



2021 FUCC

Sustainability Report

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Message from the Chairman

We invite all stakeholders who care about Formosan Union Chemical Corporation (below referred to as FUCC) to read our Corporate Sustainability Report. The annual release of these reports provides us with an opportunity to review our practices in the three sustainable development dimensions (Environment, Society, and Corporate Governance) and urge ourselves to keep making strides in these areas.

Looking back on 2021, the continuing global economic tension caused by the US-Sino Trade Conflict coupled with the impact of the COVID-19 pandemic prompted us to step up our efforts in the field of innovation to maintain our environmental competitiveness and thereby reduce the impact of the trade conflict and the pandemic. Ongoing quality enhancements, plant safety, and pollution control represent our main approaches in the field of corporate sustainability. In addition, we have made a medium- and long-term commitment to corporate governance, environmental protection, and social concern with a view to implementing our management approaches in the different reporting dimensions. We provide more quantified information and offer detailed descriptions of our commitments and efforts to give our readers a clear understanding of every achievement and milestone of FUCC in the field of CSR.



Corporate Governance

- We have established a sound internal audit and control system by embracing integrity principles as our core values to ensure that all our operating activities conform to applicable laws and regulations. We have further appointed a Chief Corporate Governance Officer to safeguard the rights and interests of our customers and shareholders through implementation of financial information transparency and creation of a sound corporate governance system. With a view to ensuring strict legal compliance by all staff members, the Legal Affairs Department of the Company organizes regular training courses to enable employees to update their legal knowledge. In addition, we strive to reinforce corporate governance through implementation of a whistleblower system and thereby encourage company insiders to boldly expose illegal conduct with the goal of building and effective corporate governance system and facilitating prosecution by judicial authorities.
- In response to the COVID-19 pandemic, we formed an inter-subsidary and inter-departmental epidemic response task force in early 2020. This task force is composed of the senior executives of each group with the President serving as convener. It monitors the latest pandemic developments in a real-time manner and is firmly committed to maintaining business continuity and ensuring personnel health and safety in line with the guidelines issued by the Central Epidemic Command Center.
- We continue to rely on our Sustainability Committee for the planning and implementation of corporate sustainable development and reporting of relevant results to our stakeholders. Our short-term goal is to complete assessments of the performance of our directors and managerial officers in the field of corporate governance and operations. In the medium- and long-run, we strive to link corporate sustainability and governance personnel performance to compensations and ensure the openness and transparency of this process.



Sustainable Environment

Global climate change has affected the business operations of numerous enterprises in recent years. We are deeply concerned about the impact of climate change on our operating activities. In addition to our active commitment to innovative R&D, we spare no effort to satisfy green product requirements during the whole process ranging from identification of customer needs, R&D, procurement and manufacturing, and after-sale services from the perspective of product life cycle considerations with the ultimate goal of fulfilling our responsibility in the field of environmental protection and setting an example for the whole industry. In line with these efforts, we invest in solar energy plants and other related industries to mitigate environmental damages and make a valid contribution to environmental protection through the production of clean energy. Notable achievements in the field of green energy investments presented in this report demonstrate FUCC's corporate vision. In view of the rising importance of the issue of greenhouse effects, we have been conducting GHG inventories since 2010. We also set annual GHG reduction targets as part of our dedicated efforts to fulfill our environmental responsibility.

As of 2021, total reductions in different areas exceed 20%.

Concrete achievements are as follows: ● Reduction of industrial waste by 8.3% compared to 2020

● Decrease of running water consumption by 4.8% compared to 2020



Employee care and social concern

FUCC places strong emphasis on employee rights and workplace safety. At the same time, we design career development blueprints and offer career development training for our employees to broaden their outlook and boost their motivation with the ultimate goal of cultivating more outstanding talent and adding momentum to our sustainable development initiatives. Concrete achievements in 2021 are as follows:

- Zero accidents for five consecutive years
- Passing of the certification audit for ISO 45001:2018 Occupational Health and Safety Management System
- Organization of four trade union and four labor-management meetings in 2021 – No serious labor-management disputes
- No human rights-related grievances, legal incidents, or grievances related to sexual harassment or labor rights violations were lodged or reported in 2021

Based on our philosophy of giving back to society in a spirit of gratitude, we not only strive to maintain stable revenues but are also eagerly devoted to making contributions to society. In addition to fixed budget allocations for harmonious neighborhood relations, we participate in local community activities in the vicinity of our plants and support local infrastructure development through donations.

The mission of an enterprise is to create value and make contributions to society. Looking ahead, we will continue to harness our professional competencies and technologies and rely on supply chain sustainability concepts for our unwavering efforts in realizing our sustainable development mission in line with global technology trends by adopting sound business models with an equal emphasis on industrial safety, environmental protection, community management, employee care, and friendly workplace issues in fulfillment of our role as a corporate citizen.

Chairman

Shen-Tsai Huang

Editorial Policy

This report which features disclosures for the sustainability indicators in the four major dimensions of governance, economy, society, and environment covers the period from January 1 to December 31, 2021. It is the 8th complete CSR report released by Formosan Union Chemical Corporation. We have adopted the Core Options set out in the latest version of the GRI Standards and the Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies as required by the competent government authority for the compilation of this report to ensure the full disclosure of the company's sustainable development achievements in sync with the UN Sustainable Development Goals (SDGs). The goal is to report strategies and activities in the fields of economy, environment, and society to our stakeholders in a conscientious manner and demonstrate our firm determination to implement our sustainability and achieve sustainable development.

Report Preparation Principles and Outline

We have identified issues of concern to our stakeholders through an in-depth analysis of key economic, environmental, and social issues on the global stage. In addition, relevant departments have been enlisted to engage in discussions and screening of issues with reference to the Company's operating strategies. The results are presented in this report.

The report provides a detailed description of the company's performance in the economic and financial management dimensions. Financial data presented in the report is recorded in New Taiwan Dollars. The scope of disclosure for environmental performance indicators is limited to the FUCC Linyuan Plant in Kaohsiung. Our disclosure of social performance indicators focuses on FUCC operating sites in Taiwan including the Corporate HQ in Taipei and the Linyuan Plant in Kaohsiung. Overseas business locations and joint ventures have not been included in the scope of disclosure. If the provided information exceeds the aforementioned scope, a detailed explanation will be given in the respective chapter.

Report Review

The information and data covering domestic and international sustainability issues in the economic, environmental, dimensions in this report have been collected by the Sustainability Committee, which is directly subordinate to the President. Material topics affecting the company have been identified through stakeholder engagement and analysis based on a clear understanding of issues of concern to stakeholders obtained by relying on diversified channels. Management approaches and performance information were compiled based on these topics. Upon compilation and organization, this data was reviewed and confirmed by the Sustainability Committee. Finally, it is made available to stakeholders through open channels upon approval by the Chairman and the President. The financial data disclosed in this report has been derived from the annual report which has been audited and attested by Deloitte. As for the ISO 9001 International Quality Management System, the ISO 14001 Environmental Management System, and the ISO 45001 Occupational Health and Safety Management System, the Company has passed certification audits conducted by the Metal Industries Research & Development Center of the Ministry of Economic Affairs. KPMG has been commissioned to carry out limited assurance procedures and issue a report for specific performance indicators (below referred to as "Assurance Subject Matter Information") pursuant to the Statement of Assurance Standards No.1 (assurance cases involving audits or reviews of non-historical financial information) released by the R.O.C. Accounting Research and Development Foundation. The limited assurance report issued by the CPA can be found in the appendix.

Report Preparation Management Process

Stage	Topic	Competent unit
Collection of issues	1.Determination of stakeholders 2.Collection of topics of concern	Sustainability Committee
Compilation and organization	Compilation of management approaches and performance information	Sustainability Committee
Preparation of the first draft	Report compilation	Sustainability Committee / relevant operating departments
Review and finalization	Internal review of the report	Sustainability Committee
Publication	Reporting to the Chairman/ publication	Sustainability Committee

Publication Date and Frequency

FUCC releases reports on an annual basis. Publication dates are as follows:

Previous issue: June 2021 / This issue: September 2022 / Next issue (projected): September 2023

Contact method

This report can be accessed and viewed by all interested parties on the corporate website in electronic format in Traditional Chinese. We have selected this eco-friendly, paperless format in line with our responsibility as a corporate citizen. Feel free to download the report (in PDF-format) via this link http://www.fucc.com.tw/fucc/fucc_index_csr1.asp.



Please don't hesitate to contact us if you have any questions or suggestions regarding this report.
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FUCC stakeholder section
http://www.fucc.com.tw/fucc/fucc_index_retailer1.asp



Investor services section
http://www.fucc.com.tw/fucc/fucc_index_service.asp



Contact information section
http://www.fucc.com.tw/fucc/fucc_index_contact.asp



01

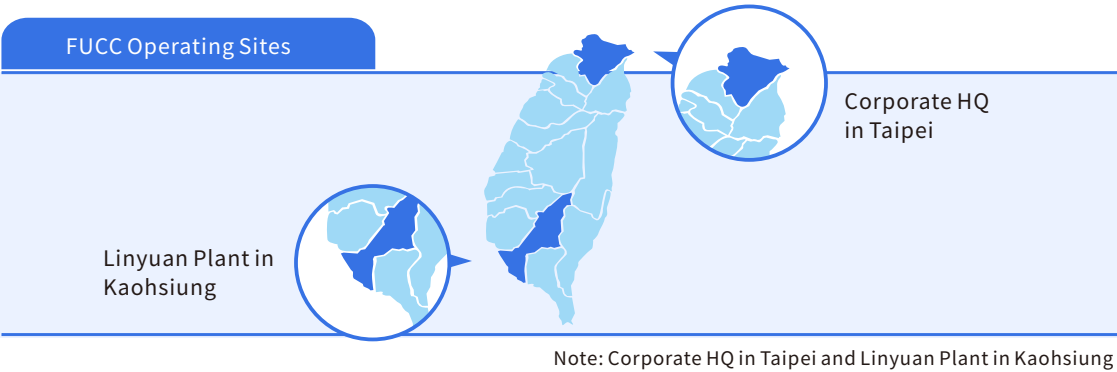
FUCC Overview

- 1.1 Company Profile
- 1.2 Business Philosophy and Policy
- 1.3 Membership in Societies and Associations
- 1.4 Awards and Recognitions

1.1 Company Profile

Formosan Union Chemical Corporation was established in 1973. The Company was officially listed on TWSE in 1986. Its Corporate HQ is located on Nanjing East Road in Taipei City. FUCC is the largest manufacturer of raw materials for detergents worldwide. Its manufacturing base is situated in the Linyuan Industrial Park. Over the more than four decades since its inception, FUCC has been firmly committed to developing new products, reinforcing quality control procedures, and reducing environmental impacts with the ultimate goal of offering its customers with the highest quality products. The Company has been able to weather numerous storms such as the oil crisis in the 70s and several recessions by relying on the concerted and dedicated efforts of all staff members. These endeavors are closely intertwined with the gradual implementation of sustainable operations and active opening up of new green markets. The Company has also made investments in the fields of environmental remediation and green power generation and has thereby successfully installed green energy facilities and developed numerous special-purpose remediation agents for the soil and groundwater remediation market. We owe our success and achievements to our hard-working and deeply dedicated employees. In the future, we will maintain an active commitment to innovation. We will do our utmost to fulfill our corporate responsibility in the field of sustainability and create maximum value for our stakeholders.

