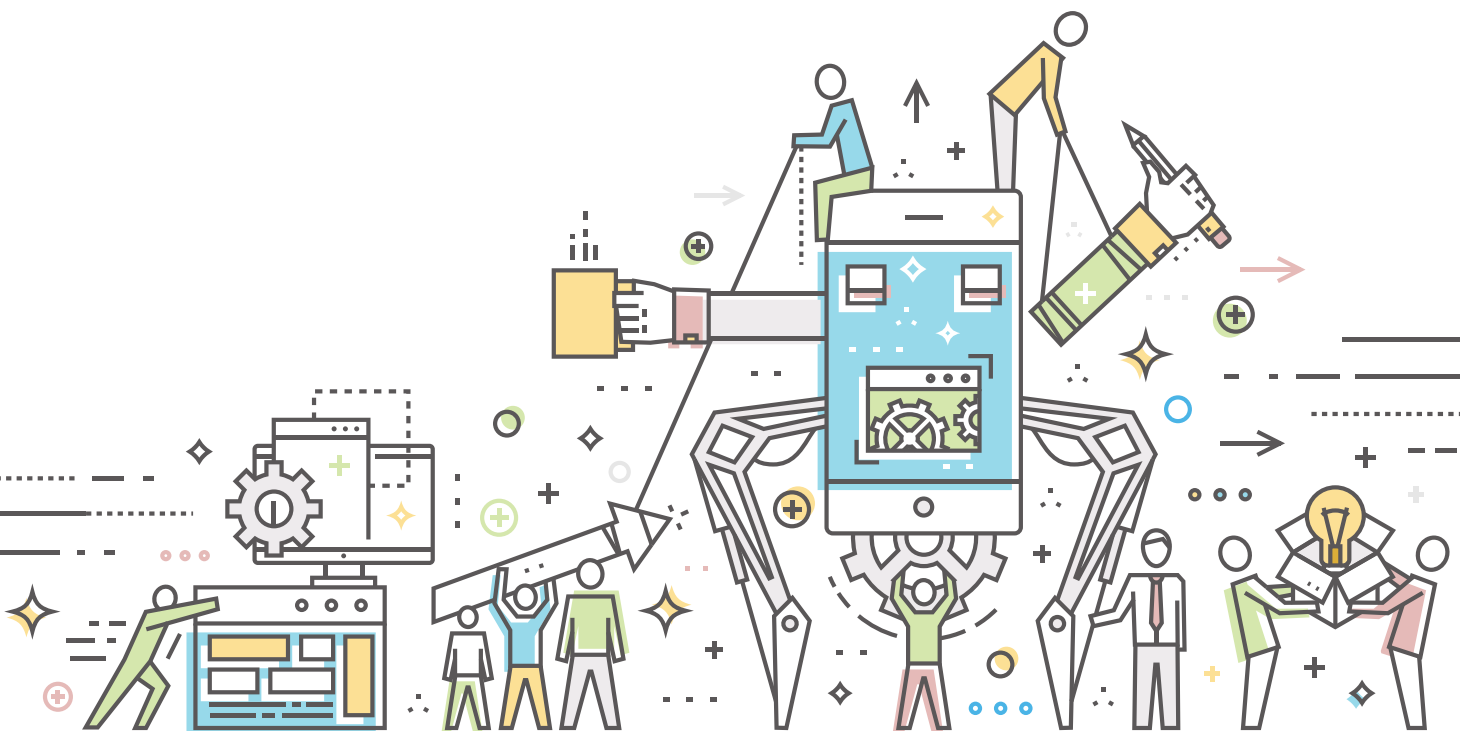
To realize corporate social responsibility and seek sustainable development, FCFC has set up short, medium, and long-term objectives and directions for sustainable commitments. We expect to work together with the stakeholders to facilitate our sustainable commitments to corporate governance, environmental protection, and social welfare.

2019 Objectives	Implementation status for 2019
<p>Material economic issues: corporate governance, operational financial performance, operational risk management and response, R&D innovation and AI applications</p>	
<ul style="list-style-type: none"> ■ The Annual Report will also be prepared in the English language starting from 2019, and the position of the corporate governance personnel has been established. Investor Conference is planned to be organized twice annually ■ Information including average employee remuneration and adjustments is planned to be disclosed on the Market Observation Post System (MOPS) and financial statements in line with amendments to the Securities and Exchange Act ■ Continue to increase the ratio of special-grade plastic products to 39.1% ■ Review the status of launching AI application technologies that have been proposed on a monthly basis and to propose new application technologies 	<ul style="list-style-type: none"> ■ The annual report in English was prepared since 2019, the head of corporate governance was appointed in May 2019, and the Investor Conference were held in April and August 2019 respectively ■ At the end of April 2019, the average salary of full-time staff for non-supervisory duties in 2018 was declared at the MOPS, and the total salary was disclosed on the annual report ■ The special grade sales ratio of the Plastics Department in 2019 is 40.3% ■ 24 meetings were held in 2019 to review the implementation of AI application technology projects
<p>Material environmental issues: air pollution management, waste management, compliance with environmental protection laws, mitigation and adaptation of climate change, use and management of water resources, and management of controlled chemical substances</p>	
<ul style="list-style-type: none"> ■ Apply for the greenhouse gas offset project to the Environmental Protection Administration (EPA) (in review) ■ The fuel for the existing heat medium boilers at each plant will be replaced by natural gas or process gas to reduce GHG emissions 	<ul style="list-style-type: none"> ■ In 2019, two applications for greenhouse gas offset projects were completed, namely, "ORC process waste heat recycling improvement" of Mailiao styrene plant 3 and "adding high pressure filter system in purification section" of Mailiao PTA plant ■ The fuel type of the heat medium boiler in each plant area is changed from fuel oil to natural gas or process gas, which is being continuously improved to meet the strict emission standards for boiler air pollutants implemented by the EPA on 2020/07/01


Material social issues:

occupational health and safety, industry and public safety, human rights protection for employees, community participation and social feedback, employee benefits and salaries, career development and education and training

- Promote personnel, equipment, and environmental safety
- Expect to recruit 10 individuals from AI-related fields to be trained at the Technical Professionals or Manager Program at the Taiwan AI Academy
- Continue to promote Formosa LOHAS Circle activities at Yilan, Changhua, and Chiayi and to collaborate with related environmental protection agencies in hosting social welfare activities including environmental education, beach cleanup, and marathon
- Continue to promote the cleaning of the surrounding neighborhood of the factory, and co-organize local temple fairs, festivals and other activities, with 36 events expected to be handled
- Expect to organize 9 charitable activities through the influence of the corporate for the disadvantaged, such as senior visits and fundraising for nursing homes
- Expected to handle 14 factory and township activities
- By strengthening safety and health education and training, and establishing a Corrosion Control Document (CCD) to strengthen personnel's concept of corrosion mechanism and equipment safety. There were only 4 general occupational disasters
- In 2019, 13 AI-related talents were recruited, and a total of 35 persons were trained in the technical leadership class and 33 persons were trained in the manager class of the Taiwan AI Academy. A total of 806 persons have completed the training
- Promote activities in the factory's LOHAS Circle, including the integration of surrounding sightseeing factories and hotels to organize public welfare park tours, ecological classroom environmental education, etc., with a total of 31 sessions
- A total of 41 events such as cleaning the surrounding environment of the factory and sponsoring festivals in the neighborhood
- 11 public welfare activities for caring vulnerable groups by delivering warmth in cold winter
- Held factory and village activities for a total of 27 events



2020 Target	Medium Term Objectives and Commitments (3-5 years)	Long Term Objectives and Commitments (More than 5 years)	SDGs
<p>Material economic issues: corporate governance, operational financial performance, operational risk management and response</p>			
<ul style="list-style-type: none"> ■ Self-assessment of the Board of Directors and disclosure of relevant information from 2020 ■ Review the feasibility of formulating ethical corporate management policies and preventing unethical conducts in line with the revision of the "Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies" by the competent authority ■ In 2020, it is expected to complete 16 production AI projects, and purchase 200 additional equipment prediction modules for 42 important rotating equipment 	<ul style="list-style-type: none"> ■ Continue to improve corporate governance matters and enhance corporate governance evaluation rankings ■ Deepen AI application to achieve improved efficiency, quality, energy saving, waste reduction, accident prevention, and prediction of equipment operating conditions 	<ul style="list-style-type: none"> ■ Improve the Company's system, strengthen internal control, create shareholder's value, and enhance the effectiveness of corporate governance ■ Introduce Industry 4.0 to promote the completion of smart factories ■ Monthly continuous review of the causes of residual materials and treatment measures to reduce the inventory of residual materials 	
<p>Material environmental issues: air pollution management, waste management, compliance with environmental protection laws, mitigation and adaptation of climate change, use and management of water resources, and management of controlled chemical substances</p>			
<ul style="list-style-type: none"> ■ For the Environmental Protection Administration to give priority to the management of power and petrochemical industries that emit harmful air pollutants, the health risk assessment professionals have been appointed to meet regulatory requirements 	<ul style="list-style-type: none"> ■ Carry out improvement of emission pipeline and promote smoke-free factories ■ Standard registration is carried out in accordance with the management of controlled chemical substances by the EPA, and the registration of existing chemical substances for the operation of the Company is completed before the prescribed period 	<ul style="list-style-type: none"> ■ Continue to promote the Company's greenhouse gas emission reduction management and obtain the "leadership" rating in the CDP climate change questionnaire 	

2020 Target	Medium Term Objectives and Commitments (3-5 years)	Long Term Objectives and Commitments (More than 5 years)	SDGs
<p>Material social issues: occupational health and safety, industry and public safety, human rights protection for employees, community participation and social feedback, employee benefits and salaries, career development and education and training</p>			
<ul style="list-style-type: none"> ■ Establish the Company's own corrosion control team to continuously cultivate professional personnel for corrosion ■ Continue to promote social participation and environmental sustainability of the LOHAS Circle in the factory area, with 54 events expected to be handled ■ Promote the cleanliness of the surrounding environment of the plant and co-organize local festivals, etc., with 41 events expected to be handled ■ Combined with the strength of the enterprise to continue to handle public welfare activities such as delivering warmth in cold winter with 10 events expected to be handled ■ Expected to handle 17 factory and village activities 	<ul style="list-style-type: none"> ■ Continue to recruit and train AI talents based on demand, and promote AI for all employees ■ Foster positive employee relations and a healthy workplace environment ■ Continue to increase the completion ratio of interdisciplinary knowledge training among mid-tier and senior managers and business executives ■ Continue to promote employees to pass job certification 	<ul style="list-style-type: none"> ■ Actively cultivate AI talents, promote the comprehensive intelligence of the factory, and actively achieve the goal of zero work injury and zero accident ■ Integrate the neighboring ecological, cultural and government resources of the factory area to promote social participation and environmental sustainability 	



2019 CSR HIGHLIGHTS



NT\$ **315.5** billion

Consolidated operating revenue



No.2

Global ranking of SM production capacity

Note 1: **SM**: Main raw material for polystyrene and acrylonitrile-butadiene-styrene



No.3

Global ranking of Phenol production capacity

Note 2: **Phenol** - Main raw material for propylene glycol, cyclohexanone, phenolic resin, and indophenol



No.3

Global ranking of ABS production capacity

Note 3: **ABS** - Home appliances, toys, computer information, building materials and pipe fittings, helmets, vehicle parts, etc



Management **B**

Evaluation of Climate Change Disclosure Questionnaire

Leadership **A-**

Water safety questionnaire evaluation



NT\$ **11.9** billion

Investment amount of energy saving improvement in 2019



NT\$ **19** million

Investment amount of water saving improvement in 2019



Green plant recognition

Mailiao SM Plant 3



140 thousand tonnes

CO₂ emissions reduction in 2019



1.251

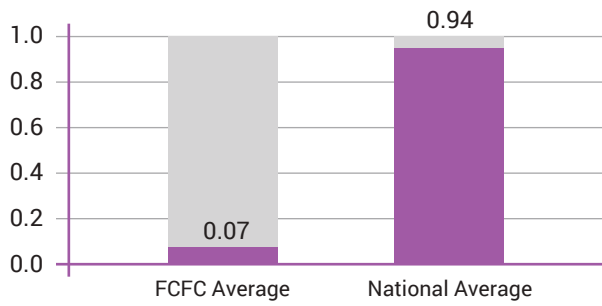
million tons
Water saving in 2019



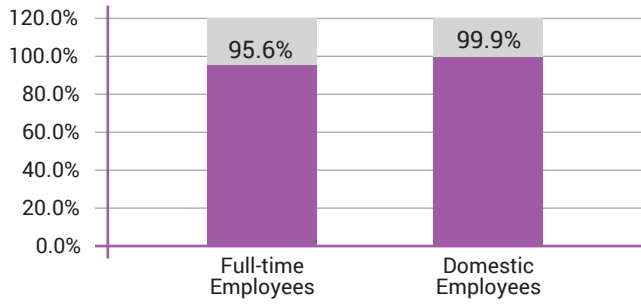


SOCIAL

Frequency-Severity Indicator



Percentage of Full-time Employees and Domestic Employees



100%

Reinstatement rate of unpaid employees with childcare leave in 2019



99.3%

2019 training plan execution completion rate

Honors of 2019

Gold Award



Longde PTA Plant won the "2019 Energy Saving Benchmark Award - Gold Award"

Excellence



Mailiao SM Plant 3 received "2019 Excellence in Water Conservation Enterprise."

certificate of appreciation



Longde Plant sponsored Yilan County Government to organize a safety and health counseling group and received a certificate of appreciation

certificate of appreciation



Certificate of Appreciation for Mailiao Aromatic Hydrocarbons Plant 2 assisted Yunlin County Government in handling the 2019 disaster prevention and rescue exercise

certificate of appreciation



The Longde plant assisted the EPA in handling the national toxic chemical disaster and joint disaster prevention and rescue exercise in Yilan County, and received a certificate of appreciation

certificate of appreciation



Certificate of Appreciation for the 2019 Green Procurement and Environmental Protection Marks of Taipei Civil Enterprises and Groups

certificate of appreciation



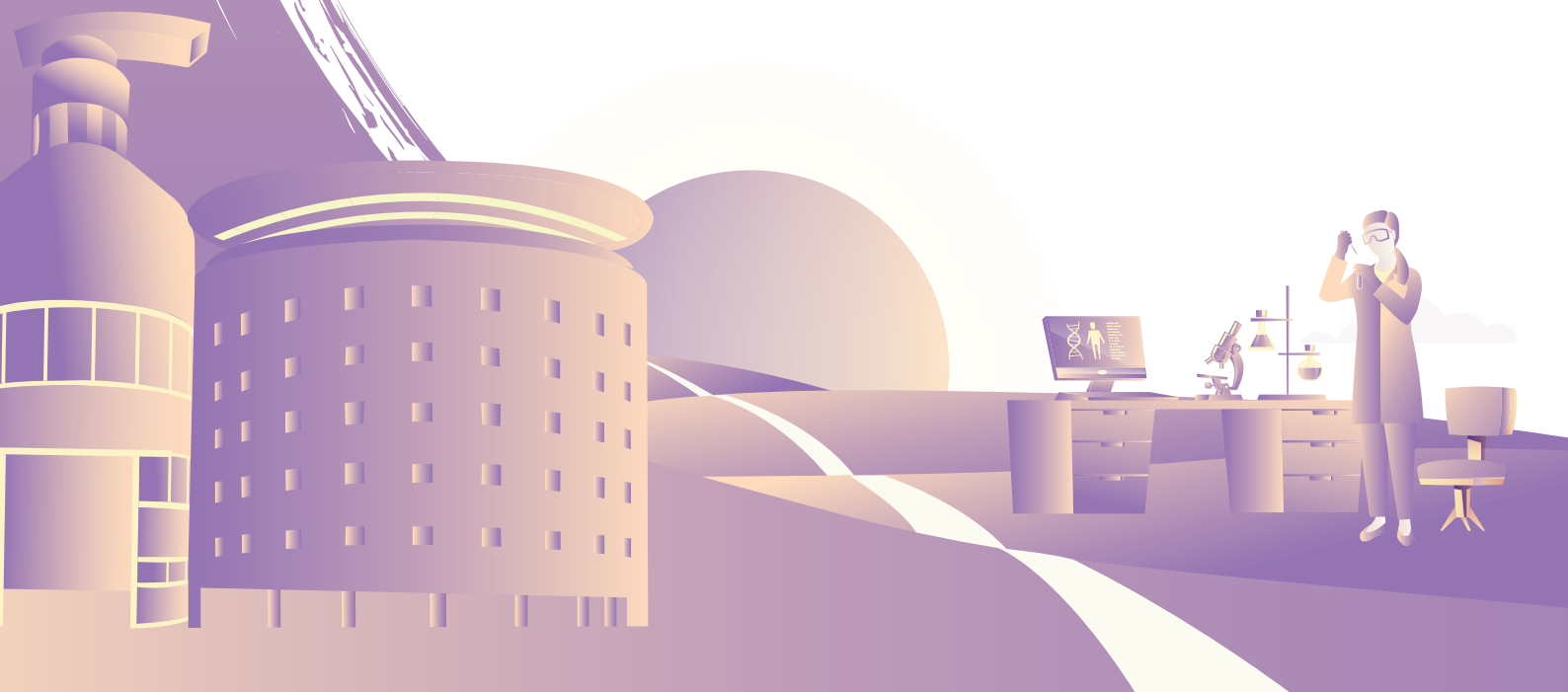
Certificate of Appreciation for Haifeng Aromatic Hydrocarbons Plant 2 to actively promote the regional joint defense of Yunlin Islands-type Basic Industrial Zone



1

A Pioneer of Infinite Value Creation

- 1.1 From the Management Team
- 1.2 About FCFC
- 1.3 Management Vision
- 1.4 Stakeholder Identification and Communication
- 1.5 Identification of Material Topics
- 1.6 Practice Sustainable Development Goals



1.1 From the Management Team

In 2019, under the interference of China US trade conflict, Brexit, poor economic and financial situation in mainland China, and geopolitical risks such as Iran in the Middle East and North Korea, the global economy is shrouded in haze, which depresses the end demand and weakens the growth of international trade. In addition, the international crude oil is also affected by the global economic slowdown and the increase of shale oil supply in the United States, resulting in the gradual decline of prices, leading to the petrochemical industry boom, which is closely linked with the economy, to reverse after more than three years of prosperity. Although the Company actively produces and markets differentiated products and expands new markets such as ASEAN and the Middle East, its operation performance is not as good as that of 2018 in the environment of rising protectionism, uncertain trade policies and slowing global economic growth.

In recent years, companies actively use AI (Artificial Intelligence) to improve competitiveness. The introduction of artificial intelligence in various industries can make decisions more accurate, reduce unnecessary consumption, improve the quality of products, and better meet the needs of customers. The manufacturing industry has a large scale, complete industrial chain, and sufficient data for AI application development. Through the in-depth learning technology of AI, machines can make more correct decisions, production becomes more intelligent, and then industrial upgrading can be promoted. To this end, Formosa Plastics Groups donated NT\$30 million to assist in the establishment of the "Science and Technology Ecosystem Development Foundation and Taiwan AI Academy". So far, the Company has arranged 68 employees with information, mathematical statistics, programming and other related background, as well as senior managers to study artificial intelligence concepts and technologies in Taiwan AI Academy, and actively introduced AI and machine learning. At present, 12 projects have been completed with an estimated benefit of NT\$68 million, and 16 projects are in progress. It is expected to reduce costs, improve quality and efficiency, and strengthen the Company's energy for sustainable operation with the promotion of AI application.

In view of circular economy as a global industry trend, the Company adopts the most advanced manufacturing processes and pollution control equipment based on the concepts of best available technology (BAT) and best available control technology (BACT) from the beginning of the plant design stage to save water and energy consumption. In order to further improve the efficiency of energy use and achieve the goal of circular economy, the Company has set up a special unit for promoting energy conservation, carbon reduction and pollution prevention and control, and made every effort to promote the integration of resources across factories and companies, and implemented three key points of management, i.e. the firm determination of the leaders, the research and development of advanced technology and the establishment of good management system, so as to maximize the use of resources and reduce the occurrence of waste. After years of practice, the Company's consumption of water, electricity and steam has declined significantly. For example, there is a need to recover low-temperature waste heat in Mailiao SM Plant 3, so Organic Rankine Cycle power generation technology is developed to generate low-temperature waste heat and save cooling water. In addition, it is also effective in process waste reduction and resource recycling and reuse. For example, in addition to purified aromatic hydrocarbon (xylene), Mailiao ARO-1 Plant produces LPG and fuel gas. Through cross plant integration, fuel gas will be provided to PABS, SM, PTA and HAC plants for use, so as to achieve cross plant raw material cycle integration. In order to make stakeholders more aware of the Company's efforts in environmental protection, energy conservation and emission reduction, we will continue to adhere to the three key points of circular economy to move towards the goal of "zero waste".

A large number of wastes cause serious harm to the environment and organisms. According to the statistics of the United Nations, about 8 million tons of plastic wastes flow into the ocean every year, and human activities have affected the survival of other organisms. In order to cherish the earth, protect the ocean, and support environment sustainability with actions, we have called on volunteers, dependents and surrounding residents of the Company to hold a coastal cleanup in Yilan every year since 2007. In 2019, the Company also participated in the first ever all-Taiwan corporate event in support of the International Coastal Cleanup Day. The event was held in Yunlin, Chiayi, Yilan County, New Taipei City and Kaohsiung City, and was guided by professional volunteers of the Society of Wilderness. Each event was conducted in accordance with the "International Coastal Cleanup (ICC) Code" to conduct content promotion and effectiveness statistics for coastal cleanup activities. Through coastal cleanup activities, in addition to fulfilling corporate social responsibilities and enhancing neighborhood relations, we also call on the public to pay attention to the marine environment and resources. In the future, we will continue to support and promote source reduction, plastic resource recycling and reuse, etc., to contribute to the environment with our effort.

Formosa Plastics Group have invested resources in the coastal area of Yunlin where the No. 6 Naphtha Cracking Complex is located for a long time to give back to the community. For example, in 2019, in order to assist the Yunlin County Government in providing nutrition and health for primary and secondary school children to eat lunch, FPG provided an annual fund of NT\$85 million to help the county government take care of the school children. We also promise that if the county government continues to promote this policy, FPG will continue to assist in providing funds; and for example, in order to help farmers and fishermen improve their breeding and planting technology, Chaoyang University of Technology and Kaohsiung University of Science and Technology have been entrusted for many years to set up an agricultural and fishery guidance team to investigate the agricultural and fishery environment in the surrounding villages and towns of the No. 6 Naphtha Cracking Complex and to assist farmers and fishermen in the field to improve the product quality through the technology guidance of the professional team. With the assistance of the guidance team, the quality and cultivation rate of clams have been improved. In addition, some farmers were instructed to improve the breeding technology of mullet. In 2019, the breeding rate of mullet reached 90%. In addition, we are also committed to working closely with our neighbors in Yilan, Chiayi and Changhua factories, actively giving back to the local people. For example, in 2019, Jiayi Xingang factory donated 995 10-year independent residential fire alarms to Jiayi County Fire Department, and transferred them to low-income households, single elderly and old residential households in the county, so as to reduce casualties in case of fire.

Adhering to the business philosophy of "what is taken from the society is used interests of the society", we will continue to implement various social responsibility work on sustainable development issues such as corporate operation, environmental protection and social participation, and integrate with the international trend of sustainability, in response to the Sustainable Development Goals (SDGs) of the United Nations.


Formosa Chemicals & Fibre Corporation
Chairman

Wen Yuan Wong

2020

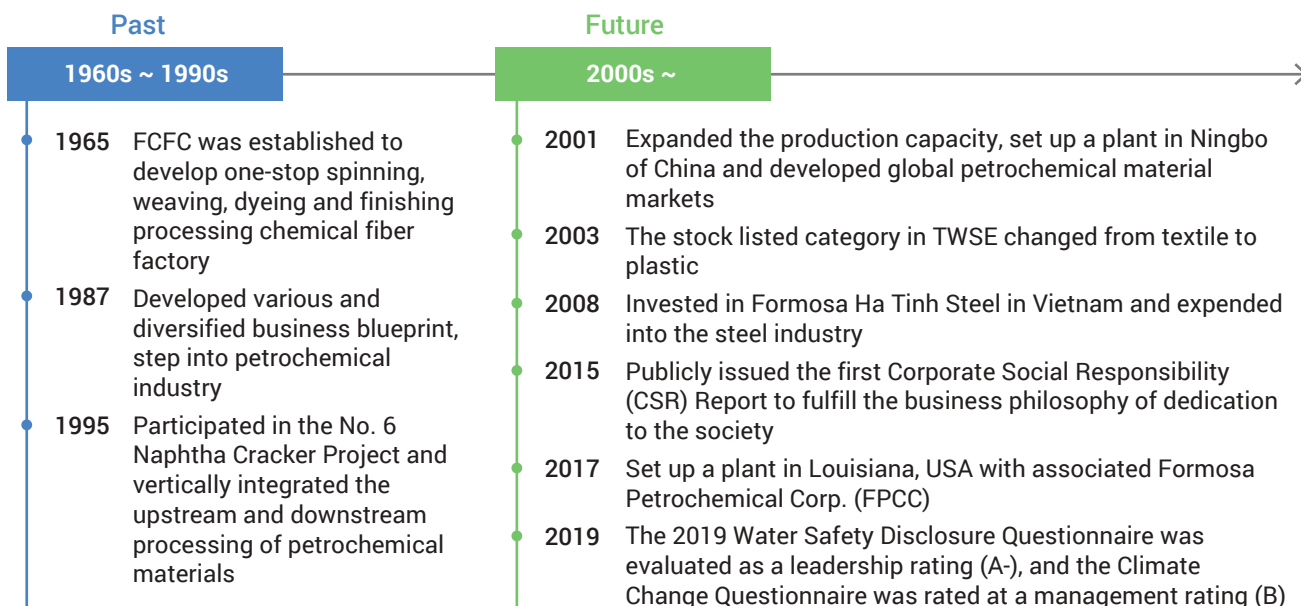
1.2 About FCFC

1.2.1 Company Overview

	Headquarters	Changhua County, Taiwan
	Year Founded	1965
	Consolidated Sales in 2019	NT\$315.499 billion
	Number of Full-time Employees in Taiwan (2019)	5,274 people
	Business Items	Petrochemical, plastics, fiber, textile, and electricity cogeneration



1.2.2 Company History



Note: For the development history of FCFC, please refer to the company profile of the 2019 annual report.

1.2.3 Corporate Identity System

Among the companies of FPG, the identification image of chain enterprises is taken as a common sign to express the meaning of vertical and horizontal connection, mutual cooperation, as well as harmony and integration. The Company's identification mark inherits the enterprise system, takes the upper half of the word "Mi" from the two word radical "fiber", and transforms it into a hexagonal image, symbolizing the basic code of chemical construction. The Company takes two hexagon overlaps as the enterprise identification code, marking that the Company is an enterprise with petrochemical plastics and chemical fiber as the development core.



1.3 Business Philosophy

FPG's Business Philosophy

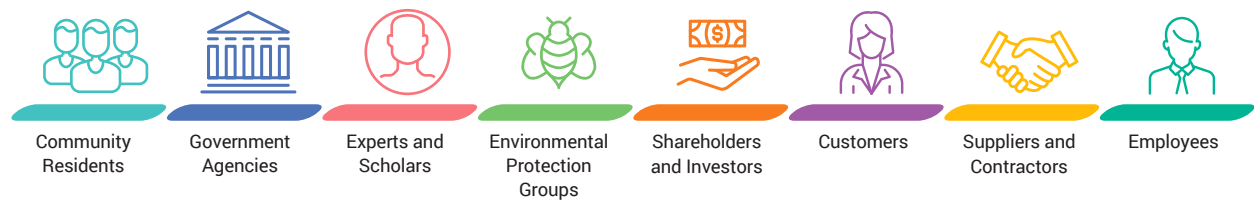


1.4 Stakeholder Identification and Communication

1.4.1 Stakeholder Identification Process


The CSR Reporting Team of the Company conducted internal discussions with managers from each department and took the five major principles of AA1000 Stakeholder Engagement Standard (SES), including Dependency, Responsibility, Influence, Tension, and Diverse Perspectives, into consideration. The following 8 categories of stakeholders were identified.

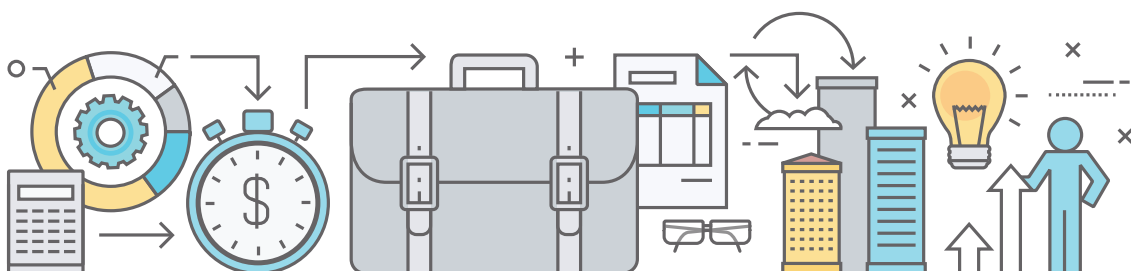
FCFC Stakeholders







1.4.2 Stakeholder Communication Channels and Frequency

All units of the Company have established multiple and smooth communication channels with stakeholders. Through various effective communication channels, we can fully understand the ideas and needs of stakeholders, and obtain the issues of concern and feedback from stakeholders. Our communication with key stakeholders in 2019 is described as follows:

Stakeholders	The importance of stakeholders to FCFC	Frequency and Methods of Communication	Topics of Concern
 Community Residents	As community friendliness has been an important subject for our business operation, we consider local residents while establishing our annual business strategies and objectives.	Occasionally, at least 3 times/year 1. Community relations teams regularly participate in village or communal gatherings and visits nearby residents. 2. Organize various seminars or conferences 3. Designated "Good Neighbor" 24-hour hotline for residents to provide opinions on environmental protection issues	<ul style="list-style-type: none"> ■ Air Pollutants Management ■ Waste Management ■ Water Resource Use and Management ■ Industrial and Public Safety ■ Community Engagement and Contribution



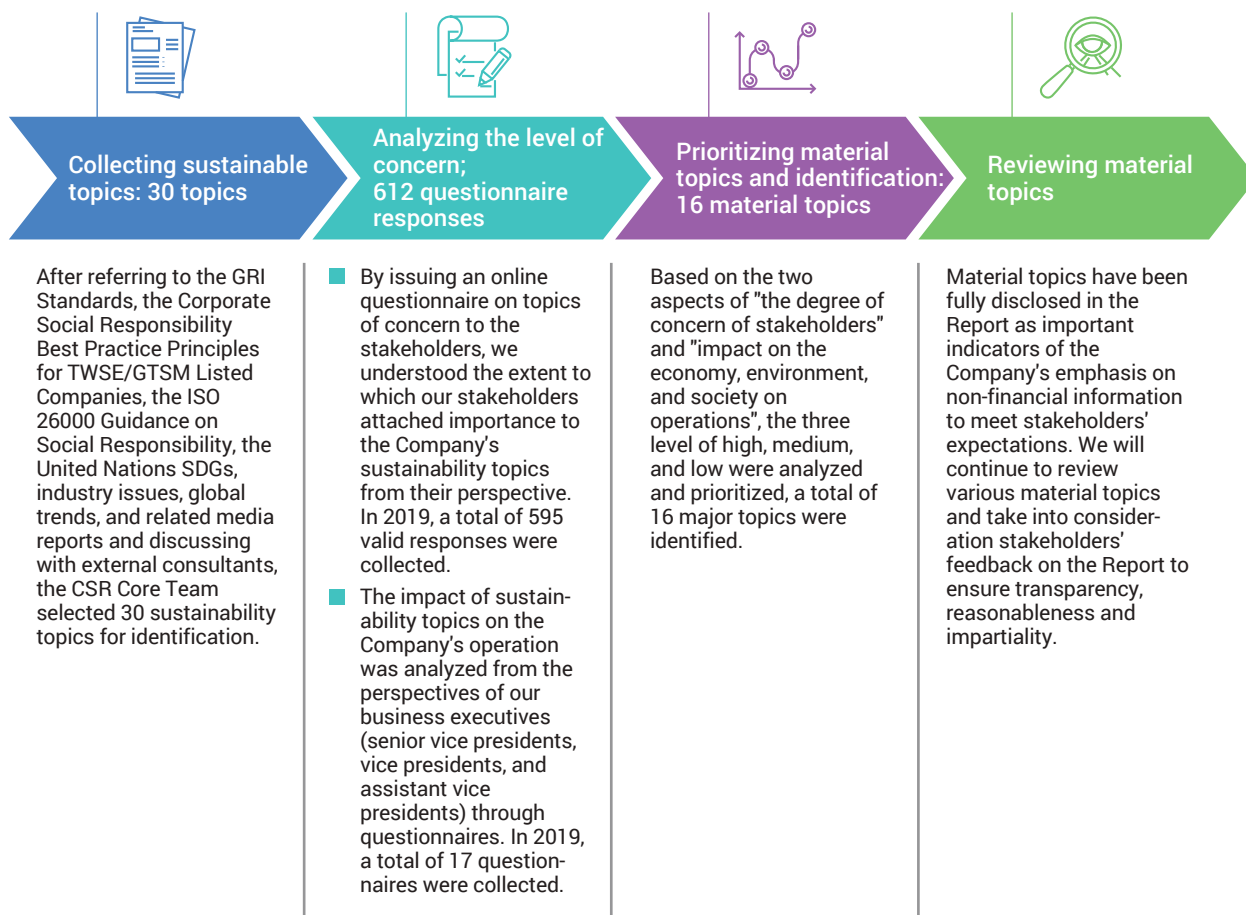
Stakeholders	The importance of stakeholders to FCFC	Frequency and Methods of Communication	Topics of Concern
 <p>Government Agencies</p>	<p>In addition to following related laws and regulations, FCFC also communicates with government sectors to promote sustainable business operation.</p>	<p>Occasionally, at least 4 times/year</p> <ol style="list-style-type: none"> 1. Attend legal hearings and conferences organized by competent authorities and communicate the business operations. 2. Respond to government for review and amendment through white papers submitted by the Chinese National Federation of Industries to protect the rights and interest of the industries. 3. Explain the plans related to the Mailiao Sixth Naphtha Cracker and carry out environmental evaluation-related tasks at the Sixth Naphtha Cracker Environmental Supervision Committee in each quarter. 	<ul style="list-style-type: none"> ■ Corporate Governance ■ Air Pollutants Management ■ Water Resource Use and Management ■ Controlled Chemical Substance Management ■ Industrial and Public Safety
 <p>Experts and Scholars</p>	<p>We continue to communicate with experts and scholars and remain committed to implementing sustainable development goals by following their recommendations regarding safety, health, and environmental sustainable topics.</p>	<p>Occasionally, at least 3 times/year</p> <ol style="list-style-type: none"> 1. Discuss and communicate environmental protection issues with external associations. 2. Organize an annual conference to present outstanding improvements in energy conservation and carbon reduction or environmental protection and discuss possible refinements with professionals. 3. A safety, health and environment (SHE) section has been made available on our official website to provide a communication channel for SHE issues. 	<ul style="list-style-type: none"> ■ Air Pollutants Management ■ Waste Management ■ Water Resource Use and Management ■ Compliance with Environmental Laws ■ Mitigation and Adaptation to Climate Change
 <p>Environmental Protection Groups</p>	<p>We value environmental sustainability topics as much as the environmental conservation groups, and collaborate with them toward environmental sustainability through exchanging ideas and opinions.</p>	<p>Occasionally, at least 3 times/year</p> <ol style="list-style-type: none"> 1. Appropriate explanations and communications during various meetings, and related personnel are invited to visit our plants when necessary. 2. Annual conference for energy conservation and carbon reduction or outstanding improvements in energy conservation is organized and environmental conservation groups are also invited to join. 3. A safety, health and environment (SHE) section has been made available on our official website to provide a communication channel for SHE issues. 	<ul style="list-style-type: none"> ■ Air Pollutants Management ■ Waste Management ■ Water Resource Use and Management ■ Compliance with Environmental Laws ■ Mitigation and Adaptation to Climate Change