Formosan Union Chemical Corporation
Date of establishment: June 21, 1973
Total capital: NT\$ 4,770,163,000
Revenue: NT\$ 6,602,635,000
Industry type: Petrochemical Materials Manufacturing
Corporate HQ: 14F, No. 206, Sec. 2, Nanjing East Rd., Taipei City



1.2 Business Philosophy and Policy

Since our inception, we have upheld our core business philosophy. Constant pursuit of product quality enhancements, plant safety, and pollution control represent our main sustainability targets. Please refer to the table below for a detailed description of our philosophy and policies.






Business Philosophy
<ul style="list-style-type: none">● Strengthening of R&D and process improvements, development of new product applications, implementation of ISO 9001 quality management and ISO 14001 environmental management systems, and maximization of the effect of production and sales operations● Implementation of TQM (Total Quality Management), adoption of customer demand-oriented marketing strategies, and intensification of partnerships with downstream businesses to achieve the goal of equal profit sharing




Management Approaches

- Thorough implementation of different quality control and environmental safety policies to guarantee product quality and ensure the maintenance of work safety and environmental protection in plant areas
- Guarantee of a stable supply of raw materials from relevant sources, increase of capacity utilization rates to achieve maximum production results in each plant, and enhancement of product competitiveness
- Reinforcement of cost and expense control and improved business performance to create a competitive edge in the field of market competitiveness
- Strengthening of R&D efforts in the field of new applications to facilitate expansion into new markets to ensure sustained corporate development
- Strengthening of efforts in the field of talent recruitment and cultivation to realize corporate sustainability
- Constantly improving customer satisfaction as the ultimate goal

1.3 Membership in Societies and Associations

FUCC pursues constant advances and rising standards in the economic, environmental, and social dimensions to attain corporate sustainability. In addition, we actively participate in several associations to raise awareness and understanding of economic, environmental, and social issues and thereby draw attention to the importance of corporate sustainability among industry members. We are active in various chemical processing industry societies and associations and strictly adhere to new industry regulations. Our ultimate goal is to maximize mutual benefits, enhance industry competitiveness, and facilitate the achievement of sustainability goals through sharing of product experiences and coordination of relations with competitors.

Name of Society/Association	Mission & Vision	Role
 Taiwan Cleaning Product Association	Overall planning of raw material supply and assistance in the acquisition of foreign exchange and implementation of technology and quality improvements by members represent the main tasks of this association.	Contributing member
 Chinese Petroleum Institute (CPI)	CPI's main mission is to encourage academic exchanges in the field of petroleum, promote petroleum product applications, raise the technological standards of the industry, and thereby boost petroleum industry installations and public well-being.	Member
 Chinese National Federation of Industries (CNFI)	CNFI strives to boost economic development through coordination of relations between competitors, enhancement of mutual benefits, and pursuit of industry improvements and promotion.	Member
 Petrochemical Industry Association of Taiwan (PIAT)	PIAT strives to boost economic development through coordination of relations between competitors, enhancement of mutual benefits, and pursuit of industry improvements and promotion.	Supervisor
 Linyuan Petrochemical Industry Zone Manufacturer Conference	The Conference provides a fund for harmonious neighborhood relations to enable manufacturers in the Linyuan Petrochemical Industry Zone to give back to residents of Linyuan District.	Member

Name of Society/Association	Mission & Vision	Role
 Sino-Arabian Cultural & Economic Association	This association which was formed as a national diplomacy organization by direction of the Ministries of Foreign and Economic Affairs aims to serve as a bridge between the public and private sectors and Arabian countries and between different Arabian countries.	Contributing member
 Taiwan Responsible Care Association (TRCA)	TRCA was founded with the purpose of recognizing the social responsibilities of the Taiwan chemical industry, and continuously improving the environment, health, and safety performances of the industry.	Member
 Importers and Exporters Association of Taipei (IEAT)	IEAT offers professional economic and trade services to its members. It aims to intensify cross-industry cooperation and serve as a bridge between the public sector and the industry. It also strives to facilitate market expansion and securing of market opportunities through the integration of the capabilities of its members and key domestic and international partners.	Member

1.4 Awards and Recognition

- 2011 Taiwan Excellence Gold Awards – Minister of Economic Affairs Award (ranked 20th)
- 2011 Supplier Excellence Award presented by Kao (Taiwan) Corporation
- 2012-2019 Ranking Among the Top 500 Companies in Terms of Export/Import Performance
- 2020 Ranked 318th among the Top Taiwanese Importers/Exporters in Terms of Export/Import Performance





02 Corporate Governance

- 2.1 Organizational Structure
- 2.2 Ethical Corporate Management
- 2.3 Internal Audits and Risk Management
- 2.4 Stakeholder Engagement

Corporate Governance

For a long period of time, Formosan Union Chemical Corporation has continued to enhance its corporate governance structure, encourage shareholders to participate in corporate governance, insist on information transparency and protect stakeholder's rights through implementation of an effective audit system. The Company is also convinced that a comprehensive and efficient Board of Directors Meeting is the foundation of corporate governance, and expects to enhance the Company's performance through comprehensive management functions for the purpose of achieving the goal of sustainable operation.

Being a company limited by shares, Formosan Union Chemical Corporation's principle is to seek shareholder's maximum benefits. Shareholder's Meeting is the ultimate decision-making body while Board of Directors Meeting and its respective functional committees are responsible for supervision and execution of operation. Chairman of the Board does not assume any posts in the Company's senior management. Responsibility of the Company's operation lies in the hands of a professional management team for the purpose of ensuring achievement of operation performance. Shareholders' Meeting regularly listens to reports made by Board of Directors Meeting. The Board of Directors Meeting is the ultimate management body with members all complying with their due care obligation of good administrators, and it takes responsibilities in the Company's operation policies as well as review of financial performance for the purpose of ensuring the Company's compliance with various regulations. Audit Committee is responsible for supervising the Company's execution of business as well as inspection of accounting books and records.

For the purpose of achieving comprehensive corporate governance effectiveness as well as complying with competent authority requirements, the Company has established a designated corporate governance team in 2021. The Company's head of corporate governance will be convener of the team and he or she will be jointly responsible for promoting the Company's corporate governance related matters together with representatives from respective units.

The Company's corporate governance in 2021 is as follows:

- Approval of the Company's Articles of Incorporation
- Amendments of Corporate Governance Best-Practice Principles
- Amendments of the Company's Ethical Management Operation Procedures and Conduct Guidelines
- Amendments of Guidelines for Report System
- Amendments of Guidelines for Independent Director's Scope of Responsibilities
- Amendments of Practice Guidelines for Corporate Social Responsibility
- Amendments of Audit Committee Organization Rules
- Amendments of Remuneration Committee Organization Rules

Corporate Governance Procedures

Compliance

Establish a system, which complies with corporate governance related requirements from competent authorities such as Taiwan Stock Exchange, and execute the system conscientiously.

Competence

Establish Remuneration Committee and Audit Committee with members composed of independent directors for the purpose of ensuring fulfillment of supervision responsibility as well as management team's compliance with regulations in terms of operations. Both committees report to the Board of Directors Meeting on a regular basis.

Assessment

Participate in Corporate Governance Assessment Operations for Listed/OTC Companies each year, and conduct regular review of strategies for the purpose optimizing corporate governance effectiveness through benchmarking.

Communication

Hold Regular Shareholders' Meeting on a routine basis to illustrate messages including corporate governance, compile annual report and corporate sustainability report, and disclose messages of corporate sustainability and risk control on website.

Disclosure

Being responsible for stakeholders by publishing Board of Directors Meeting's decision on critical resolutions on website.

Goal of Corporate
Governance

Protection of
Shareholder's
Rights

Enhancement of Board of
Directors Meeting's
Competence

Improvement of
Information
Transparency

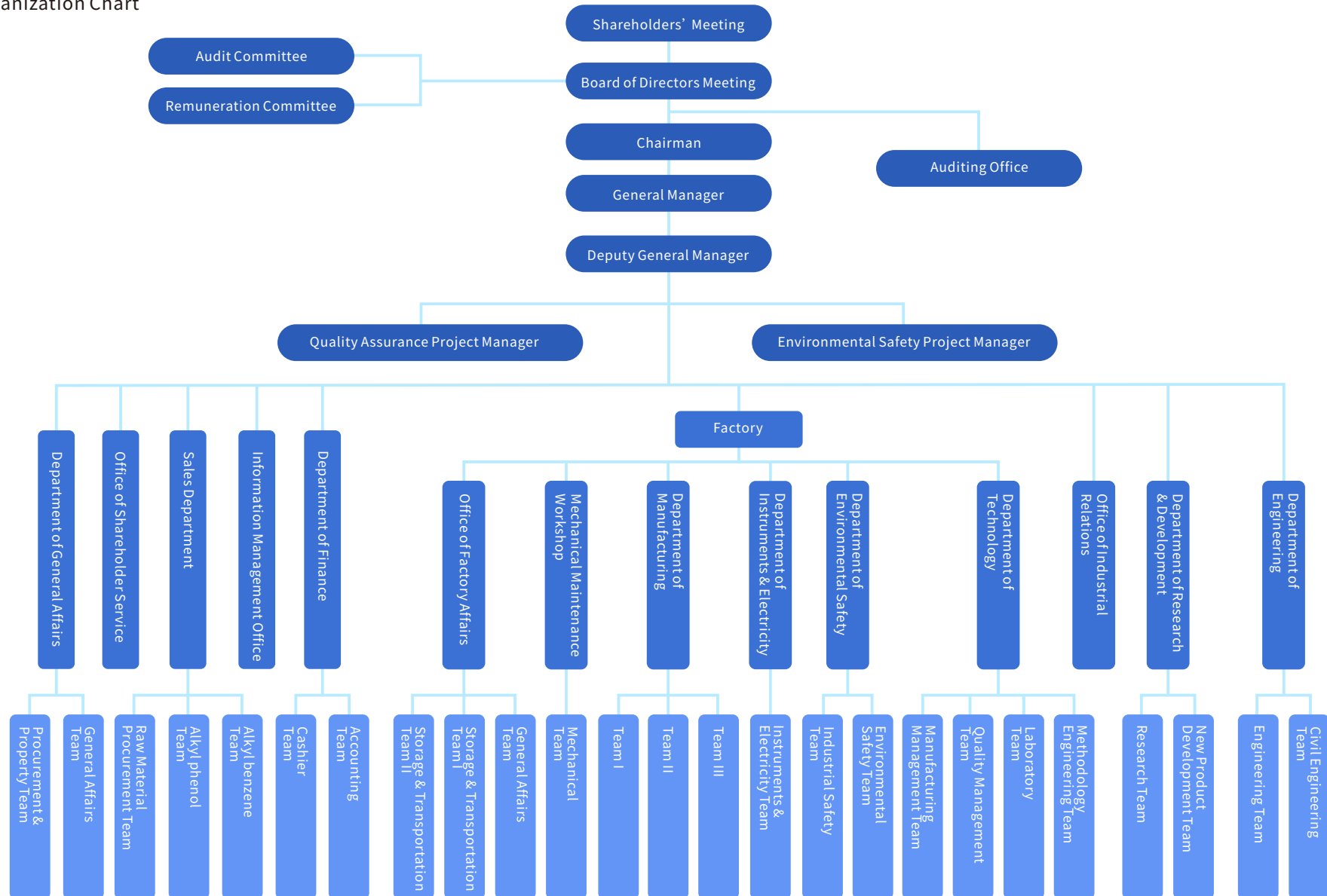
Development of Audit
Committee's Functions