Stakeholders	The importance of stakeholders to FCFC	Frequency and Methods of Communication	Topics of Concern
 <p>Shareholders and Investors</p>	<p>FCFC continues to seek long-term benefits for our shareholders and investors based on credible business operations and sustainable development.</p>	<p>Shareholders' Meeting once/year IR conference 2 sessions / year Other meetings organized occasionally at least once/year</p> <ol style="list-style-type: none"> 1. The stock affairs section of Finance Department under FPG's Group Administration is in charge of answering questions and needs from shareholders. 2. A spokesperson is appointed to serve as the contact between FCFC and institutional investors. 3. Holding IR conference to provide investors with information on company operations. 	<ul style="list-style-type: none"> ■ Corporate Governance ■ Operating & Financial Performance ■ Innovative Development and AI Applications ■ Air Pollutants Management ■ Mitigation and Adaptation to Climate Change
 <p>Customers</p>	<p>Customer support is the key factor to our sustainable development, and customer feedback is the motivation behind our constant improvement; providing customers with stable and quality products is our responsibility.</p>	<p>Occasionally, at least once/year</p> <ol style="list-style-type: none"> 1. Occasional meetings or visits to customers to understand customer needs. 2. "Customer Opinion and Feedback Form" and "Customer Satisfaction Survey" are used to understand customer needs and suggestions. 3. A hotline and website are set up to instantly interact and communicate with customers. 	<ul style="list-style-type: none"> ■ Corporate Governance ■ Operating & Financial Performance ■ Air Pollutants Management ■ Waste Management ■ Innovative Development and AI Applications
 <p>Suppliers and Contractors</p>	<p>Suppliers and contractors provide stable and quality products and services and establish a credible supply chain.</p>	<p>Occasionally, at least 3 times/year</p> <ol style="list-style-type: none"> 1. FPC Electronic Trading System Customer Service Center. 2. Supplier Conferences are organized. 3. E-mail addresses are provided on the main page of FPG's official website to receive and handle suppliers' and contractors' suggestions. 	<ul style="list-style-type: none"> ■ Corporate Governance ■ Operating & Financial Performance ■ Waste Management ■ Compliance with Environmental Laws ■ Industrial and Public Safety
 <p>Employees</p>	<p>Employees are our most valuable assets and the basis of corporate competitiveness. By providing comprehensive training and a friendly working environment, we strive to improve employees' cohesiveness.</p>	<p>Occasionally, at least 4 times/year</p> <ol style="list-style-type: none"> 1. Divisional meetings are regularly organized within the plants to interact and communicate with employees. 2. Physical and online opinion mailboxes are established and "799" hotlines are set up in each plant with designated personnel to receive responses. 3. Employees are encouraged to join the labor union or the Employee Welfare Committee to participate in regular meetings to communicate with the attendant management. 	<ul style="list-style-type: none"> ■ Operating & Financial Performance ■ Occupational Health and Safety ■ Employee Welfare and Compensation ■ Protecting Employees' Human Rights ■ Career Development and Training

1.5 IDENTIFICATION OF MATERIAL TOPICS

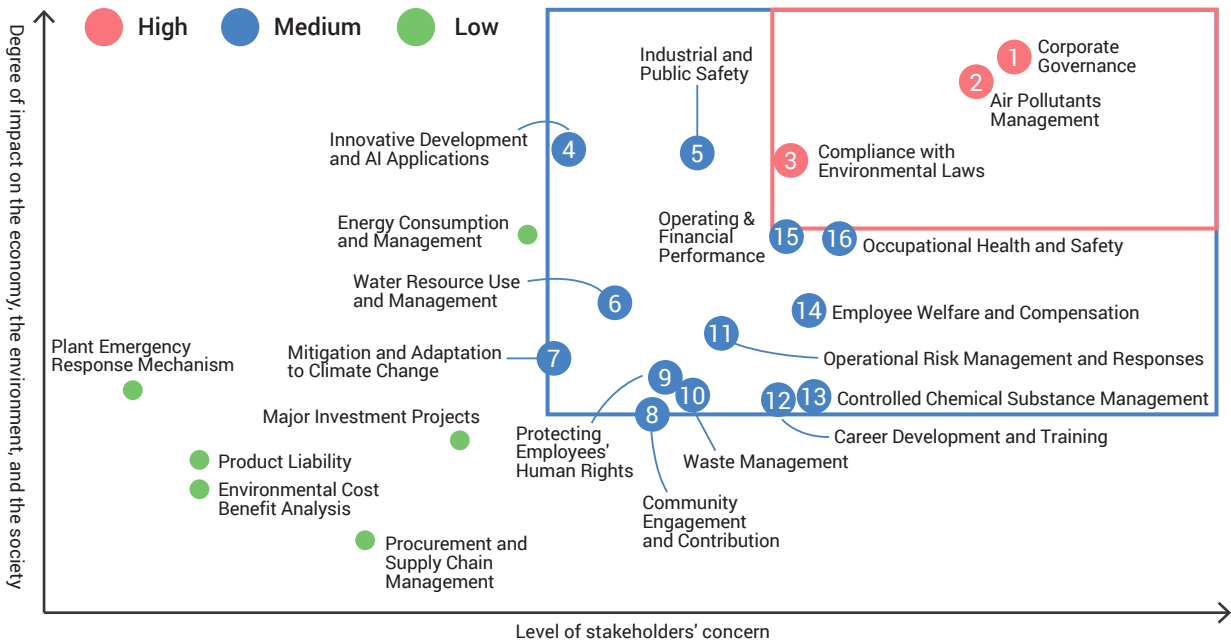
FCFC communicates with our eight stakeholders through various channels. Topics of concern to the stakeholders are compiled and discussed by relevant departments; after reaching a consensus, the discussion will serve as the reference for contents to be disclosed in the Report.

1.5.1 Procedures for Identifying Material Topics



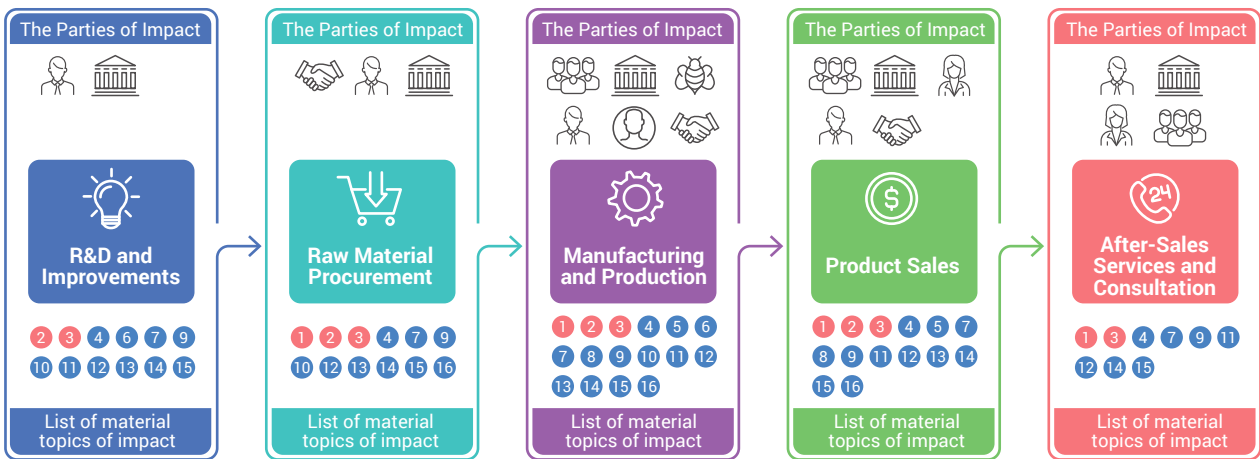
1.5.2 Prioritizing Material Topics












Stakeholders' concerns are reviewed by President's Office, Safety & Health Department, Accounting Department, Industrial Complex Administration Department, Business Department representatives, and CSR Committee members. Once integrated, the major concerns of stakeholders are proposed. At the beginning of 2019, a meeting was held to decide on the subject of the Report and material topics. Once the Report is completed, these topics are reviewed by the President, the Vice Chairman, and the Chairman to ensure their consistency with the stakeholders' needs; the Report will then be submitted to the Board of Directors for approval.


























1.5.3 Impact of Material Topics on the Value Chain


















After discussions and confirmation from the CSR Reporting Team and internal managers, FCFC has identified our five major value-creating processes, which are "R&D and improvement," "raw material purchasing," "manufacturing and production," "product sales," and "after-sale service and consultation." The processes will be the boundaries of impacts and influences from material topics. Subsequently, we were able to evaluate the impacts from the 16 material topics to our value chain as well as the stakeholders subject to impacts from the material topics and the Company's corresponding economic, environmental, and social actions to such impacts.















Dimension	Material Topic	Description	Level of Impact
Economic Impact	Corporate Governance	 Request to improve the professional ethics of procurement, contracting personnel and suppliers of FCFC in order to achieve the results of integrity and ethical corporate management.	Direct
		 Strengthening corporate governance will have positive benefits in compliance and improvement for manufacturing and production stage.	Direct
		 By making the internal control on sale cycle more rigorous, we can reduce the financial risks resulting from errors or frauds and thus enhance the quality of financial reporting.	Direct
		 <ul style="list-style-type: none"> Request to improve the ethics of FCFC's sales and after-sales service personnel, and establish a corporate image of ethical corporate management "Encouraging shareholders to take actions" will prompt shareholders and investors to actively exercise their rights and interests. 	Direct
		<ul style="list-style-type: none"> GRI 102-18~102-39: Governance Corresponding Chapter: 2.1 Corporate Governance 	
	Operating & Financial Performance	 By putting more pressure on operating performance, the Company will be encouraged to research and develop higher value and differentiated products and to improve the production processes, thus enhancing productivity.	Direct
		 Raw material procurement strategies and costs will directly impact the operating and financial performance of the Company.	Direct
		 Sound processes will ensure the stability of operating performance and will also be reflected upon more stable production input; alternatively, large fluctuations in the production process will negatively affect operations.	Direct
		 <ul style="list-style-type: none"> Selling price and volume will directly impact operating and financial performance. Product sales that meet customer needs or sale of differentiated or higher value products will drive the Company's operating and financial performance. 	Direct
		 Robust operating and financial performance will influence the investment decision-making and confidence of shareholders and investors regarding the Company.	Direct
		<ul style="list-style-type: none"> GRI 201: Economic Performance Corresponding Chapter: 2.1 Corporate Governance 	
	Innovative Development and AI Applications <small>(Note)</small>	 R&D and integration of AI applications to reduce costs and increase revenue, which in turn boosts the Company's operational growth.	Direct
		 Through joint research and development and application of AI with suppliers and contractors, to obtain high-quality raw materials or reduce procurement process costs, and increase the Company's competitiveness.	Indirect

Dimension	Material Topic	Description	Level of Impact
Economic Impact	Innovative Development and AI Applications <small>(Note)</small>	 AI applications and R&D complement each other to promote process and product innovation.	Direct
		 Expand customer level through innovation and AI applications, improve sales patterns, and increase market share.	Direct
		 Work with downstream industries to develop new products, new applications or new supply processes through innovation and AI applications.	Indirect
		<ul style="list-style-type: none"> ● FCFC and Industrial Issue ● Corresponding Chapter: 2.4 R&D Innovation and AI Application 	
	Operational Risk Management and Responses	 Whether the research and development of products and process improvements can remain up-to-date will impact the Company's operating risk.	Direct
		 Prices, exchange rates, and supply and demand status of global raw materials, as well as the timing of internal raw material procurement and inventory control will present risks to the Company's operations.	Indirect
		 Whether safety management is maintained over the personnel, equipment, materials, and goods-in-progress during the production process will significantly influence the Company's production and operating risks.	Direct
		 Product sales concentration, inventory control, exchange rates, and changes in selling price will lead financial risks to arise.	Direct
		 Positive after-sale service can reduce the risk of customer churn.	Direct
		<ul style="list-style-type: none"> ● GRI 102-15: Key Impacts, Risks, and Opportunities ● Corresponding Chapter: 2.2 Risk Management 	
Environmental Impact	Air Pollutants Management	 FCFC conducts process and equipment research and development and improvements from the source in order to reduce the negative impacts from production-stage emissions.	Direct
		 Components of procured fuel coal, such as sulfur, ash, fixed carbon and water, will affect the quality of combustion emissions and thereby impact air pollutant management.	Direct
		 Improper management over process emissions or emissions that exceed the regulatory standards will result in penalties from the competent authorities and may even result in interruption of production, leading to additional production costs and impact on the corporate image.	Direct
		 Whether tools including transportation vehicles used during the product sale stage are in compliance with regulatory emission standards will impact and influence the sale.	Direct
		<ul style="list-style-type: none"> ● GRI 305: Emissions ● Corresponding Chapter: 3.4 Air Pollutant Management 	

Dimension	Material Topic	Description	Level of Impact	
Environmental Impact	Waste Management	 FCFC conducts process and equipment research and development and improvements from the source in order to reduce the wastes from production-stage emissions.	Direct	
		 Procurement of quality raw materials can help reduce waste; conversely, waste and environmental burden will increase and impact environment.	Direct	
		 Improper waste management will result in risks from production processes and may lead to penalties from breach of related laws, impacting the corporate image.	Direct	
			<ul style="list-style-type: none"> ● GRI 306: Effluents and Waste ● Corresponding Chapter: 3.5 Waste and Controlled Chemical Substance Management 	
	Water Resource Use and Management	 In order to reduce the negative impact caused by process wastewater, FCFC conducts R&D and improvement of process and equipment from the source management to improve water cycle efficiency.	Direct	
		 <ul style="list-style-type: none"> ■ Stable water supply and adequate water use management will be beneficial toward process operations, production, and cost control. ■ Treatment and discharge of industrial wastewater will impact production, and improper management may even lead to breaches of relevant laws and impact the corporate image. 	Direct	
			<ul style="list-style-type: none"> ● GRI 30: Water and Effluents; 306: Wastewater and Solid Waste ● Corresponding Chapter: 3.2 Water Resource Use and Management 	
	Mitigation and Adaptation to Climate Change	 Climate change affects product development and process improvement, and the Company is moving toward low-carbon products.	Direct	
		 Raw material procurement, transportation and storage methods will be impacted by climate change, and adjustments and changes will be made accordingly.	Direct	
		 Climate change will influence the selection of plant sites, production costs, and various legal compliance.	Direct	
		 The storage method, sale and transportation, and marketing activities of finished goods will be impacted by climate change, and adjustments and changes will be made accordingly.	Direct	
		 After-sale services and consultation will be rendered more complex by climate change.	Direct	
				<ul style="list-style-type: none"> ● GRI 305: Emissions ● Corresponding Chapter: 3.3 Mitigation and Adaptation to Climate Change
Controlled Chemical Substance Management	 FCFC conducts process and equipment research and development and improvements from the source in order to reduce the negative impacts from controlled chemical substances during the production process.	Direct		

Dimension	Material Topic	Description	Level of Impact	
Environmental Impact	Controlled Chemical Substance Management	 Improper transportation or storage of controlled chemical substance used as raw materials will cause harm to personnel and the environment.	Direct	
		 Improper use of controlled chemical substances in the manufacturing process will cause harm to the health of employees, suppliers and nearby residents, and may cause damage to the surrounding environment and affect the corporate image.	Direct	
		 Improper storage or transportation of controlled chemical substance will cause harm to personnel and the environment.	Direct	
			<ul style="list-style-type: none"> ● FCFC and Industrial Issue ● Corresponding Chapter: 3.5 Waste and Controlled Chemical Substance Management 	
	Compliance with Environmental Laws	 Changes in environmental laws may affects product development and process improvement.	Indirect	
		 Changes in environmental laws will impact raw material procurement, storage and usage methods.	Indirect	
		 Air pollution, wastewater, solid waste emissions or treatment during production process shall comply with legal standards. Incompliance or emissions that exceed the regulatory standards will result in penalties from the competent authorities and may even impact the corporate image.	Direct	
		 Whether products are in compliance with local legal regulations and certification will impact whether products can be sold.	Indirect	
			<ul style="list-style-type: none"> ● GRI 307: Environmental Compliance ● Corresponding Chapter: 3.6 Environmental Compliance 	
	Social Impact	Employee Welfare and Compensation	     <p>More competitive employee benefits and remuneration than industry competitors and legal regulations will help reduce turnover from employees throughout the value chain, as well as to attract and retain outstanding talent.</p>	Direct
		<ul style="list-style-type: none"> ● GRI 401 : Employment ● Corresponding Chapter: 4.2 Employee Remuneration and Benefits 		
	Career Development and Training	     <p>Besides retaining talent throughout the value chain, a comprehensive career development and training system can also provide employees with various development and functional knowledge, thereby increasing cohesion.</p>	Direct	
		<ul style="list-style-type: none"> ● GRI 404: Training and Education ● Corresponding Chapter: 4.3 Developing Human Capital 		

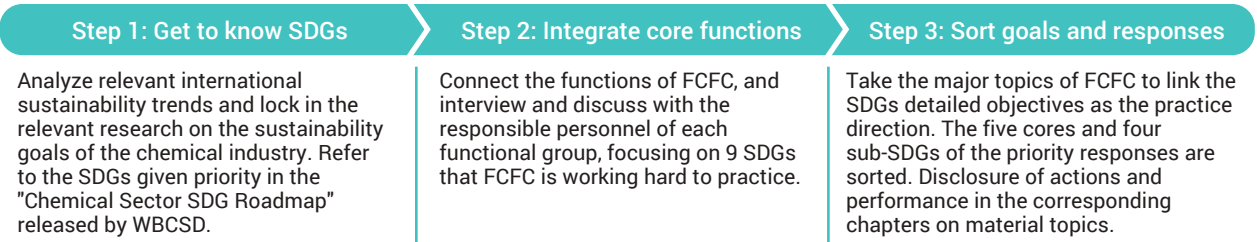
Dimension	Material Topic	Description	Level of Impact	
Social Impact	Occupational Health and Safety	 FCFC requires suppliers and contractors to improve their employee health and the safety of their workplace environment in order to ensure stable supply of raw materials and labor.	Indirect	
		 Whether the production environment is safe and worry-free is closely tied with employee and supplier health. The working environment impacts the health of employees and suppliers, and also affects production efficiency and labor costs.	Direct	
		 Whether product storage methods, environment, and the selling process are safe will affect the health and safety of employees and suppliers at work.	Direct	
		<ul style="list-style-type: none"> ● GRI 403: Occupational Health and Safety ● Corresponding Chapter: 4.4 A Health and Safe Work Environment 		
	Industrial and Public Safety	 Ensuring the safety of the manufacturing process will reduce the impact on the safety of nearby residents and the impact on the surrounding environment.	Direct	
		 A positive industry and public safety image is beneficial toward product sales; conversely, it will affect customers' trust for the Company's products.	Direct	
		<ul style="list-style-type: none"> ● FCFC and Industrial Issue ● Corresponding Chapter: 4.4 A Health and Safe Work Environment 		
	Community Engagement and Contribution	 By actively building ties with communities nearby production plants and responding to societal needs and giving back to the society, conflicts between corporates and the local communities will decrease, and it will help the Company to build its image.	Indirect	
		 Efforts toward community participation and giving back to the society will positively help product sales; conversely, the market's acceptance of the products will be negatively affected.	Indirect	
		<ul style="list-style-type: none"> ● GRI 413: Local Communities ● Corresponding Chapter: 5.1 Community Engagement 		
Protecting Employees' Human Rights	    	An equal-appointment, non-discriminatory and harassment work environment, and thorough implementation of human rights protection policies will have a positive impact on each stage of the corporate value chain, enhancing corporate image and operating performance.	Direct	
	<ul style="list-style-type: none"> ● GRI 402: Labor-Management Relations ● Corresponding Chapter: 4.1 Employee Human Rights Protection 			

Note: after the analysis and evaluation of major issues in 2019, considering that "R&D innovation and AI application" is an important issue that the employees as key stakeholders attach importance to, it was adjusted as one of the major issues in 2019.

1.6 Practice Sustainable Development Goals

In 2019, the CSR core team of the FCFC deeply identified the SDGs relevant to the Company, and discussed the connection between major topics and detailed objectives with the responsible personnel of each functional group, as a blueprint for the Company's practice of SDGs.

Identification process of SDGs of FCFC

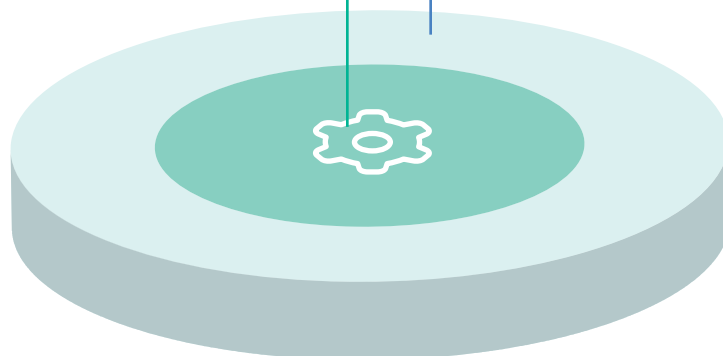


Core SDGs

	Detailed Objective	Major Issues	Corresponding Chapter
	3.9	● Water Resource Use and Management	3.2.2
		● Air Pollutant Management	3.4.1
		● Waste Management	3.5.1
		● Controlled Chemical Substance Management	3.5.2
	8.2	● Operating & Financial Performance	2.1.5
		● Protecting Employees' Human Rights	4.1.3
	8.5	● Employee Welfare and Compensation	4.2.1
	8.6	● Career Development and Training	4.3.2
	8.8	● Occupational Health and Safety	4.4.3
		● Industrial and Public Safety	4.4.5
	11.5	● Industrial and Public Safety	4.4.4
		● Air Pollutant Management	3.4.1
	11.6	● Waste Management	3.5.1
		● Compliance with Environmental Laws	3.6
	12.2	● Corporate Governance	2.1.2
		● Waste Management	3.5.1
	12.4	● Controlled Chemical Substance Management	3.5.2

Secondary SDGs

	Detailed Objective	Major Issues	Corresponding Chapter
	4.7	● Community participation and social feedback	5.1.3
	6.3	● Water Resource Use and Management	3.2.4
		● Controlled Chemical Substance Management	3.5.2
	6.4	● Water Resource Use and Management	3.2.3
	9.4	● Innovative Development and AI Applications	2.4.1
	13.1	● Mitigation and Adaptation to Climate Change	3.3.3 3.3.4
		● Operational Risk Management and Responses	2.2.2
	14.1	● Water Resource Use and Management	3.2.2
		● Water Resource Use and Management	3.2.2
	14.2	● Community participation and social feedback	5.1.3



2

Creating an Innovative Economy

- 2.1 Corporate Governance and Performance
- 2.2 Risk Management
- 2.3 Product Sustainability
- 2.4 Development, Innovation, and AI Applications
- 2.5 Excellent Customer Service
- 2.6 Procurement and Supply Chain Management
- 2.7 Description of Material Economic Issues



2.1 Corporate governance and performance

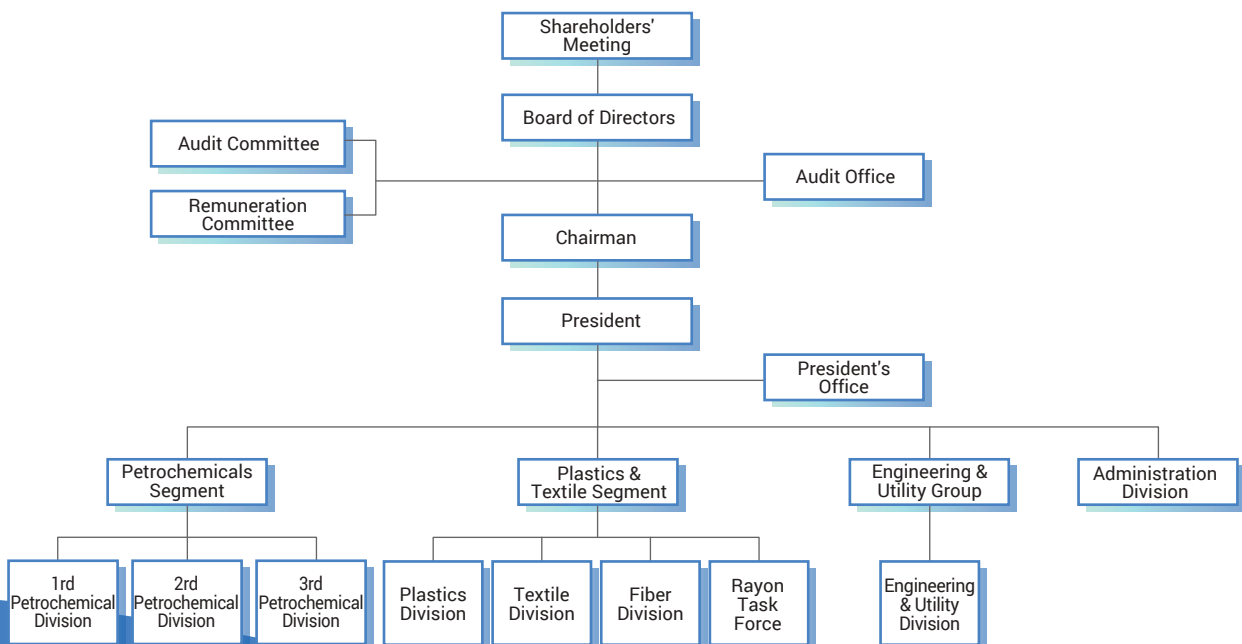
Management Approach to Corporate Governance



Policy	Abide by Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies and other related regulations.
Responsibilities	Board of Directors is the highest governance body and is responsible for drafting and executing the governance system.
Resources	Group Administration of the Formosa Plastics Group (FPG) and the President's Office and other related departments of FCFC will collectively promote governance tasks.
Specific Actions	<ol style="list-style-type: none"> 1. Draft and execute the governance system to ensure the achievement of goals including operational results and efficiency, reliability of financial reporting and legal compliance, through a comprehensive internal control system. 2. Establish Code of Ethical Conduct and require employees to sign documents to state self-discipline. 3. Organize training and advocate for legal compliance awareness in employees.
Objectives and Commitment	Continue to improve the Company system, strengthen internal control, and improve the effectiveness of corporate governance.
Grievance Mechanism	Establish "Violation Reporting Guidelines" as an internal channel for reporting violations.
Performance Evaluation Methods and Results	Internal auditors will conduct audits on governance matters including the Board of Director, Audit Committee, Remuneration Committee, and the internal control system, and review and amend the internal control mechanism based on the status of deficiency improvements and their underlying causes.

2.1.1 Corporate Governance Profile

FCFC Governance Framework



Operation of Board of Directors

The Board of Directors is the highest governance body as well as the center of operational decision-making at FCFC. In addition to conforming to the resolutions made in shareholders' meetings, the Board of Directors acts in accordance with the corresponding laws and regulations (e.g. Company Act, Securities and Exchange Act, Articles of Incorporation, and Rules of Procedure for Board of Directors Meetings) to operate business. Furthermore, we have established the Board and Management Ethics Policy. In all circumstances, all personnel shall abide by this policy when performing duties to prevent wrongdoing against the Company and the shareholders.

Currently there are 15 Directors with an average age of 66. All of whom are experts in their respective fields with ample industry management experience. To strengthen the independence and diversity of governance, 3 Independent Directors and 1 female Director have also been elected. Please refer to "2019 FCFC Annual Corporate Governance Report—Directors' Profile" for details.

Social responsibility issues with respect to economy, society and the environment will be submitted to the Board of Directors for discussion, if necessary, as a basis for promoting social responsibility.

Remuneration for the Highest Governance Body

Since August 2011, FCFC has set up a "Remuneration Committee" to evaluate the Company's Directors' and managers' salary remuneration policies and systems, and make recommendations to Board of Directors to prevent the compensation policy from guiding Directors and managers in undertaking the Company's risk appetite conduct. Pursuant to the Remuneration Committee Charter, at least two meetings shall be convened in each year. In 2019, three meetings were convened. Please refer to "2019 FCFC Annual Corporate Governance Report—Composition, Responsibilities and Operation of the Company's Remuneration Committee" for details on the operation of the Remuneration Committee.

Senior executives' annual compensation is mainly composed of salary, bonuses, and employee bonuses with pension and benefits properly allocated. The Chairman carries out a comprehensive performance appraisal for executives' overall performance within their authority and individual work attainments. To ensure that senior executives fully understand and achieve the Company's strategic goals, the incentive system is tied up with individual work attainments and the overall performance of the Company.

Independent Audit Committee

In order to strengthen the supervisory function of the Board of Directors, the Company established an Audit Committee in June 2015. Through establishing an Audit Committee and a comprehensive auditing management system, we have construed an independent, professional supervisory mechanism. The Audit Committee is composed of 3 Independent Directors. Please refer to "2019 FCFC Annual Corporate Governance Report—Director Profile and Diversification Policy of Board Composition" for details.

Training Courses for Directors

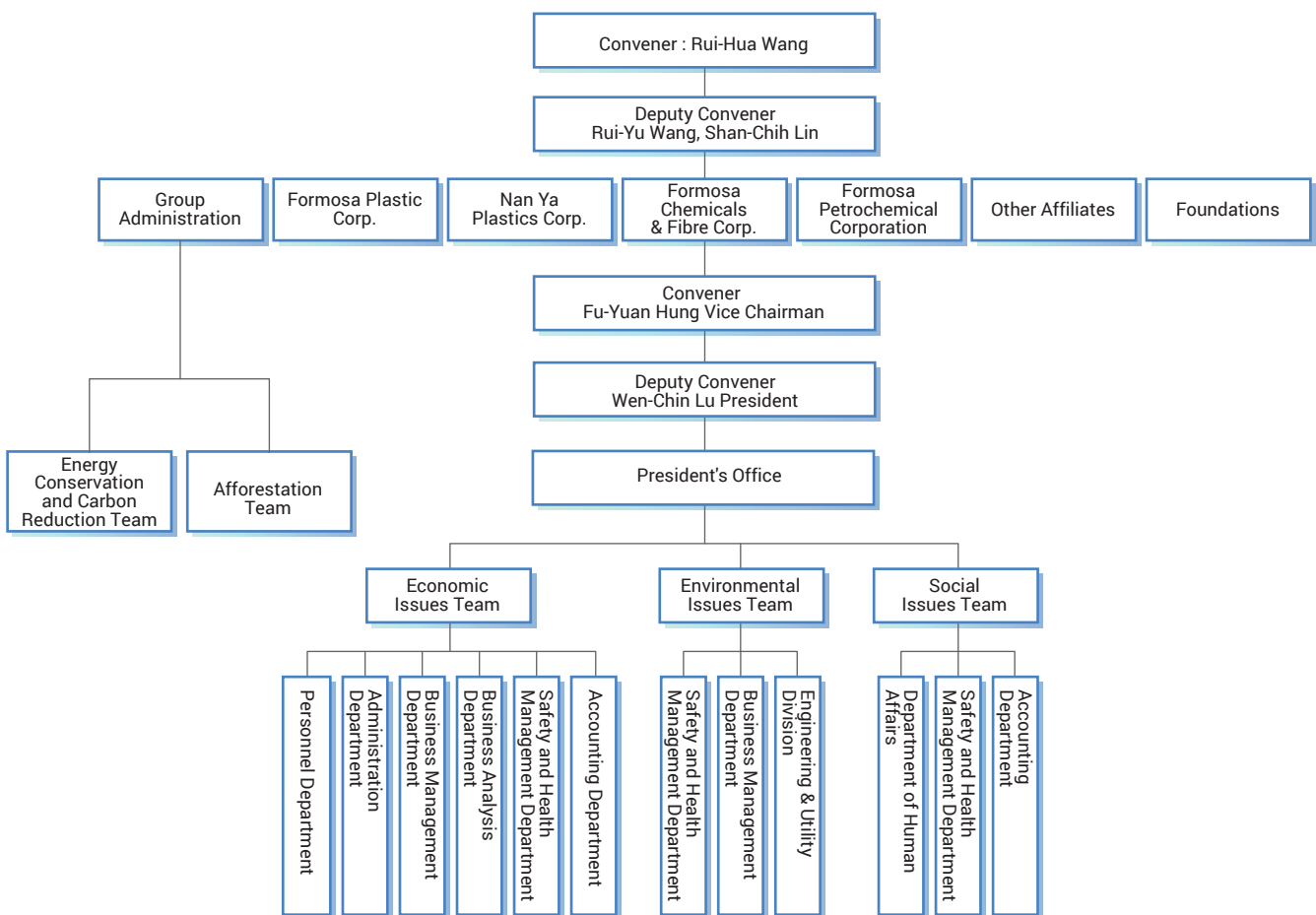
To continuously facilitate in the enhancement of professional and legal knowledge of Directors and to actively implement the corporate governance system, the Company's Directors receive relevant studies and training in each year. Please refer to "2019 FCFC Annual Corporate Governance Report—Corporate Governance Status and Reasons for Deviations from the Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies: Item 8" for details.

2.1.2 Social responsibility Work Promotion Organization SDG 12.2

To effectively exercise corporate social responsibility, FPG formed the CSR Committee in 2008, which is led by the Managing Director Rui-Hua Wang from Formosa Plastics Corp. and assisted by the Managing Director Rui-Yu Wang and Shan-Chih Lin from FCFC. The CSR Committee is responsible for proposing CSR strategies and evaluating their performance throughout the FPG.

Fu-Yuan Hong, Vice Chairman of the Company, is the convener of the "CSR Group of FCFC". Wen-Jin Lu, the President, is the deputy convener. The economic, environmental and social issue groups are set up to carry out social responsibility work together with the CSR Committee of the Group Administration, and formulate the "Code of Corporate Social Responsibility" to promote environmental, economic and social progress for sustainable development goals. Please refer to the Company's official website for the Code of Corporate Social Responsibility.

FPG CSR Committee and FCFC CSR Group



2.1.3 Internal Control Mechanisms

In addition to being supervised by the Audit Committee, FCFC has an Audit Office attached to the Board of Directors. Full-time internal auditor trained by professional training institutions shall carry out the internal audit of the Company's business and submit the relevant audit report to the Board of Directors. Internal auditing is not the sole obligation of the independent auditing department. Each department is also required to carry out independent audit on the specific items internally and independently within the specified period. The independent auditing department then reviews the results of the internal audit at each department and implement scheduled and unscheduled inspection to ensure that internal control has been thoroughly implemented at each department.

2.1.4 Ethical Business Conduct

The Company adheres to the core spirit of "diligence and simplicity", formulates strict moral standards and relevant guidelines, and signs relevant self-discipline documents and internal complaint channels. It is expected that all members of the Company, no matter in their work and daily life, must take the important responsibility of maintaining high moral standards, the Company's reputation and abiding by laws and regulations with a responsible attitude. No employee complaints occurred in 2019. Please refer to the Company's official website for rules and regulations, self-discipline documents, education and training, and complaint channels.



✓ **Anti-corruption**

According to the internal regulations, no business entertainment or gifts shall be accepted. Those found guilty of graft or embezzlement of public funds or taking bribes or commissions will be dismissed.

✓ **Anti-fraud**

Employees working in sales, procurement, product warehousing, construction oversight, and budget divisions are required to regularly rotate their positions to prevent the occurrence of any malpractice.

✓ **Strict Discipline**

We take strict actions toward those who violate the regulations. Improper behavior will not be tolerated, and even immediate supervisors are monitored and given warnings.

2.1.5 Operational financial performance SDG 8.2

Management Approach to Operational and Financial Performance 📍 Material Topic

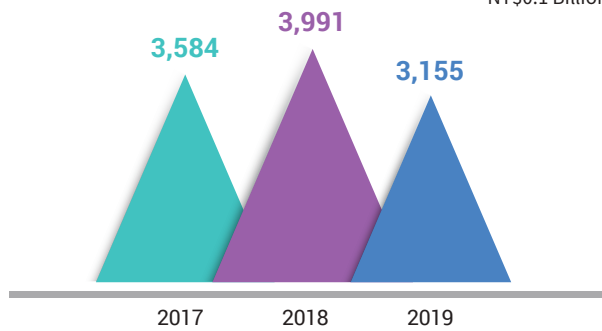
Policy	Strive to enhance management performance by developing diversified and high-value products and to diversify investment markets to lower management risk and improve operating performance.
Responsibilities	Operating segments will draft annual performance goals and carry out the goals accordingly. The management level is responsible of supervising and assisting the achievement of such goals.
Resources	Though the pursuit of profit is not the sole objective of the Company, but it is the most basic requirement. Therefore, the Company's resources will fully support the achievement of operating and financial performance goals.
Specific Actions	<ol style="list-style-type: none"> 1. Financial operations are robust and stable, and the Company does not deal in high leverage, high risk investments. 2. Appropriate derivatives are used to hedge against the risks of interest rate and exchange rate fluctuations to reduce influences from market changes.
Objectives and Commitment	Annual financial performance targets are set in each year to pursue for sound, stable profitability.
Grievance Mechanism	<ol style="list-style-type: none"> 1. Company network or physical mailboxes. 2. Inquire the Share Transfer Office or propose recommendations during the Shareholders' Meeting.
Performance Evaluation Methods and Results	The Company regularly reviews effectiveness of goal implementation, and such reviews include monthly, quarterly, and annual management performance reviews. Evaluation and improvements are conducted on operational status at each department, while the management level also supervises operations at all times to enhance performance.

Financial Performance

In 2019, due to the impact of uncertain factors such as China-US trade conflict, Brexit and the slowdown of the China economy, the international trade is weak, the momentum of global economic growth is insufficient, coupled with the fluctuation of crude oil price and the impact of new capacity from the same industry, the operation of petrochemical industry is sluggish, the market has price quotation but no transaction, and the interest margin is narrowed. Although the Company is trying to increase the sales of high-value products and promote cost reduction by AI projects, however, the sales were still weak, with turnover down 20.9% and after tax profit of NT\$34.4 billion, down by 37.9%. Consolidated financial statements can be found and downloaded on the Company's official website. The Company's revenue, profit after tax, earnings per share and shareholders' return on equity in the consolidated financial statements for 2019 are shown as follows:

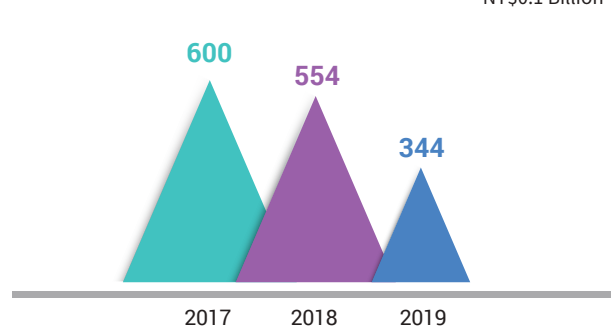
Operating Revenue from 2017 to 2019

NT\$0.1 Billion



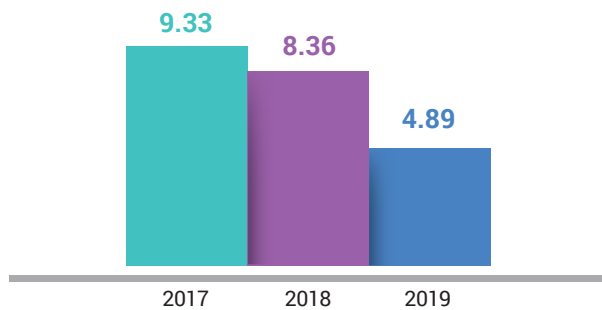
Profit After Tax from 2017 to 2019

NT\$0.1 Billion



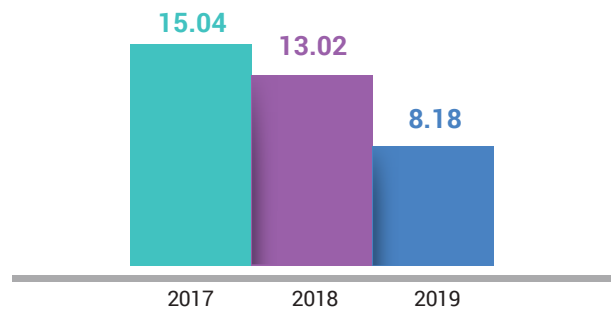
Earnings per Share from 2017 to 2019

NT\$



Return on Equity from 2017 to 2019

NT\$



Investor Relations

FCFC also maintains a section called Investor Relations on the official website to answer investors' inquiries. All statistics and relevant data are disclosed in the MOPS. In addition, a spokesperson system was established to provide a window for dialogue between corporate investment institutions and the Company; monthly performance presentations and semi-annual IR conferences were held to establish face-to-face communication channels with investors.

Communication with Investors



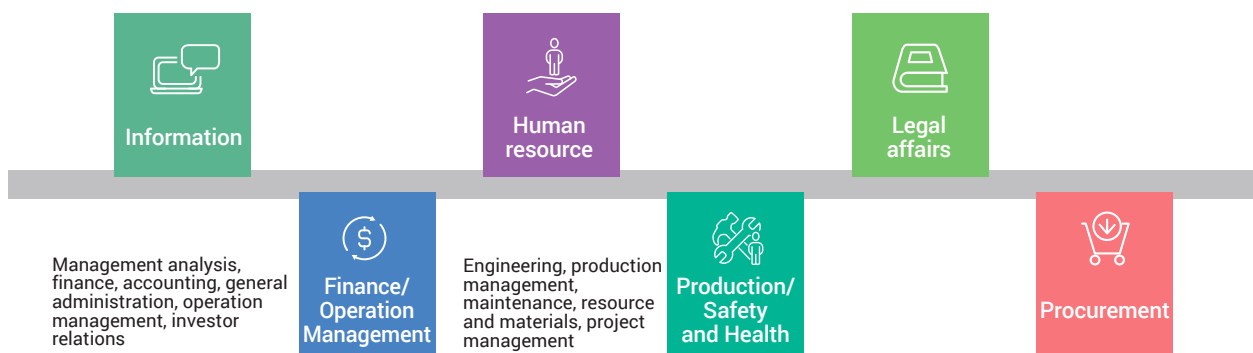
2.2 Risk Management

Operational Risks and Corresponding Management Strategies 📍 Material Topic

Policy	After various risks have been identified by relevant functional departments, mitigation measures and corresponding policies will be established based on the risks. Relevant laws and levels of impacts to the Company's operation will be also taken into consideration when setting risk-hedging timeline and objectives.
Responsibilities	Each department of the Company shall identify risks and levels of impact as references for setting corresponding measures.
Resources	Departments that face risks shall propose levels of impacts to operation and corresponding measures. Each functional department facilitates in the response and mitigation of risks.
Specific Actions	Risk corresponding actions for financing, climate change and information security risks and more, are carried out by Finance, Safety, Health and Environment, and Information Departments.
Objectives and Commitment	The level of impact from rapidly-changing internal and external environments on corporate operations is gradually increasing, and every change presents a certain risk to the corporate. Therefore, the Company's goal is to minimize the level of impact from each risk.
Grievance Mechanism	Deficiencies in risk management can be reported to FCFC' Audit Office, Independent Directors, or the Board of Directors.
Performance Evaluation Methods and Results	Each department with risks will self-evaluate the effectiveness of risk identification and mitigation, while the FPG Group Administration and the President's Office from FCFC will also conduct performance evaluation and coaching over departments with risks.

2.2.1 Risk Identification Procedures

Faced with impacts from changes in the global environment and increasingly complex challenges, a comprehensive risk management mechanism and crisis response and management capabilities have become important cornerstones to a company's sustainable management. By adhering to the existing functional system and internal control system, the Company actively faces and controls risks through the most cost-effective methods in six major aspects, namely HR, information, finance/operation management, legal, procurement, and production/safety and health, which shall be considered during management processes.



Each functional department operates based on the Company's regulations and systems, and actively identifies and reports risks out of line to each functional supervisor. Moreover, functional departments will also collaborate to identify risks in the aforementioned six aspects through relevant meetings from time to time. In addition, the Audit Office is in charge of reviewing risks in every aspect and whether sustainable risk management is carried out in accordance with regulations. And Independent Directors will also communicate with Audit Manager in regards to auditing deficiencies and abnormal incidents from time to time, and report to the Board of Directors.

2.2.2 Risk matters and corresponding measures SDG 13.1

With rapid changes in the internal and external environment, companies are faced with an increasing number of risks during operation. To keep impacts caused by various risks on the Company's operation to a minimum, after discussing potential risks, the Company's relevant departments will propose appropriate countermeasures one-by-one. The following are major risk issues and responses to be taken:

Risk Issues	Responses
Risk factors that directly impact FCFC's income: fluctuation in exchange, loaning of funds to others, making endorsements/guarantees, and derivative transactions	Please refer to "review and analysis of financial status and financial performance of annual report of FCFC in 2019 and point 6 of risk matters" on the official website of the Company.
Shortage of Raw Materials	<ol style="list-style-type: none"> 1. Actively develop new supplier relations and increase sources of material. 2. Establish a raw material inventory control mechanism, to set the safe inventory quantity and propose purchases at the right time. 3. Seize information on market and material sourcing status and procure ahead of time when needed.

Risk Issues	Responses
Water, Electricity, and Steam Supplies	<ol style="list-style-type: none"> 1. The power and steam required by Longde, Xingang and Mailiao areas of the Company are self-sufficiently supplied by the steam electricity co-generation system, and the power is double backed up by the Taipower system to stabilize the production of various processes. 2. In view of the severe local environmental protection policies in recent years, we continue to promote the management and improvement of energy conservation and carbon reduction, and cooperate with the government to implement the promotion measures of renewable energy such as solar photovoltaic. 3. After AWARE evaluation at all Company plants, though no data has indicated that we are located within water resource pressure zones, we have set our plants as water resource pressure zones in response to risks associated with water resources and continue to plan various water-saving management and improvement measures. 4. Planning Desalination Plant to Achieve Stable Water Sources.
Industrial Safety	Continue to promote the safety of personnel and equipment in each plant area, implement personnel education and training and improve the adequacy ratio of various equipment.
Climate Change	<ol style="list-style-type: none"> 1. Climate change has become a risk issue of global concern. The Company's water-saving and energy-saving promotion team will draft improvement projects, organize industry visits and promote various energy-saving and carbon reduction improvements. 2. Pollution prevention is also an important part of environmental protection. We advocate for circular consumption by conducting waste reduction, recycling, and emission reduction from the source in regards to wastewater, exhaust, and solid waste.
Changes in Environmental Policy	<ol style="list-style-type: none"> 1. The Company's Environmental Protection Department understands and participants in changes and discussions of environmental policies from public sectors at all times to immediately respond to and to incorporate such changes into the Company's operational strategies. 2. In response to environmental protection policies, the existing fuel in thermo oil boilers at all plants have been substituted by natural gas or process gas. Besides reducing GHG emissions and various air pollutants, the efficiency of boilers has also increased accordingly.
Information Security	<ol style="list-style-type: none"> 1. Continue to strengthen information governance, set up contingency standards and procedures, strengthen disaster prevention, information security, monitoring, notification mechanisms, exception management and backup. 2. Regularly update the computer software of each user department to ensure that they are all officially licensed legal software, and set to automatically update antivirus software virus codes and regular scans. It is forbidden to use unapproved software or private copy software on the computer to avoid being inserted into backdoor or spyware by unknown programs. 3. In addition, we regularly review the necessity of network setup and connectivity in all departments that require computer usage to ensure the normal operation of overall information network and efficiency of data transmission. 4. Regularly review information security management policies, including internal security management and prevent external intrusion.
Anti-dumping Investigation	To carry out anti-dumping investigations on imported products in response to the protection of domestic industries in various countries, and impose anti-dumping duties. Besides enhancing the added-value of products, FCFC also actively responds to anti-dumping investigation. We work closely with trading companies and dealers in each country to help expansion our market share to the global market.

Risk Issues	Responses
China US trade conflict	<p>Although China and the United States have signed the first-stage trade agreement, the conflict seems to be showing signs of easing, but the United States continues to impose tariffs on Chinese goods. The second-phase agreement still has many problems to be solved. The U.S.-China trade dispute may continue to affect global trade development. Though the FCFC products that are made in China are mostly supplied to China's domestic market, it can be expected that the long-term influence of the trade war will cause the global supply chain to gradually shift toward countries with large populations such as India and Indonesia. Besides continuing to operate in China, the Company is also actively cultivating Vietnam and participating in expansion plans in Louisiana, US. At the same time, we are also actively launching high-value and differentiated products to compete for diversified market opportunities in order to reduce the influences caused by the US-China trade war.</p>
ECFA termination	<p>In response to the possible termination of the cross-strait ECFA and the rapid changes and impacts of the industry, the Company will continue to implement the strategy of diversified market segmentation and sales, and continue to work towards customized production to increase the differentiated production ratio of products. Taking advantage of leading product quality and production technology to expand market share, increase the added value, production and sales of differentiated products, and further leverage the stable advantages of high quality and delivery</p>
COVID-19 Outbreak	<p>After the outbreak of the COVID-19 in China, it has spread to the whole world due to its superb contagion. Quarantine measures such as isolation, shutdown, and closure of the city have led to production and supply chain disruption, restrictions on people and logistics, and shrinking terminal demand, seriously impacting on the global economy. The Company has formulated relevant epidemic prevention regulations such as the "Prevention and Emergency Response Plan for Severe Special Infectious Pneumonia Epidemic Situation" and "Implementation Rules for the Toolbox during the Epidemic Prevention of Severe Special Infectious Pneumonia" and other relevant anti-epidemic regulations, based on which various anti-epidemic work and contingency measures are implemented, and continuously review the entry and exit control of personnel in the office building and control room, handover shifts, agreement on the organizational epidemic prevention regulations and the implementation of factory personnel distribution, etc., to prevent the epidemic situation from affecting the health of employees and ensure the normal operation of the Company.</p>



2.3 Product Sustainability

In addition to the core petrochemical industry in which FCFC is involved, we have also expanded our market reach through vertically integrated production to reduce operating costs by expanding the production volume. We strive to meet customers' demand for raw materials and improve our market competitiveness. Currently, we have completed our deployment throughout up-, mid-, and downstream sectors for petrochemicals, plastics, fibers, and textiles.

2.3.1 Upstream and Downstream Relationship of FCFC Products

Upstream and Downstream Relationship Diagram of FCFC Products

The Company's products span petrochemical, plastic, fiber and textile categories, and has a steam and electricity co-generation plant to produce water, electricity and steam for use in the manufacturing process. For the product up-and-down relevance and use, please refer to "2019 FCFC Annual Operation Overview - Industry Relevance of upstream, midstream and downstream."

Use of Raw Materials

FCFC is a part of upstream and downstream integrated plants of FPG. Most of our raw materials are supplied by FPG companies or the upstream manufacturing process. The supply and demand are less affected by market fluctuations, which can stabilize the sources of raw materials and reduce the inventory. For the usage and sources of major raw materials in 2019, please refer to "2019 FCFC Annual Report Operation Overview - Supply of Major Raw Materials".

Brand

FCFC started with the production of textile products and gradually transformed into the production of petrochemical and plastic products. The production process is designed and built with environmental protection and safety as the first consideration, and it is managed with a strict production system and a friendly environment. It continuously improves products and processes, and establishes a trustworthy product brand. For example, some product lines of FCFC's carpet have obtained the Green Building Material Mark of the Ministry of the Interior and the American Carpet and Rug Institute (CRI) certification. The main brands of FCFC:

Main Brand	QR Code link	Main Brand	QR Code link
			
			



2.3.2 Main Products

Production Capacity

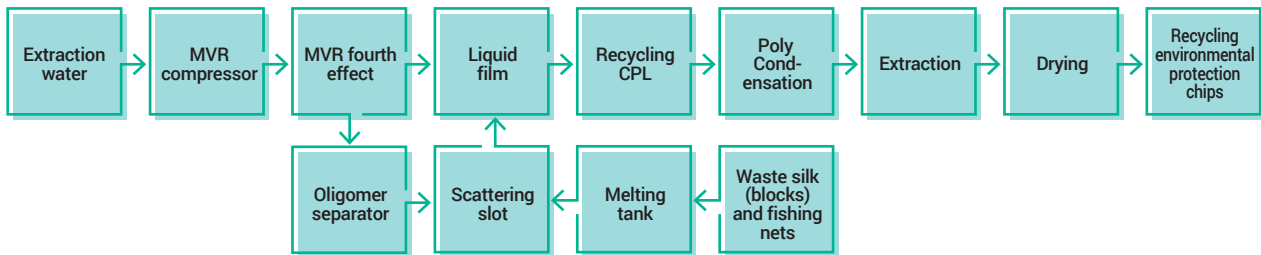
To strengthen the management, expand the operation, and enhance competitiveness, FCFC has increased its production capacity to meet downstream customers' needs. Of our production, 7 petrochemical and plastic products have capacities that currently rank among the top ten in the world:

Product Category	Item	Description	Key Value
Petrochemical Products	Aromatic Hydrocarbon (Aroma)	As an important upstream product of FCFC, aroma is used to produce upstream materials of plastics and fibers, such as benzene, toluene, OX (o-xylene), MX (m-xylene), and PX (p-xylene). Among them, all the benzene is supplied by the Company to produce intermediate products such as SM and Phenpl.	Production Capacity in Taiwan: 3.88 million tons Global Ranking: 9
	Styrene (SM)	It produces styrene from self-produced benzene and ethylene produced by Formosa Petrochemical Corp., and then uses styrene to extend down to produce PS, ABS and other general-purpose plastics for plastic processing and chemical fiber industry to manufacture plastic products and clothing.	Production Capacity in Taiwan: 1.32 million tons Global Ranking: 2
	Phenol	FCFC produces phenol and acetone using self-produced benzene and FPCC-produced propylene. Phenol is mainly used as a raw material by Nan Ya Plastics Corporation to produce BPA. FCFC then uses BPA to produce polycarbonate (PC), which is later sold to downstream optical, LED, and plastic processing industries to produce products with high hardness, such as casings, discs, etc. Acetone is mainly used as a raw material for methyl methacrylate and methyl isobutyl ketone, which can be used to make coatings.	Production Capacity in Taiwan: 0.44 million tons Overseas Production Capacity: 0.3 million tons Global Ranking: 3
	Acetone		Production Capacity in Taiwan: 0.27 million tons Overseas Production Capacity: 0.185 million tons
	Pure Terephthalic Acid (PTA)	FCFC produces pure terephthalic acid (PTA) using self-produced p-xylene (PX). PTA is mainly provided for textile industries and beverage industries to produce polyester fibers and plastic bottles, respectively. PTA is also used to produce polyester resins, such as ethylene terephthalate and butylene terephthalate.	Production Capacity in Taiwan: 1.7 million tons Overseas Production Capacity: 1.2 million tons

Product Category	Item	Description	Key Value
Petrochemical Products	Pure Isophthalic Acid (PIA)	FCFC produces isophthalic acid (PIA) using self-produced m-xylene (MX). PIA is used to produce polyester resins, such as PET (bottle grade & membrane grade), alkyd resin, unsaturated polyester resin, allyl polyphthalate, dibutyl isophthalate and other high polymers and plasticizers. PIA is also used to produce photographic developers, coating, modifiers, and medicines.	Production Capacity in Taiwan: 0.2 million tons Global Ranking: 4
	Acetate	Formosa BP Chemicals Corporation is a joint venture established by FCFC and British Petroleum (BP) with a 50:50 partnership. In general, it mainly produces acetic acid, which is later delivered to FCFC, Nan Ya Plastics Corporation, and Dairen Chemical Corp. to produce PTA, Butanediol (BDO), and vinyl acetate (VAM), respectively.	Production Capacity in Taiwan: 0.3 million tons
Plastic Products	Polystyrene (PS)	FCFC produces PS using self-produced SM. The PS products are used to produce food containers, toys, appliance casings, and packaging materials.	Production Capacity in Taiwan: 0.34 million tons Overseas Production Capacity: 0.2 million tons Global Ranking: 5
	Acrylonitrile, Butadiene, and Styrene (ABS)	ABS resin is produced with self-produced SM, butadiene produced by FPCC and acrylonitrile produced by FPC. It is used in home appliances, toys, computer information, building materials and pipe fittings, safety helmets, vehicle parts, etc.	Production Capacity in Taiwan: 0.45 million tons Overseas Production Capacity: 0.45 million tons Global Ranking: 3
	Polypropylene (PP)	PP is produced from FPCC's propylene as the main raw material, and it is supplied to processing industries such as injection, extrusion, fiber, blow molding, and vacuum forming. It is used to produce home appliances, auto parts, food packaging, toys, and household products.	Production Capacity in Taiwan: 0.64 million tons Ranking in Taiwan: 1
	Polycarbonate (PC)	PC can be supplied to processing industries such as injection molding and extrusion molding, and is used to produce home appliances, vehicle lamps and components, food containers, instrument casting, outdoor sunshades and optical components.	Production Capacity in Taiwan: 0.21 million tons Global Ranking: 7
Fiber & Textile Products	Rayon Fiber	Rayon is produced by wood pulp. It is applied to clothing fabrics, lining fabrics, plastic base fabrics, sanitary materials, and laundry-free materials.	Production Capacity in Taiwan: 78,000 tons Taiwan's Only Rayon Manufacturer
	Nylon Filament	Nylon chips are produced by caprolactam. Nylon chips are then processed to produce nylon filaments, oriented yarn, tire cord yarn, and industrial yarn, which are used as raw materials to produce ski clothing, aerobic suits, umbrellas, stockings, vans, bags, and fishing nets.	Production Capacity in Taiwan: 89,000 tons Overseas Production Capacity: 36,000 tons
	Synthetic Yarn	FCFC produces a variety of yarn using self-produced rayon, NPC-produced polyester cotton, and purchased natural cotton. Yarn is used as a raw material for woven fabric.	Production Capacity in Taiwan: 6,000 tons Overseas Production Capacity: 76,000 tons

2.3.3 Promoting Circular Economy—Recycling of Byproducts

To promote circular economy, the Company recycles exhaust and waste produced during the manufacturing process in addition to achieving important results in energy and water conservation, thereby reducing production costs and promoting sustainable use of resources. In 2019, the Fiber Division Polymerization Plant recycled extracted water and nylon waste silk (blocks) to make nylon chips, and produces nylon environmental protection chips from waste fishing nets. The descriptions are as follows:



Note: MVR is a mechanical vapor decompressor

Department	Practice and benefits	Future objectives
Polymerization plant	<ul style="list-style-type: none"> In 2019, 8,181 tons of recycled amides were produced by recycled extraction water, and 7,512 tons of nylon chips were produced by polymerization process, with the cost reduced by NT\$80,378,000. 	<ul style="list-style-type: none"> The relocation of Recycling Section of Polymerization Plant is scheduled to be completed in March 2020. It can produce 201 tons/month of nylon environmental protection chips from waste silk (blocks) and waste fishing nets. In November, it will complete the melting, dispersing, refining and filtration systems, and the output of nylon environmental protection chips can be increased to 400 tons/month.
Nylon plant in Vietnam	<ul style="list-style-type: none"> In 2019, 3,830 tons of recycled amides were produced from the recycled extraction water, and put into the polymerization process to produce 3,517 tons of nylon chips, reducing the cost by NT\$37,632,000. In 2019, waste silk (blocks) and discarded fishing nets were processed through the melting tank to produce recycled amides and put into the polymerization process to produce 3,874 tons of recycled environmental protection chips, and the cost is reduced by NT\$50,681,000. 	<ul style="list-style-type: none"> It is expected to complete the expansion of the melting tank and dispersion system in October 2020, and nylon environmental protection chips can be increased to 400 tons/month.

2.3.4 Product Safety and Health Responsibility

FCFC has always attached great importance to the health and safety of its customers. In the improvement and development process of all products, the impact of each stage on the safety and health is evaluated in detail, and the production process is continuously improved. About 50% of the products are evaluated for health and safety, as shown below:

1. Environmentally-friendly plastic pallets are used in place of traditional wooden pallets at production divisions and automated warehouses. In addition, new plywood pallets are used in export containers to meet animal and plant health inspection and quarantine policies.
2. It is required for vehicles that transport the Company's products to change from the environmental protection phase II standard to the environmental protection phase IV standard.

3. Wood pulp that meets SGS "Chain-of-Custody" certification and Forest Stewardship Council (FSC) requirements is used to produce non-woven fabric.
4. Rayon has passed the "Oeko-Tex Standard 100" stamp certification. In addition, we have also promoted the stamp certification of compostable rayon with the "Environmentally Biodegradable Polymer Association" and obtained the certificate of biodegradable compost stamp. Related products do not contain known harmful substances that have an adverse effect on human health. The production process is friendly to the environment and does not damage the environment when recycled.
5. FCFC has implemented chemicals registration, evaluation and authorization in line with the EU's REACH regulation and has completed the pre-registration for 11 products. In addition, the Company supported Korean REACH, and 2 product registrations have been completed for SM and Phenol respectively.

2.3.5 Participation in External Associations

FCFC actively participates in relevant industrial associations, guides and other organizations, including 7 petrochemical plastics industries, 4 fiber textile industries and 19 other types of associations / guilds / trade unions. In addition to sharing our own operating experience through the organizations and co-organizing seminars and international conferences, we also share the latest market trends, changes in supply and demand, and technical information with the industry. Moreover, we participate in various international trade negotiations and consultation in order to contribute to the overall industry. Advice is also provided to the government on issues of international industries and economics. In 2019, association membership fees and related sponsorship amounted to NT\$2,500,400.

List of important positions held for external associations

Industry	External Association	Chairperson	Director	Executive Director	Honorary Chairman
Petrochemical Plastics	Petrochemical Industry Association of Taiwan	-	Fu-Yuan Hung Vice Chairman	-	-
	Taiwan Synthetic Resins Manufacturers Association	-	-	Wen Yuan Wong Chairman	-
Fiber textile industry	Taiwan Textile Federation	-	-	-	Wen Yuan Wong Chairman
	Taiwan Man-made Fiber Manufacturing Industries Association	-	-	Wen Yuan Wong Chairman	-
	Taiwan Spinner's Association	-	-	Wen Yuan Wong Chairman	-
Others	Chinese National Federation of Industries	Wen Yuan Wong Chairman	-	-	-
	Cross-Strait CEO Summit	-	-	Wen Yuan Wong Chairman	-

2.4 Development, Innovation, and AI Applications

Management policy of R&D innovation and AI application Material Topic

Policy	<ol style="list-style-type: none"> 1. Encourage the R&D atmosphere, so that every R&D staff realizes that only continuous innovation and improvement, and enhancing technology and product value is the best way for the Company to survive. 2. Through cross-departmental cooperation and R&D management, we shall actively develop high-quality, environmentally friendly and diverse products.
Responsibilities	The technical department formulates and executes annual research plans and targets, and the management is responsible for monitoring and evaluating performance.
Resources	Exchange and share technology and equipment of external colleges and universities with research units of various departments in the enterprise.
Objectives and Commitment	Actively develop high-quality, environmentally friendly, diverse products and grow together with downstream customers.
Grievance Mechanism	Actively care about the production status of customers, provide technical support at any time, and report the results to the management to maintain a good interactive relationship.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. Periodically review performance implementation effectiveness, including monthly, quarterly, and annual business performance reviews, and evaluate and improve the operating status of various departments. The management also monitors the operation status from time to time to improve performance. 2. Review the status of launching AI application technologies that have been proposed on a monthly basis and to propose new application technologies.

2.4.1 Product R&D and Innovation SDG 9.4

FCFC has been vertically integrated, which requires our employees to be well trained and equipped with full knowledge and experience in each production process, from raw materials to finished goods. Through inter-department cooperation and R&D management, R&D resources have been fully integrated and utilized to develop innovative ideas so that products can be developed to meet market demands.



Examples of Development and Innovation

SM plant (Haifeng) distillation tower heat integration improvement



R&D Improvement

- Change the process sequence of three distillation towers in SM plant to reduce the overall steam consumption. In practice, the second tower C202 in the original feeding sequence is changed to the first tower, so that the retention times of SM (styrene) fluid in the tower is reduced by 1 time compared with the original design. It can reduce the consumption of polymerization inhibitor in the distillation process.
- The original first tower C201 was changed to positive pressure operation, and a thin film heat exchanger was added to recycle the low-level heat energy at the top of the tower as a part of the reboiler heat source of the third tower C203. This can reduce the steam consumption of C203 reboiler.



Benefits

- Steam consumption reduced by 8.0 tons/hour.
- Annual benefit was NT\$40,064,000.
- CO₂ emissions was reduced by 17,455 tons/year.

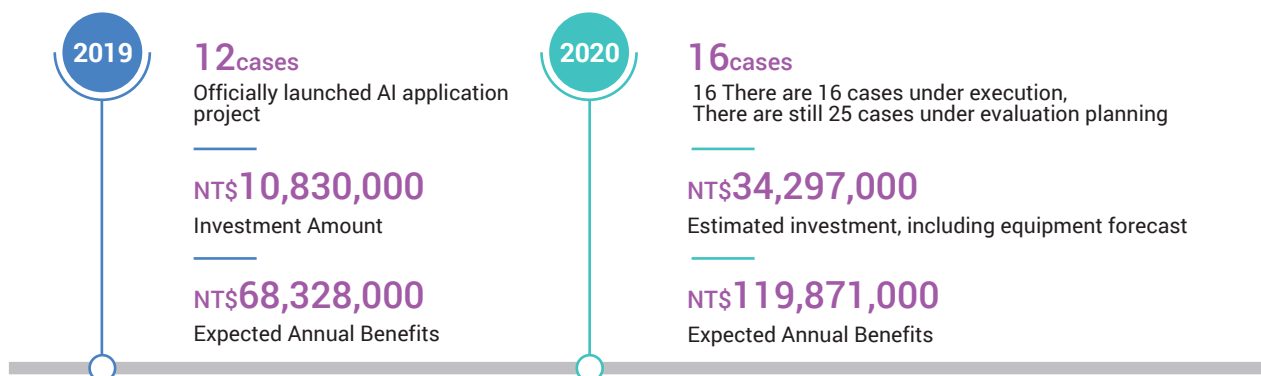


Future Plans

- The SM plant (Miaoliao) is also planning to improve thermal integration. It is estimated that the steam consumption in the SM (styrene) distillation zone can be reduced by 12.3 tons per hour. It is expected to be tested in March 2022.

2.4.2 AI Applications

The Vice Chairman of the Company appoints the Executive Vice President as the chief convener. The AVP and senior engineers of each business unit, the plant (division) level supervisors of the production plant and maintenance plant are specially responsible for promoting the application of AI, and the work department provides AI smart technology resources, so that enterprises can gradually draw up cases from the top to the bottom, and develop from "point - line - surface" to a comprehensive AI factory. In terms of actual actions, we set out to use big data to construct process optimization, production energy saving, and management intelligence, and assign colleagues with backgrounds in information, mathematical statistics, and programming to Taiwan AI Academy to learn AI intelligence module training. And we use the existing Plant Information (PI) to develop production management, process optimization, maintenance forecast, work safety management, energy-saving system and other modules to carry out all aspects of transformation. With the promotion of AI intelligent factory, the investment in hardware and software of Taiwan and Ningbo factory in mainland China is about NT\$73,398,000. Please refer to our official website for details.



Applications of AI Smart Factory

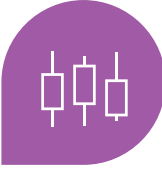
Product quality Advancement

Correlation between variables and quality are operated quantitatively and production recommendations are provided to enhance and stabilize quality.



Preventive equipment abnormality diagnostics

Data exploration is used to monitor the status of equipment operation, providing early warnings for adjustment, inspection, and maintenance to prevent abrupt failures.



Processing adjustment and optimization

Factors that affect process stability are analyzed based on operational data, and optimized operation and energy-saving production guidelines are provided.



Production and sales management optimization

Customer order and production dynamic information are integrated while market status and product profitability are estimated to enhance product and sales management and smart warehousing management.

Professional AI Talent Training



External education and training

- Since January 2018, we have successively sent personnel to attend the technical leadership class and manager class of Taiwan AI Academy.
- Currently 35 and 33 employees have completed their respective training and more employees are being trained.



Internal education and training

- Professional companies are commissioned to organize the AI training workshop, which teaches fundamental basics of AI and data science, work process, and project planning to production plants.
- Trainees from Taiwan AI Academy act as lecturers and handle internal "AI basic education training" to improve employees' AI knowledge. A total of 806 people participated in 10 sessions.

Industry-Academic Cooperation

The Company cooperates with academic units such as Sun Yat-sen University, Chang Gung University, Taiwan University of Science and Technology, Taipei University of Technology and Industrial Technology Research Institute, aiming at optimization of process control, material/product combination benefits, energy saving and carbon reduction, finished product quality prediction and control, and product defects identification, customer ordering and shipping management, forecasting raw material prices and deciding on raw material composition, strengthening management functions, collecting existing big data, data screening inventory, cleaning (replanting), data exploration and analysis, module development and evaluation, online testing and application.