Respect for
Stakeholder's
Rights

Establishment of Effective
Corporate Governance
Structure

2.1 Organization Structure

2.1.1 Organization Chart



Department	Major Responsibilities
Audit Committee	This committee assists Board of Directors Meeting in fulfilling its supervision over quality and integrity of the Company's execution of processes related to accounting, auditing and financial report as well as financial control.
Remuneration Committee	This committee is responsible for strengthening the Company's remuneration system for director, supervisor and manager. This committee is commissioned through Board of Directors Meeting resolution and convenes meetings in accordance with regulations.
Auditing Office	This office is responsible for verifying establishment of internal audit system, implementing review and audit over respective department's execution performance.
Sales Department	This department is responsible for purchasing raw materials, product promotion and market research.
Department of Finance	This department is responsible for finance management, wealth management analysis, capital utilization and handling of accounting and tax matters.
Department of General Affairs	This department is responsible for investment planning, purchase of materials and related tasks on general affairs.
Department of Research & Development	This department is responsible for new product research and development as well as quality improvement.
Department of Manufacturing	This department is responsible for arrangement of production plan and production management of respective factories.
Department of Technology	This department is responsible for product quality assurance and improvement of current manufacturing process.
Department of Environmental Safety	This department is responsible for planning and supervision of industrial safety and health design, and promotion and execution of environmental protection business.
Department of Instruments & Electricity	This department is responsible for management of instruments and electrical engineering.
Mechanical Maintenance Workshop	This workshop is responsible for installation and maintenance of all machinery equipment in the factory.
Office of Factory Affairs	This office is responsible for factory purchasing, storage and transportation, warehouse operations, management and maintenance of buildings.
Department of Engineering	This department is for supervision of quality for engineering design, contracting, and installation.
Office of Industrial Relations	This office is responsible for contact, communication and coordination of factory related matters.
Office of Information Management	This office is responsible for planning of computer operation system, program design and information management.
Office of Shareholder Service	This office is responsible for preparation of shareholder's meeting and Board of Directors Meeting, and related business on shareholder service.

2.1.2 Board of Directors Meeting

In addition to consideration of diversified composition of members, selection of Formosan Union Chemical Corporation's Board of Directors Meeting also considers fundamental qualifications needed for the Company's practices, operation type and development needs, integrity concepts in line with the Company's core values as well as professional knowledge and skills such as abundant practical experiences needed in the fields of commerce, legal affairs, finance, accounting or the Company's business.

Director's Capabilities



Operation
Judgement
Capability



Accounting &
Finance Analysis
Capability



Operation
Management
Capability



Crisis
Management
Capability



Industry Knowledge &
International Market
Perspective



Leadership Capability &
Decision-Making
Capability

Enhancement of Board of Directors Meeting's Competence

For the purpose of enhancing Board of Directors Meeting's competence, independent directors and audit committee were established in 2017.

To supervise implementation of corporate governance, independent directors and internal audit executive hold regular seminars with accountants and make records accordingly since 2018.

The Company exerts itself in complying with company internal control system hoping to achieve the goal of mitigating operation risk factors through feedback from self-inspection.

Performance of Corporate Governance Execution

1. The "2021 Annual Audit Plan," which was drafted in accordance with "Regulations Governing Establishment of Internal Control System by Public Companies," was approved.
2. An executive for corporate governance has been established.

Assessment report on certified accountant's independence and suitability has already been completed in accordance with Article 29 of the "Corporate Governance Best Practice Principles for TWSE/TPEx Listed Companies."

1. Director's Responsibilities:

A director's responsibilities are to ensure that the Company's operation complies with government's all related regulations, avoid occurrence of conflict of interest and make resolutions with regard to the Company's critical matters. The Board of Directors Meeting will convene at least once each quarter. For the purpose of establishing the Company's good governance system for Board of Directors Meeting, solidifying supervision functions as well as enhancing management mechanisms, rules for meeting procedures have been established for compliance purpose in accordance with requirements prescribed in "Regulations Governing Procedure for Board of Directors Meetings of Public Companies."

In recent years, Formosan Union Chemical Corporation has been planning step-by-step to establish a comprehensive corporate governance system and the Company has exerted itself in becoming an enterprise of sustainable operation. Under considerations that there is no specific interest between independent directors and the Company's operation, that independent directors can provide their objective and unbiased opinions based on their professionalism and independence for the purpose of achieving diversification during Board of Directors Meeting's decision-making, and that establishment of independent directors shall assist in supervising the Company's operation while protecting shareholder's rights, Formosan Union Chemical Corporation modified its articles of incorporation and established independent directors and audit committee during Board of Directors Meeting election in 2017.

2.Goal and Execution for Enhancement of Board of Directors Meeting' s Competence:

To fulfill corporate governance spirit and effectively improve information transparency, Formosan Union Chemical Corporation has fully disclosed messages of various operations and finance on annual report, company website and market observation post system.

Board of Directors Meeting is responsible for passing resolutions on operation plan and (semi)annual financial report, reviewing internal control system established or modified by the Company and reviewing handling processes prepared or modified by the Company for material financial or business conducts of asset acquisition or disposal, engagement in derivative product transaction, lending capital to others, endorsement/guarantee for others or providing guarantee for others. Board of Directors Meeting' s responsibilities also include reviewing of matters with interests involving directors or supervisors, transactions of material assets or derivative products, material capital lending, endorsement or providing of guarantee, offering, issuing or private placement of equity-type securities, hiring or dismissal of certified accountants and compensations rendered, and material matters on hiring or dismissal of executives for finance, accounting or internal audit. Independent director' s comments of objection or reservation, if any, will be recorded in Board of Directors Meeting' s meeting minutes.

3.Prevention of Conflict of Interests:

Formosan Union Chemical Corporation' s Ethical Management Procedures and Conduct Guidelines specifically prescribes that: Directors shall possess high degree of self-discipline. In the event that a director or the legal person represented by a director has personal interests on proposals listed in Board of Directors Meeting and that such interests may damage the Company' s interests, such director may express his or her opinions and answer questions in the meeting but shall not participate in discussions or voting. Furthermore, such director shall recuse himself or herself during discussion and voting, and shall not represent other directors in exercising their voting rights. Self-discipline shall also be exercised among directors and directors shall not be engaged in inappropriate support for one another.

4.Composition of Board of Directors Meeting

Currently, there are 19 seats of directors in Formosan Union Chemical Corporation. Pursuant to related regulations, shareholders holding more than 1% of total outstanding shares issued by the Company are entitled to propose a list of director candidates.

Board of Directors Meeting of this plenary is composed of members with professional backgrounds with seasoned industry experience. They are responsible for the Company' s operations and supervision. Tenure is 3 years and directors may seek re-election thereafter. Additionally, there are 4 independent directors. During their term of service, independent directors will review the Company' s internal audit report, attend Board of Directors Meeting and supervise the Board' s operations. Furthermore, they will also review related financial statements in accordance with laws every year when such statements are submitted to shareholders' meeting.

Structure of Formosan Union Chemical Corporation' s Board of Directors Meeting not only complies with related regulatory requirements, it also determines appropriate seats of directors based on the Company' s operation development scale, status of major shareholder' s holdings as well as needs for practical operations. Members of Board of Directors Meeting generally possess knowledge, skills and competence needed to perform duties, and they also come with diversified policies.

5.Operations of Board of Directors Meeting:

Board of Directors Meeting is convened at least once each quarter to review corporate operation performance and discuss critical strategies and issues. Critical resolutions from Board of Directors Meeting will also be published in real time on Taiwan Stock Exchange' s Market Observation Post System and Corporate Governance Section of the Company' s website. The Company' s articles of incorporation and Rules of meeting procedures for Board of Directors Meeting are also published openly for enquiry purpose.