Future Development Goals

We will continue to recruit and train professional talents, develop AI smart factory to reduce energy consumption ranging from steam gas to power, and to achieve instant AI-enabled process optimization. AI will also help us to maximize the production efficiency of catalysts, forecast equipment reliability and real-time abnormality correction and maintenance, personnel control, labor safety maintenance, forecast fluctuations in raw material prices and changes in material mix, and help to build a well-rounded AI smart factory by managing customer orders, production, warehousing and shipment IoT.

2.4.3 Operating platform of digital plant

The PI system connects the data obtained by the on-site sensors (including flow, pressure, liquid level, temperature, vibration...). Through analysis software, various functional screens are built on the real-time production management system (RTPMS) platform. The entry menu of the website is the business department, and the second level is the manager's office of the business department and its production plant. According to the function, it can be divided into 8 categories, namely "department menu", "production management", "process management", "quality management", "maintenance management", "safety, health and environment", "energy management" and "other", with each function planning management screen. In addition to providing supervisors at all levels with immediate access to important production information and making decisions in real time, when process operating conditions, product quality, and equipment operating conditions deviate, they are actively reminded through alarms to prevent abnormal occurrences or shorten processing time and increase the speed of response. Please refer to the Company's official website for the real-time production management system (RTPMS) diagram.

2.5 Excellent customer service

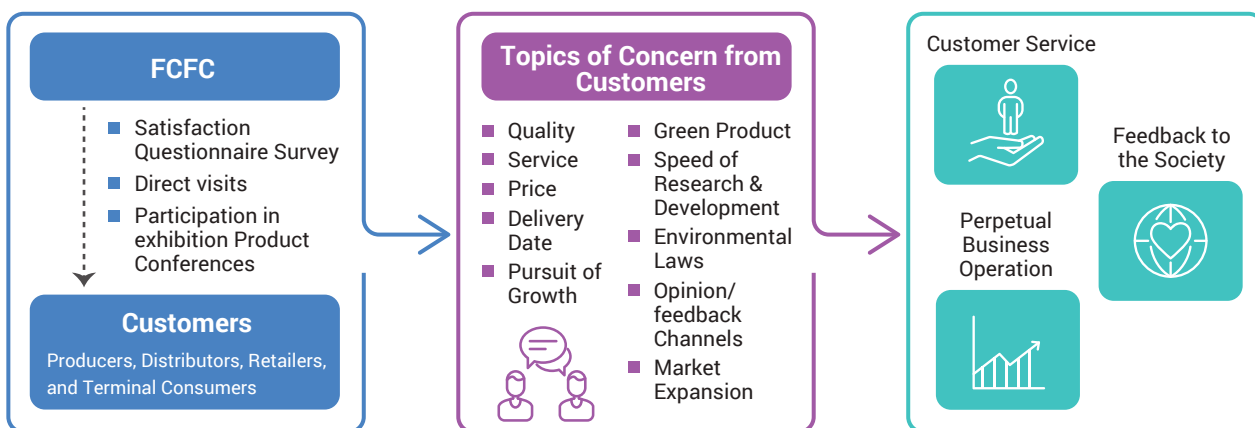
2.5.1 Customer Relations

"Customers First" is our core value. FCFC strives to build long-term cooperation relations with customers based on mutual respect and benefits. Sales reps are bridges to communication between customers and businesses. Good customer service and increasing customer satisfaction are not exclusive for sales department, but also a common, continuous goal for everyone in the Company. We value comments from customers very much and strongly believe that the positive performance of our downstream customers reflects upon the Company in a positive manner. We are committed to fostering long-term, trusting partnerships with all of our customers.

Model of Positive Interaction

To achieve this, FCFC visits our customers on a regular basis to discuss the development of existing and future products. We also take the initiative to hold dealer conventions or participate in major trade shows (e.g. Intertextile Shanghai Apparel Fabrics) every year to stay up to date on the latest market trends and to receive direct feedback from customers for operations and future improvements.

Stakeholder Engagement and Feedback Mechanism



Disclosure of Product Information

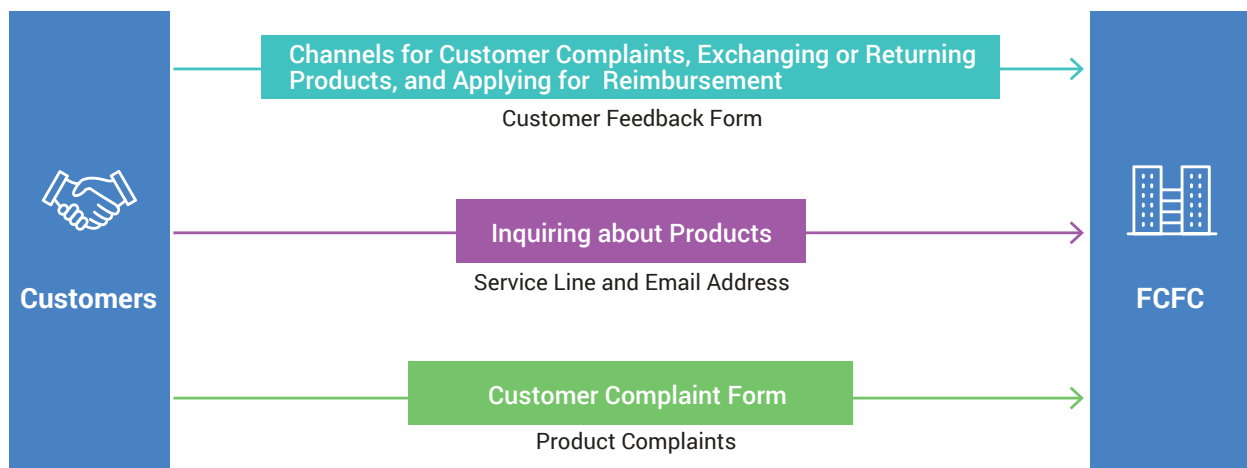
The "Products" section is provided on the official website for customers to check out product features, functions, and specifications.

Responses to Customer Feedback

The Company has established official channels for customers to give suggestions, voice complaints, exchange or return a product, and apply for reimbursement. Besides dealing with sales reps directly, customers can also voice their opinions on product sales service hotline and email inbox on our Company website. The Sales Department will regularly compile, sort, analyze, and prioritize issues of customer concern by importance, timeliness, and order of improvement, to ensure that customer needs are being properly handled.

In case of customer complaint, the operations department where the incident has occurred will fill out a "customer complaint form." To ensure that customer complaints are properly handled, the complaint form will be processed into the computerized management system to keep track of progress after the accountability and improvement plan are confirmed by the head of the responsible department, and to ensure that various returns, concessions, and/or reimbursements are made. In 2019, we have had 15 customer complaints, mostly attributable to product quality failing to meet customer needs. All cases were resolved by returns or reimbursements after communicating with the customers.

Responses to Customer Feedback



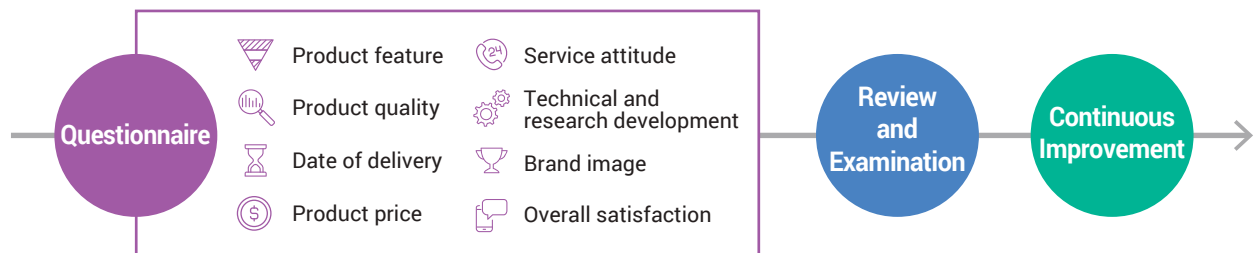
Compliance and Customer Privacy

The production and sales of FCFC follow the laws and regulations, and the "Personal Data Management Measures" have been stipulated, requiring all relevant departments to list them as one of the independent inspection projects. For employee or customer data, except for those with authority, if it is confirmed that due to business needs, the "application form for personal data collection, processing and utilization" must be signed, which can be provided only after relevant procedures are reviewed and confirmed to comply with laws and regulations, and the way of use must be strictly limited. Statistics indicate that no case was concerned with privacy infringement in 2019.

2.5.2 Customer Satisfaction Survey

In order to collect customers' opinions and suggestions on the products and services provided by the Company, as a reference for the improvement of internal operation, and to meet the ISO 9001 quality management system, the quality commitment to customers and the spirit of customer satisfaction has been paid with attention. At present, the Company conducts customer satisfaction surveys for its domestic and export customers at least once a year. The questionnaire content contains eight major sections, and the questionnaire sections will be revised according to the customers' concerns.

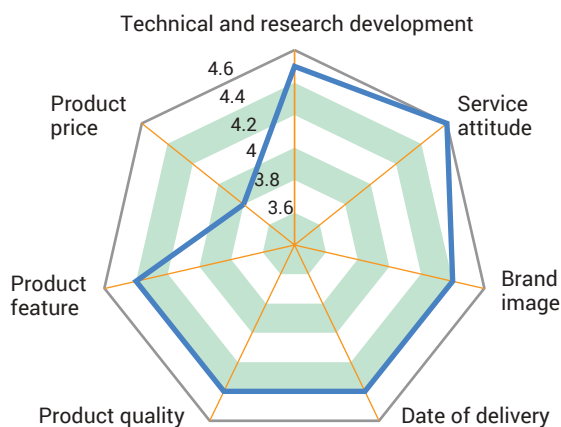
Customer Satisfaction Survey Model



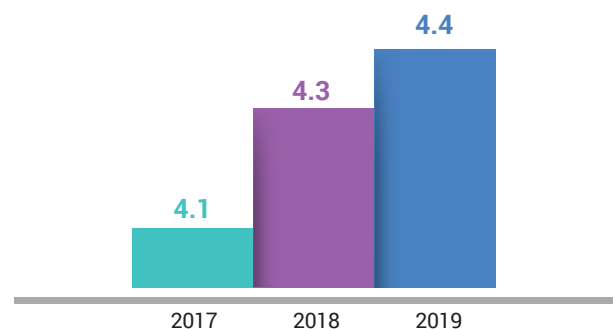
The results of the 2019 customer satisfaction survey show that the overall performance is higher than the "satisfaction" indicator, and the "product price" item still fails to meet customer expectations. The recommendations by customers are included in the Company's operating policies and are continuously reviewed and improved.

In 2019, the customer satisfaction averaged 4.4 points (out of 5).

The average score of 2019 customer satisfaction survey



2017~2019 Overall Customer satisfaction Average Score

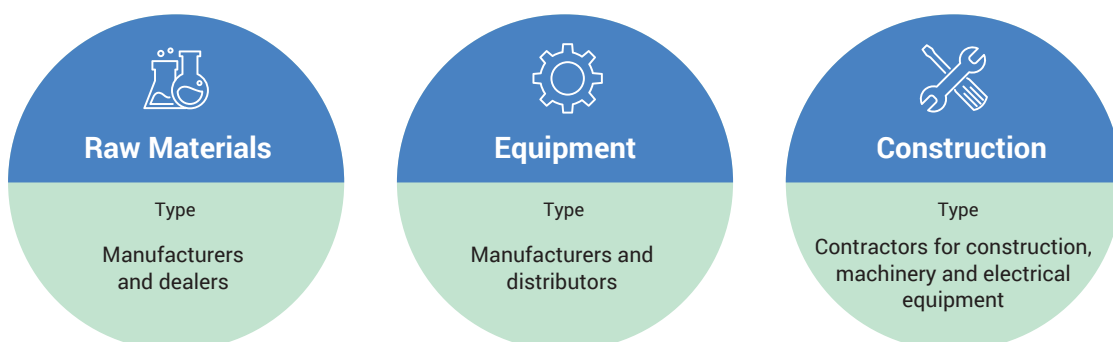


2.6 Procurement and Supply Chain Management

2.6.1 Overview of supplier procurement

FCFC provides online suppliers and contractors the Formosa Technology E-Market Place to perform multiple operational functions, including inquiry, quote, bargain, order, delivery, and payment. Furthermore, contractor briefings are periodically held to reinforce bi-lateral communication between both parties.

FCFC Supplier Classification



All business activities and contents on investment agreements of the Company are carried out in accordance with local and national laws and regulations. In addition, contracts and agreements with suppliers, contractors and other business partners are all handled in accordance with national human rights laws, and it is also required to comply with the relevant regulations of the government on labor and occupational safety. The contractor must employ workers over 16 years old as detailed in the engineering contracting instructions. Therefore, in 2019, the contractors of the Company were not found for any child labor or violation of compulsory labor.

The procurement and outsourcing policies mainly involved local vendors. FCFC only sources goods from overseas and allows bidding from abroad when local suppliers are unable to meet the needs. The rate of local procurement in 2019 was 67%.

To reduce carbon emissions from shipping vehicles, the Company has been collaborating with KERRY TJ Logistics, in which the two enterprises jointly launched "Internet-based Purchasing Supplier Centralized Delivery Procedures." According to statistics, as of 2019, the ratio of suppliers' Internet-based centralized delivery reached 97%. In addition, FPG has fully promoted e-invoices to replace the issuance of traditional paper invoices. At present, the ratio of e-invoices issued by current suppliers has reached 84%.

Green Procurement

FCFC preferentially purchases environmental protection labels that meet the requirements of recycled materials, recyclable, low-pollution, or energy-saving, and the second type of environmental protection products. The main green products purchased include toner cartridges, personal computers, and fluorescent lamps. Total procurement of green products in 2019 amounted to NT\$26.76 million.

2.6.2 Management mechanism

Supply chain CSR

FPG adheres to the spirit of sustainable operation and abides by the principle of fair trading, and requires the cooperating suppliers to meet the needs of environmental protection, work safety and human rights. In order to let the vendors understand the Company's concept of continuing to promote social responsibility and jointly promote the implementation, since October 2019, the "Supplier/Contractor Social Responsibility Commitment" and "Supplier/Contractor Social Responsibility Questionnaire" have been added. When the vendor logs in to FPG's electronic trading market or after ordering, a letter will be sent to ask the vendor to sign and reply, and abide by the relevant regulations. In 2019, the response rate of Social Responsibility Commitments reached 81%, and the response rate of the Social Responsibility Commitment Questionnaire Survey was 62%.



Supplier Qualifications

Suppliers which intend to work with FCFC are required to be qualified with written and on-site references. FCFC only accepts those that pass the qualification test. If there are subsequent delivery (construction) overdue, poor quality, and violation of safety regulations, the supplier will automatically go through contractor evaluation. Only high-quality partners will have long-term cooperation with the Company.

For each purchase, the requisition department shall check the delivery conditions according to the purchase requirements of different materials, including RoHS qualification, national relevant manufacturer's work safety qualification, ISO qualification, etc. Those who have ticked them are printed in the "Inquiry Form" and "Order Notice" to ask the supplier to cooperate with them. The above form explains the importance attached to sustainable management by FCFC, and requires that the vendors must meet the requirements of environmental protection, work safety and human rights. Non-compliant manufacturers will be rejected and placed under manufacturer evaluation.

For the newly added “Supplier/Contractor’s Social Responsibility Commitment” and “Supplier/Contractor’s Social Responsibility Questionnaire” in 2019, we will review the contents of the reply in 2020, and arrange vendor assessments as necessary to ensure that the vendors fulfill their corporate social responsibilities in accordance with the Company’s requirements.

Vendor Classification Management System

 <p>Suppliers</p>	<p>According to the inquiry and quotation data and delivery records of the vendors who have delivered more than (inclusive) 3 pieces of goods in the past two years, we calculate scores and grade the vendors, and provide reference for price comparison and purchase decision in purchase cases. The scoring elements include price competitiveness (accounting for 15 points), delivery overdue rate (accounting for 35 points) and quality abnormality rate (accounting for 50 points), with a total score of 100 points. The score obtained by the vendor is divided into six grades A-F from high to low. Among them, vendors of A and B grades have the priority to negotiate prices, and vendors of A or B grades can also be designated for important materials.</p>
 <p>Contractors</p>	<p>According to the collection of relevant data, investigation and evaluation of plant site, construction machinery and equipment, site safety management ability, technical ability and contracting performance of various professional engineering vendors, it is divided into three grades: A, B and C. In case of any abnormal construction contractor, such as poor construction quality, delay in construction period, improper management, license borrowing, direct transfer (subcontracting), etc., it is required to strengthen management or stop contact.</p>

2.7 Description of Material Economic Issues

The impact and response of RCEP (Regional Comprehensive Economic Partnership)

The Regional Comprehensive Economic Partnership (RCEP) is expected to be signed in November 2020. It will be another heavyweight regional multilateral free trade agreement that has been completed after the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) came into effect. Taiwan’s largest exporter, mainland China, and the biggest rival, South Korea, will join in, but Taiwan is excluded. For Taiwan’s economy, which is dominated by foreign trade, we are afraid that it will be marginalized and the impact cannot be ignored. In particular, the average tariff of petrochemical exports to the mainland China or Southeast Asia is about 6.5%, and after the RCEP is signed, the tariffs of each other will gradually be reduced to zero, which will greatly weaken the competitiveness of Taiwan’s petrochemical industry. In addition to calling on the government to actively sign various bilateral FTAs to reduce impact, the Company will also continue to increase the proportion of high-value products, promote AI (artificial intelligence) to improve management performance and process stability, and ensure work safety and other strategies to meet the challenges of the environment.

3

Fostering a Sustainable Environment

- 3.1 Mission in Maintaining Safety, Health, and Environmental Protection
- 3.2 Water Resource Use and Management
- 3.3 Mitigation and Adaptation to Climate Change
- 3.4 Air Pollutant Management
- 3.5 Waste and Controlled Chemical Substance Management
- 3.6 Compliance with Environmental Laws
- 3.7 Description of Material Environmental Issues



Upholding FPG's safety, health and environmental (SHE) policy, FCFC has devoted its efforts to environmental protection and community safety. To fulfill our commitment to environmental sustainability, we also encourage our employees to sharpen their professional knowledge and always take safety, health and environmental protection (SHE) into consideration before making any business decisions to safeguard the environment.

3.1 Mission in Maintaining Safety, Health, and Environmental Protection

Environmental protection and industrial development are equally important for FPCC. The Company holds the faith that ensuring safety in products, employees, contractors, factories and communities, is not just a corporate social responsibility, but also a part of corporate competitiveness. All colleagues must enrich their professions from time to time, take safety, health and environmental protection as the most basic consideration for making any decision, and continue to improve and advance with the best operating mode in the industry.

3.1.1 Organization and Strategy of Safety, Health and Environment

Organization and Responsibility of Safety, Health and Environment (SHE)

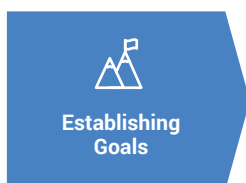
To strengthen the Company's SHE management and perpetual business operation needs, a SHE Division has been set up directly under the President's Office. The division oversees the integration of all SHE policies, establish relevant management procedures, and to carry out the procedures throughout the Company. In addition, a Safety and Health Office has been set up at each plant to be in charge of matters related to safety, health, and environmental protection within respective plants.

A SHE association meeting is held once a month and a Safety and Health Committee meeting is held at each plant quarterly, in which executives, plant managers, plant directors, SHE personnel and employees gather to discuss and reflect upon different SHE issues in the hope of achieving the ultimate goal of zero occupational hazard, zero disaster and zero pollution through SHE management.

Safety, Health and Environmental Management System

FCFC has systematized SHE management, including the SHE regulations, a management information system, and an office automation system, for employees and contractors to follow. Of our plants located in Mailiao, Xingang and Longde, 20 production plants have successfully passed ISO 14001 (EMS), OHSAS 18001 and TOSHMS certifications to meet the SHE practices and international standards.

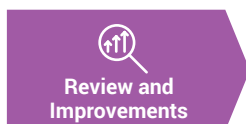
Strategies and Actions for Environmental Protection



- Holding true to the mission of aiming at the sovereign good, the Company actively promotes various environmentally-friendly improvements and establishes annual goals. We also regularly understand and review the progress of goal implementations.
- Reinforced coaching is implemented for plants falling to keep up with preset goals, and rewards are given for plants with good performance in order to enhance employee participation and sense of accomplishment.



- We adopt the most advanced manufacturing processes and pollution control equipment based on the concepts of best available technology (BAT) and best available control technology (BACT) from the beginning of the plant design stage.



- We care about the quality of air, soil, groundwater, ocean and public health in nearby areas by strictly controlling water resources and consumption of energy as well as through performing constant reviews and improvements.

3.1.2 Energy Conservation, Carbon Reduction and Pollution Control Organization

Energy Conservation, Carbon Reduction and Pollution Control Organization

In response to issues such as water conservation and energy conservation and carbon reduction, FPG established the “Energy Conservation, Carbon Reduction and Pollution Control Organization” in 2006, and appointed Vice Chairman Hong Fu-Yuan of FCFC as the general convener to coordinate and integrate the entire enterprise resources to promote the water saving, energy saving and pollution prevention and improvement of various companies. In 2008, the project included energy-saving lamps, environmental accounting, green products, green procurement, office environmental protection, resource recycling, and green construction to expand the scope of environmental protection.


In addition, in order to implement the water-saving and energy-saving work, the Company is headed by Vice Chairman Hong, and the AVP-level supervisors are appointed as the head of the water-saving and energy-saving promotion team of each business department of the fiber textile, petrochemical and engineering power generation departments. The “Review Meeting on Water Saving and Energy Conservation Effectiveness” is held regularly every month. Please refer to the Company’s official website for the organization chart of energy conservation, carbon reduction and pollution prevention promotion and the organization chart of FCFC Water and Energy Conservation Promotion Team.

3.1.3 Environmental Costs

Through the introduction of the environmental accounting system, we grasp the environmental expenditure information, and prevent or remove the impact on the environment caused by operating activities, and improve the efficiency of resource utilization. At the same time, we take various environmental protection activities and disclose specifically and accurately relevant information to stakeholders. Environmental expense in 2019 was NT\$1.562 billion.

FCFC Environmental Costs in 2019

Unit: NT\$ million

Type	Item	Sum
 Environmental Costs	Operating Costs	1,259
	Costs Associated with Suppliers and Customers	2
	Management Costs	181
	Social Event Costs	10
	Fees and Energy Taxes	110
	Total	1,562

Note 1: The operating costs listed above include green procurement expenses, product recycling and reproduction expenses, and expenses derived from product services for environmental protection.

Note 2: The environmental cost in 2019 includes property, plant and equipment costs of NT\$543 million.



3.2 Water Resource Use and Management

Water Resource Use and Management Approach  **Material Topic**

Policy	Adhere to water source stability and water conservation policies and comply with regulations related to Water Pollution Control Act.
Responsibilities	Corporations predominantly focusing on producing and selling plastic products need to pay special attention to the use and management of water resources. The Water and Energy Conservation Team is in charge of implementing specific actions.
Resources	<ol style="list-style-type: none"> 1. Adopt WRI Aqueduct's water resources scenario simulation tool, together with AWARE methodology, to assess water resources impact. 2. Formosa Plastic Group Evaluation Committee of Influences on Marine Ecosystems by the Mailiao Industrial Complex's Wastewater Disposal was established to evaluate the influences on marine ecology from water discharge.
Specific Actions	<ol style="list-style-type: none"> 1. Water intake: the source includes surface water, tap water and underground water, and the underground water used is entitled with the legal right. 2. Drainage: equipped with automatic continuous monitoring system for drainage water, and regularly evaluate the ecological impact of drainage water. 3. Water consumption: recycling rainwater, recycling process wastewater, and optimizing processes to reduce water use.
Objectives and Commitment	Respond to SDGs Target 6.4: increase water use efficiency to ensure sustainable fresh water supply and recovery.
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. Rainwater recovery ratio at the Yunlin Mailiao Plant has reached 90%. 2. One drop of water can be reused 7 times at the FPC Mailiao Industrial Complex. 3. Participated in the CDP Water Security Questionnaire in 2019 and received "Leadership A-" ranking.
Water resources stress assessment	FCFC uses the WRI Aqueduct water resource scenario simulation tool every year, and uses the AWARE methodology to assess whether the plant area is a water resource stress area. At present, although there is no data in Taiwan to show whether it is a water stress area, WRI Aqueduct shows that Changhua, Yilan and Yunlin where the plants are located are all medium and high risk areas. Therefore, in order to respond to the risks caused by water resources earlier, FCFC independently improved its management level, treated the location of each plant as a water resource stress area, and continued to implement water-saving measures to reduce its dependence on water.

3.2.1 Water Resource Consumption Management



Water source

The water sources of each of FCFC's plants (Changhua, Yunlin Mailiao, Yilan Longde, Chiayi Xingang) are mainly surface water from rivers, lakes and reservoirs. The Longde Plant at Yilan County and Changhua Plant have been granted the right to use a small amount of groundwater by Yilan County Government and Changhua County Government. Actual water sources in 2019 are indicated in the following table:

2019 FCFC Water Sourcing Table

Unit: million liters

Type	Plant			
	Longde	Changhua	Mailiao	Xingang
Surface Water (A)	10,543.9	149.2	13,038.4	14,323.1
Groundwater (B)	225.9	28.9	-	-
Third-party Water (C)	3,168.7	-	-	-
Subtotal (A)+(B)+(C)	13,938.5	178.1	13,038.4	14,323.1
Water Use Quantity	41,478.1			

Note 1: The water drawn from each source category in the table above belongs to fresh water with a total dissolved solids (TDS) content of 1,000 mg/L or less.

Note 2: The third party water is tap water.

Use of Water from the Jiji Weir

According to the monthly "Jiji Dam Industrial and Public Water Supply Report" of the Ministry of Economic Affairs' Industrial Bureau, the annual water supply of Jiji Dam in the past three years (2017-2019) ranges from 307,946 to 572,887 megatons. The average of industrial water consumption accounted for 2.2% of the total water supply, and the water transferred from agricultural water usage only accounted for 1.8% during the past 3 years. Therefore, the water intake of the Mailiao Industrial Complex has no significant impact on the water source of the Jiji Dam, so as not to crowd out other industries and compete with farmers for water. The records of water consumption are summarized below:

Water Supplied by the Jiji Weir from 2017 to 2019

Unit: ten thousand tons

Year	Inflow	Agriculture	Industry			
	(A)	Average Consumption (B)	Average Consumption (C)	Percentage of the Water Source Proportion (C)/(A)	Taking from Agricultural Water (D)	Percentage (D)/(B)
2017	572,887	186,163	10,138	1.8%	3,328	1.8%
2018	307,946	182,450	10,256	3.3%	3,618	2.0%
2019	510,006	189,778	9,840	1.9%	3,301	1.7%
Average	463,613	186,130	10,078	2.2%	3,416	1.8%

Source: The Annual Report of the Jiji Weir Operations from Central Region Water Resource Office, Water Resource Agency, Ministry of Economic Affairs.

The Mailiao Industrial Complex actively solves the problem of water use during dry seasons, and conducted a test on the test unit for the desalination of seawater in 2008. However, due to the high sand content of seawater in the nearby sea area, the water supply is not stable. After continuous review with seawater desalination manufacturers in various countries, and field visits to Tianjin, Qingdao, Singapore and Israel, the water quality produced by existing technique has met the water demand of Mailiao Industrial Complex. Therefore, on October 9, 2018, the submitted environmental impact statement was approved by the EPA for recordation. In December of the same year, it was approved by the Ministry of Economic Affairs to develop and establish a desalination plant with a daily output of 100,000 tons of fresh water. Construction has begun in August 2019, and is expected to be completed by the end of 2022 to produce water.

3.2.2 Water resource discharge management SDG 3.9 SDG 14.1 SDG 14.2

The industrial wastewater produced from each FCFC plant is treated properly by wastewater treatment facilities based on the nature of the source of the wastewater, so that the water quality of the discharge can meet national standards. Based on the Water Pollution Control Act and the location of the plant, Mailiao Industrial Complex adopts ocean discharge into the Taiwan Strait. Alternatively, river discharge is adopted at the other three plants, where Yilan Longde Plant discharges to the Xincheng River, Chiayi Xingang Plant discharges to the Puzih River, and Changhua Plant discharges to Taichung Wuxi River.

2019 FCFC Water Discharge Volume

Unit: million liters

Discharge volume based on the terminal point	Plant Sites			
	Longde	Changhua	Mailiao	Xingang
Surface Water (a)	9,879.7	172.1	-	2,375.9
Sea water (b)	-	-	5,660.8	-
Sum (a)+(b)	9,879.7	172.1	5,660.8	2,375.9
Water Discharge Volume	18,088.5			

Note: The drainage at each discharge end of the above table is fresh water with a total dissolved solids (TDS) content equal to or less than 1,000 mg/L.

The Yunlin Mailiao, Chiayi Xingang and Yilan Longde plants are equipped with a total of 5 sets of automatic continuous monitoring systems for discharge water. Monitor water volume, water temperature, pH, chemical oxygen demand (COD), suspended solids (SS) and other items 24 hours a day, and connect to local authorities in real time. Each wastewater treatment plant reduces COD and adjusts the pH value through biological aeration treatment. In addition, the sludge dryers are also installed in the Longde, Mailiao and Xingang plants, which can reduce the moisture content of the original sludge from 85% to less than 50%, greatly reducing the amount of sludge produced.

Table of 2019 Water Quality Control of Discharge

Plant	Water Volume (CMD)		pH Value			COD (mg/L)			SS (mg/L)		
	Permissible Volume	Discharge Volume	Statutory Requirements	Internal Control Value	Average Value	Statutory Requirements	Internal Control Value	Average Value	Statutory Requirements	Internal Control Value	Average Value
Longde	42,238	27,068	6.0~9.0	6.5~8.5	8.1	100.0	80.0	39.4	30.0	24.0	11.9
Changhua	3,522	472	6.0~9.0	6.0~9.0	7.3	100.0	80.0	41.5	30.0	24.0	5.0
Mailiao	36,330	15,509	6.0~9.0	6.8~8.7	8.3	100.0	80.0	38.2	30.0	18.0	5.9
Xingang	10,701	6,509	6.0~9.0	6.5~8.5	7.6	100.0	90.0	38.6	30.0	25.0	4.8

Influences of Discharge on Ecology: Mailiao Industrial Complex Marine Ecology Evaluation

For the Mailiao Industrial Complex, which has attracted much attention from the outside world, FPG jointly established the "Evaluation and Consultation Committee on the Impact of Discharged Water from FPG Mailiao Industrial Complex on the Marine Ecology". As of 2019, statistics reveal that the Mailiao Industrial Complex had had no significant impact on nearby seawater, marine ecology, aquaculture industry, fishery resources, or surface breeding. If perceivable impacts prevail in the near future, FCFC will plan to reduce the severity of impacts through countermeasures proposed by the professional counseling committee to secure the living standards of local residents and the sustainability of local marine ecology. For more research results on the ecological impact of the discharged water from the Mailiao Industrial Complex, please visit the website of the Beauty of Mailiao Eco-industrial Park.

Influences of Discharge on Ecology: Study on the Chinese White Dolphins

The Chinese White Dolphin was declared as Critically Endangered by the International Union for Conservation of Nature Red Book in August 2008. According to domestic studies, the sea area where it is active in Taiwan is the area of habitat from Miaoli to 3 kilometers off the coast of Tainan. In order to understand the areas where Chinese white dolphins inhabit and forage, FPG has commissioned professional institutions to carry out project plans since 2008. The results of the study show that the operation of Mailiao Industrial Complex has no impact on the ecological schedule of Chinese white dolphins. For more information on the study of the ecological impact of the sea area of Mailiao Industrial Complex and the Chinese White Dolphin, please visit the website of the Beauty of Mailiao Eco-industrial Park.

3.2.3 Water use efficiency

SDG 6.4



Objective	SDG Goal 6: Water purification and sanitation Increase water use efficiency and ensure sustainable fresh water supply and recycling				
	Process and equipment performance improvement	Optimization of operating conditions	Wastewater Recycling and Reuse	Reusing collected rain water	
Results	94,242 tons/day Water Conservation (Accumulated to 2019)	935 cases water conservation (Accumulated to 2019)	NT\$479 million Benefits per year (2019)	90% Rainwater collection rate (2019 Mailiao Industrial Complex)	Use 7 times per drop Frequency of reuse of process water recycling (Mailiao Industrial Complex)

Table of 2019 FCFC Water Consumption

Unit: million liters

Plant Sites	Longde	Changhua	Mailiao	Xingang
Water Consumption	4,058.8	6.0	7,377.6	11,947.2
Total Water Withdrawal by Source	23,389.6			

FCFC Water Conservation Performance (2000–2019)

Item \ Year	2000-2018	2019	Accumulated Volume (2000-2019)	Ongoing	Total
Number of Improvement Projects	861	74	935	64	999
Volume Saved (Tons/Day)	90,814	3,428	94,242	4,715	98,957
Amount Invested (NT\$0.1 billion)	26.74	0.19	26.93	10.70	37.63
Investment Benefit (NT\$0.1 Billion/Year)	4.40	0.39	4.79	0.19	4.98

The Company actively implements water-saving improvements and improves water use efficiency through rainwater recycling and reuse, process wastewater recycling, process optimization and reduction of water use, and process waste heat recycling to reduce cooling tower evaporation losses. among them. The average amount of rainwater recycling in 2019 is 3,144 tons per day, with a recycling rate of approximately 90%. Through the above-mentioned various water-saving improvement actions, the Mai Liao Styrene Plant 3 was awarded the Outstanding Water Conservation Performance Unit of the Water Resources Agency.

Successful cases of water saving

In the E204 air cooler area and flare open space of Mailiao Styrene Plant 3, a total of 300 cubic meters of S426 and S423 underground water collection tanks are added respectively. In the rest un-recycled areas, underground connecting pipes and collection ditches are provided to recycle the rainwater to the underground tanks for recycling. The rainwater recycling is increased by 12,609 cubic meters, with an annual recycling of 13,398 tons.

In addition, the side filtering time of the cooling water tower was extended, and the backwashing interval of the side filtering tank was extended from 12 hours to 16 hours, reducing the number of backwashing sets of the side filtering tank every day. The annual water saving is 23,310 tons

3.2.4 Wastewater improvement SDG 6.3

As of 2019, the Company's total investment in wastewater discharge improvement has accumulated to NT\$7.74 billion. There are 9 waste water improvement projects (including soil and groundwater) in 2020. It is estimated that another NT\$180 million will be invested For example, the PTA wastewater treatment plant in Longde has invested NT\$79,615,000 to add a second set of anaerobic wastewater treatment system to increase the COD removal rate from 65.4% to 90%, and the COD concentration from about 2000 mg/L down to 550 mg/L.