A total of 7 Board of Directors Meetings were held in 2021 with directors and supervisors' attendance as follows:

Job Title	Name	Actual times of Attendance (Presence) (B)	Times of Attendance by Proxy	Actual Attendance (Presence) Percentage (%) (B/A)
Chairman	Shin Shing Chemical Corporation Representative: Huang, Shen-Tsai	7	0	100%
Deputy Chairman	Huang, Sheng-Shun	4	2	57%
Director	Lien, De-Shih	7	0	100%
Director	Liao, Jia-Guo	7	0	100%
Director	Shin Chang Construction Co., Ltd. Representative: Guo, Jhih-Cyun	7	0	100%
Director	Guo, Jhen-Jhih	6	1	86%
Director	Lion Home Products (Taiwan) Co., Ltd. Representative: He, Hao	7	0	100%
Director	He Mao Venture Investment Co., Ltd. Representative: Zheng, Ren-Bin (Note 1)	6	0	100%
Director	He Mao Venture Investment Co., Ltd. Representative: Zhang, Li-Qiu (Note 2)	1	0	100%
Director	Chen, De-Fong	6	0	86%
Director	Shi, Jia-An	4	3	57%
Director	Guo, Jhih-Mao	5	1	71%
Director	Formosa Chemicals & Fibre Corporation Representative: Yang, Kun-Lie (Note 3)	7	0	100%
Director	Formosa Chemicals & Fibre Corporation Representative: Wu, Xin-Chang (Note 4)	—	—	—
Director	Huang, De-Lun	7	0	100%
Director	Ever-Prosperous Multi-Technologies Enterprise Ltd. Representative: Ke, Chang-Ci	6	0	86%
Director	Chi-Tong Investment Co., Ltd. Representative: Huang, Cheng-Fong	4	0	57%
Independent Director	Liao, Sogn-Yue	6	0	86%
Independent Director	Lin, Lai-Di	7	0	100%
Independent Director	Chen, Hong-Wen	6	1	86%
Independent Director	Zhuo, Xun-Rong	6	0	86%

The Company conducts assessment on Board of Directors Meeting's operation efficiency based on "Guidelines for Performance Assessment on Board of Directors Meeting." Execution of assessment in 2021 is as follows:

Assessment Cycle	Assessment is conducted once every year.
Assessment Period	January 1st, 2021 to December 31st, 2021
Scope of Assessment	1. Performance assessment on Board of Directors Meeting 2. Performance assessment on individual directors 3. Performance assessment on functional committees
Assessment Measures	1. Internal self-assessment conducted by Board of Directors Meeting 2. Self-assessment conducted by directors 3. Self-assessment conducted by functional committees
Contents of Assessment	<p>Contents of Assessment</p> <p>1. Board of Directors Meeting's self-assessment on performance:</p> <p>(1) Level of participation in the Company's operations</p> <p>(2) Enhancement of Board of Directors Meeting's decision-making quality</p> <p>(3) Board of Directors Meeting's composition and structure</p> <p>(4) Director's selection and continued education</p> <p>(5) Internal control</p> <p>2. Board of Directors Meeting member's self-assessment on performance:</p> <p>(1) Tracking of the Company's goal and mission</p> <p>(2) Awareness of director's responsibilities</p> <p>(3) Level of participation in the Company's operation</p> <p>(4) Management and communication on internal relationship</p> <p>(5) Director's professionalism and continued education</p> <p>(6) Internal control</p> <p>3. Functional committee's self-assessment on performance:</p> <p>(1) Level of participation in the Company's operations</p> <p>(2) Awareness of functional committee's responsibilities</p> <p>(3) Enhancement of functional committee's decision-making quality</p> <p>(4) Composition of functional committee and selection of members</p> <p>(5) internal control</p>

2.1.3 Remuneration Committee

For the purpose of assessing if senior management's remuneration received over operation performance is fair and equitable, Formosan Union Chemical Corporation established Salary & Compensation Committee ("Remuneration Committee") in 2011. This committee is composed of 3 commissioners with a term of 3 years. These 3 commissioners have more than 5 years of practical experiences in business management, law and finance. Remuneration committee commissioner's term for this plenary is identical to the one for Board of Directors Meeting.

Please refer to p.46 of Formosan Union Chemical Corporation's 2021 annual report for information with respect to Remuneration Committee members' background and experiences.

1. Functions of Remuneration Committee:

Remuneration Committee will exercise a good administrator's due care, perform its duties truthfully, establish and conduct regular review over director and manager's performance assessment as well as policy, system, standard and structure for salary and compensation, conduct regular assessment and establish salary and compensation for directors and managers, and submit suggestions based on assessment results to Board of Directors Meeting for discussion.

2. Operations of Remuneration Committee:

During its assessments, Remuneration Committee will consider director and manager's performance assessment and salary/compensation, take references from industry's normal standard of payments, and consider related rationality among individual performance, the Company's operation performance and future risks while ensuring that directors or managers will not be enticed to conduct behavior exceeding the Company's risk appetite simply for the pursuit of salary and compensation.

With respect to proportion of bonus distributed and payment time for some variable salary/compensation paid to director and senior management for their short term performance, Remuneration Committee will also make decisions under considerations of industry characteristics and the Company's business nature. Remuneration Committee will exercise a good administrator's due care, perform its duties truthfully, establish and conduct regular review over director and manager's performance assessment as well as policy, system, standard and structure for salary and compensation, conduct regular assessment and establish salary and compensation for directors and managers, and submit suggestions based on assessment results to Board of Directors Meeting for discussion.

To strengthen sustainable operation concept, Remuneration Committee's future assessment will include senior management's performance in the field of corporate sustainability such as execution results on issues of green environmental protection and employee caring into its scope of assessment.

Remuneration Committee conducts regular assessment over director and manager's performance in corporate governance and operation.

Remuneration Committee will propose modification suggestions and assist Board of Directors Meeting in executing and assessing the Company's overall remuneration and benefit policy as well as director and manager's compensation.

Remuneration Committee ensures that director and manager's performance is proportionate to their personal salary or compensation.

Going forward, sustainable performance will be included in the scope of remuneration assessment.

3. Remuneration Committee's critical resolutions in 2021

Remuneration Committee held 3 meetings in 2021. Overall attendance percentage for commissioners of Zhuo, Xun-Rong, Chen, Chang and Chen, Hong-Wen is 67%. Major resolutions passed are as follows:

Times	Date	Contents of Resolution
1	Jan. 22nd, 2021	Proposal for distribution of 2020 year-end bonus was passed.
2	Mar. 19th, 2021	Proposal for distribution of 2020 directors and employees' compensation was passed.
3	Jul. 16th, 2021	Proposal to distribute 2020 director compensation to the Company's directors in 2020 was passed. Proposal of 2021 salary adjustment was passed.

2.1.4 Audit Committee

To solidify supervision functions and to enhance management functions, Audit Committee ("Audit Committee") was established in 2017 in accordance with Securities and Exchange Act. This committee has 4 commissioners with a term of 3 years. These four commissioners have practical experiences in business management and finance. Audit commissioner's term for this plenary is identical to the term for Board of Directors Meeting.

With respect to Audit Committee member's background and experience, please refer to audit commissioner's composition, responsibility and operation section – corporate governance operation status in Formosan Union Chemical Corporation's 2021 annual report.

1. Audit Committee's Responsibilities:

Audit Committee aims at assisting Board of Directors Meeting in supervising quality and integrity in the Company's execution processes on accounting, audit, financial statements as well as finance control. Pursuant to Article 14-4 of Securities and Exchange Act, Audit Committee shall be composed by all independent directors and shall submit suggestions based on assessment results to Board of Directors Meeting for discussion.

2. Operation of Audit Committee:

Main purpose of Audit Committee's operations is to supervise the followings:

- Appropriate representation of the Company's financial statements;
- Certified accountant's selection (dismissal), independence and performance;
- Effective implementation of the Company's internal control;
- The Company's compliance with related regulations and rules;
- Control over the Company's existing or potential risks.

3.Audit Commissioner's Critical Resolutions in 2021

Audit Committee held 4 meetings in 2021. Overall attendance percentage for commissioners of Lin, Lai-Di, Liao, Song-Yue, Zhuo, Xun-Rong and Chen, Hong-Wen is 88%. Major resolutions passed are as follows:

Times	Date	Contents of Resolution
1	Mar. 19th, 2021	Proposal for 2020 financial statements was passed. Proposal for 2020 earnings distribution was passed. Proposal for 2020 internal control statement was passed. Proposal for amendments of the Company's "Articles of Incorporation" was passed. Proposal for amendments of the Company's "Rules of Meeting.Procedure for Shareholder's Meeting" was passed. Proposal for amendments of the Company's "Procedures for Acquisition or Disposal of Assets" was passed.
2	May 12th, 2021	Proposal for amendments of the Company's "Internal Control System for Shareholder Service Units" was passed. Proposal for amendments of the Company's "Guidelines for Report System" was passed. Proposal for replacement of the Company's certified accountants was passed. Proposal of establishing the Company's head of corporate governance was passed. Proposal for participating in Jia-Lien Sugar Company's cash capital increase was passed.
3	Aug. 11th, 2021	The Company's 2020 2nd quarter financial statements were passed. Proposal to lift restrictions of non-competition on the Company's managers was passed.
4	Nov. 10th, 2021	Proposal to establish the Company's "2022 Audit Plan" was passed.

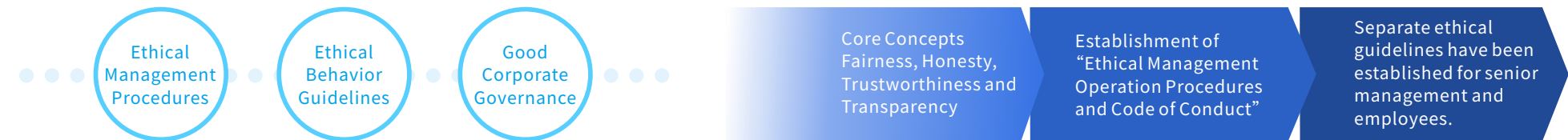
2.2 Ethical Management

Material Issues	Importance to the Company	Policy / Commitmen	Short-Term Goal	Mid/Long Term Goals	1.Invested Resources forCurrent Year 2.Specific Achievements	Responsible Department/ Report Mechanism	Assessment Mechanism/ Achievements
Regulation Compliance	Regulation compliance is the corner stone of corporate responsibility. A corporate could only grow steadily and enjoy sustainable operation with the fulfillment of regulation compliance.	Zero Violation	ESG Related Regulation Compliance Annual Training Rate of 90%	1. ESG Related Regulation Compliance Annual Training Rate of 100% 2.Zero Occurrence of Violations	1.Completion of identification and execution of environmental and occupational safety regulations. 2.No related cases of regulation violation have been received from both internal and external report channels.	Legal / Environmental Safety's Telephone or Email Response	No cases of major regulation violation were reported in 2021.

Formosan Union Chemical Corporation is engaged in commercial activities based on principles of fairness, honesty, trustworthiness and transparency. To fulfill ethical management policy and to actively prevent unethical behavior, “Formosan Union Chemical Corporation Ethical Management Operation Procedure and Code of Conduct” has been established in accordance with “Ethical Corporate Management Best Practice Principles for TWSE/TPEX Listed Companies” to specifically regulate matters to which the Company’s director, manager, employee and individual with substantial control capability shall pay attention when executing businesses. In the meantime, for the purpose of preventing insider trading, the Board of Directors Meeting has passed “Handling Operation Process for Formosan Union Chemical Corporation’s Internal Material Information” to further solidify prevention of insider trading.

Formosan Union Chemical Corporation has also established diversified report channels in the Company’s official website to allow internal and external stakeholders to express their opinions on Formosan Union Chemical Corporation’s involvement in regulation compliance issues. Meanwhile, for the purpose of enhancement on report mechanism, Formosan Union Chemical Corporation incorporated “Whistleblower Protection Clause” into its Guidelines for Report System expecting to protect whistleblower’s identity and related rights.

Additionally, Formosan Union Chemical Corporation has established separate Guidelines of Ethical Requirements for senior management of director and manager as well as for employees for compliance accordingly. Through establishment of dual control mechanisms of Ethical Management Operation Procedures and Guidelines of Ethical Requirements, a sound ethical management environment has therefore been built up for Formosan Union Chemical Corporation accordingly.



2.2.1 Requirements of Morality and Ethics and Future Planning

Morality Guidelines for Director

- This regulates directors, managers or others who manage matters for the Company and who have rights to sign.
- This complies with integrity and fair transaction principles.
- This prevents conflict of interest.
- This prohibits attempt to gain personal interest.
- This prescribes duty of vigilant compliance with confidentiality.
- This complies with regulations and establishes report channels to encourage report of any behavior violating moral behavior guidelines.

Morality Guidelines for Employees

- This regulates direct or indirect individuals hired by the Company to work for the purpose of receiving salary.
- This avoids conflict of interest.
- This prohibits attempt to gain personal interest.
- This prescribes duty of vigilant compliance with confidentiality.
- This complies with regulations and requirements.

Diversified Report Channels



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No. 206, Sec. 2,
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Email:
fuccauditing@
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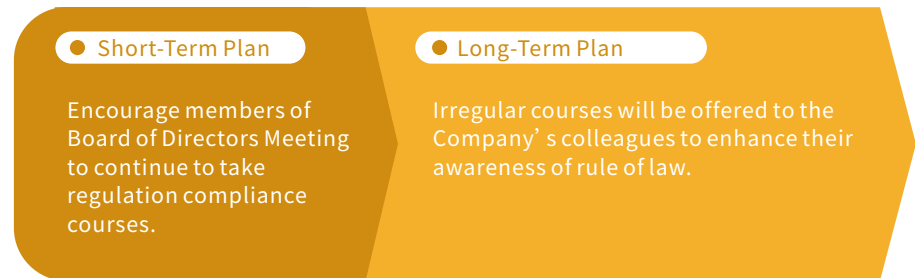


Telephone:
(02)2507-1234
Auditing Office

Ethical Management Operation Procedures and Code of Conduct

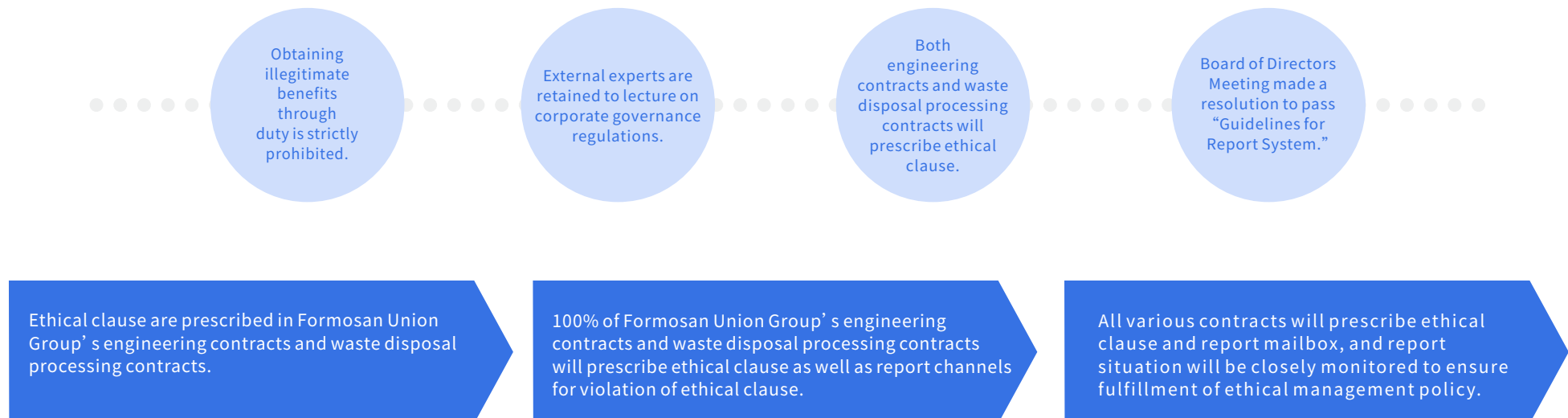


Short/Long Term Plan for Ethical Management



2.2.2 Execution Situation in 2021

1. Senior management of directors and managers all managed their businesses from objective perspectives, and refrained from allowing themselves, spouse, parents, children or relatives within 3rd degree of kinship to gain illegitimate interests because of positions they hold in the Company. To promote and prevent unethical behavior, Formosan Union Chemical Corporation specifically retains external experts, for the benefits of Board members, to the Company to offer courses related corporate governance and securities regulations.
2. After Formosan Union Chemical Corporation's review in 2021, contents of Formosan Union Group's engineering contracts and waste disposal processing contracts had all prescribed ethical clause. Planning for short-term goal is set at 100% prescription of ethical clause in engineering contracts and waste disposal processing contracts. As for the long-term goal, ethical clause and report mailbox will both be prescribed in Formosan Union Chemical Corporation's various contracts, and report situation will be closely monitored for the purpose of ensuring fulfillment in ethical management policy.



2.2.3 Regulation Compliance

Regulation compliance is the foundation of a corporate's management. Formosan Union Chemical Corporation promotes ethical internal requirements to new colleagues during their report to duty. In the meantime, given the fact of numerous kinds of regulations involved, respective departments also learn about amendment status of related regulations through timely interaction with government institutes or media report. Respective departments will then conduct internal/external training to their colleagues to ensure that the Company's operation complies with various regulations.

First of all, in terms of corporate governance, we established a functional committee to supervise the Company's financial operations and the Company's internal systems, and encouraged directors to aggressively participate in the decision-making of the Company's critical proposals. Going forward, Formosan Union Chemical Corporation shall also continue to comply with corporate governance best practice principles and is committed to enhancing colleague's regulation compliance awareness.

Secondly, in terms of personnel management, we drafted ethics related internal guidelines and built up a comprehensive regulation compliance firewall through internal meeting's promotion of the Company's core value of ethics and integrity, drafting and vigilant implementation of a series of guidelines, self-review, smooth report channels and whistleblower protection mechanism. Management acts a role model and requests that every colleague must all ensure that their related business behavior complies with regulations and the Company's policies and internal guidelines. Annual self-review is implemented to assess compliance situation and internal audit is conducted accordingly. Guidelines are drafted and colleagues are required to comply accordingly when executing business. All colleagues of the Group's respective companies, regardless of their titles, positions and locations, are requested to comply with "Ethical Management Best Practice Guidelines" and "Employee Work Rules" which contain guidelines on work environment, equal opportunities, confidentiality clause, restrictions on concurrent posts and avoidance of conflict of interest, offering or receiving gift and business hospitality, respecting employees and clients, reporting, protection, exemption and so on for the purpose of gaining the public's trust, improving corporate image and ensuring the Company's sustainable operations and development. Related code of conducts are also established to prevent the Company from being punished due to violation of fair competition behavior or anti-trust regulations, and to serve as behavior guidelines for the Company's management and personnel during their business practices for the purpose of mitigating risks of regulation violation. The Company participates in industry competition based on ethical and fair principles, builds up a corporate culture of regulation compliance and establishes a trustworthy and respectful company reputation.

In terms of personnel training, for the purpose of enhancing colleague's awareness on work ethics and regulation compliance, the Company's legal department together with other responsible departments comply with regulations and the Company's internal guidelines in conducting routine training on regulations involved for colleagues of different departments and rankings. For instance, corresponding training is offered to colleagues with different business responsibilities. Such training includes new employee training, in-person courses, respective departments' promotion and external training. In the meantime, regulation compliance guidance is offered through factory posters and the Company's internal webpage to ensure colleague's accessibility to regulation compliance knowledge at any time.

Lastly, in terms of environmental health and safety, Formosan Union Chemical Corporation complies with requirements from ISO14001 Environmental Management Systems and ISO45001 Occupational Health and Safety Management Systems in establishing regulation verification management system and related supervision, measurement and performance management guidelines to ensure that the Company complies with environmental and occupational safety regulation requirements during the processes of its product life cycles, and that environmental and occupational safety management system is operated effectively and potential issues can be detected through management cycle measures so that control measures can be adopted in due time to avoid causing damage to the Company.

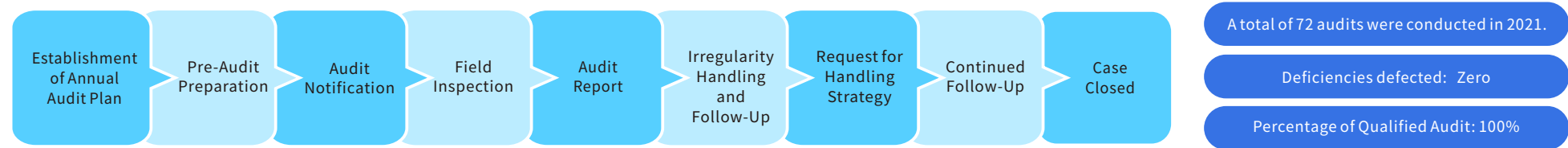
To summarize overall regulation compliance practices for 2021, Formosan Union Chemical Corporation did not have any material illegal incidents involving corporate governance, securities transaction, environmental protection, labor human rights, occupational safety or disclosure of client's privacy, marketing label or product liability.

2.3 Internal Audit and Risk Management

2.3.1 Internal Audit

Formosan Union Chemical Corporation's Auditing Office reports directly to Board of Directors Meeting. With its independent, objective and unbiased operation, Auditing Office reviews and verifies if the Company's internal control is effective. In addition to its report in Board of Directors Meeting's routine meetings, Auditing Office also reports to independent director or senior management meeting when necessary. Audit tasks are mainly executed in accordance with audit plan which is drafted based on identified risks. Targeted audits are executed routinely or upon necessity to verify if the Company's internal various operations comply with regulations and internal control system. Additionally, targeted audits will also be executed when required by situations and results will be provided to Board of Directors Meeting for understanding operation's potential risks. Meanwhile, Board of Directors Meeting and senior management will be assisted to conduct independent and objective assessment over internal control system's completeness, effectiveness and execution. Rectification suggestions will be provided in due time to reasonably ensure that internal control system can be executed continuously while services of related inspection, assessment or consultation are provided to assist Board of Directors Meeting to fulfill its corporate governance responsibility.