3.3 Mitigation and Adaptation to Climate Change

Mitigation and Adaptation Management Approach to Climate Change Material Topic

Policy	To reduce potential impacts from climate change, besides complying with environmental laws such as the Greenhouse Gas Reduction and Management Act in practice, internally, the Company also sets various environmental protection systems and standards that shall be adhered by relevant departments through energy-saving, carbon reduction & pollution prevention teams.
Responsibilities	As climate change will directly impact business divisions, the energy-saving, carbon reduction & pollution prevention team needs to actively initiate mitigation and adaptation measures, while other indirect management departments also offer their support.
Resources	FCFC and Group Administration from FPG are actively committed to relevant tasks, such as participating in the CDP climate change survey rating, in response to the management targets of climate change mitigation and adaption.
Specific Actions	<ol style="list-style-type: none"> 1. Promote various energy-saving and carbon reduction measures and facilitate cooperation between subsidiaries and plants within FPG under the circular economy principle to fully integrate and coordinate resources. 2. Follow the government's promotions of green energy policy by using diversified energy consumption. 3. Participate in CDP climate change survey rating.
Objectives and Commitment	<ol style="list-style-type: none"> 1. Reduce unit energy consumption by 3% over the previous year. 2. Substitute existing fuel gas with natural gas or processing gas as the fuel for the existing thermal oil boilers in each plant before 2020.
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	Regularly convene the "energy and water-saving performance evaluation meeting" to inspect various countermeasures, review implementation performance, and re-establish goals to stay up-to-date.

3.3.1 Response Strategies to Climate Change Risks

FCFC continues to pay attention to global climate change and response trends and collects potential risks associated with climate change as one of the internal risk management projects. We take various factors into consideration, such as financial impact, reputation impact, global economic situation, energy cost fluctuations and environmental regulation costs, to determine the priority level of risks, so as to ensure the stability of FCFC's operation and maintain competitiveness.

 <p>Economic</p>	<p>Risk</p> <ul style="list-style-type: none"> ✓ Shortage of energy and resources leads to inflation of energy and resource prices, causing operational costs to increase. ✓ Improvements in response to climate change or introduction of relevant machinery lead to early retirement of existing equipment and additional improvement expense. ✓ New or substitute technologies used to meet low-emission requirements leads to increased investment expense. 	<p>Opportunities</p> <ul style="list-style-type: none"> ✓ Cross-plant and upstream and downstream resource integration is conducted to reduce raw material waste and to reduce transportation and consumption costs of raw material. ✓ Reduce production costs by enhancing efficiency. ✓ Create new business opportunities through continuous R&D of products that meet environmental protection trends.
 <p>Environment</p>	<p>Risk</p> <ul style="list-style-type: none"> ✓ Extreme weather such as typhoons and floods may lead to disruption and abrupt stop or delay in production, transportation difficulty, and problems in supply chain. ✓ Extreme changes in rainfall lead to increased difficulty in planning of sourcing and using of water resources. ✓ Increase in temperature may impact processing terms, leading to additional equipment investments and increase in power consumption. ✓ Rise in sea level may lead sea-side plant facilities to be subjected to water damage or tidal floods. 	<p>Opportunities</p> <ul style="list-style-type: none"> ✓ Develop low-carbon products and market alternatives to increase revenue from green products. ✓ Research and develop process and equipment improvement in response to rising temperature in order to reduce operational costs. ✓ Develop water and energy-saving technologies to reduce energy and resource consumption.
 <p>Social</p>	<p>Risk</p> <ul style="list-style-type: none"> ✓ After the Greenhouse Gas Reduction and Management Act has been enforced, the consequent coordinating measures for total volume control, allocation, auction, sales, and transaction of GHG emissions will cause relevant carbon reduction fees to increase. ✓ Extreme weather may impact consumers' needs and preferences. 	<p>Opportunities</p> <ul style="list-style-type: none"> ✓ Actively save energy and reduce emissions, implement circular economy, and reduce energy and resource consumption to lower operational costs. ✓ Enhance the Company's operational performance by developing products with new purpose, new materials, and special sizes to meet market needs.

In response to the expansion of international carbon reduction management to the greenhouse gas emissions in the supply chain, we started to promote the inventory of greenhouse gas emissions in category III supply chain. In addition, we have participated in the CDP climate change questionnaire since 2018, and will continue to participate in the questionnaire, so that global investors can understand the Company's achievements in responding to global climate change issues. In addition, it is expected that the fuel for the existing heat medium boilers at each plant will be replaced by natural gas or process gas by 2020 to reduce GHG emissions.

3.3.2 Greenhouse Gas Inventories and Energy Use

Since 2009, FCFC has promoted the investigation and verification of greenhouse gas emissions in accordance with the ISO 14064-1 standard. Among them, the Yunlin Mailiao Plant District has commissioned the British Standards Institution (BSI) for verification, Changhua, Chiayi Xingang and Yilan Longde plant is verified by System & Serviced Certification (SGS). The data of 2019 are still in the process of verification before the publication of this report. After verification, the application will be completed on the national greenhouse gas registration platform at the end of August in accordance with the administrative measures of the EPA for the inventory and registration of greenhouse gas emissions. The greenhouse gas emissions of each plant disclosed in this report are 2018 data, as shown in the table below.

FCFC Greenhouse Gas Emissions in 2018

Unit: CO₂e/ton

Plant	Mailiao Plant	Xingang Plant	Changhua Plant	Longde Plant	Subtotal
Scope 1	1,830,769	2,178,075	1,327	1,579,037	5,589,208
Scope 2	3,398,204	36,666	32,857	404	3,468,131
Total	5,228,973	2,214,741	34,184	1,579,441	9,057,339

Note 1: 2018 inventory reports published by SGS and BSI.

Note 2: GHG emission factors used in the GHG inventory are quoted from the Greenhouse Gas Emission Factor Table Version 6.0.3 (updated on January 17, 2018) published by the Environmental Protection Administration, Executive Yuan.

Note 3: Calculations are based on the Global Warming Trends data from Intergovernmental Panel on Climate Change's Fourth Evaluation Report published in 2007.

Note 4: Year 2005 is set as the current base year of the Company, and the base year may be adjusted based on legal regulations or the Company's production status as needed.

Note 5: for the method of consolidating the scope of greenhouse gas inventory, the Company adopts the control right method when defining the organizational boundary, except that it needs to change the boundary defined by the "equity holding method" due to special conditions.

Note 6: the greenhouse gas inventory of scope 1 and scope 2 of FCFC is based on location-based inventory. The gas inventory includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbon, perfluorocarbon, sulfur hexafluoride, and nitrogen trifluoride.

In 2018, the total energy use of the Mailiao Plant and the plants other than the Mailiao Plant are shown in the table below. Based on the 2018 turnover (FCFC and Formosa BP Chemicals Corp.) of NT\$280.554 billion, the Company's energy intensity is approximately 243 kilojoules/NTD, and the scope 1 and 2 greenhouse gas emission intensity is 3.291 thousand metric tons of CO₂e-/ NT\$100 million.

FCFC Major Emission Sources and Consumption of Greenhouse Gas in 2018

Mailiao Plant					Plants Other than the Mailiao Plant				
Emission Source	Consumption (A)	Calorific Value (B)	Total Energy Consumption (A)*(B)	CO ₂ e Emissions (%)	Emission Source	Consumption (A)	Calorific Value (B)	Total Energy Consumption (A)*(B)	CO ₂ e Emissions (%)
Internally Purchased Electrical Power	1,839,180 MWh	3.6*10 ³ KJ/kWh	6.62*10 ⁶ GJ	28.89%	Coal Combustion	1,596,531 metric tons	2.4*10 ⁷ KJ/ton	3.83*10 ⁷ GJ	94.29%
Fuel Oil	57,689 Kiloliter	4.1*10 ⁷ KJ/kiloliter	2.37*10 ⁶ GJ	3.42%	Fuel Oil	12,099 Kiloliter	4.1*10 ⁷ KJ/kiloliter	4.96*10 ⁵ GJ	1.01%
Gas	640,108 M ³	3.8*10 ³ KJ/ M ³	2.43*10 ⁴ GJ	25.62%	Externally Purchased Electrical Power	126,222 MWh	3.6*10 ³ KJ/kWh	4.54*10 ⁵ GJ	1.76%
Internally Purchased Steam	7,113,464 ton	2.8*10 ⁶ KJ/ton	1.99*10 ⁷ GJ	36.41%	Externally Purchased Steam	0 ton	2.8*10 ⁶ KJ/ton	-	0%
Total			2.89*10⁷ GJ	94.34%	Total			3.93*10⁷ GJ	97.06%

Source: 1. FPG Greenhouse Gas Inventory Database.

Source: 2. Joule (abbreviated as J); 1KJ=1,000J; 1GJ=10⁹J.

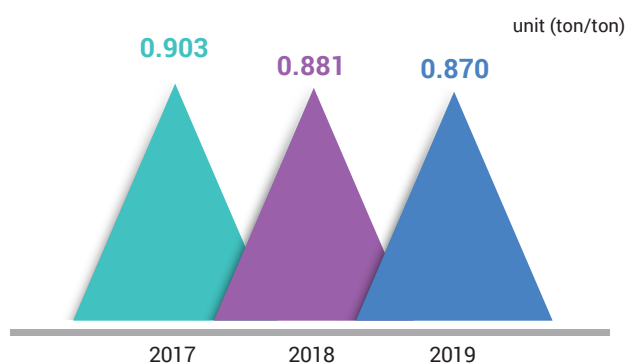
3.3.3 Mitigation of climate change SDG 13.1

Global climate change and greenhouse gas (GHG) have become the most important issues in the global community. The Company has established the GHG inventory reduction management computerized system in accordance with FPG, and energy-saving improvements at each plant have been established in the system to make management and audit over implementation progress, efficiency, and CO₂ reduction volume easier. The statistics of the cumulative improvement and energy-saving implementation results from 2000 to 2019 are as follows. Among them, the unit steam consumption in the Mailiao Industrial Complex was 0.87 ton/ton in 2019, which shows a decreasing trend year by year.

Since 2008, it has participated in the "Industrial Greenhouse Gas Voluntary Reduction Plan" of the Industrial Development Bureau, and cooperated with the Taiwan Green Productivity Foundation commissioned by the Industrial Development Bureau to visit the plant every year to confirm the improved performance of greenhouse gas reduction cases. In 2019, Longde plant of the Company was selected as the excellent manufacturer of greenhouse gas voluntary reduction by the Industrial Development Bureau of the Ministry of Economic Affairs. The Longde PTA Plant won the Gold Award for Energy Conservation in 2019 by the Bureau of Energy, Ministry of Economic Affairs.

In addition, the third-party verification unit for product carbon footprint was outsourced to carry out "ISO 14067: product carbon footprint" verification. In 2018, Yilan Longde and Jiayi Xingang plants completed 6 products, in 2019, Yunlin Mailiao completed 19 products, and there are still 2 products in the process. In the future, we will continue to promote the product carbon footprint verification to confirm that all energy-saving improvements have achieved the expected results.

Trend Chart of Unit Steam Consumption in the Yunlin Mailiao Plant (FCFC and Formosa BP Chemicals Corp.) from 2017 to 2019








FCFC (including Formosa BP Chemicals Corp.) Energy Conservation from 2000 to 2019

Item	Year		Accumulated Volume (2000-2019)	Ongoing	Total
	2000-2018	2019			
Number of Improvement Projects (Number of Cases)	4,534	380	4,914	344	5,258
Steam Saved (Tons/Hour)	959	47	1,006	241	1,247
Electricity Saved (1,000 kWh/Hour)	110	6.5	116.5	12.5	129.0
Fuel Saved (Tons/Hour)	17.5	0.2	17.7	0.3	18.0
CO ₂ e reduction (1,000 tons/year)	3,587	140	3,727	642	4,369
Amount Invested (NT\$0.1 billion)	109.9	11.9	121.8	43.3	165.1
Investment Benefit (NT\$0.1 Billion/Year)	100.5	4.9	105.4	15.6	121.0

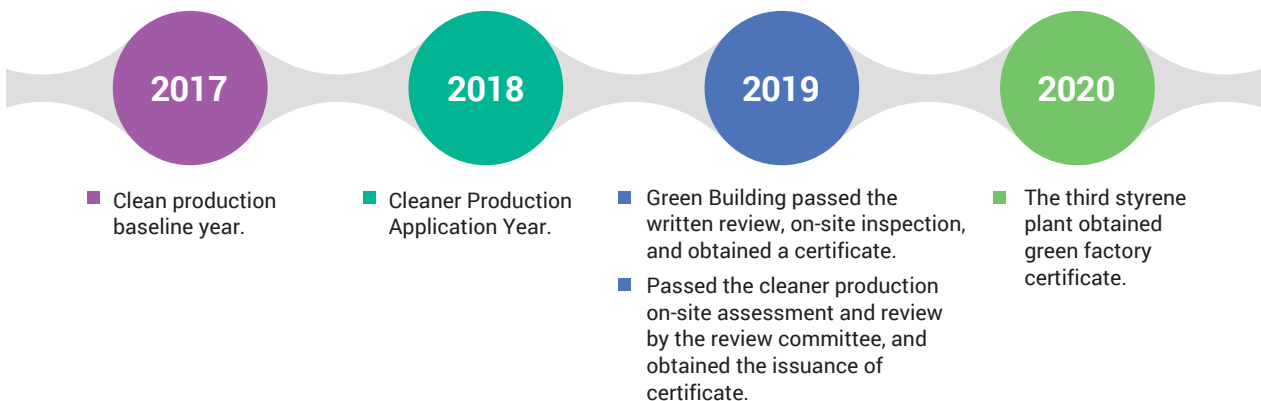
3.3.4 Adaptation of climate change SDG 13.1

According to the WEF 2019 Global Risk Report published by the World Economic Forum at the beginning of 2019, risks associated with climate change have the highest possibility of risk occurrence and impacts. In order to improve FCFC's ability and resilience to cope with climate change and reduce the negative impact of climate change, the Company actively plans and promotes various projects, such as promoting the acquisition of green factory certification at Haifeng plant, taking into account the sustainable development of environmental protection and industry through clean production actions such as energy / resource conservation, pollution prevention, green management, etc., to minimize the relevant impact.

 Climate Change Risks	 Description of Impacts	 Adaptation Action Plan
 Floods from typhoons or heavy rainfall	<ul style="list-style-type: none"> ● Equipment is affected by floods, leading to disruptions in production. ● Transportation is stopped by floods, causing the difficulty of employees entering the plants and raw materials being shipped. ● Finished products may be damaged or downgraded by floods. ● Traffic disruption leads to delivery problems, causing operation to stop. 	Water discharge and wind resistance will be reinforced at each plant to prevent damage caused by typhoons. Actions include (1) operational managers will gather the head of each plant to discuss countermeasures to typhoons to mitigate disasters during seasons in which typhoons are frequent. (2) In case of typhoon, backup generators should be prepared at each production facility in case of blackouts, and emergency pumps are used to discharge water.
 Decrease in rainfall leading to droughts	Insufficient water source for production negatively affects activation or disrupts production, leading to increased costs.	<ul style="list-style-type: none"> ● Reduce and recover industrial water and invest in advanced processes and equipment update. ● Build water tanks to counter any drought-related crisis. ● Plan to build a desalination plant in response to insufficient water resources.

The third styrene plant in Mailiao Industrial Complex applied for green factory certification

The Company actively promotes the certification of green factories. The third styrene plant in Mailiao Industrial Complex has obtained the Green Building Labeling and the Cleaner Production Evaluation System Certificate in August 2019 and September 2019, respectively. In November 2019, it applied to the Industrial Development Bureau for the Green Factory Label. After review and approval, it became effective in January 1, 2020. The promotion process is as follows:



3.4 Air Pollutant Management

Air Pollutant Management Approach




Policy	The Company pays close attention to domestic laws on emissions and regards relevant laws as the basis to our air pollution emission improvements, for example, the draft for "Standard for Hazardous Air Pollutant Emissions from Fixed Sources." In addition, the Company also complies with the Montreal Protocol on Substances that Deplete the Ozone Layer, in which substances or equipment that would deplete the Ozone layer will not be used during production processes.
Responsibilities	Departments that emit air pollutants will be responsible to reduce such pollution, and FCFC's environmental protection department will supervise and assist in their improvement.
Resources	FPG has established the Evaluation and Counseling Committee for Mailiao Industrial Complex's Air Quality Impact, which coordinates the air quality evaluation at Mailiao Industrial Complex.
Specific Actions	<ol style="list-style-type: none"> 1. Continuous automated detection systems have been set up at each emission pipe to instantly monitor the emissions of all air pollutants. 2. The best available control technology (BACT) has been adopted to comply with Air Pollution Control Act from the EPA.
Objectives and Commitment	<ol style="list-style-type: none"> 1. Continue to promote waste reduction and recycling at the source, and hope to achieve the goal of "zero pollution" to create a sustainable operating environment. 2. In line with the establishment of health risk assessors in air pollution sites to take effect in 2021, we plan to send personnel for training to obtain relevant certificates.
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	All emissions are performing better than legally stipulated levels.

3.4.1 Emissions and prevention SDG 3.9 SDG 11.6

We constantly seek to make improvements in air pollution control. A total of 3 sets of FTIR infrared sensors and 11 sets of GasFind IR have been purchased to monitor leaks of process gas. Since 2007, certified institutions have been authorized by the co-generation coal-fired unit twice a year to make sure that our plants' dioxin emissions meet national standards.

In 2017, the Environmental Protection Administration made an early announcement of the Standard for Hazardous Air Pollutant Emissions from Fixed Sources (draft) to strengthen the control of hazardous air pollutants, gradually specifying emission standards for specific industries and controlling their air pollutant emissions. The Company will follow up the provisions and progress of the draft closely to make early improvements. As of 2019, the cumulative amount of investment in air quality improvement has reached NT\$10.13 billion. In 2020, there are 13 waste gas improvement cases (including odors and visual pollution elimination), and an additional investment of NT\$630 million is expected. The air pollutant emissions in 2019 are shown in the table below:

Unit: Ton/Year

Type	Plant Sites				Total	
	Longde	Changhua	Mailiao	Xingang		
 Air Pollutant Emission Management	SOx	106.69	-	333.86	151.65	592.2
	NOx	166.16	-	1,432.76	274.24	1,873.16
	Volatile Organic Compounds (VOCs)	114.42	6.58	553.18	59.47	733.65
	Total Suspended Particles (TSP)	36.29	-	79.69	40.06	156.04

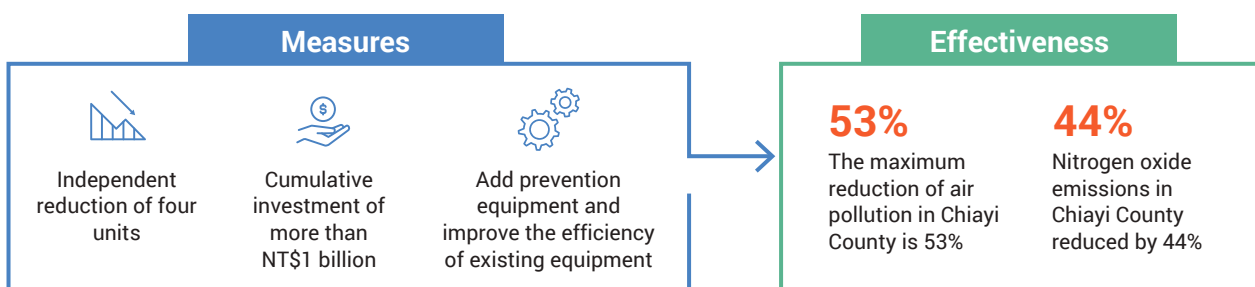
Source: The air pollution, wastewater, and waste filing website of the Environmental Protection Administration.

Air Quality Impact Monitoring and Analysis at the Mailiao Industrial Complex

In view of the public concerns about the Mailiao Industrial Complex's air pollution, FPG has established the Evaluation and Counseling Committee for Mailiao Industrial Complex's Air Quality Impact in September 2011 to analyze the air pollution of public concerns accurately through rigorous scientific research. To immediately take various environmental indicators under control, we built a sound environmental monitoring network. Taking the prevailing wind direction in Mailiao into consideration, 8 layers of monitoring were implemented to ensure the local air quality. Relevant environmental monitoring and analysis can be inquired at the website of the Beauty of Mailiao Eco-industrial Park (<http://mailiao.fpg.com.tw/j2pk/page/environmentfriendly.do>). In addition, for the comparison of the changes in the measured values of the representative stations of the North, Central, and South Air Products Zone of the Environmental Protection Agency with the sixth naphtha cracker stations, please refer to the FCFC Social Responsibility website.

3.4.2 Air quality improvement

The Company's Chiayi Xingang Plant signed the third phase of the "Friendliness and Environmental Protection Agreement" with the Chiayi County Government in January 2019, with a cumulative investment of more than NT\$1 billion to improve air pollution. Through the independent reduction of four units, the addition of prevention equipment and the improvement of the efficiency of existing equipment, the maximum air pollution reduction in Chiayi County will be 53%, and the nitrogen oxide emissions will be reduced by 44%. About the emission of 1,900 old diesel cars a year. The improvement case was completed in December 2019.



Improvement case: replacing the incineration method with carbon precipitation method to recycle catalyst to improve air quality

The oxidation residue of the mother liquor discharged from the oxidation section of the Company's Longde PTA plant will generate SOx, NOx and other waste gas due to combustion if the metal cobalt and manganese are recycled by incineration in the waste liquor incinerator. In order to improve air quality and reduce SOx, NOx and other emissions, NT\$47,686,000 was invested to modify related equipment, a set of filter press was added to change to carbon precipitation method catalyst recycling system, and old waste liquid incinerator was retired, so that zero emissions of SOx and NOx were reached. The comparison statistics are as follows:

Unit: kg / year

Item	Improve front incinerator emissions	Carbon precipitation system emissions
Particulates	21	-
Sulfur dioxide	366	-
NOX	2,588	-
carbon dioxide	4,225,110	-

3.5 Waste and Controlled Chemical Substance Management

For the waste and controlled chemical substances, FCFC reduces the life cycle of controlled chemical substances and waste through prevention, reduction, recycling and reuse. Properly manage waste and chemicals in a manner that is consistent with the environmental sustainability and reduce negative impacts on human health and the environment.

3.5.1 Waste management

SDG 3.9 SDG 11.6 SDG 12.4

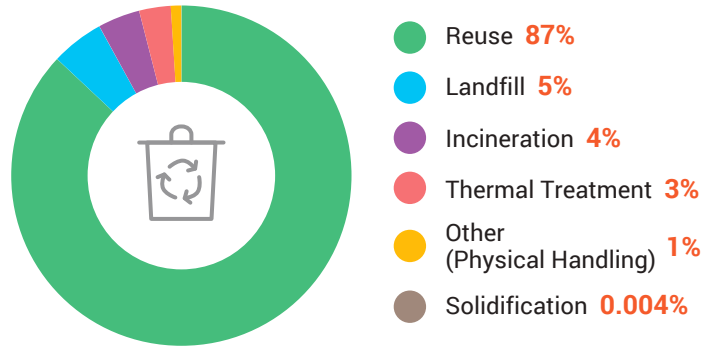
Management Policy of Waste Management Material Topic

Policy	The waste management policy is based on the government waste clean-up laws and the "Business Waste Management Measures" established by the Company.
Responsibilities	The waste generation department needs to assume management responsibility, and the environmental protection department needs to supervise and assist the management.
Resources	For waste reduction and other improvements, the total investment amount reached NT\$440 million as of 2019.
Specific Actions	Select waste disposal and treatment companies that have obtained qualified environmental protection permits.
Objectives and Commitment	Achieve the goal of "zero pollution".
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. Ratio of waste recovery and reuse in 2019 was 87%. 2. No abnormal incident occurred during waste treatment conducted by waste disposal companies in 2019.

The Company handles the waste in accordance with government waste clean-up laws and the "Business Waste Management Measures" established by the Company. Waste disposal is carried out at each plant based on the waste disposal plan approved by competent authorities, and qualified waste disposal and treatment companies are selected. And we have established independent audit control measures for waste cleanup to ensure that waste removal and disposal companies comply with environmental protection regulations and properly dispose of business waste. No abnormal disposal of waste by disposal companies in 2019.

Regarding waste outsourcing, the business waste generated in each plant is sent to domestic legal disposal institutions for proper disposal, and no export is made abroad. The relevant data for 2019 is as follows:

FCFC Waste Generation and Treatment Methods

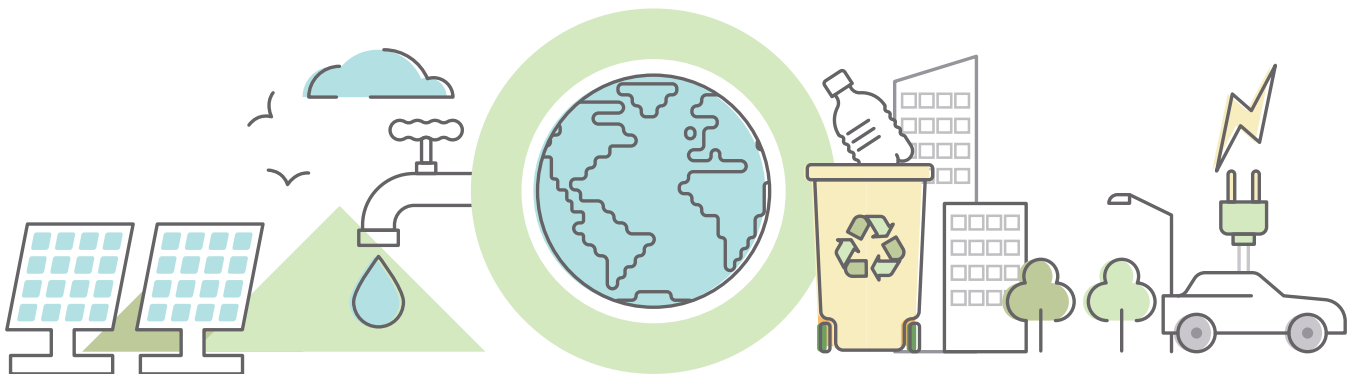


Type	General				Hazardous	Reuse	Total
	Other (Physical Handling)	Incineration	Thermal Treatment	Landfill	Solidification		
Handling Capacity (Tons)	2,400	8,942	7,443	10,309	9	197,939	227,042
Percentage (%)	1.06	3.94	3.28	4.54	0.004	87.18	100

Source: The Industrial Waste Report and Management System, Environmental Protection Administration.

In addition, in order to reduce the occurrence of waste, the Company has made improvements in waste reduction. The investment amount has reached NT\$440 million by 2019, and there are 3 improvement cases in 2020 in progress. It is expected to invest another NT\$50 million.

For example, Longde PTA plant invested NT\$9,020,000 to add a temporary sludge storage silo to reduce the increase in waste moisture content caused by rainfall.



3.5.2 Management of controlled chemical substances

SDG 3.9

SDG 6.3

SDG 12.4

Management Policy for Controlled Chemical Substances



Policy	For controlled chemical substances, we have obtained approval documents for controlled chemical substances in accordance with the requirements of the competent authorities.
Responsibilities	The Department that controls the occurrence of chemical substances shall take the management responsibility, while the environmental protection department shall supervise and assist in the management.
Resources	In May 2019, we cooperated with the Environmental Protection Agency and the Yilan County Government to hold a joint exercise on toxic chemical disasters and disaster prevention and rescue in Yilan County, with a total of 557 people participating and watching.
Specific Actions	Conduct classification management and exposure assessment in regards to controlled chemical substances, and establish warning and containment facilities.
Objectives and Commitment	Achieve the goal of "zero pollution".
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	No occupational injury related to controlled chemical substance occurred in 2019.

In order to ensure the safety management of the production, use, storage and transportation of controlled chemicals, and ensure the normal operation of the operation sites and facilities of the controlled chemicals of each plant, we have obtained the approval documents of the competent authorities of controlled chemicals in accordance with the provisions of environmental protection, labor safety, fire control, transportation and other relevant laws and regulations, and formulated management measures to strengthen the independent management of the operation of controlled chemicals; and regularly commission environmental testing institutions to conduct labor working environment measurement, so as to master the actual working environment of colleagues and evaluate their exposure.

Each plant will consider possible disasters with respect to the manufacturing process and formulate the Regulations of Emergency Rescue based on the Safety Data Sheet (SDS) as a training material for emergency response drills. Unscheduled tests shall be conducted twice every year along with an overall drill in disaster prevention and contingency plans, and large-scale observation drills are carried out in cooperation with the county and city authorities.





Establish Emergency Response Center



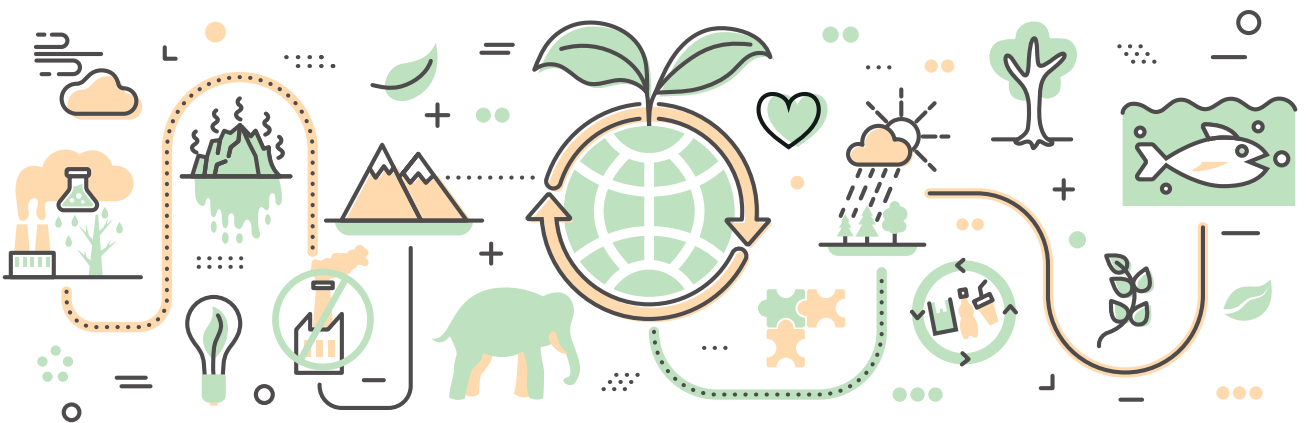
Fire crews set up water lines to sprinkle water



Rescue team personnel carry out rescue matters



Set up a contingency command center to rescue injured people during disaster relief



3.6 Compliance with Environmental Protection Laws

SDG 11.6

Management Approach to Compliance with Environmental Laws

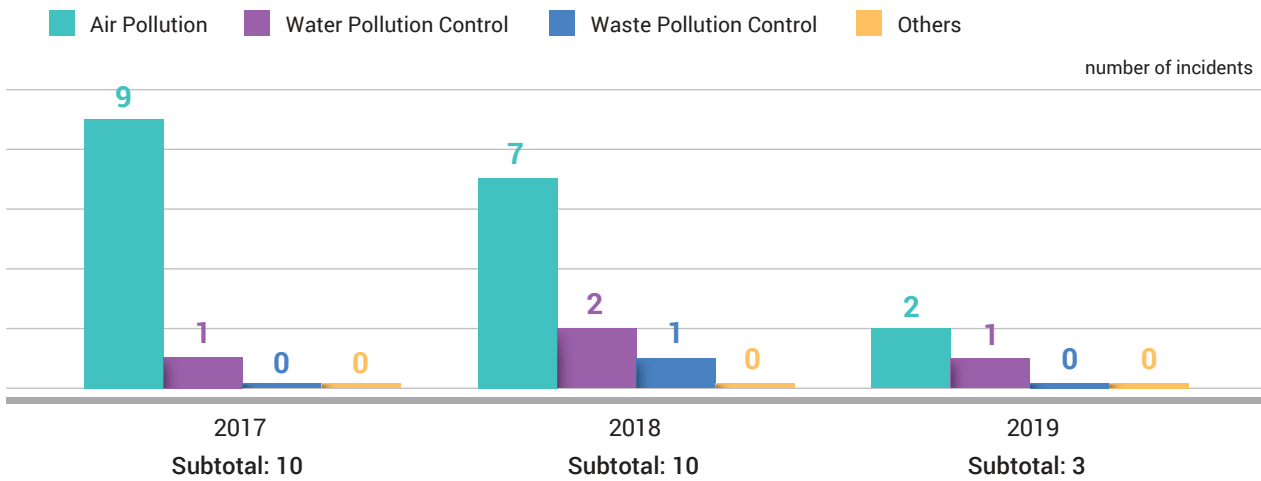


Policy	Pursue compliance with and better than the environmental protection regulations of the Environmental Protection Agency, and follow the corporate environmental supervision and management measures.
Responsibilities	Environmental protection experts have been designated at all FCFC production departments to be in charge of compliance with environmental protection laws. In addition, the environmental protection department has been established to assist, guide, and supervise matters related to environmental protection.
Resources	Designated personnel at FCFC will continue to follow up and focus on amendments to environmental protection laws and drafts from competent authorities and to propose improvement projects.
Specific Actions	A designated department will browse the latest environmental protection laws announced by the government on government websites monthly, and attend the public hearing and advocacy meeting of environmental protection laws and regulations held by the government in time to obtain the latest version of environmental protection laws and regulations and draft related to the Company.
Objectives and Commitment	FCFC will ensure safe production processes to prevent from causing environmental pollution and set "zero penalty" as the goal.
Grievance Mechanism	<ol style="list-style-type: none"> 1. SHE section has been set up on the Company's website as a channel for interested parties to provide their opinions and feedback. 2. Stakeholders can discuss with FCFC for environmental protection issues during various external meetings.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. The Company establishes compliance inspection procedures in accordance with ISO 14001: Environmental Management System. And if there is any non-compliance with the legal inspection results and cannot be improved immediately, it is required to formulate an improvement implementation plan and follow-up for control. 2. No major leakage incident occurred in 2019. 3. There are still three environmental violations in 2019. Regarding the environmental protection violations, we have implemented horizontal improvements and warned every department through internal meetings. We have also strengthened random inspection management and increased preventive equipment.

As FCFC has intensive upstream and downstream presence in the petrochemical industry, we have become a major inspection target for the central and local environmental protection government agencies (inspected 3 days per day). The environmental protection violations for 2019 include 1 leakage of equipment components, 1 abnormal discharge of water, and 1 fire accident. The punishment by the competent authority was NT\$566,800.



FCFC Environmental Violations (2017-2019)



3.7 Description of Material Environmental Issues

In response to the media report "Air Pollution in Yunlin, Chiayi and Tainan is the Most Serious"

In July 2019, the media published the article "Air Pollution in Yunlin, Chiayi and Tainan is the Most Serious", alleging that the high average PM2.5 in Yunlin is due to emissions from the No. 6 Naphtha Cracking Complex. However, according to the following data results, there are multiple sources affecting the air in Yunlin, Chiayi and Tainan area, indicating that the No. 6 Naphtha Cracking Complex is not the main source.

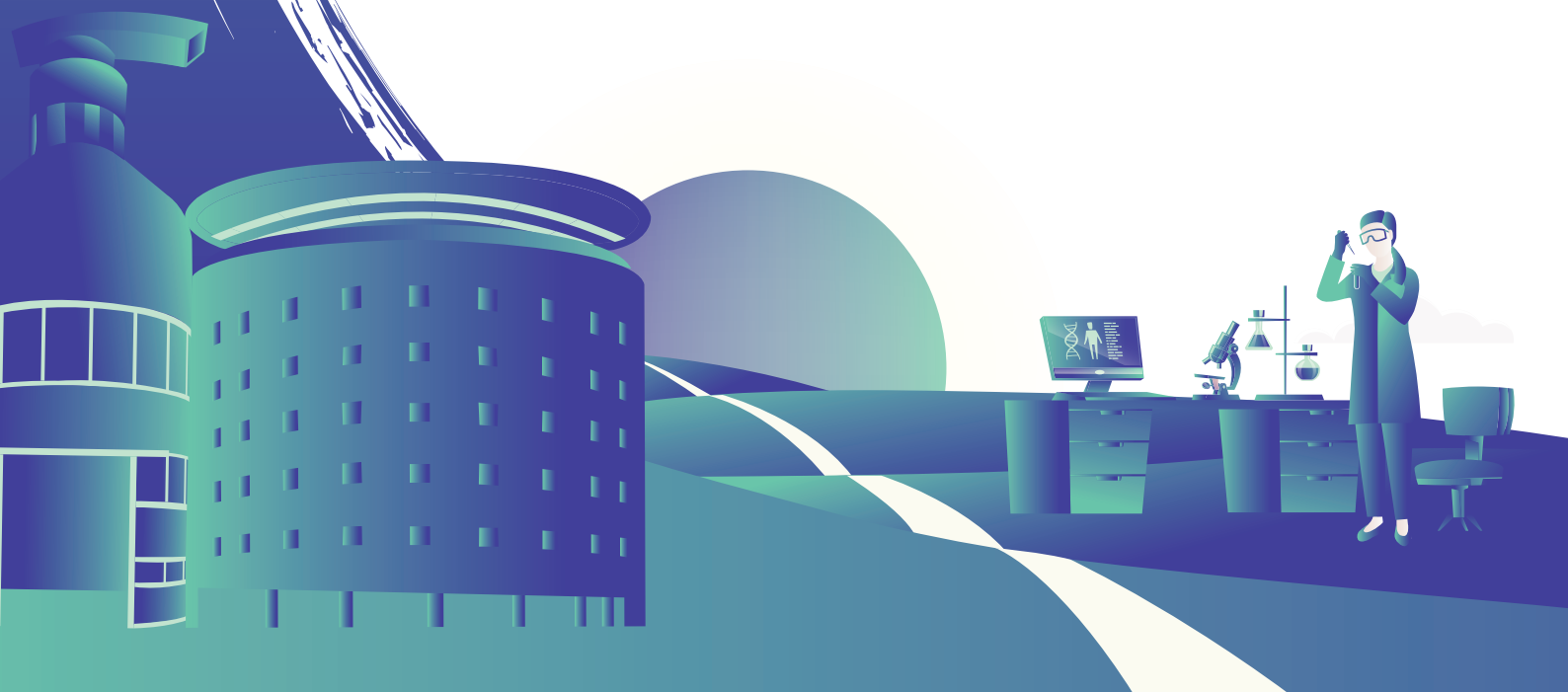
1. The research results of EPA's 2017 "Strengthening Air Quality Model System Establishment Plan (Second Year)" show that the PM2.5 concentration of AQI in the Yunlin, Chiayi and Tainan areas is affected by overseas transmission at a rate of 36.6%, while the impact of domestic fixed pollution sources, traffic sources and surface sources (such as dust, etc.) were 19.3%, 20.0% and 18.8%, respectively, of which the impact of petrochemical industry and power industry related to the No. 6 Naphtha Cracking Complex was only 5.94%.
2. According to the research report of "Reactive Air Quality Planning of No. 6 Naphtha Cracking Complex Related Projects" reviewed by the Environmental Protection Agency, PM2.5 in Yunlin, Chiayi and Tainan was only affected by emissions from the No. 6 Naphtha Cracking Complex throughout the year from 0.44 to 2.34%. Other major pollution sources including diesel vehicles, gasoline vehicles and dust are higher than the impact of No. 6 Naphtha Cracking Complex. The impact and response of the terms of large power consumers in the "Renewable Energy Development Act".

The "Renewable Energy Development Act" clearly stipulates that large power consumers with power contracts above a certain capacity should install renewable energy equipment or energy storage devices. They can also purchase renewable energy certificates or pay vouchers instead. The threshold of large power consumers will be calculated using 10% of the "contracted capacity of power consumption" for the obligations of large consumers. In the first stage, it is applicable to large households with a contracted capacity of more than 5000 kW signed with Taipower. The contracted capacity of each plant of the Company with Taipower is between 10,000 and 30,000 kW. Although it will be listed as a large power consumer and uses a certain ratio of green power, the impact is still within the controllable range. In addition to the installation of 1,500 Kw of solar power generation equipment in the Xingang Plant, and the continuous evaluation of the above four methods, it is expected to take into account environmental protection and reduce energy costs.

4

Fostering Sustainable Human Capital

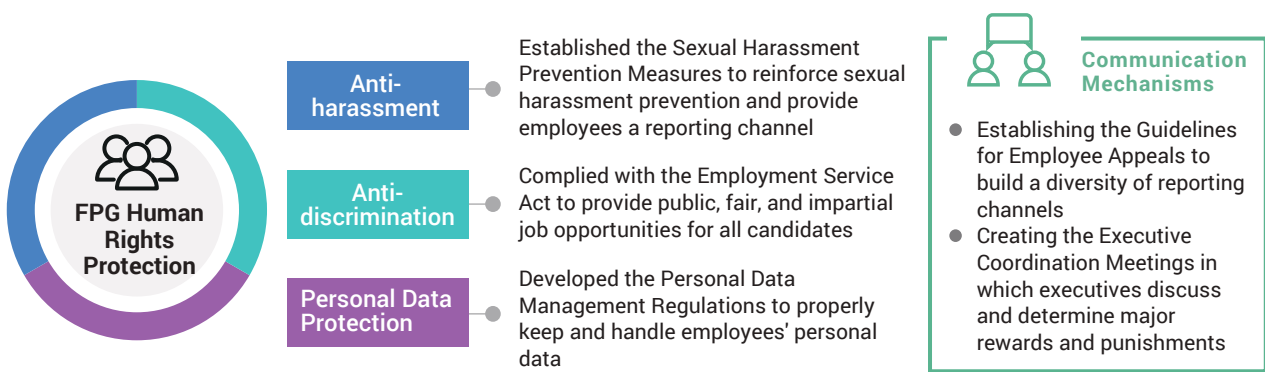
- 4.1 Employee Human Rights Protection
- 4.2 Employee Remuneration and Benefits
- 4.3 Human Capital Development
- 4.4 A Healthy and Safe Working Environment
- 4.5 Description of Material Occupational Safety Issues



4.1 Employee Human Rights Protection

Employee Human Rights Protection Management Approach  Material Topic

Policy	The Company supports and complies with basic human rights principles including the Universal Declaration of Human Rights, International Bill of Human Rights, the UN Global Compact, and the International Labour Organization's Declaration of Fundamental Principles and Rights at Work on top of local laws and regulations where the Company operates, and formulates FCFC Human Rights Policy.
Responsibilities	FPG's Group Administration and FCFC's President's Office and all departments promote human rights protection based on FCFC Human Rights Policy.
Resources	The FCFC Human Rights Policy, signed and enacted by the Chairman of FCFC, stipulates that every department throughout the Company must be committed to implementing human rights protection.
Specific Actions	<ol style="list-style-type: none"> 1. Establish the Sexual Harassment Prevention Measures to reinforce sexual harassment prevention and provide employees with a reporting channel. 2. Handle general care questionnaire for current employees. 3. Develop the Personal Data Management Regulations to properly keep and handle employees' personal data.
Objectives and Commitment	FCFC's employee rules have clearly stipulated that no employee shall be subjected to discrimination because of union membership. All employees are protected by the rules. The Company also strictly prohibits the use of child labor and any incident that violates human rights or discrimination rules.
Grievance Mechanism	<ol style="list-style-type: none"> 1. The Company established the Guidelines for Employee Appeals to build a diversity of reporting channels. 2. Creating the Executive Coordination Meetings in which executives discuss and determine major rewards and punishments. 3. Employee opinion mailboxes have been set up. 4. An online mailbox in the business information system has been set up.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. Ratio of employee participation in union is 68.2% in 2019. 2. No use of child labor or human rights violation or discriminatory incident occurred in 2019.



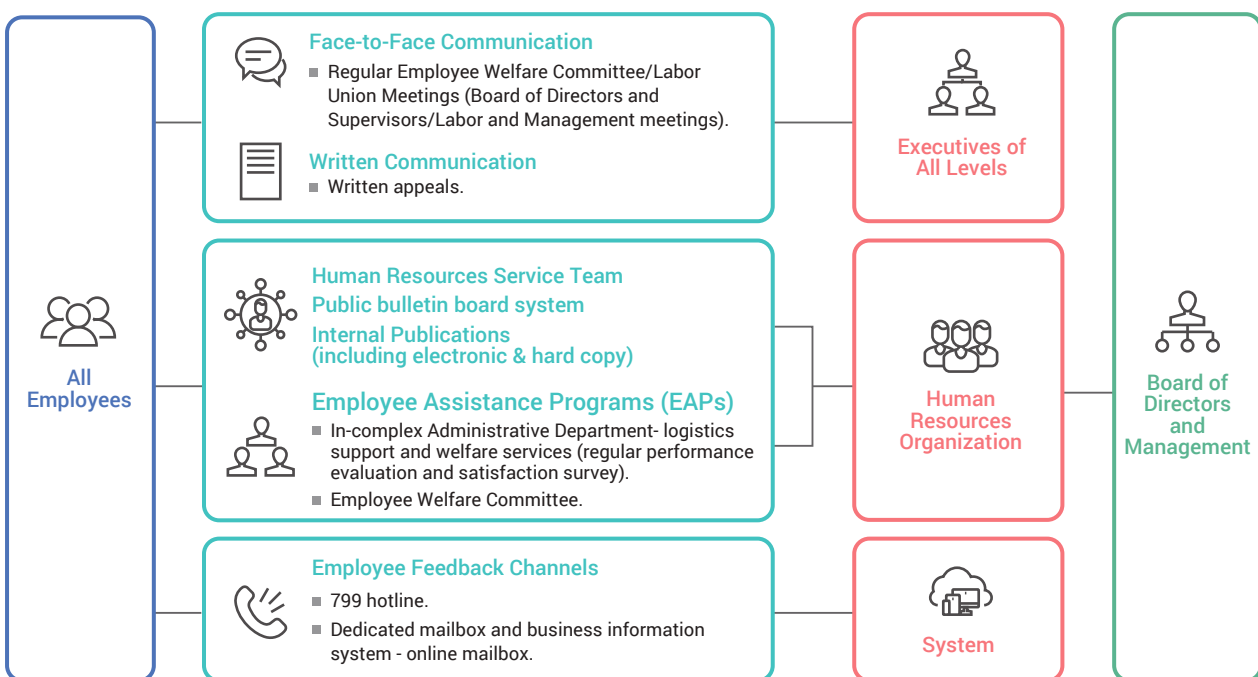
To strengthen and to fulfill human rights protection, the human rights protection policy was proposed by the Company and enacted by the Chairman in 2018 in reference to the International Bill of Human Rights. Please refer to FCFC's official website.

4.1.1 Employee Opinions and Feedback

FCFC strives to pursue harmonious labor relations, and provides multiple and smooth communication channels and approaches for two-way communication. Employees are encouraged to take part in the labor union or the Employee Welfare Committee to voice their suggestions to the management in regularly-held meetings. We prioritize the labor union's suggestions when formulating crucial policies; in addition, all the employees are protected by the mutual agreement of the management and employees.

Regarding new recruits, we hold periodic consultation programs so that we can better understand the various difficulties they face in both their jobs and their daily life. By resolving their problems, we hope to eliminate their uneasiness of adjusting to a new working environment and reduce the turnover rate.

FCFC Internal Communication Channels



We have started a general care questionnaire for in-service employees in 2019 to understand employees' satisfaction with the department's working atmosphere and corporate measures and suggestions. The survey results show that the majority of employees expect the Company to improve the management skills of department heads. Therefore, we will continue to conduct courses such as "new manager training" and "improving work enthusiasm and team effectiveness" and other contents of leadership. In the future, the Company will handle an employee care questionnaire every year to understand employees' suggestions and needs for the Company.

4.1.2 Employee Profile

In 2019, FCFC's regular employment accounted for 96%, all of which were full-time employees; the temporary employment (e.g. consultants, contract-based employees, foreign employees, and work-study students) accounted for only 4%, including 1 part-time employee. The percentage of local employees was over 99%.

FCFC Manpower Structure in 2019

Unit: Person

Type	Nature	Female		Male		Total
		Number of persons	Ratio on the Group	Number of persons	Ratio on the Group	
Employment Contract	Regular Employees	590	11.2%	4,684	88.8%	5,274
	Temporary Employees	126	58.3%	90	41.7%	216
Type of Employment	Full-Time Employees	715	13.0%	4,774	87.0%	5,489
	Part-Time Employees	1	100.0%	0	-	1
Position	Executives	1	0.2%	48	1.0%	49
	First and Second Level Directors	28	4.7%	1,163	24.8%	1,191
	Entry Level Managers and Employees	288	48.8%	3,473	74.1%	3,761
	Assistants	273	46.3%	0	-	273
Location	Northern Taiwan	209	35.4%	791	16.9%	1,000
	Central Taiwan	135	22.9%	2,296	49.0%	2,431
	Southern Taiwan	198	33.6%	1,072	22.9%	1,270
	Eastern Taiwan	48	8.1%	525	11.2%	573
Age	Under 29 Years Old	53	8.98%	500	10.67%	553
	30-39 Years Old	94	15.93%	1,047	22.35%	1,141
	40-49 Years Old	211	35.76%	1,726	36.85%	1,937
	50-59 Years Old	206	34.92%	1,163	24.83%	1,369
	Over 60 Years Old	26	4.41%	248	5.29%	274
Years of Service	Under 10 Years	161	27.29%	1,481	31.62%	1,642
	11-20 Years	58	9.83%	886	18.92%	944
	20-30 Years	197	33.39%	1,665	35.55%	1,862
	Over 30 Years	174	29.49%	652	13.92%	826

Type	Nature	Female		Male		Total
		Number of persons	Ratio on the Group	Number of persons	Ratio on the Group	
Education	Doctor's Degree	0	-	11	0.2%	11
	Master's Degree	46	7.8%	534	11.4%	580
	Bachelor's Degree	46	7.8%	820	17.5%	866
	Others	498	84.4%	3,319	70.9%	3,817
Subtotal of Regular Employment by Gender		590	11.2%	4,684	88.8%	5,274

4.1.3 Employee job security SDG 8.5

The recruitment of FCFC adheres to the principles of fairness, impartiality and openness, and is handled in accordance with the provisions of the Labor Standards Act. Based on the basic human rights of equality of employment opportunities, admission is entirely dependent on personal professional ability and experience. After candidates are employed, we ensure that they receive fair treatment in terms of promotion, evaluation, training, and rewards and punishments.

Based on the spirit of giving priority to protecting employees' working rights and interests, we have established a manpower integration mechanism to replace layoff with transfers. In addition, in case of organizational restructuring for operational needs, leading to changes that affect employees' employment status, the announcement method and time of such changes will always be carried out in accordance with the Labor Standards Act.

The annual turnover rate (including retirement) of employees in 2019 is 5.41%, of which retirees account for 61.05%.

Overview of new employment and departure of FCFC in 2019

Type	New Employees		Employee Turnover		
	Number of persons	Percentage (Note 1)	Number of persons	Percentage (Note 2)	
Age	Under 29 Years Old	136	2.57%	50	0.95%
	30-39 Years Old	49	0.93%	42	0.8%
	40-49 Years Old	2	0.04%	28	0.53%
	50-59 Years Old	2	0.04%	67	1.27%
	Over 60 Years Old	-	-	98	1.86%
Total		189	3.58%	285	5.41%
Gender	Male	166	3.15%	194	3.68%
	Female	23	0.43%	91	1.73%
Total		189	3.58%	285	5.41%

Note 1: Ratio on Total Employees = New (Male) Female Employees / Total Regular Employees.



Note 2: Ratio on Total Employees = (Male) Female Turnover / Total Regular Employees.

Percentage of Local Recruits as Senior Managers

We have contributed to the local communities by prioritizing employment offers to local residents. We also train the locals to become senior managers. The percentage of local recruits as senior managers over the past 3 years is shown in the table below:

Percentage of Local Recruits as Senior Managers over the Past 3 Years

Unit: Person, %

Year	2017	2018	2019
 Number of persons	677	691	687
 Percentage of Local Recruits (%)	39.6	39.2	38.9

Note: Senior managers in this table refer to personnel at or above the entry level manager, with a total seniority of 5 years or more and the percentage of the registered permanent residence and the factory area is in the same county and city.

4.2 Employee Remuneration and Benefits

Employee Remuneration and Benefits Management Approach Material Topic

Policy	FCFC holds true to the philosophy of "equal pay" and the mission of "seeing all employees as members of our family" while establishing the benefits and remuneration system for our employees.
Responsibilities	We provide a fair career development environment and excellent remuneration for our employees. We also implement various comprehensive benefits system.
Resources	The "799" hotline is set up at each operational site to provide timely channels for employees to reflect their thoughts and to solve their problems.
Specific Actions	Organizational meetings are held via the union and the Employee Welfare Committee to achieve bi-lateral communications.
Objectives and Commitment	Pursue better salary than the same industry, and a sound welfare system, caring for employees and their families.
Grievance Mechanism	<ol style="list-style-type: none"> 1. Physical and online opinion mailboxes. 2. Organizational meetings of the union and Employee Welfare Committee.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. We offer higher minimum wage than the legally stipulated standards. The ratio of minimum salaries for females and males for the identical positions and ranks is 1:1. 2. Various benefits measures more competitive than legal regulations are offered.

4.2.1 Employee remuneration SDG 8.5

The remuneration standard for newly recruited personnel of FCFC is determined according to the education and experience of the talents required for the job. The ratio of minimum salaries for females and males for the identical positions and ranks is 1:1. The minimum starting salary standard for new employees, whether male or female, is 4.7% higher than the statutory basic wage of NT\$23,100 / month. After recruiting new employees, they will be paid and promoted according to their work performance year by year, and the corresponding remuneration will be given. At present, the ratio of basic salary plus bonus for female and male employees is as follows:

Percentage of basic salary plus bonus for female and male employees

Unit: %

Year	2017		2018		2019	
Type	Female	Male	Female	Male	Female	Male
Level 2 Managers or Above	100	95	100	97	100	107
Entry Level Managers or Below	100	138	100	136	100	133

The Company also provides allowance, performance-based bonuses, year-end bonuses, and employee bonuses based on profitability to inspire and reward employees for their work performance. The percentage of basic salary plus bonus of female employees below the entry level managers (inclusive) is lower than that of male employees, mainly because female employees at the entry level act as operators or clerks, most of them do not need to work shifts, and compared with male employees at the entry level, they do not receive shift related allowances.

The following table indicates the number of non-managerial full-time employees and their median and average salary in 2019:

Salary Overview of FCFC Non-managerial Staff

Year	2018	2019
Number of non-managerial employees (number of persons)	4,890	4,911
Average salary of non-managerial employees (NT\$/person)	1,384,584	1,366,832
Median salary of non-managerial employees (NT\$)	1,278,527	1,258,846

Note 1: Non-managerial position = non-manager.

Note 2: The number of non-managerial employees is the average number of employees (excluding subsidiaries) at the end of each month who have been paid by FCFC for more than six months (inclusive) in the current year and excluding managers.

Regarding retirement protection, the Company makes monthly contributions to employees' pension funds based on the new or old pension plan selected by the employees so that FCFC is able to provide pensions to employees when they meet the statutory conditions of retirement.



Note: Please refer to the accounting items related to "Pension" in the 2019 Consolidated Financial Statements for FCFC's pension recognition.

4.2.2 Employee Benefits

FCFC adheres to the concept of "regarding employees as family members". At the beginning of the construction of each plant, it must first complete basic food, accommodation and leisure facilities, and actively promote various perfect welfare systems. Employee welfare measures are implemented in accordance with the corporate welfare system, and there are several measures that are better than the legal requirements. All factories have established employee welfare committees in accordance with the law. The committee is responsible for arranging trips, holiday gifts, birthday gifts, scholarships for employees' children, group insurance, recreational activities and subsidies for company clubs. Please refer to the Company's official website for details of various benefits.

Insurance Benefits:

In addition to labor insurance and national health insurance, the Employee Welfare Committee of each plant 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.

Club Funds:

Funds are provided to clubs for various travel, sporting activities, arts and cultural exhibitions, and various life-related seminars.



Mountaineering Club of the Longde Plant



Bicycling Club of the Chiayi Xingang Plant

Retirees' Association:

In order to thank the retired employees for their contributions to FCFC, the "Retired Personnel Association" was established in 2013. The Company is in charge of 3 branches including Yilan, Changhua, and Chiayi. As of the end of 2019, there were 1,159 members. The Company provided funds every year to subsidize member activities. Through the holding of friendship activities, the feelings of retired employees were connected.



Unpaid parental leave

FCFC provides an unpaid parental leave system, and employees can file for applications as needed. In 2019, a total of 10 female workers have applied for unpaid parental leaves, and the number of applicants over the past three years are indicated in the following table:

FCFC Application for Unpaid Parental Leaves and Reinstatement

Item	2017			2018			2019		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Number of Employees Qualified for Unpaid Parental Leaves	6	148	154	12	180	192	11	168	179
Number of Employees Applying for Unpaid Parental Leaves	6	-	6	11	-	11	10	-	10
Number of Employees Expected to Reinstatement in the Year (A)	4	-	4	6	-	6	8	-	8
Number of Employees Applying for Reinstatement in the Year (B)	4	-	4	6	-	6	8	-	8
Number of Employees Having Reinstated for over a Year (C)	3	-	3	4	-	4	5	-	5
Reinstatement Rate (%) (B/A)	100	-	100	100	-	100	100	-	100
Retention Rate (%) (C from the year / B from the previous year)	100	-	100	100	-	100	83	-	83

Note 1: Since most of our employees sought long-term daycare approaches, the number of employees applying for unpaid parental leaves was rather low.

Note 2: "-" indicates no numeric value.



4.3 Human Capital Development

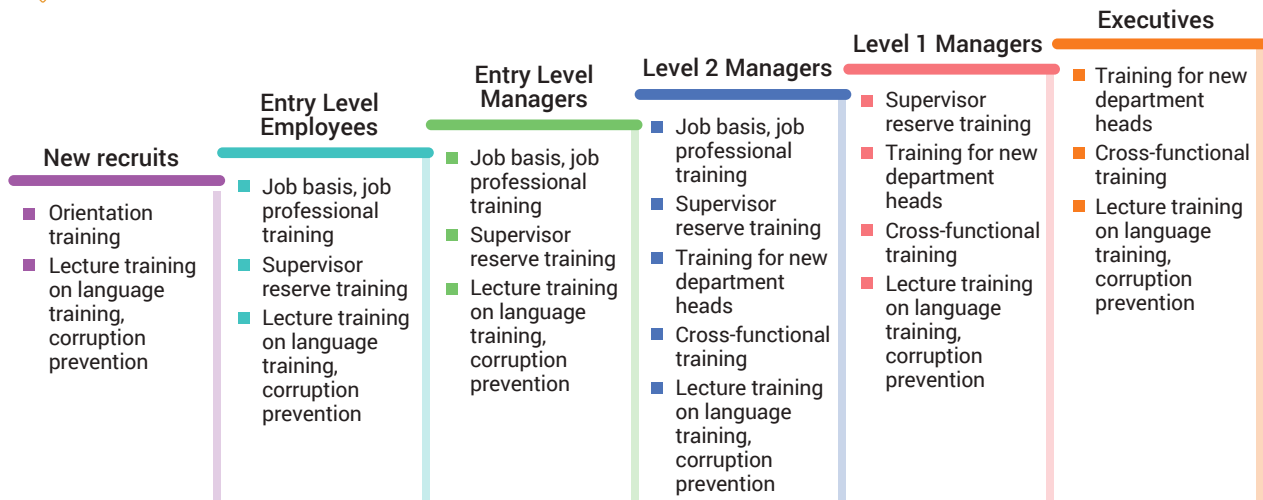
Career Development and Training Management Approach Material Topic

Policy	We provide good career development and training system and measures, and carry out well-rounded talent development based on the "Training Management Method."
Responsibilities	Employee is the most important asset to a company, as well as the foundation to sustainable management. Planning a comprehensive training system and actively developing outstanding talent is an important growth driver for the Company's business.
Resources	The related functional departments from the President's Office of FCFC will promote and conduct computerized management in line with the ERP training system.
Specific Actions	Training courses have been computerized to regularly remind the organizers to arrange for employee training within the deadline. In case incomplete training is overdue, the system will continuously follow up until it has been completed.
Objectives and Commitment	<ol style="list-style-type: none"> 1. As a mid-term talent training objective, we aim to enhance the ratio of employees passing professional certification. 2. We will continue to expand the ratio of completion of cross-functional knowledge training for mid-tier and senior managers and executives in order to achieve the long-term goals of employee development and talent retention.
Grievance Mechanism	<ol style="list-style-type: none"> 1. Physical and online opinion mailboxes. 2. Dedicated hotline. 3. Organizational meetings of the union and Employee Welfare Committee.
Performance Evaluation Methods and Results	Through performance evaluations, managers are able to communicate with their subordinates face to face and further discover their talent for training or job transfer reference. The overall average inspection rate of each category in 2019 was 96.1%.

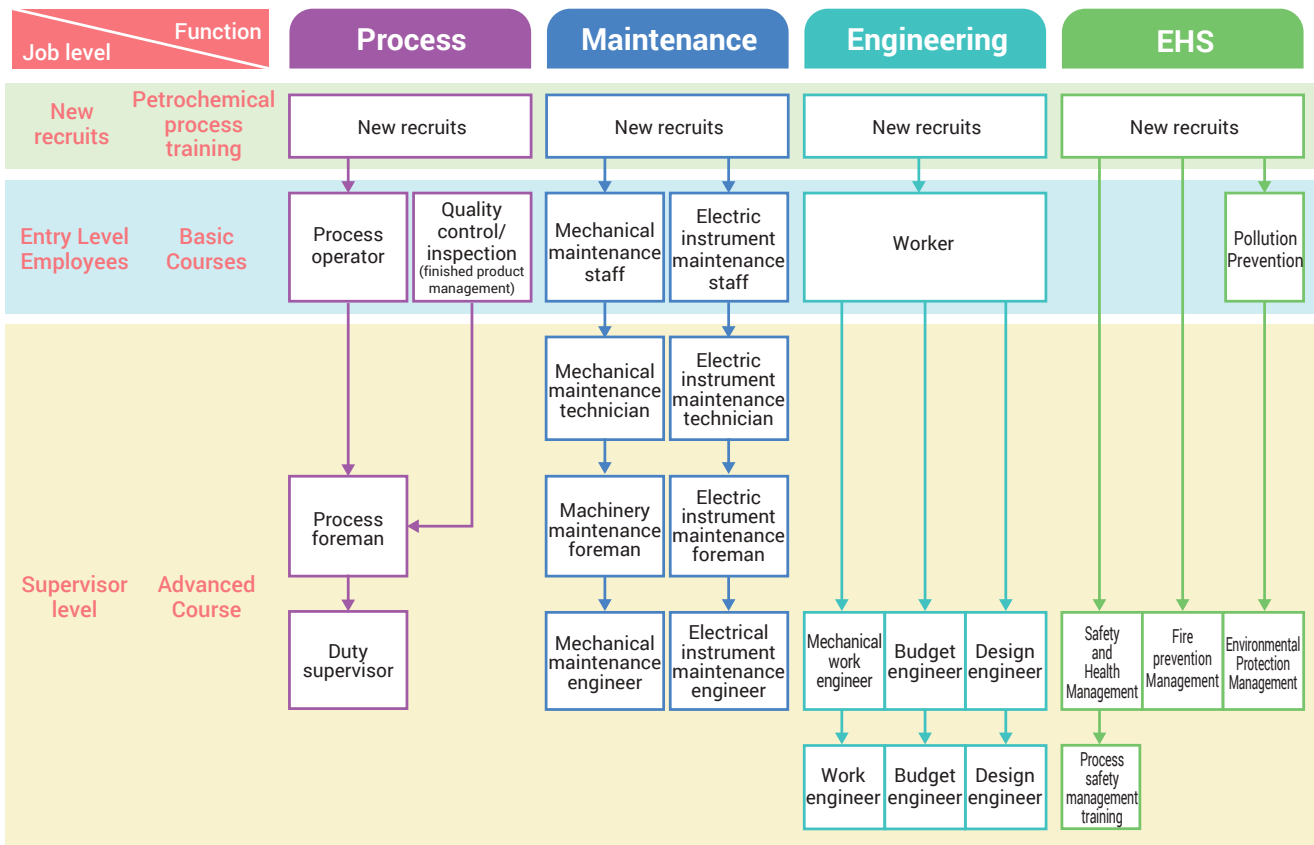
4.3.1 Employee Career Development Management

In addition to providing high-quality compensation and benefits, the Company also attaches great importance to the career development of employees. Appropriate training programs are arranged at each stage from new recruits to the managerial level. In addition, for professional and technical job duties, a training system has also been developed to strengthen the professional skills of employees through job training and job certification systems. In order to implement talent cultivation, the Company has formulated "Training Management Measures" and used ERP system for computerized management. It regularly reminds the training unit to arrange training to achieve the goal of employee training and retention.

Employees' Career Development Path

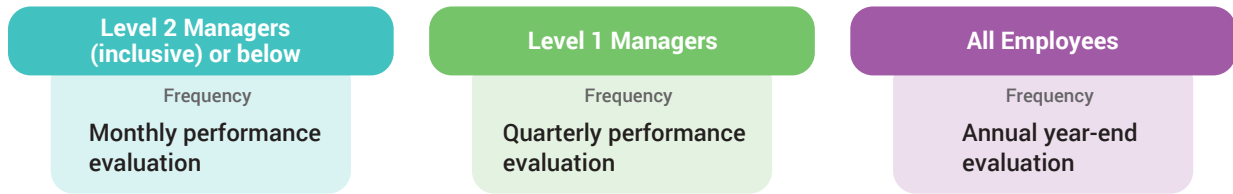


Professional and technical job training system



In addition to the training courses, we also review the appropriateness of employees' duties and implement performance evaluations on a regular basis to examine employees' career development and to motivate our employees to improve their performance.

FCFC Evaluation Mechanism



In addition to informal personnel (such as: consultants, contract personnel, work-students, foreign workers), all formal employees are required to undergo job evaluation and inspection. Supervisors shall conduct interviews with subordinates to understand the talents of employees, as a reference for future training and job transfer. In 2019, the overall average inspection ratio of each category was 96.1%.

Percentage of Employees Receiving Regular Performance and Career Development Evaluations in 2019

Unit: %

Employee Category	Male	Female
Executives	66.7	11.1
Level 1 Managers	99.7	66.7
Level 2 Managers	100.0	100.0
Entry Level Managers	99.9	100.0
Entry Level Employees	97.2	81.0
Total	96.1	

Note: The percentage of executives receiving evaluations was rather low due to a higher percentage of temporary consultants.

4.3.2 Employee professional training and cultivation of SDG 8.6

In addition to arranging employees to receive training at all levels, in accordance with the nine functional categories of employees' positions, FPG's "Technical Training Center" (TTQS gold medal evaluated by the Ministry of Labor) was commissioned to develop employee job certification and technical training courses to enhance employee job professionalism. In addition, a cross functional learning course is designed for the supervisor's position to improve the breadth of supervisor management knowledge and ability; there are regulations on additional points for promotion level and advance by professional certificate to encourage employees to learn from multiple sources, cultivate their second specialty, learn foreign language and transfer training, and to hold various subject study courses from time to time to promote employees' lifelong learning.

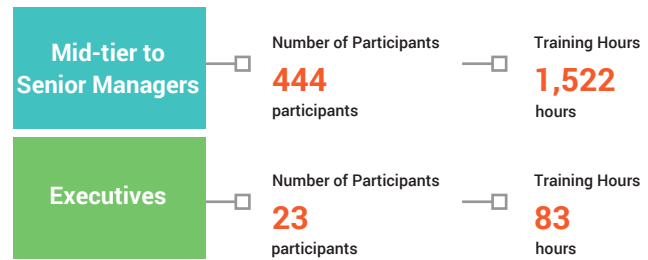
9 Functions of Professional Training

Finance Services	Maintenance	Business
Production	Engineering	Materials
Project improvement	Occupational safety and environmental protection	Personnel

Training Type



Statistical table of cross-functional training for managers in 2019



To promote employees' awareness of human rights and occupational safety, we organize occasional courses on Occupational Safety and Health Act, the Labor Standards Act, the Sexual Harassment Prevention Act, and the Act of Gender Equality in Employment in addition to the orientation where employees receive training related to evaluation, appointment, employee benefits, attendance and plant access control. In addition, in order to strengthen the legal concept of employees, in 2019, we arranged legal training for business personnel, material reviewer, legal personnel and managers in the Company, and invite government legal units to promote common corporate economic crime cases. A total of 110 persons participated in the annual course.

In 2019, each employee received an average of 31.8 hours of training (22.8 hours for senior managers; 40.8 hours for entry level managers; 31.7 hours for entry level employees) with the completion rate of 99.3%.

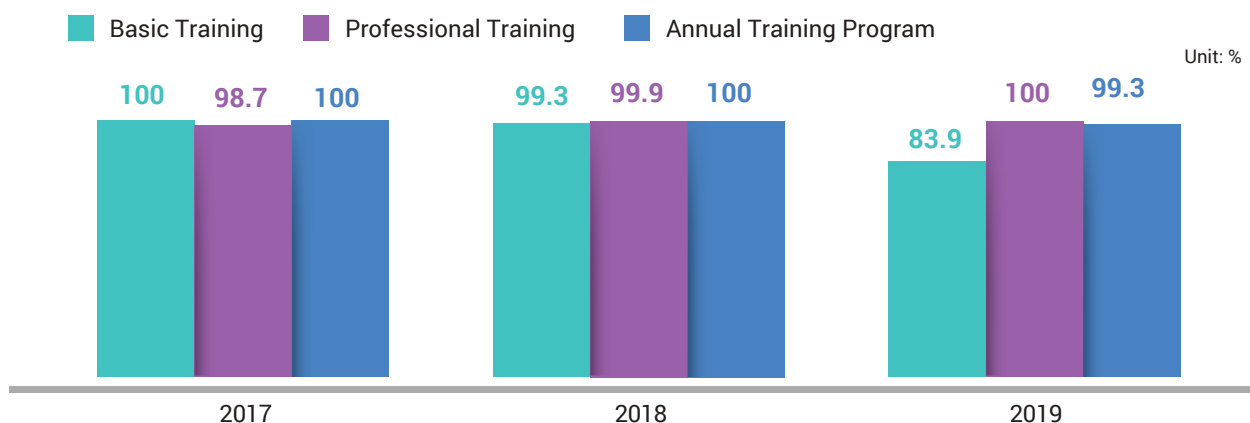
FCFC Employee Training over the Past 3 Years

Unit: hour

Rank	Year	2017			2018			2019		
		Male	Female	Average	Male	Female	Average	Male	Female	Average
Mid-tier to Senior Managers		17.4	8.8	17.2	21.5	12.8	21.2	23.2	8.0	22.8
Entry Level Managers		29.4	20.7	29.1	36.9	28.5	36.5	41.5	25.6	40.8
Entry Level Employees		32.3	35.0	32.8	46.0	40.6	44.8	34.0	22.9	31.7
Average Number of Training Hours Per Person Training Hours		27.7	32.9	28.4	37.5	38.3	37.6	33.2	22.4	31.8

Note: Mid-tier to senior managers (inclusive) or above refer to executives, level 1 managers and level 2 managers.