Internal Audit Process and Operation Practices



2.3.2 Risk Management

Material Issues	Importance to the Company	Policy / Commitmen	Short-Term Goal	Mid/Long Term Goals	1.Invested Resources forCurrent Year 2.Specific Achievements	Responsible Department/ Report Mechanism	Assessment Mechanism/ Achievements
Operation Risk Management	During a corporate's sustainable operation process and for the purpose of responding to changes of world environment, it is needed to have early identification and assessment on risk items posing material impact to operation activities, set up management mechanisms and establish action plan accordingly to prevent the Company's operation risks.	Cultivation of risk culture with all members' participation for effective prevention and control.	1.Establish Risk Management Policy and Procedures 2.Establish Sustainable Indicators for ESG Risks	Effectiveness for ESG Risk Measures	1.Completion of Identification and Handling of ESG Related Risks 2.Introduction of TCFD Climate Change Risk Management	Sustainability Committee / Telephone or Email Response	Sustainability Committee's Review on Meetings / 100% Target Achievement rate for Risk Item Execution

Auditing Office will summarize this and report to Board of Directors Meeting regularly to reflect execution situation of risk management. Rectifications will also be proposed to enhance risk management execution.

Risk Perspectives		Responding Strategies
Investment Strategies	Research on Normal Paraffin Dehydrogenation	Currently, columnar catalyst can be formed through extrusion. Test on pilot factory can be conducted when spherical catalyst can be formed through extrusion.
	Diacid' s Transformation to Alcohol Acid	Currently, production rate remains stable at around 60% under low-pressure condition. Going forward, the Company is committed to increasing production rate while lowering degradation level.
	Research on High-Value Products	Currently, commercial catalyst test continues to be conducted on N-Maleimide for the purpose of searching for conditions for optimization.
	Market Risks	In Formosan Union Chemical Corporation, normally respective departments will establish various strategies based on their business responsibilities, discuss and implement these strategies after resolutions are made. Meanwhile, rolling analysis and assessments will be made based on changes in regulations, policies and market, and various responding measures will be adopted accordingly. When necessary, management team will establish project teams to control risks incurred from drastic changes in market.
Finance	Interest Rate Fluctuation	<ul style="list-style-type: none"> Most of Formosan Union Chemical Corporation' s engagement in short-term loans are debts with fixed interest rates. Although interest rates in the market tend to rise, assessment indicates that cash flow risk from changes of interest rates is not high. Formosan Union Chemical Corporation' s engagement in long-term loans are financial products with floating interest rates. Therefore, changes of interest rates in the market will change effective interest rates for these debt financial products, and future cash flow will also fluctuate accordingly.
	Exchange Rate Fluctuation	Most of Formosan Union Chemical Corporation' s purchase and sales are in US dollars, and its foreign currency assets are higher than foreign currency liabilities. Furthermore, its foreign currency collection periods are slightly longer than the ones for foreign currency payment. Therefore, it is expected that higher market risks will be incurred with the fluctuation of market exchange rates.
	Inflation	Due to price fluctuation impact from related resources such as global oil price in recent years, the overall economic environment shows a trend of slight inflation. Nevertheless, most transaction prices between Formosan Union Chemical Corporation and clients or suppliers can be flexibly adjusted in the market and therefore with less impact from inflation. In the meantime, Formosan Union Chemical Corporation pays attention to economic development situations from time to time and adopts timely responding measures accordingly to reflect costs in product sales prices. Consequently, there is no material impact to the Company from inflation as of now.
Product Competition	Market Competition	Formosan Union Chemical Corporation maintains close contact with clients to understand and satisfy client' s latest needs from time to time. The Company also regularly visits clients together with its technology R&D personnel to understand future trend for client' s products and develop new products in advance to respond accordingly.

Risk Perspectives		Responding Strategies
Environmental Health & Safety	Contingency Plan and Handling of Incidents inside/outside Factory	Contingency plan to prevent hazards during transportation (within factory) is established. In the event of poisonous chemical leakage, different grades of contingency handling will be implemented in accordance with categories of poisonous chemical to reduce hazards generated from poisonous substance disaster. Tests and drills without early warning will be conducted at least twice per year. Comprehensive drill will be conducted at least once each year.
	Manufacturing or Transportation Process Management for Raw Materials, Materials and Their Own End Products.	<ol style="list-style-type: none"> 1. Lead seals shall be installed on both inlet and outlet after tank car is filled. 2. Before tank car and container leave factory, security guards must check if seals are intact. 3. Loading requirements for various vehicles comply with requirements prescribed in "Guidelines for Road Traffic Safety." 4. Substance safety information produced by the Company must be carried upon a tank car's transportation of products. 5. In the event of incident during transportation, the driver needs to conduct on-site emergency handling and shall notify the Company's related responsible units so that ordering client or other stakeholders can be informed accordingly. 6. In the event of a tank car's failure in having safety equipment, warning will be issued for the first occurrence of such incident. For the second occurrence, however, tank car will be prohibited from entering the factory for shipment loading. Loading will then be permitted after safety equipment is installed accordingly and verification is confirmed after checking. 7. Height for a tank car's shipment loading shall not exceed height of two-layers of pallets.
	Participation in the Toxic Chemical Incident Mutual Aid Team	To enhance spirit of responsible care and mutual aid of vendors operating toxic substance in factory area and implement horizontal and vertical report mechanisms, Formosan Union Chemical Corporation has become a member of Kaohsiung City Toxic Chemical Incident Mutual Aid Team. Additionally, the Company is currently organizing and integrating mutual aid organization of nonylphenol up/downstream vendors. Tests without early warning as well as training courses are conducted regularly.
Data Security Risks	<ol style="list-style-type: none"> 1. Management is conducted on file security and equipment security. Overall backup shall be implemented regularly on systems and reconfiguration operation is conducted regularly to save disk drive space and increase system operation efficiency. 2. In terms of equipment security, control shall be enforced on access control and computer room, maintenance management shall be conducted on equipment and computer room equipment, and security measures on computer room shall be inspected regularly. 3. Access management shall be established to implement internal control cycle on data security. 4. Off-site backup mechanism is implemented. 5. Outsourced data security inspection is conducted regularly. 	
Risks of Environment Pollution & Climate Change	<ol style="list-style-type: none"> 1. ISO 14001 Environmental Management System is implemented. 2. The Company echoes government's energy saving policy and implement greenhouse gas reduction inspection. 3. The Company meets with requirements from government regulations and clients. 	
Raw Material Demand & Supply Risk Management	<ol style="list-style-type: none"> 1. To respond to uncertainty in product supply from China, the Company not only explores and transfers country of supply but also conducts risk aversion purchase as a supportive measure to mitigate risk of supply disruption. 2. Percentage for LCL (Less Than Container Load) shipment is increased through utilization of logistics collection mechanism and requests on suppliers for the purpose of mitigating control risks on bulk shipments. 	
New Type of Pandemic	<ol style="list-style-type: none"> 1. A project team is established. 2. Pandemic information will be monitored continuously in order to respond to government regulations and make in-time adjustments accordingly. 3. Substitute staff mechanism is implemented. 4. Responding pandemic prevention mechanism for new type of contagious diseases is implemented. 	

Responding Measures for COVID-19 Pandemic

Eruption of COVID-19 around the world since January of 2020 has generated a sense of heaviness and uneasiness. Under considerations of impact to overall operations, the Company immediately initiated pandemic prevention responding mechanism. Starting from February, top executives from respective factories assumed the post of conveners and formed pandemic prevention responding teams which monitor latest pandemic information in real time. Through daily management meetings, respective factories' personnel health management, supply of pandemic prevention materials, adjustments on supply chain demand/supply, product manufacturing and delivery are monitored accordingly to ensure that the Company maintains normal operations within the shortest time period. Pandemic prevention mechanisms in 2020 were extended to 2021 and rolling respond measures are conducted continuously to respond to changes in pandemic.

Management Measures for COVID-19

Personnel Management

1. Disinfection on work environment and personnel is enhanced. Control is enforced to distribute employees for purpose of lowering infection risks.
2. Body temperature is measured in entrance and exit. Business visits by employees, clients and vendors are reduced. Individuals visiting factory need to fill in Self-Health Management Statement.
3. Colleague's offshore business trip is prohibited.
4. Pandemic prevention materials are provided to employees for utilization.
5. Promotions on health and pandemic prevention knowledge are conducted.
6. Work-From-Home is implemented to reduce cluster risks.

Production Management

1. The Company maintains contact with clients through video conference to communicate pandemic prevention measures and production capacity status. Shipping methods and time are adjusted flexibly.
2. Supply chain material distribution is implemented.
3. Rigorous disinfection measures on incoming/outgoing cargoes are implemented in factories.