FCFC Training Completion Rate over the Past 3 Years



Note: The completion rate refers to the ratio of completed training courses which should be completed in the year.

4.4 A Healthy and Safe Working Environment

Management Approach to Occupational Health and Safety and Industrial and Public Safety



Policy	In compliance with the "Occupational Safety and Health Act", "Regulations of the Labor Health Protection" and "Health Management Measures" and other laws and regulations, a total of 20 production plants have successfully passed the OHSAS 18001 Occupational Safety and Health Management System and Taiwan Occupational Safety and Health Management System (TOSHMS) verification.
Responsibilities	Ensure that all employees take part in safety and health management activities, adopt appropriate corrective measures, and continuously improve the safety of the operational environment.
Resources	FCFC's President's Office has established SHE Level 1 Management to coordinate the safety, health and environmental management within the Company. Individual SHE promotional teams are set up at each plant and facility. In addition, a dedicated unit has been set up at FPG's Group Administration to allocate resources to each FPG company and to set up policies.
Specific Actions	<ol style="list-style-type: none"> 1. Strengthen safety and health requirements during the procurement and outsourcing system. 2. Provide employee with health checkups that are superior to legal requirements. 3. Carry out process hazard analysis and management. 4. Promote disaster prevention programs and plant-wide emergency response measures.
Objectives and Commitment	Achieve the goal of "zero injury and zero disaster" to further create a sustainable business environment.
Grievance Mechanism	<ol style="list-style-type: none"> 1. Respond to suggestions for safety and health management during monthly Safety, Health and Environmental Protection Conference or quarterly Safety and Health Committee meeting, and conduct immediate improvements. 2. On-site medical professionals are appointed to provide professional medical advice and consultation based on employees' needs.
Performance Evaluation Methods and Results	Performance evaluation is carried out pursuant to the national "Occupational Safety and Health Management System," and annual review of the implementation progress and immediate improvements are conducted each year.

4.4.1 Employee Health Management

According to the Regulations of the Labor Health Protection and FPG's Health Management Regulations, FCFC organizes general health examinations as well as special health examinations for operators working under high temperature, high pressure, or hazardous fluids. In 2019, the results of the special health examinations showed no incidence of occupational disease. Besides the health examination items already stipulated in the stated laws and regulations, health examination items such as Alpha-Fetoprotein (AFP), carcinoembryonic antigen (CEA), oral cancer, and high density lipoprotein-cholesterol (HDL-C) are also incorporated to facilitate better employee healthcare. As shown in the table below, the frequency of health examinations for employees aged 30–40 and 40–65 is better than the statutory requirements to take better care of employees' health.

Comparison between FCFC Frequency of Health Examinations and Statutory Requirements

Age	Statutory Requirements	FCFC
Under 29 Years Old	Once/5 years	Once/5 years
30-39 Years Old	Once/5 years	Once/3 years
40-44 Years Old	Once/3 years	Once/3 years
45-64 Years Old	Once/3 years	Once/2 years
Over 65 Years Old	Once/1 year	Once/1 year

In order to continue to promote the health management of employees, the Company's Mailiao Safety and Hygiene Department assisted in planning the establishment of a health promotion organization, and combined with the Welfare Committee and the medical office to jointly promote employee health promotion activities, such as weight loss activities. And we listen to the opinions of employees by attending the factory union meeting and labor-management meeting, and actively care for the safety and health of employees. For health promotion organizations, please refer to the Company's official website.

Medical personnel are assigned to industrial complexes to provide employees with personal health guidance and professional counseling services. In collaboration with the Medical Center of Chang Gung Memorial Hospital, FCFC promotes preventive medicine and disease prevention to raise employees' awareness of their health conditions. In 2019, a total of 53 health lectures were organized in the first and second half of the year with a total of 4,712 participants.

4.4.2 Promoting a Healthy Workplace in Cooperation with Government Agencies

The Company actively participated in the promotion of the government's healthy workplace activities. In 2019, Yilan Longde Plant and North District Occupational Safety and Health Center handled the "Fire and Explosion Disaster Prevention Observation Meeting", participated in the Yilan County Government's "Occupational Safety and Health Guidance Team" plan, and "Toolbox Observation Meeting", "National Pollution Disaster Exercise", the Mailiao Plant, the Yunlin County Government and the Ministry of Economic Affairs jointly held the "2019 Disaster Prevention and Rescue Exercise".



4.4.3 Workplace Safety Management SDG 8.8

The Company complies with the relevant requirements of the Occupational Safety and Health Act. Each factory site convenes an Occupational Safety and Health Committee for each quarter. Each member and labor representative puts forward deliberation, coordination and recommendations for the potentially hazardous operating environment, occupational safety and health policy and management plan on site. The committee members also communicated to the labor representatives about the recent safety, health and environment policies and promotion (the number of committees and labor representatives is as follows). In addition, we also follow the relevant occupational safety laws and regulations. Colleagues can suspend operations and report to supervisors for assistance in handling or suggesting solutions through employee appealing channels if they encounter hazardous factors in the work environment, and will not be subject to punishment.

Plant Sites	Chairperson	Number of Occupational Safety and Health Committee Members	Number of Labor Representatives	Percentage of Labor Representatives (%)
Mailiao	Vice President Chi-Chu Chang	7	3	42.9
Xingang	Director Chih-Ming Hu	16	9	56.3
Changhua	Manager Wen-Kuang Tseng	8	3	37.5
Longde	Assistant Vice President Chin-Fu Huang	12	11	91.7

From 2019, the Company fully promoted "safe production", starting from three aspects of "equipment, environment and personnel safety". In terms of environment, the goal is to improve the safety of working environment channels, platforms and other facilities; in terms of equipment safety, NACE International anti-corrosion experts are commissioned to assist in the establishment of anti-corrosion manuals and the establishment of integrity operation windows (IOW) to implement the control of important parameters that affect corrosion; in order to reduce the occurrence of unsafe behaviors of personnel and strengthen the concept of personnel safety, in addition to general safety education and training in the factory area, the Safety and Health Department conducts general safety education and training for 3 hours for workers entering the production plant. Subsequent, the production plant gives SOP or special education and training based on the characteristics of the process to implement the concept of personnel safety education.

Process Safety Management (PSM)

To improve the process management at each plant, FCFC implements 14 items of PSM in accordance with the regulations of the Occupational Safety and Health Administration (OSHA).

Composition of Human Resources

- A total of 57 dedicated PSM personnel have been set up at each rank whose responsibilities are to assist each department to coordinate and launch the 14 key PSM tasks. In addition, PSM deputy directors in each production plant were appointed, who are responsible for the management of safety and health.

Training and Key Management Measures

- The Company has a total of 159 certified "process safety assessors", and sets up a special retraining class for "process safety assessors" every year. In 2019, there are 49 retraining personnel, and subsequent retraining will be continuously handled.
- Personnel are dispatched to join international conferences such as the Global Congress on Process Safety in each year starting from 2016.

Performance Evaluation

- FCFC has regularly commissioned independent third-party entities such as Mary Kay O'Connor Process Safety Center, Pressure Vessel Association and Safety and Health Technology Center to conduct sampling since 2013.
- To date, 10 plant sampling inspections have been completed, and the results all meet OSHA standards on PSM.

Management of Change (MOC)

In order to ensure that any design, equipment, raw materials or operating conditions change will not cause harm to the process, the Company actively implements process hazard analysis. Since 2011, the annual MOC guidance assessment plan has been scheduled in the beginning of each year, combined with the exchange activities and promoted to each plant in Taiwan. For the process plants, the plants are divided into five groups (Mailiao Plant is divided into Mailiao and Haifeng groups), and the PSM personnel from relevant business units are required to serve as the team leader (with the principle of non own business unit) to lead the communication activities and evaluation.

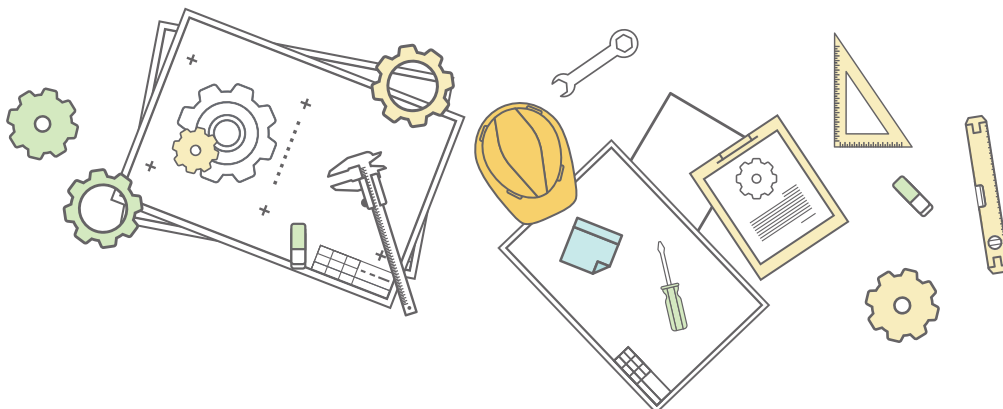
In order to make MOC change case review more rigorous, from 2019 onwards, bottleneck project, Distributed Control System (DCS), Emergency Shutdown Device (ESD) upgrade or software/hardware change, 3.3KV or above changes in the form of motors or disks, high-risk fluids related to process equipment or pipeline updates, changes in operating contents, and impact on internal corrosion environments, etc., must be notified to the business department, perpetual safety (Safety and Health Department + Design Safety Group), testing AI, PSM personnel for joint review so that MOC cases can be resolved from different angles to ensure safety.

Promotion of the disaster prevention plan of Mailiao Industrial Complex

In 2019, in order to strengthen the disaster prevention and resilience capabilities of the Mailiao Industrial Complex, the Company and the central and local government related disaster relief units jointly conducted a joint drill of disaster response in the ARO2 Plant in April, assuming that the typhoon caused the spill of the poison pipeline and the damage of the sealed source. A total of 152 persons participated (excluding personnel of ARO2 plant drills), hoping to enhance the disaster prevention energy of the government and private units through joint drills.



In addition, in order to improve the disaster relief energy of each factory, the Company designated plants to handle observation exercises every month. The SHE personnel of other factories shall conduct on-site actual observation, learn the advantages of other units or improve in parallel for the shortcomings of other factories.



2019 Emergency Response Drill

Month	Plant	Item
1	PP Plant	Emergency response drill for spill and fire of discharge pipeline at the bottom of C-781 light tower in 700 purification area of the 1/2 series due to improper construction by the contractor.
2	SM Plant Mailiao	Emergency response drill for fire caused by MM7 flange spill at SM1 F201 outlet in case of heat and spontaneous combustion.
3	SM Plant Haifeng	Emergency response drill for fire caused by welding sparks of side piping due to spill of T-308A feed line owing to construction of piping by contractor in the SM tank area.
4	ARO2 Plant	In line with government units to conduct joint emergency response drills.
5	Mailiao PABS Plant	Fire emergency response drill for spill of AN (poisons) in SAN tank area due to earthquake.
6	Acetic acid plant	Fire emergency response drill for spill of methanol pipeline on the public pipe rack (C1-035 column).
7	PC Plant	Emergency response drill for the interruption of power supply from public factories due to strong earthquake.
8	Mailiao PTA Plant	Fire emergency response drill for spill due to loosening of flange surface of LPG pipeline caused by earthquake.
9	ARO1 Plant	Emergency response drill for benzene and toluene spill on flange of T616 outlet.
10	Phenol	Fire emergency response drill for spill of cumene from P181 outlet.
11	Wheat storage	Fire emergency response drill for open flame from the construction of filling acetone.
12	ARO3 Plant	Fire emergency response drill for spill of LPG.

4.4.4 Occupational Safety Accident Notification and Statistics SDG 11.5

Information on FCFC's occupational injuries in 2019 is indicated in the table below. No occupational disease occurred to either male nor female workers, and the average total injury index for males and females was 0.1, which is significantly lower than 0.94 from the chemical material manufacturers throughout Taiwan (Note). In addition, no material occupational injury or disaster occurred, and no accident which posed 6 months or more of injury occurred. These figures can be seen proof of the Company's efforts toward minimizing occupational injuries.

FCFC Occupational Injuries in 2019

Disabling Injury Rate		Disabling Severity Rate		Frequency-severity indicator		Absence Rate		Occupational Disease Rate	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0.42	-	10	-	0.07	-	0.3	0.45	-	-

Note: Industry information comes from the 2017-2019 Frequency-severity Indicator by Sector published by the Occupational Safety and Health Administration, Ministry of Labor.

The Company is a chemical material manufacturer and the chemical substances at our workplace are primarily benzene and its derivatives, which are followed by the Type 1 chemical substance causing occupational disease as listed by the Bureau of Labor Insurance. Based on the nature of our production processes, personnel have increased risk exposure to chemical substances. Therefore, after the special employees' health checkup has been conducted in each year in accordance with "Guidelines for Tiered Health Management Recommendation for Workers' Special Health Checkup," the Company will submit any abnormal results to occupational doctors for subsequent review and diagnosis. To ensure employees' safety at work, work of employees with abnormal results will be adjusted subsequently, or the results will be served as reference for reducing work environment risks.

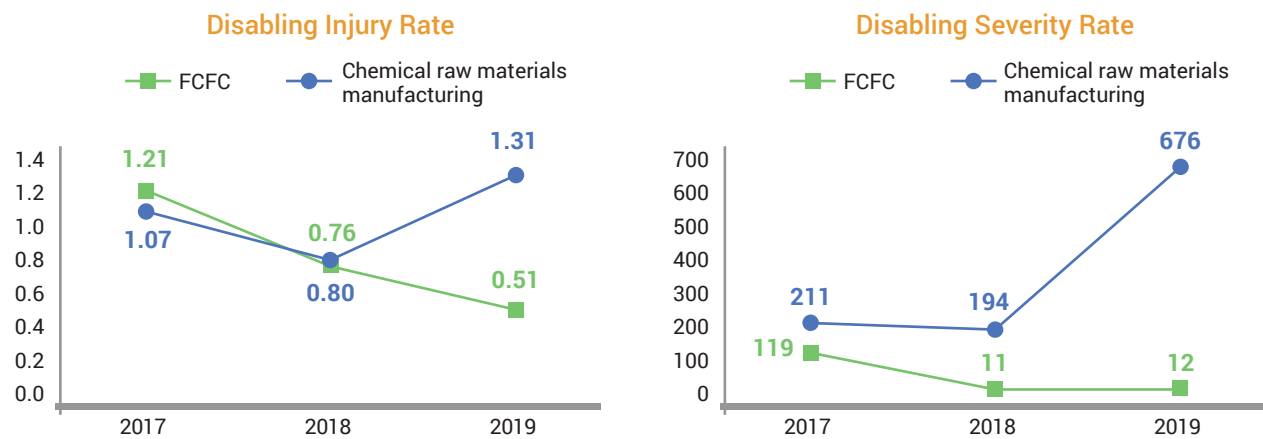
According to the statistics of the Company's occupational safety performance from 2017 to 2019, and compared with the chemical raw material manufacturing industry, the comprehensive injury Indicator of employees' injuries after deducting traffic occupational disasters in the past 3 years is lower than the announced data of the Ministry of Labor. This is the result of efforts to strengthen the employees' ability to identify hazards and to publicize safety, and to strengthen the intrinsic safety of various mechanical equipment to avoid the occurrence of similar anomalies.

FCFC Occupational Injuries over the Past 3 Years

Year	Disabling Injury Rate	Disabling Severity Rate	Frequency-Severity Indicator	Absence Rate	Occupational Disease Rate	Working hours
2017	1.21	119	0.38	0.41	0	7,452,532
2018	0.76	11	0.1	0.37	0	7,899,430
2019	0.51	12	0.07	0.32	0	10,505,808

Note 1: Frequency-Severity Indicator was higher in 2017 than that of 2016 or 2018. This was mostly attributable to the two material employee occupational injuries in 2017, namely the flashover incident at the SM Plant in Mailiao, and the electric arc burn incident in the transformer room of the ARO1 Plant.

Note 2: Working hours = number of employees*working days in a given year*8 hours + overtime hours - hours of leave



FCFC's Contractors

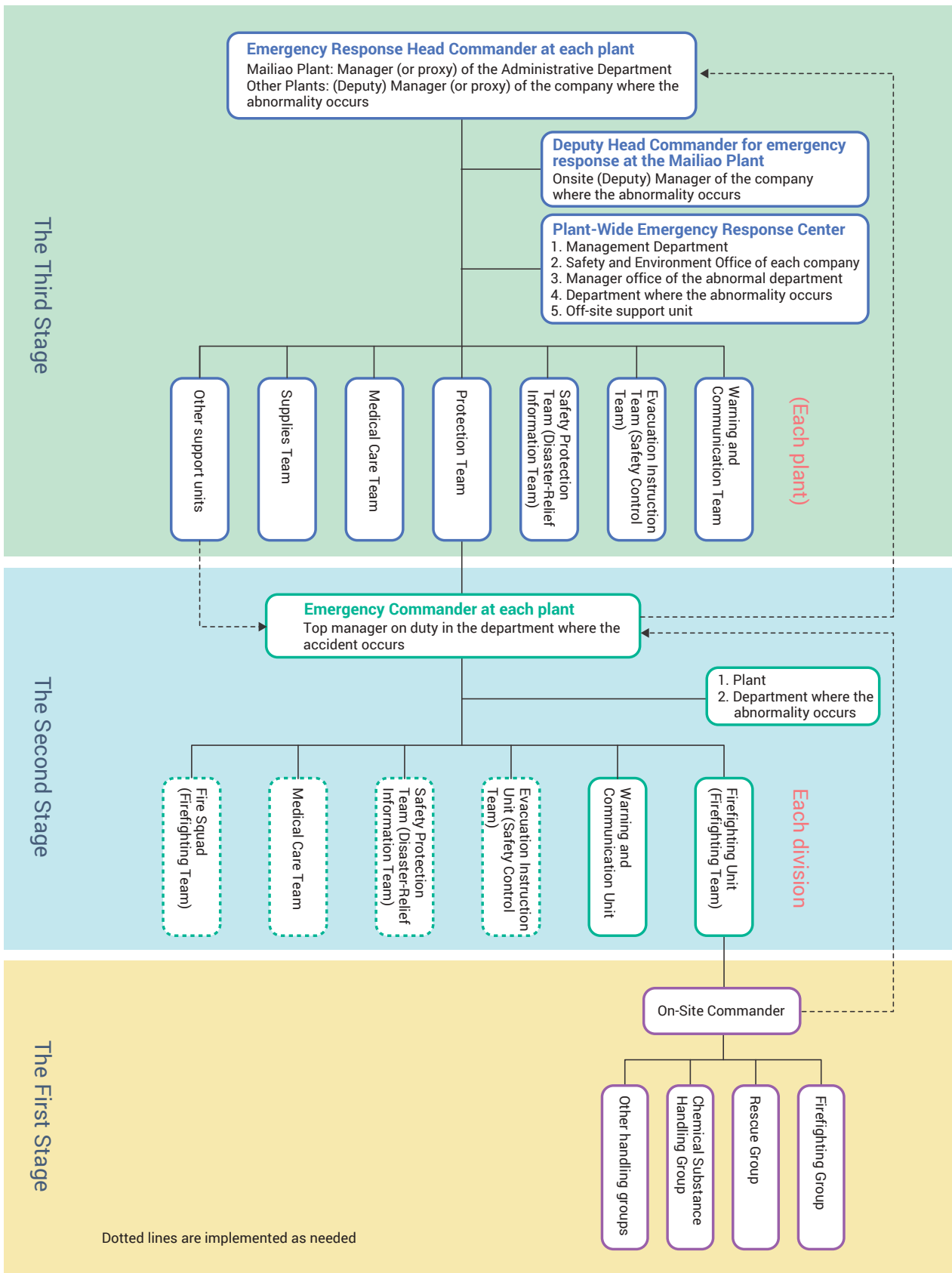
Year	Disabling Injury Rate	Disabling Severity Rate	Working hours
2017	0.81	5	3,061,871
2018	0.94	4	6,461,511
2019	-	-	11,308,084

Note 1: The absence rate and the occupational disease rate of contractors were unavailable; thus, the working hours were estimated through the access system. Hours of absence include hours of sick leave and work-related injuries.

Note 2: Working hours = number of contractors during the reporting period*250 working days*8 hours

Note 3: The number of working hours in 2019 is much greater than that in 2017 and 2018, mainly due to the restoration project of the ARO3 Plant.

Emergency Response Organizational System (Fire/Explosion) at Each Plant



Overview of Occupational Disasters

The Company's occupational disaster rate (persons per thousand) from 2017 to 2019 was lower than the national average:

Item	2017	2018	2019
Number of Occupational Disabilities	3	6	4
Occupational Disaster Rate (Persons per Thousand)	1.65	1.07	0.9
Number of Occupational Fatalities	-	-	-
Number of Major Occupational Disasters (Contractors)	-	-	-
Number of Occupational Fatalities (Contractors)	-	-	-
National Occupational Disaster Rate (Persons per Thousand)	2.77	2.61	2.49

Note 1: The above-mentioned national occupational disaster rate (persons per thousand) did not include traffic accidents.

Note 2: The occupational disaster rate (persons per thousand) in 2017 was higher than that in 2016 due to 2 major occupational disasters.

4.4.5 Contractor (Carrier) Safety SDG 8.8

Construction Safety Management for Contractors

In order to enable the personnel to work at ease and safely in the working environment, an agreement organization meeting is regularly held with the contractor to detail the environmental profile. In addition to the education and training before the contractor enters the factory, the Company actively compiles two access control teaching materials to strengthen the contractors' safety education, and grants another three hours of general safety education and training to the construction personnel who want to enter the factory. In 2019, a total of 206 sessions have been conducted and 9,637 participants have passed the training.



In order to enable the contractors and the Company to grow together, after the regular inspection, we invited the regular inspection plant, the engineering unit and the contractors to jointly hold the "abnormal guidance and improvement forum" and analyze this / previous regular inspection abnormalities, jointly develop improvement measures for repeated abnormalities, and feed back the occupational disaster prevention plan before the next regular inspection to avoid repeated abnormalities. A total of 8 sessions have been held in 2019.

Carrier safety management

In order to improve transportation safety, in addition to actively participating in the safety & quality assessment system (SQAS) for transportation safety of contracted carriers promoted by the enterprise, the transportation safety proposed by the Company is also included in the SQAS management, and all contracted carriers are evaluated once every year. A total of 14 companies passed the evaluation in 2019.



Transport safety and quality assessment of contracted carriers in 2019

In addition, in order to strengthen the safety of the carriers' operations in the factory, "N00061 stacker operation safety operation points" and "N46017 stacker and electric pallet truck operation specifications" have been formulated, and monitors have been installed at loading and unloading platforms and warehouse entrances and exits, and the screen in operation is sent back to the office or central control room via connection. If there is any unsafe behavior of personnel, it shall be corrected immediately. In addition, measures such as traffic command and rigid fence are set to reduce the probability of accidents.

4.5 Description of Material Occupational Safety Issues

Incident involving LPG pipeline leak at Aroma Plant 3 leading to fire outbreak

On April 7, 2019 at 14:05, a gas explosion and fire broke out at the Company's Aromatic Hydrocarbon Plant 3 at the Mailiao Plant. This was caused by a leak in the LPG pipeline, leading to leaks of LPG, which was non-toxic after combustion. Fortunately, there were no casualties in this accident. The Company has obtained the government's second phase test license on March 23, 2020. In order to understand the cause of the accident and avoid recurrence, in addition to commissioning the third-party certification unit TUV and the Industrial Technology Research Institute to analyze the cause of the accident and provide improvement suggestions, the Company's own corrosion control team was further established, and the corrosion manual and integrity operation improvement procedure are provided for the maintenance unit to follow. In addition, the content of the SOP was thoroughly reviewed and specified that if the leak place cannot be isolated and emptied immediately, the top manager on site in the plant shall immediately order the emergency shutdown and start the emergency protection measures. In addition, the SOP education and training of personnel are also strengthened, and it is necessary to make all personnel understand the contingency and reporting process.

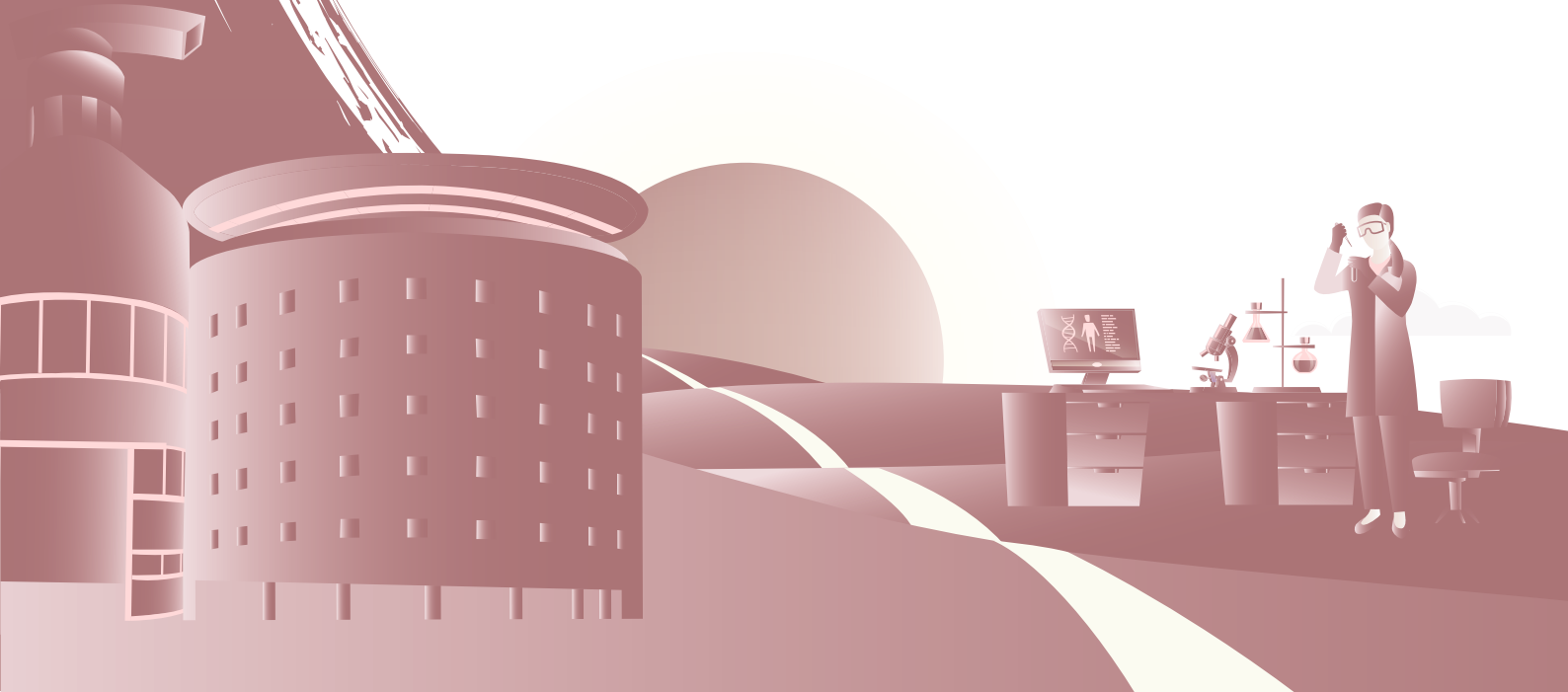
5

Creating Common Prosperity

5.1 Community Engagement

5.2 Giving Back to Society

5.3 Description of Material
Community Issues



The operation of FCFC is built on the basis of taking from and giving back to society. We are dedicated to participating in various charitable events and contributing to society in the hope of creating common prosperity in the neighboring communities.

5.1 Community Engagement

Community Engagement and Contribution Management Approach Material Topic

Policy	We conduct rigorous environmental impact evaluation with criteria that surpass the national standards, in order to fulfill our environmental evaluation commitments to minimize any impacts to the neighboring communities and to help them to develop.
Responsibilities	We strive to minimize the impacts from FCFC plants and activities on the local environment and residents from neighboring communities.
Resources	The Administration Department at each plant will act as channels of communication with their respective local communities. FCFC's President's Office will also assist by collaborating with the charity foundations at FPG to promote various activities to foster positive neighborhood ties and to promote charity welfare.
Specific Actions	Community service teams or volunteer teams have also been built to promote community activities and to actively advocate various company policies.
Objectives and Commitment	Promote sustainable development of the sites of operation to enhance the relationships between the plants and local communities.
Grievance Mechanism	The Good Neighbor Hotline has been established to provide local residents with a communication channel.
Performance Evaluation Methods and Results	<ol style="list-style-type: none"> 1. Enhance the quality of life in neighboring communities and to enhance physical health of residents. 2. Join FPG charity foundations in promoting charitable activities and assess the results of said activities each year.

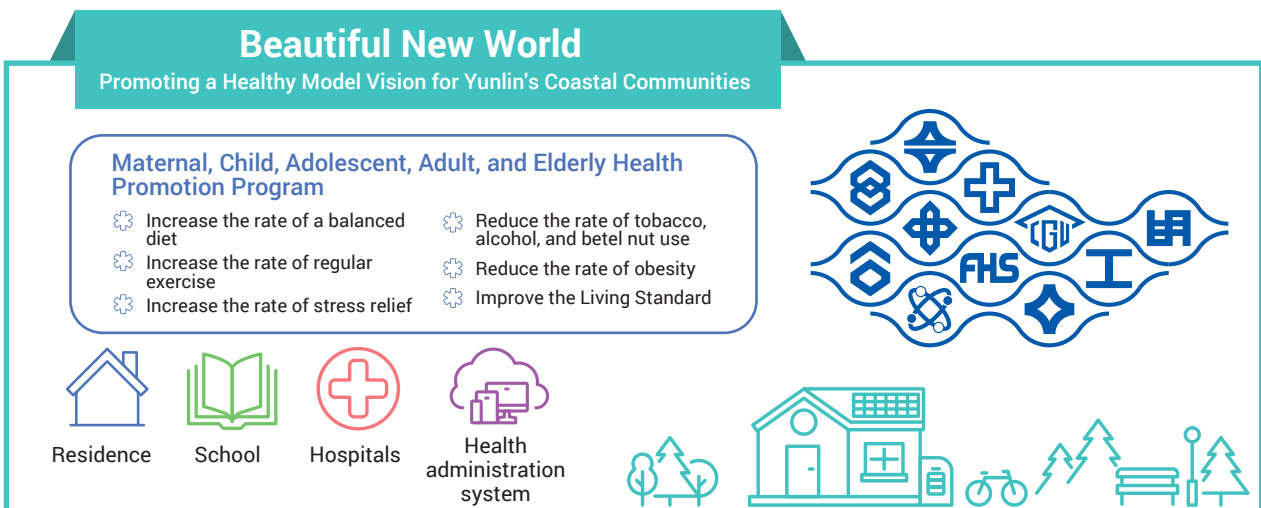




5.1.1 Care for Community Residents' Health

The industrial characteristics of the Company are closely related to the residents in the operating area. The vision and promotion plan for residents' health care are as follows:

🔍 Health Promotion Plan for Residents near the Mailiao Industrial Complex

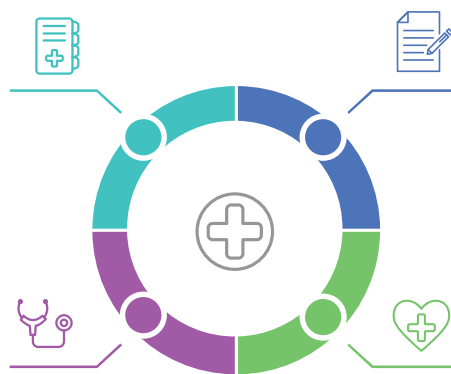


Health Research

- Establishment and maintenance of health database
- Health data analysis
- Sharing of implementation results

Health Examination

- Exception management
- Improving the return visit rate
- Treatment for confirmed diagnosis
- Annual tracking



Health Survey




- Health trends of residents
- Residents and social health concerns
- Care promotion measures

Health Care

- Medical quality improvement
- Improvement of residents' health
- The combination of public and private organizations for promotion

Please refer to the corporate social responsibility website of FPG for the implementation results of health care for the neighboring residents of Mailiao Industrial Complex.

5.1.2 Improvement of the Quality of Life of Community Residents

 Traffic Improvement	 Noise Management	 Air Quality
<p>Purpose</p> <p>Maintain good traffic conditions in communities near the Mailiao Industrial Complex and secure school children's safety on their way to school.</p> <p>Practice</p> <p>Direct the traffic flows near the Mailiao Industrial Complex.</p> <p>Results</p> <p>Smooth the traffic near the Mailiao Industrial Complex and improve the safety of school children.</p>	<p>Purpose</p> <p>Manage the noise impact in the manufacturing process of the Mailiao Industrial Complex.</p> <p>Practice</p> <p>Regularly perform noise monitoring operations in nearby areas.</p> <p>Results</p> <p>The monitoring results show that the operation of the Mailiao Industrial Complex has not had a significant noise impact on the local community.</p>	<p>Purpose</p> <p>Maintain air quality in Yunlin County.</p> <p>Practice</p> <p>Diesel vehicles entering and leaving the Mailiao Industrial Complex are required to present the certificated document of exhaust smoke test.</p> <p>Results</p> <p>In 2019, 438 diesel vehicles were inspected and all of them passed the inspection.</p>

In 2019, the inspection was carried out on the adjacent roads in and out of Mailiao Industrial Complex with 438 diesel vehicles, all of which are qualified. Inspection results over the years are indicated below:

Year	Number of Vehicles Passing (A)	Number of Vehicles Intercepted (B)	Number of Vehicles Inspected (C)	Number of qualified (D)	Qualification Rate (D/C)
2017	1,850	393	156	156	100%
2018	3,240	223	108	108	100%
2019	1,245	438	80	80	100%

Note 1: Number of Vehicles Checked refers to the number of diesel vehicles checked in the roadside inspections by the Environmental Protection Administration.

Note 2: Number of Vehicles Inspected refers to the number of diesel vehicles emitting black smoke among the diesel vehicles checked in the roadside inspections.