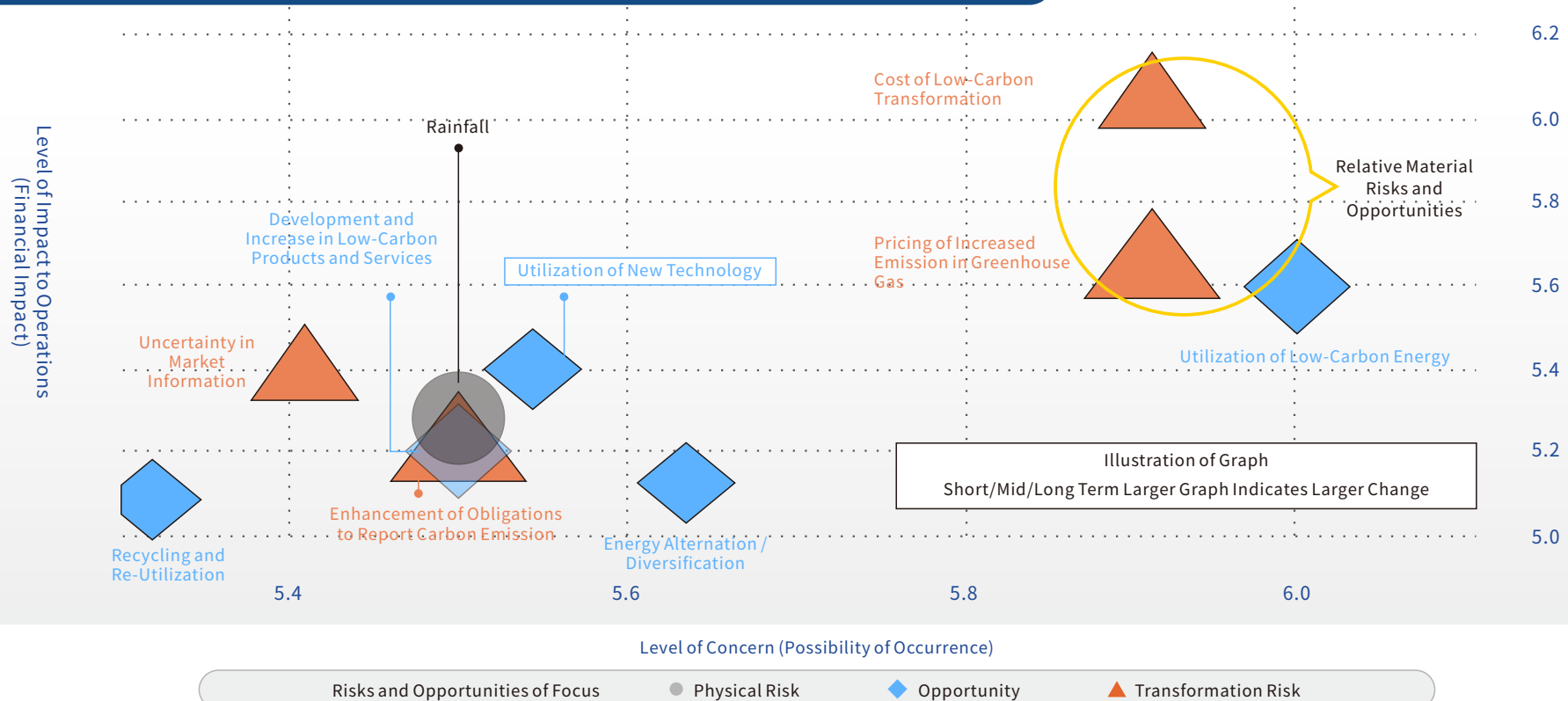
Climate Change Management

Each year, the Company establishes management plans on material themes, and conducts rolling follow-up and review on execution effectiveness in ESG Committee. Extreme weather has become more frequent in recent years. It indicates that risks from global warming are imminent. Consequently, governments around the world are increasingly emphasizing climate change issues. Through amendments of respective country's regional regulations, businesses are strongly urged to incorporate climate change issues into company operation management. In addition to verification of operation risks incurred from climate change, the Company also takes references from "Task Force on Climate-Related Financial Disclosures" (TCFD) published by Financial Stability Board (FSB) and incorporates four core disclosures of "governance", "strategy", "risk management" and "indicator and goal" into operation management. The Company also disclosed its governance performance in sustainability report hoping that stakeholders understand impact from climate change related risks and opportunities to Formosan Union Chemical Corporation as well as related responding measures.

TCFD Risk Management Procedures

- Step1** ESG Committee completes collection of climate environment background information. Assess climate risks and operation scope.
- Step2** Establish a list of climate risks and opportunity items. Establish survey questionnaire on impact to internal operations.
- Step3** ESG commissioners conduct analysis on climate risk opportunity and operation impact. Material risk items are determined.
- Step4** Establish execution strategy and target setting.
- Step5** Rolling reviews on effectiveness of execution strategy and goal are conducted through ESG Committee meeting each year.

TCFD – Assessment Result – Financial Impact and Risks and Opportunities of High Possibility to Occur



TCFD Disclosure Structure for Climate Change Related Risks and Opportunities

Governance	ESG Committee is responsible for discussion and assessment of Formosan Union Chemical Corporation's related discussion and management on climate change. Climate change related resolutions are made by chairperson.
Strategy	<p>After verification of climate change potential risks and opportunities, transformation of low-carbon technologies is implemented, increase pricing risk of greenhouse gas emission and opportunities to utilize low-carbon energy, and include physical risks and resource efficiency opportunities. Implementation of strategies is disclosed as follows:</p> <ul style="list-style-type: none"> ● Transformation Risk – Policy and Regulations Increase Pricing on Greenhouse Gas Emission <p>In 2022, Taiwan Climate Change Law intends to collect carbon fee on corporate's greenhouse gas emission. Draft of amendment has already been submitted to Executive Yuan and it is expected to start collecting this fee as early as the end of next year. This law will first be applied to major carbon emission corporates with greenhouse gas emission over 25,000 tons. Formosan Union Chemical Corporation is a listed major carbon emission corporate with roughly 93,000 tons of carbon emission in 2021. Carbon fee is expected to be between USD3-10/ton and this will be increased to more than USD50 per ton to meet the goal of matching with international standards in 2030. Collection is expected to be implemented as early as 2024. The Company considers this as a material climate risk because 100% of manufacturing factories are located in Taiwan and CO2 emission accounts for 100% of direct operation's carbon emission. The Company's responding measures are as follows:</p> <ol style="list-style-type: none"> 1. Carbon emission costs will be included into considerations during assessments on new equipment purchase. A comprehensive assessment will include reduction of carbon emission, and equipment purchase or investment based on reduced carbon fee. Under considerations of sales situations in respective sales regions, carbon fee for required carbon emission cost shall be estimated and default values are updated each year for reference purpose. 2. Increase existing equipment's energy efficiency and main focus will be on production site energy saving. For instance, upgrade high-efficiency energy equipment, install turbo-generator, use fuel with lower carbon emission or higher heating value, pipeline heat/cold insulation, and so on. <ul style="list-style-type: none"> ● Risk/Technology Perspective for Transformation Low-Carbon Technology Transformation <p>Carbon emission from production process mainly comes from manufacturing equipment. For the purpose of achieving low-carbon manufacturing process and products, we continue to improve equipment for the purpose of achieving carbon reduction.</p> <ul style="list-style-type: none"> ● Physical Risk – Immediacy <ol style="list-style-type: none"> 1. Occurrence frequency for typhoon and rainstorm has increased due to growing number of extreme weather incidents. This may cause flooding in Kaohsiung factory as well as impact to factory operations. After assessment, it is observed that financial losses can be incurred accordingly. However, waterproofing work in the factory has already been completed. Therefore, level of such impact to overall operation is not expected to cause too much influence. The Company's responding measures are to implement regular cleaning and maintenance on drainage system, and establish typhoon and rainstorm emergency plan to reduce immediacy risks. 2. In terms of water rationing risk, the Company increases utilization efficiency of water resources through water recovery and recycling. <ul style="list-style-type: none"> ● Resource Efficiency Opportunity – Reduction in Water Utilization and Water Consumption <p>In addition to collaboration with government's water resource saving policy, the Company has also initiated planning of water recycling system in order to lower dependence on raw water resource and reduce waste water discharge. In terms of finance, this may cause operation costs to increase slightly. However, it is not expected to generate too much influence on the impact to overall operation.</p> <ul style="list-style-type: none"> ● Energy Resource Opportunity – Utilization of Low-Carbon Energy <ol style="list-style-type: none"> 1. The Company utilizes low-carbon resources and replaces fuel oil with liquid natural gas. 2. The Company plans to utilize certain percentage of renewable energy as the main energy resource for manufacturing power.

Risk Management	The Company conducted discussions in “Discussion Meeting for TCFD Climate Change Related Financial Disclosure.” Related members were convened through this meeting to conduct discussion and verification of climate change risks and opportunities. TCFD suggested structure was introduced into contents of discussion. Discussion and verification were conducted focusing on transformation risks (policy and regulation, technology, market, reputation), physical risks (immediate risk, long-term risk) and opportunities (resource efficiency, source of energy, product/service, market, resilience).
Indicator and Goal	1.Average annual power saving rate shall reach more than 1%. 2.Water consumption shall be reduced by more than 1% each year. 3.Headquarters complies with ISO 14064-1 in implementing inspection on greenhouse gas emission and completing greenhouse gas self-inspection report. 4.Scope of 2021 Carbon Inspection – Emission is 67,429 tons of CO2e/year. Emission for scope II is 23,049 tons of CO2e/year. Total emission amount for 2021 is 90,478 tons of CO2e/year.

Data Security Management

In the time of a highly developed information era when companies are enjoying convenience of development, unpredictable security risks are also lurking in this environment. Such risks are serious enough to paralyze a company’s information network, disrupt operations and cause significant damage to company and stakeholders. Information Management Office is responsible for organizing and implementing data security policy, promoting data security message, enhancing employee’s data security awareness, collecting and improving performance of organization data security management system as well as effective technology, product or procedures. Every year, Auditing Office conducts data security inspection over internal control system – electronic computer cycle to assess the Company’s internal control effectiveness on information operations.

Policy

To fulfill data security management, the Company has established related system management guidelines. It is expected to achieve the following policy goals through all colleagues’ concerted effort:

- Ensure Information Asset’s Confidentiality and Completeness.
- Ensure that data storage/retrieval complies with department function guidelines.
- Ensure Information System’s Continued Operations.
- Prevent Unauthorized Modification or Utilization of Data and System.
- Regular Implementation of Data Security Audit Operations to Ensure Rigorous Implementation of Data Security.

Data Security Management Project

Internet Data Security Control	Data Storage/ Retrieval Control	Contingency Recovery Mechanism
<ul style="list-style-type: none"> ● Installation of Firewall ● Regular virus scanning is conducted on computer system data collection/storage media. ● Utilization of various internet services shall be implemented in accordance with data security policy. ● System Log for various internet service items shall be reviewed regularly and irregularity shall be tracked accordingly. 	<ul style="list-style-type: none"> ● Designated personnel shall be assigned to maintain computer equipment, establish account and password. ● Different access rights shall be assigned in accordance with job functions. ● Original access rights for transferred personnel shall be cancelled. ● Confidential or sensitive materials or copyrighted software shall be removed or overwritten before equipment is scrapped. ● Remote log-in into management information system shall be approved appropriately. 	<ul style="list-style-type: none"> ● Emergency contingency plan is reviewed regularly. ● System recovery simulation is conducted routinely each year. ● System back-up mechanism is established and off-site back-up is implemented. ● Control measures for computer internet safety are reviewed regularly.

2021 Data Security Performance

There were no occurrence of material data security incidents in 2021.

Data security audit was completed in 2021. No incompliance was found during the audit. Audit result indicates that protection capability and installation on data security are under control and complete.

2.4 Stakeholder Engagement

For the purpose of communicating with stakeholders in a timely manner, understanding critical issues of stakeholders' concern, integration into corporate sustainable development strategy and establishing smooth communication and response mechanism with stakeholders, Formosan Union Chemical Corporation adopts an open and rigorous attitude, complies with GRI Standards and AA1000 Assurance Standards and utilizes specific measures meeting four major principles – Inclusivity, Materiality, Sustainability and Completeness - in conducting stakeholder engagement. With this principle, engagement process includes verification of stakeholder, communication channel, issues concerned and materiality analysis on concerned issues. The process and conclusion are also critical information for the Company's sustainable development, and they will serve as references for all sectors of the community.