Note 3: Number of Qualified Vehicles refers to the number of diesel vehicles inspected and meeting the statutory requirements for exhaust smoke and opacity.

5.1.3 Promotion of ecological environment education SDG 4.7 SDG 14.2

In recent years, with the rising awareness of environmental protection, the public has paid more and more attention to environmental protection, and environmental education has become a new national movement. In order to let the public know the effect of promoting circular economy, saving water and energy, and the current efforts in environmental protection, the Mailiao Industrial Complex has invited people everywhere to visit since 2015. Through their personal experience in Mailiao Industrial Complex, people shared with their relatives and friends after the visits, and put environmental protection, water conservation, power conservation and ecological conservation into daily life. At the same time, they can also sense the current status of "equal emphasis on environmental protection and industrial development".

Mailiao Industrial Complex uses the existing administrative building, environmental monitoring center, environmental protection and ecological laboratory, Mailiao Port and other facilities, and in line with the guidance of environmental education professionals and volunteers to promote ecological and environmental education through various activities. Activities related to environmental education held in 2019 are as follows:

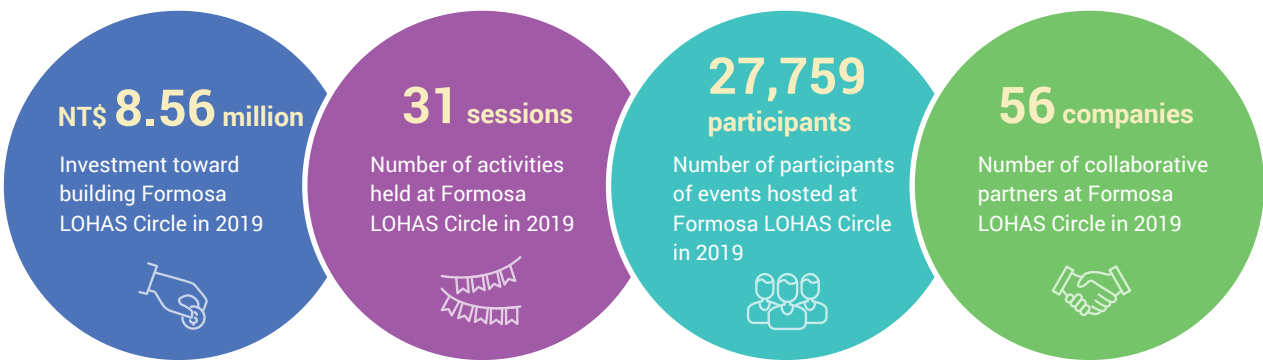
Name of Activity	Purpose	Content topic	Participants
Marine Education Parent-Child Camp	Let students understand the problems of marine resources and further think about possible solutions.	In the winter vacation of 2019, professional lecturers from the Taiwan Association for Marine Environment Education were invited to bring the large-scale game "Fish Bank". Fishing and auction of fish were simulated to understand the problems faced by the marine environment.	32 employees or family members accompanied their children.
Love 70 Science Courier Service and Mailiao High School Curriculum Expo	Through the experience of scientific exploration, we can realize the importance and interest of science in life, establish scientific concepts, and cultivate the ability to solve problems.	We co-organized Science Park Tour and Course Expo with National Formosa University and Mailiao High School, including scientific experience checkpoints such as electrostatic dust removal and water purification of environmental protection facilities in Mailiao Industrial Complex.	1,200 students from 7 junior high schools including Mailiao and Taixi in Yunlin County and TaCheng Junior High School in Changhua County participated.

Name of Activity	Purpose	Content topic	Participants
Seminar on conservation advocacy of fishery resources for releasing fry in 2019	To spread the concept of resource protection on campus.	Fish fry releasing activities was held with Yunlin District Fishing Association in Boziliao Fishing Port, and marine experts were invited to give advocacy lectures on conservation of fishery resources on local campuses.	Industry, government, academia and primary school children were invited to participate.
Featured clam festival of Yunlin in 2019	To teach farmers and fishers in scientific breeding management, assist farmers and fishers in improving product quality and increasing production, and further assist local farmers and fishers in obtaining organic certification and production and marketing resumes.	To handle the exhibition of agricultural and fishery achievements under the guidance of FPC, high-quality clam selection competition, instruction of agricultural and fishery technology guidance, DIY interactive teaching of Yunlin cuisine, and taste of high-quality agricultural and fishery products in Yunlin County.	About 2,000 people from the Yunlin District Fishing Association, Yunlin County Government, National Fishermen's Association, Mailiao Township and Taixi Township participated.
"Happy Countryside - Melon Feast" in Mailiao in 2019	We assisted local farmers and fishers to improve product quality and increase production, obtain organic certification and production and marketing resume to improve production value.	Display and interaction of agricultural and fishery guidance results, promotion and health care results, and display of environmental monitoring energy in Mailiao Industrial Complex.	14 communities in Mailiao Township participated, with about 1,500 participants on that day.
Environmental experience camp in the summer of 2019 - knowing food agriculture education and experiencing natural agriculture approach	To inspire students' interest in natural agricultural approach and understand the concept of circular economy and zero waste.	To handle summer camp in conjunction with Dongshi Township Library.	41 schoolchildren in total participated.
2019 national environmental protection professional knowledge and fun game competition	To enhance the learning interest of young students and cultivate future environmental protection talents, and understand the spirit of equal emphasis on economic development and environmental protection.	To assist the Institute of Environmental Engineering in organizing interesting competitions on environmental protection knowledge in the Liuqing Ama Memorial Park of Mailiao Ecological Industrial Park of FPC, and visit the environmental monitoring center, environmental protection and ecological laboratory, Ama Memorial Park and Mailiao Port.	600 visitors from environmental protection agencies, environmental engineering consulting and inspection companies and students from environmental engineering departments of universities are invited to attend.



2019 national environmental protection professional knowledge and fun game competition

5.1.4 Formosa LOHAS Circle



Formosa LOHAS Circle has been gradually established at Yilan, Taoyuan, Yunlin, and Kaohsiung by FPG's Group Administration in recent years. Founded with the purpose of community engagement and environmental sustainability, FPG coordinates with neighborhood communities, vendors, small-scale farmers, and local governments to promote LOHAS Circle. A series of activities were organized by Formosa LOHAS Circle at FCFC's Yilan Plant in 2019:

Formosa LOHAS in Yilan

Environmental Education Activities at Formosa LOHAS Circle, Yilan

Bodies of Water and Streams

- Bodies of water in Yilan and the functions of waterway
- The uniqueness of local bodies of water
- Water ecology and the humanities and cultural industry

Arts and Culture of Local Settlements

- New trends of downshifting and LOHAS living
- Human history of settlement and interaction with environment
- Local experts and elder story



Industry Milestones

- Historical evolution and transformation of Yilan Plant of FPG in the development of local industrial structure
- Sightseeing factories and community industries

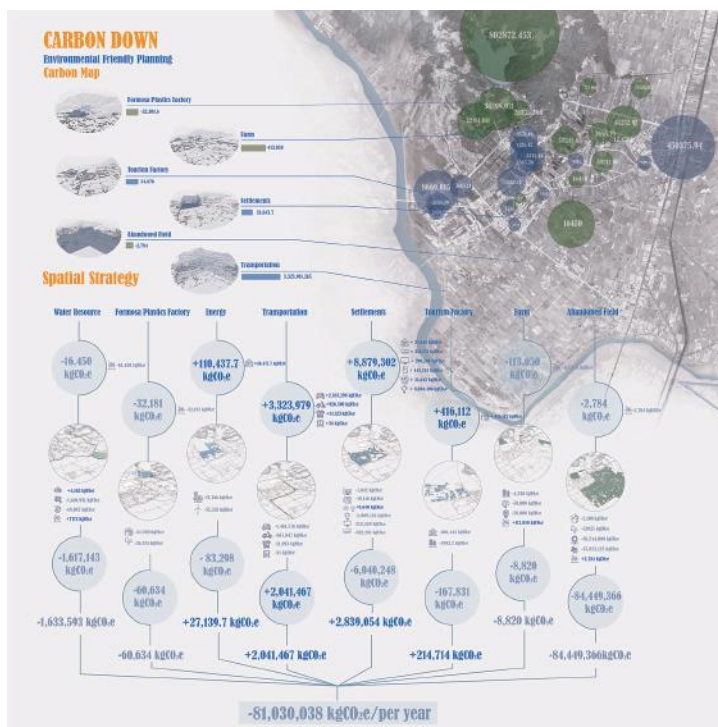
Natural Ecology

- Natural ecology and environmental features of Longtan Lake
- The history and current situation of Taiwan's unique biological ecology
- The course of lake ecology and human interaction

In 2019, Yilan LOHAS Circle continued to take Longtan Lake ecological classroom as its base, and cooperated with the Society of Wilderness to carry out training for interpreting volunteers and lake area ecological survey. We hope to establish the interpreting volunteer group for ecology to serve as the basis for promoting site guidance and in-depth eco-tourism. This year, 28 interpreting volunteers of ecological environment have been successfully trained, and 3-tier interpretation activities have been conducted to lead the participants to learn the animal and plant resources and ecological environment of Longtan Lake, and learn the skills of natural observation and recording.



On April 30, 2019, Formosa LOHAS Circle signed a memorandum of cooperation with the University of Taipei to show the results of Longtan Lake ecological survey in Longtan Lake ecological classroom through the cooperation of industry and school. Among them, students plan for carbon reduction from the perspective of industry, activity behavior and external environment, create a low-carbon sustainable demonstration field proposal, and win the first prize of National Planning Institute in 2019.



Changhua LOHAS Circle

Changhua LOHAS Circle takes the Changhua Plant of FCFC and the FBC Health Center as the core, creating a parent-child fun base with local features of Changhua, and providing diversified parent-child interaction facilities for teaching and entertainment. On November 24, 2019, the parent-child road running activity of Changhua came to the stage happily, attracting nearly 3,300 runners to participate in the event.



In addition, in order to seek partners with similar ideas, we cooperated with Taiwan Toy Library Association, a well-known public welfare unit of second-hand toys, to handle Father's Day picture frame DIY activities on August 3, 2019, and second-hand toy clearance activities on November 16, 2019, attracting 1,098 parents and children to have fun together.



Changhua LOHAS Circle has a series of activities in accordance with the local features of Changhua. In March 2019, we conducted the activity of eagle-watching in Bagua Mountain, cooperated with Changhua County Government in April to handle the activity of admiring Tung flower in Bagua Mountain, and handled three routes featured with local culture in November. We led the public to have a deep understanding of the history, industrial changes and local traditional craft and art of Changhua, and convey the flavor of Changhua to the public for their appreciation.



Promotion plan of LOHAS Circle in 2020

In 2020, Formosa LOHAS Circle will take "thriving" as its driving goal, pass on LOHAS Circle concept and corporate positive image through various activities, so that more people can participate in and understand the warm and lively side of the enterprise. It is expected that 54 events will be planned and the number of participants will reach 44,670.

Yilan LOHAS Circle will continue to handle environmental education activities, make full use of Longtan Lake ecological classroom, plan in-depth eco-tourism activities with four major axes of industry, culture, water channel and ecology, with four seasons as the main axis, and continue to carry out Longtan Lake ecological guide interpretation and ecological investigation. In addition, it is planned to cooperate with Jiaoxi Township Office to hold a grassland music festival at Longtan Lake hot air balloon carnival in Yilan Jiaoxi, focusing on music and dance, integrating the local culture of parent-child orchestra and displaying Lanyang style.

Changhua LOHAS Circle will expand the promotion of second-hand toy series activities, and build a toy logistics center to facilitate toy recycling and delivery. Its logistics center is located in the welfare building of the Company's Changhua Plant, which is expected to bring richer toy play experience to the public, and transmit the efforts of enterprises for circular economy. We will also continue the tours of eagle-watching in Bagua Mountain, admiring Tung flower in Bagua Mountain and local cultural features conducted in 2019, so that participants can have a deep understanding of the beauty of Changhua. In 2020, LOHAS Circles around the island will continue to hold large-scale beach-cleaning and mountain-cleaning activities to respond to environmental protection and show the determination of the enterprise for environmental sustainability and care for the environment.

5.2 Social feedback SDG 14.2

5.2.1 Social Welfare Donations from FPG

In order to implement the concept of the two Founders, FPG actively cooperates with the government and civil society organizations to deeply understand social needs, care for and assist vulnerable groups. Over the years, nearly NT\$55.4 billion has been invested in education, medical care, social welfare and other social public welfare undertakings, continuously helping people in need of help in society. Social participation includes education, medical care, care for vulnerable groups, environmental care, care for the elderly, disaster relief, culture, sports, health research and local feedback, which are planned by the Group Administration of FPG and promoted and implemented by the companies within the Group. Details can be found on the corporate social responsibility website of FPG.

5.2.2 Promoting Local Industries

The construction of the No. 6 Naphtha Cracking Plant started in 1994. Since it was officially put into operation in 1998, it has brought a lot of job opportunities to the local communities, thus promoting the local economy. Over the past 20 years, FPG has developed 4 major initiatives, namely agricultural counseling, subsidies for afforestation, fishery counseling, and release of fry to nearby waters through the application of science and technology to promote the sustainable development of local industries in cooperation with local communities.

Please refer to the corporate social responsibility website of FPG - social participation / agricultural guidance and social participation / fishery guidance for relevant promotion results.



5.2.3 Enhancing Relationships between FCFC Plants and Local Communities

Every year, the Changhua Plant, Longde Plant, and Xingang Plant, and Mailiao Plant hold activities that enhance the relationships between the plants and the local communities. Labor unions, employees, and volunteers all actively participate, while local residents are also invited to take part in these activities. All income generated from these activities have been donated to the disadvantaged organizations. By holding charitable events and traditional art performances, we hope to strengthen our relationship with the local communities.



Corporate Volunteers

In 2019, for the first time, the whole Taiwan general mobilization of enterprises was carried out in Yunlin, Taipei, Yilan, Jiayi and Kaohsiung to carry out joint beach cleaning activities. The professional volunteers of the Society of Wilderness conducted special training and lecture. All sessions are in accordance with the International Coastal Cleanup (ICC). The total number of participants is 1,773, and the total amount of marine waste is 5,218 kg.



In addition to corporate volunteers, for more information on FPG to hold charity sale activities, take root in traditional culture and art, participate in local activities, and take care of vulnerable groups through visits and communication with local units, please visit the corporate social responsibility website of FPG.

Charitable Fairs



The Charitable Sale Organized in Cooperation with Local NPOs



Proceeds from the Flea Market Donated to Public Welfare Organizations

Developing Traditional Arts

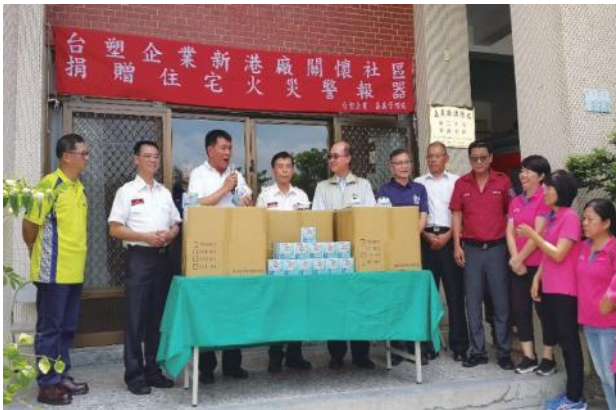


Ming Hwa Yuan Arts and Cultural Group performance in local communities



Apple Theater Performance received widespread popularity

Participating in Local Events

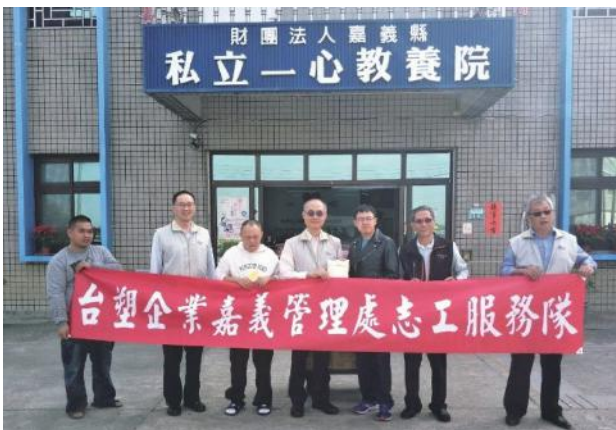


Donating residential fire alarm



Community Chongyang Festival Birthday Celebration Activities

Caring for the Disadvantaged



Caring for the Disadvantaged



Accompanying the Elderly Living Alone

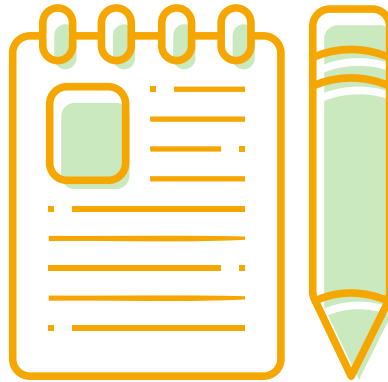
5.3 Description of Material Community Issues

Incidence of Cancer in Taixi Township

According to the domestic research reporting a high incidence of cancer near the No.6 Naphtha Cracking Plant in Taixi Township, few local residents filed a civil lawsuit against five companies in the No.6 Naphtha Cracking Plant in August 2015 on the grounds of suffering from cancer or deaths due to cancer and claimed some NT\$70 million. At the 19th session of the court on December 20, 2019, the plaintiff decided to raise a dispute on pollution, and the Yunlin County Government will subsequently mediate. However, as of the publication of this report, the plaintiff has not submitted a pollution dispute to the Yunlin County Government.

According to the national statistics compiled by Ministry of Health and Welfare, the total incidence of cancer in Taixi Township from 2008 to 2010 increased by 0.40 time compared with that between 1999 and 2001, which is lower than the national increase of 0.45 time. The increase of 4.07 times claimed by the residents is nonexistent. And international literature points out that there are many causes of cancer, and the incubation period of cancer is about 10 to 20 years. The No.6 Naphtha Cracking Plant has been in operation since 1999, and large-scale operations began in 2005. Therefore, the Company believes that there is no definite causal relationship between cancer in Taixi Township and the operation of the No.6 Naphtha Cracking Plant.

In addition to the aforementioned incident in Taixi Township, the Lin brothers of Mailiao Township also filed a civil lawsuit against five companies in the No.6 Naphtha Cracking Plant of FPG in April 2018, seeking compensation of more than NT\$10.32 million. So far, 11 speech debates have been held, and the judge has agreed to add 34 people to be included in this lawsuit. The relevant evidence is still pending judicial investigation and clarification.



Appendix

1. Table of Comparison for Global Sustainability Reporting Disclosure Index
2. Listed Companies' Code of Practice for Corporate Social Responsibility
3. ISO 26000 International Standard for Social Responsibility
4. United Nations Global Covenant Chart
5. Statement of Independent Assurance of Opinion



Appendix 1: Global Reporting Initiative (GRI) Comparison Table

The indexes mentioned below are cross-referenced with the GRI Standards: 2016. Nevertheless, updated GRI Standards: 2018 has been adopted for "GRI 303: Water and Effluents" and "GRI 403: Occupational Healthy and Safety." As shown in the Statement of Independent Assurance Opinion, relevant information have been verified to comply with the requirement on external assurance from GRI Standards.

Disclosure Item	Description	Referenced Section	Remark	
GRI 102: General Disclosures 2016				
Organizational Profile	102-1	Name of the organization	1.2.1	
	102-2	Activities, brands, products, and services	2.3.1 2.3.2	No product that is banned in specific markets
	102-3	Location of headquarters	1.2.1	
	102-4	Location of operations	1.2.1	
	102-5	Ownership and legal form	Overview	
	102-6	Markets served	1.2.1	
	102-7	Scale of the organization	1.2.1	
	102-8	Information on employees and other workers	4.1.2	
	102-9	Supply chain	2.6.1 2.6.2	
	102-10	Significant changes to the organization and its supply chain	-	No significant change in 2019
	102-11	Precautionary principle or approach	2.2.1 2.2.2	
	102-12	External initiatives	Report Guideline 4.4.2	
	102-13	Membership of associations	2.3.5	
Strategy	102-14	Statement from senior decision-maker	1.1	
Material Topic: Treatment and Response to Operational Risks				
Strategy	102-15	Key impacts, risks, and opportunities	2.1.3 2.2.1 2.2.2 3.3.1	
Management Approach	103-2	The management approach and its components	2.2	
	103-3	Evaluation of the management approach	2.2	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	2.1.4 2.5.3	

Disclosure Item	Description	Referenced Section	Remark	
GRI 102: General Disclosures 2016				
Material Topic: Corporate Governance				
Governance	102-18	Governance structure	2.1.1 2.1.2	
	102-36	Process for determining remuneration	2.1.1	
Management Approach	103-2	The management approach and its components	2.1	
	103-3	Evaluation of the management approach	2.1	
Communication with Stakeholders	102-40	List of stakeholder groups	1.4.2	
	102-41	Collective bargaining agreements	-	Though the Company has not made collective bargaining agreements, the Company still listens to employees' opinions through labor unions and employment relations meetings.
	102-42	Identifying and selecting stakeholders	1.4.1	
	102-43	Approach to communication with stakeholders	1.4.2	
	102-44	Key topics and concerns raised	1.4.2	
Reporting Practice	102-45	Entities included in the consolidated financial statements	Report Scope and Boundary	
	102-46	Defining report content and topic boundaries	Report Scope and Boundary	
	102-47	Material Topic list	1.5.3	
	102-48	Restatements of information	Report Scope and Boundary	No restatement of information
	102-49	Changes in reporting	Report Scope and Boundary	No significant change
	102-50	Reporting period	Duration and Issuance Date	
	102-51	Date of the most recent report	Duration and Issuance Date	
	102-52	Reporting cycle	Duration and Issuance Date	
	102-53	Contacts for questions regarding the Report	Contact Information	
	102-54	Claims of reporting in accordance with the GRI Standards	Report Guideline	
102-55	GRI content index	Appendix 1		
102-56	External assurance	Appendix 5		

Disclosure Item		Description	Referenced Section	Remark
GRI 103: Management Approach 2016				
Management Approach	103-1	Explanation of the material topic and its boundary	1.5.3	
GRI 200: Topic-Specific Standards Economic Topics 2016				
Material Topic: Operational and Financial Performance				
Economic Performance	201-1	Direct economic value generated and distributed	2.1.5	
	201-3	Defining benefit plan obligations and other retirement plans	4.2.1 4.2.2	
	201-4	Financial assistance received from government	-	The relevant subsidy provided by the government unit has not been obtained
Management Approach	103-2	The management approach and its components	2.1.5	
	103-3	Evaluation of the management approach	2.1.5	
Market Presence	202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	4.2.1	
	202-2	Proportion of senior management hired from the local community	4.1.3	
Indirect Economic Impacts	203-1	Infrastructure investments and the development and impact of services supported	5.1 5.2	
Procurement Practices	204-1	Proportion of spending on local suppliers	2.6.1	
Anti-corruption	205-3	Confirmed incidents of corruption and actions taken	2.1.4	
GRI 300: Topic-Specific Standards Environmental Topics 2016				
Material Topic: Water Resource Use and Management				
Water and Effluents (GRI: 2018)	303-3	Water Use Quantity	3.2.1	
	303-4	Water Release Volume	3.2.2	
	303-5	Water Consumption	3.2.3	
Effluents and Waste	306-1	Water discharge by quality and destination	3.2.2	
	306-5	Water bodies affected by water discharges and other (surface) runoff discharges	3.2.2	
Management Approach	303-1	Mutual influence of shared water resources	3.2.2	
	303-2	Management of discharge-related impacts	3.2.2	
	103-2	The management approach and its components	3.2	
	103-3	Evaluation of the management approach	3.2	

Disclosure Item		Description	Referenced Section	Remark
Material Topic: Mitigation and Adaptation to Climate Change				
Emissions	305-1	Direct (Scope 1) GHG emissions	3.3.2	
	305-2	Indirect (Scope 2) GHG emissions	3.3.2	
	305-4	GHG emissions intensity	3.3.2	
Management Approach	103-2	The management approach and its components	3.3	
	103-3	Evaluation of the management approach	3.3	
GRI 300: Topic-Specific Standards Environmental Topics 2016				
Material Topic: Air Pollutants Management				
Emissions	305-7	NOx, SOx, and other significant air emissions	3.4.1	
Management Approach	103-2	The management approach and its components	3.4	
	103-3	Evaluation of the management approach	3.4	
Material Topic: Waste Management				
Effluents and Waste	306-2	Waste by type and disposal method	3.5.1	
	306-3	Significant spills	3.6	
Management Approach	103-2	The management approach and its components	3.5	
	103-3	Evaluation of the management approach	3.5	
Material Topic: Compliance with Environmental Protection Regulations				
Compliance with Environmental Protection	307-1	Non-compliance with environmental laws and regulations	3.6	
Management Approach	103-2	The management approach and its components	3.6	
	103-3	Evaluation of the management approach	3.6	
GRI 400: Topic-Specific Standards Social Topics 2016				
Material Topic: Employee Welfare and Remuneration				
Employment	401-1	New employee and employee turnover	4.1.3	
	401-2	Benefits provided to full-time employees (not including temporary or part-time employees)	4.2.2	
	401-3	Parental leave	4.2.2	
Management Approach	103-2	The management approach and its components	4.2	
	103-3	Evaluation of the management approach	4.2	
Material Topic: Employee Human Rights Protection				
Labor/ Management Relations	402-1	Minimum notice periods regarding operational changes	4.1.3	

Disclosure Item		Description	Referenced Section	Remark
Labor/ Management Relations	103-2	The management approach and its components	4.1	
	103-3	Evaluation of the management approach	4.1	
Material Topic: Occupational Health and Safety				
Occupational Health and Safety (GRI: 2018)	403-9	Occupational injury	4.4.4	
	403-10	Occupational disease	4.4.4	
Management Approach	403-1	Occupational Safety and Health Management System	4.4.3	
	403-2	Hazard identification, risk assessment, and incident investigation	4.4.3 4.4.4	
	403-3	Occupational health services	4.4.1	
	403-4	Worker participation, consultation, and communication on occupational health and safety	4.4.3	
	403-5	Worker training on occupational health and safety	4.4.3	
	403-6	Promotion of worker health	4.4.1	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.4.5	
	103-2	The management approach and its components	4.4	
	103-3	Evaluation of the management approach	4.4	
Material Topic: Career Development and Training				
Training and Education	404-1	Average hours of training per year per employee	4.3.2	
	404-3	Percentage of employees receiving regular performance and career development reviews	4.3.1	
Management Approach	103-2	The management approach and its components	4.3	
	103-3	Evaluation of the management approach	4.3	
Employee Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	2.1.1 4.1.2	
	405-2	Ratio of basic salary and remuneration of women to men	4.2.1	
Non- discrimination	406-1	Incidents of discrimination and corrective actions taken	4.1.1	

Disclosure Item		Description	Referenced Section	Remark
Material Topic: Community Engagement and Contribution				
Local Community	413-1	Operations with local community engagement, impact assessments, and development programs	5.1	Local community engagement, impact assessments, and development programs have been implemented at all operations.
Management Approach	103-2	The management approach and its components	5.1	
	103-3	Evaluation of the management approach	5.1	
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	2.3.4	
	416-2	Violations of health and safety regulations concerning products and services	-	No violation of health and safety-related regulations concerning products and services in 2019
Marketing and Labeling	417-2	Violations of product and service information and labeling regulations	-	No violation of regulations concerning products and services in 2019
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	2.5.1	No complaint concerning breaches of customer privacy and losses of customer data in 2019
Social and Economic Regulatory Compliance	419-1	Violations laws and regulations in the social and economic area	-	No violations of regulations concerning product services and use in 2019
FCFC and Industrial Issue				
Material Topic: R&D Innovation and AI Applications				
Management Approach	103-2	The management approach and its components	2.4	
	103-3	Evaluation of the management approach	2.4	
Material Topic: Controlled Chemical Substance Management				
Management Approach	103-2	The management approach and its components	3.5 3.5.2	
	103-3	Evaluation of the management approach	3.5	
Material Topic: Industrial and Public Safety				
Management Approach	103-2	The management approach and its components	4.4	
	103-3	Evaluation of the management approach	4.4	

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

Material Issues	Description	Referenced Section	Remark
Chapter 1 General Principles	Purposes of establishment, applicable objects, and principles of practice	About the Report	
Chapter 2 Exercising Corporate Governance	Implementation of corporate governance practices	2.1 Corporate Governance	
Chapter 3 Fostering a Sustainable Environment	Development of a sustainable environment	3. Fostering a Sustainable Environment	
Chapter 4 Preserving Public Welfare	Preservation of public welfare	5. Creating Common Prosperity	
Chapter 5 Enhancing Disclosure of Corporate Social Responsibility Information	Improvement in the disclosure of corporate social responsibility information	Goals of Corporate Social Responsibility Key CSR Performance	
Chapter 6 Supplementary Provisions	Review and improvement in the corporate social responsibility system	1. A Pioneer of Infinite Value Creation	

Appendix 3: ISO 26000 Guidance on Social Responsibility

	Material Issues	Referenced Section	Remark
Organizational Governance	Decision-making processes and structures	2.1 Corporate Governance	
Human Rights	Complying with laws and regulations and avoiding the audit of the risk posed by human rights problems	4.1 Employee Human Rights Protection	
	Human rights risk situations	4.1 Employee Human Rights Protection	
	Avoidance of complicity—direct, beneficial, and silent complicity	4.1 Employee Human Rights Protection	
	Resolving grievances	4.1 Employee Human Rights Protection	
	Discrimination and vulnerable groups	4.1 Employee Human Rights Protection	
	Civil and political rights	4.1 Employee Human Rights Protection	
	Economic, social, and cultural rights	4.1 Employee Human Rights Protection	
	Fundamental principles and rights at work	4.1 Employee Human Rights Protection	
Labor Practices	Employment and employment relationships	4.1 Employee Human Rights Protection	
	Conditions of work and social protection	4.1 Employee Human Rights Protection	
	Social dialogue	4.1 Employee Human Rights Protection	
	Health and safety at work	4.4 A Healthy and Safe Workplace Environment	
	Human development and training in the workplace	4.3 Human Capital Development	
Environment	Prevention of pollution	3. Fostering a Sustainable Environment	
	Sustainable resource use	3. Fostering a Sustainable Environment	
	Climate change mitigation and adaptation	3.3 Mitigation and Adaptation to Climate Change	
	Protection of the environment, biodiversity, and restoration of natural habitats	3. Fostering a Sustainable Environment	
Fair Operating Practices	Anti-corruption	2.1.4 Ethical Business Conduct	
	Responsible political involvement	2.3.5 Participation in External Associations 2.1.5 Operational and Financial Performance	

	Material Issues	Referenced Section	Remark
Fair Operating Practices	Fair competition	2.6 Procurement and supply chain management	
	Promoting social responsibility in the value chain	1.1 From the Management Team 1.3 Management Vision	
	Respect for property rights		All employees must sign the Statement on Respecting Intellectual Property Rights to announce the Company's policy and stand against illegal software. Violators will be subject to both legal sanctions and penalties pursuant to the Company's Articles of Association.
Consumer Issues	Fair marketing, factual and unbiased information, and fair contractual practices	2.5.3 Legal Compliance and Customer Privacy	
	Protecting consumers' health and safety	2.5.1 Customer Relations	
	Sustainable consumption	2.3.4 Product Safety and Health Responsibility	
	Consumer services, support, and complaints and dispute resolutions	2.5.1 Customer Relations 2.5.2 Customer Satisfaction Survey	
	Consumer data protection and privacy	2.5.1 Customer Relations	No violation of customer privacy or loss of customer data in 2019
	Access to essential services	2.5.1 Customer Relations	
	Education and awareness	2.5.1 Customer Relations	
Community Involvement and Development	Community involvement	5.1 Community Engagement 5.2 Giving Back to Society	
	Education and culture	5.1.3 Promotion of Environmental and Ecological Education 5.2.3 Enhancing Relationships between FCFC Plants and Local Communities	
	Employment creation and skill development	5.1 Community Engagement 5.2 Giving Back to Society	
	Technology development and access	5.1 Community Engagement	
	Wealth and income creation	5.1 Community Engagement	
	Health	5.1.1 Care for Community Residents' Health 5.2 Giving Back to Society	
	Social investments	5.2 Giving Back to Society	

Appendix 4: United Nations Global Compact

Category	Ten Principles	Referenced Section	Remark
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights.	2.6 Procurement and Supply Chain Management 4.1.1 Employee Human Rights Protection	
	Business should make sure that they are not complicit in human rights abuses.	2.6 Procurement and Supply Chain Management 4.1 Employee Human Rights Protection	
Labor	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	4.1 Employee Human Rights Protection	
	Businesses should uphold the elimination of all forms of forced and compulsory labor.	4.1 Employee Human Rights Protection	
	Businesses should uphold the effective abolition of child labor.	4.1 Employee Human Rights Protection	
	Businesses should uphold the elimination of discrimination in respect of employment and occupation.	4.1 Employee Human Rights Protection	
Environment	Businesses should support a precautionary approach to environmental challenges.	2.3.4 Product Safety and Health Responsibility 2.2.3 Recycling of Byproducts 3.3 Mitigation and Adaptation to Climate Change	
	Businesses should undertake initiatives to promote greater environmental responsibility.	3. Fostering a Sustainable Environment	
	Businesses should encourage the development and diffusion of environmentally friendly technologies.	2.4 Development, Innovation, and AI Applications 2.3.4 Product Safety and Health Responsibility	
Anti-corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	2.1 Corporate Governance	

Appendix 5: Statement of Independent Assurance Opinion



INDEPENDENT ASSURANCE OPINION STATEMENT

2019 Formosa Chemicals & Fibre Corporation Corporate Social Responsibility Report

The British Standards Institution is independent to Formosa Chemicals & Fibre Corporation (hereafter referred to as FCFC in this statement) and has no financial interest in the operation of FCFC other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of FCFC 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 FCFC. 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 FCFC only.

Scope

The scope of engagement agreed upon with FCFC includes the followings:

1. The assurance scope is consistent with the description of 2019 Formosa Chemicals & Fibre Corporation Corporate Social Responsibility Report.
2. The evaluation of the nature and extent of the FCFC's adherence to AA1000 AccountAbility Principles (2019) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

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

Opinion Statement

We conclude that the 2019 FCFC Corporate Social Responsibility Report provides a fair view of the FCFC CSR programmes and performances during 2019. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the FCFC and the sample taken. We believe that the 2019 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate FCFC's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS (2008) with 2018 Addendum. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that FCFC's description of their approach to AA1000AS (2008) with 2018 Addendum and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

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

- a review of issues raised by external parties that could be relevant to FCFC'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.
- 10 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

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

Inclusivity

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

Materiality

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

Responsiveness

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

Impact

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

GRI Sustainability Reporting Standards (GRI Standards)

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

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum in our review, as defined by the scope and methodology described in this statement.

Responsibility

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

Competency and Independence

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

For and on behalf of BSI:



Peter Pu, Managing Director BSI Taiwan



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