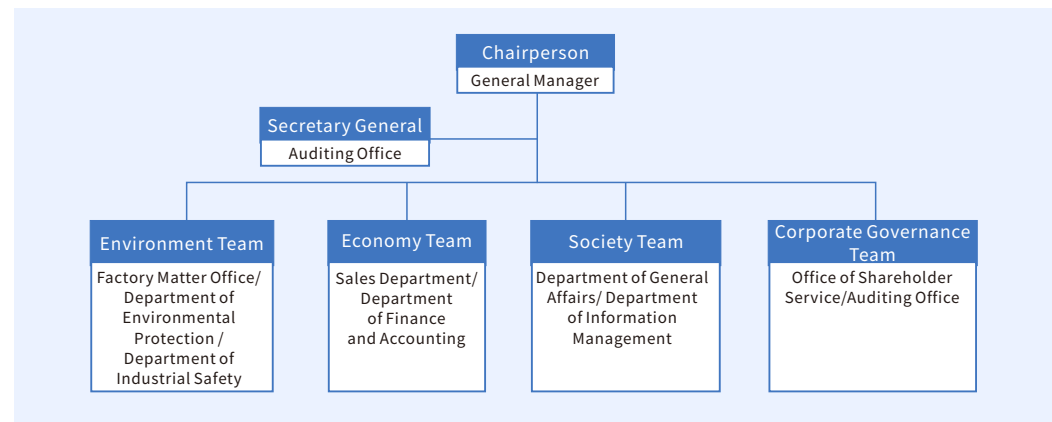
2.4.1 Stakeholder Engagement

Under considerations of stakeholder's influence to the Company or internal/external group or individual influenced by the Company, therefore, for the purpose of fulfilling commitment to stakeholders and respecting the rights they deserve, respective responsible departments in the Company have established good communication platforms with each stakeholder through appropriate communication channels, and respond to issues of stakeholder's concerns in order to maintain the Company's good relationship. Formosan Union Chemical Corporation utilizes drafting of sustainable development ESG report and works together with Sustainable Development Committee's operations to conduct related stakeholder engagement operations.

2.4.2 Establishment of Sustainable Development Committee

For the purpose of promoting corporate sustainable development related matters smoothly and ensuring effective communication and good response with stakeholders, the Company established Sustainable Development Committee with commissioners composed of department executives from factory matter, manufacturing, health and safety, quality assurance, environmental safety, human resources, R&D and production. General Manager assumes the post of Chairperson while Auditing Office assumes the post of secretary-general. In addition to promoting the drafting of related corporate sustainability report, this Committee also lists corporate sustainable development related matters as its long-term operations. Chairperson and secretary-general will regularly review respective team's performance and target achievement rate, and report effectiveness and plans to Board of Directors Meeting each year.

The Company's corporate sustainable development policy is: Implement Corporate Governance, Build-Up Friendly Workplace, Take Care of Sustainable Environment, Participate in Society Charity.



2.4.3 Verification Procedures for Stakeholders and Issues

There is an inseparable relationship between stakeholders and the Company's operations. We pay attention to stakeholders' needs. For the purpose of ensuring that information disclosed by reports are capable of meeting stakeholders' needs, Sustainable Development Committee conducts a substantive analysis on reports. Through five major steps of "Verification of Stakeholder", "Collection of Sustainable Issues", "Investigation of Stakeholders' Concerned Issues", "Analysis of Material Issues" and "Review and Result", material issues for 2020 Corporate Social Responsibility Report were determined accordingly.



Verification of
Stakeholders



Collection of
Sustainable
Issues



Investigation of
Stakeholders'
Concerned
Issues



Analysis of
Material Issues



Review and
Result

2.4.4 Verification of Stakeholders

Based on any group or individual impacted by the Company's operation or cares about the Company's various performance on sustainable development, together with daily interaction experience with stakeholders and stakeholders' influence on the Company's operations, the Sustainable Development Committee has verified five kinds of material stakeholders which include employee, government, supplier/contractor/subcontractor, client and shareholder/director.



2.4.5 Collection of Sustainable Issues

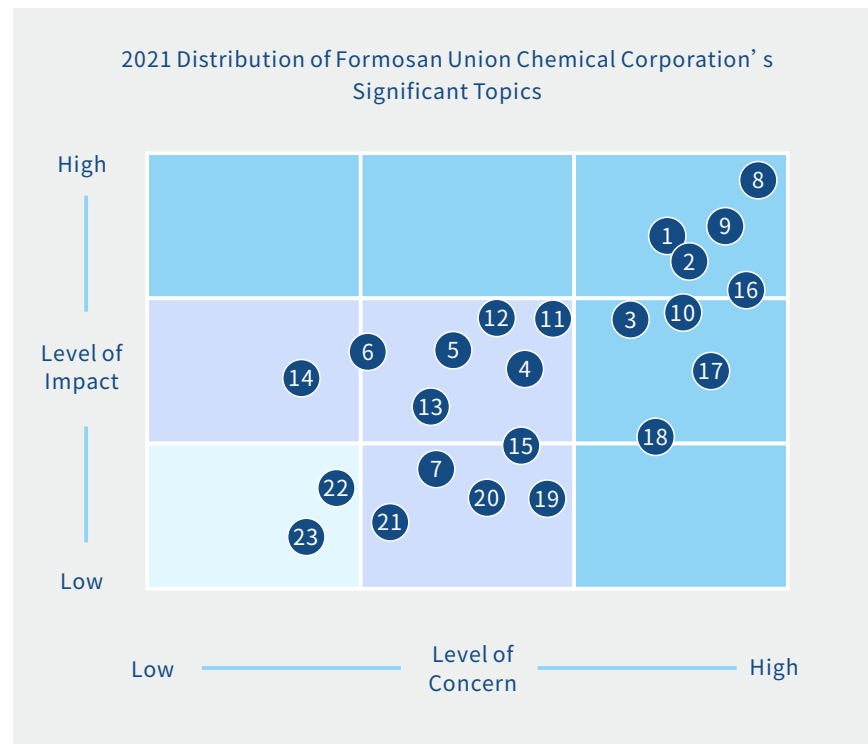
Chairperson of the Committee, the General Manager, convened commissioners of Corporate Social Responsibility Committee and integrate stakeholders' concerned issues and communication measures with stakeholders through meetings under references of GRI Guidelines released by Global Reporting Initiative as well as benchmark learning result.

Communication Channels, Frequency and Concerned Issues for Stakeholder

Stakeholders	Communication Channels	Communication Frequency	Concerned Issues
Employee	Labor Union Member General Assembly Pension Supervisory Committee Employee Welfare Committee Company Website and Announcement Meetings of Respective Departments Employee Training	1 time/year Irregular Irregular Irregular 1 time/week Irregular	Economy Performance Employer-Employee Relations Occupational Health and Safety Training and Education
Client	Customer Visit Customer Satisfaction Survey E-mail, Telephone and Fax Company Website	Irregular Irregular Irregular Irregular	Economy Performance /Regulation Compliance Customer' s Health and Safety Product and Service labelling Client Privacy Protection Supplier Environment Assessment Supplier Society Assessment/Greenhouse Gas Emission Climate Change Response /Operational Risk Management Customer Relationship /Anti-Corruption Data Security Management
Supplier/Contractor/ Subcontractor	Contract Requirements Vendor Assessment E-mail, Telephone and Fax	Irregular Irregular Irregular	Regulation Compliance Anti-Corruption Purchase Practices Raw Material Utilization Supplier Environment Assessment Supplier Society Assessment
Government Agency	Related Official Mails On-Site Counseling and Auditing Participation in Seminar and Public Hearing Organized by Competent Authority	Irregular Irregular Irregular	Regulation Compliance/Anti-Corruption Air Pollution Management /Waste Management Occupational Health and Safety Greenhouse Gas Emission Energy Management/Water Resource Management Climate Change Response Employer-Employee Relations
Shareholder/Investor	Shareholders' Regular Meeting is held once every year. Financial annual report is published each year as required by regulations. Operation situations and critical news are posted on Market Observation Post System.	1 time/year 1 time/year Irregular	Economy Performance Anti-Corruption Community and Charity Events Response to Climate Change Management of Operational Risks

2.4.6 Investigation of Stakeholder's Topics of Concern and Analysis of Significance

Through online questionnaire survey, Sustainability Committee conducts investigation on stakeholder's level of concern over topics of concern. After recovery of e-questionnaire, commissioners of the Corporate Social Responsibility Committee will conduct assessment on these topics as well as their impact to Formosan Union Chemical Corporation's operations. Questionnaire results will be summarized and analyzed (combined scores on level of concern and impact to operations) for identification of priorities for stakeholder's topics of concern. Through Sustainability Committee's commissioner questionnaire and meeting resolutions, 23 topics of concerned were generated and they included 9 significant topics, 12 middle level topics and 2 low level topics. We then prepared a report on these 9 significant topics based on the result. Going forward, we will continue to communicate with stakeholders and we are committed to maintaining a collaboration relationship of good interaction and sustainable operations with stakeholders.



No.	Topics
1	Air Pollution Prevention
2	Waste Management
3	Emission of Greenhouse Gases
4	Material Use
5	Energy Management
6	Water Resources Management
7	Supplier Environmental Assessment
8	Regulatory Compliance
9	Economic Performance
10	Risk Management
11	Anti-corruption
12	Procurement Practices
13	Information Security
14	Customer Relations
15	Climate Change Response
16	Occupational Health and Safety
17	Employment
18	Training and Education
19	Customer Privacy
20	Marketing and Labeling
21	Customer Health and Safety
22	Supplier Social Assessment
23	Social Participation

2.4.7 Significant Topics and Aspect Boundaries

Identification of Related Consideration Boundaries for Major Topics of Concern Based on Potential Impact Inside/Outside of Organization:

Significant Topics of Concern	Explanation of Meaning/Impact Boundary to Formosan Union Chemical Corporation	GRI Indicator	Inside Organization		Outside Organization			
			Taipei Headquarters	Kaohsiung Factory	Shareholder/ Director	Client	Government	Supplier / Contractor / Subcontractor
Economic Performance	Good revenue is the Company's foundation for existence and growth, and this can enhance employee's cohesiveness as well as investor's willingness to invest.	201-1	●	●	●	●		
Regulatory Compliance	Strengthen employee's regulation compliance awareness; Emphasize environmental protection related regulations of occupational safety and product safety; Maintain corporate image in order to mitigate director/supervisor and manager's operational risks and responsibilities.	307-1 419-1	●	●			●	●
Greenhouse Gas Emission Air Pollution Management Waste Management	Greenhouse gas effect causes impact to the whole ecological environment as well as raw material supply, energy utilization and business management. The Company has achieved energy saving and carbon reduction through waste management and energy management.	305-1 305-2 305-7 306-1 306-2	●	●			●	
Occupational Health and Safety	Factory environment safety is the Company's responsibility. Suppliers are request to meet the Company's requirements in providing products and services for the purpose of protecting employee's health and safety.	403-1/403-2 403-3/403-4 403-5/403-6 403-7/403-10	●	●				●
Risk Management	A comprehensive risk management will be able to enhance planning capability for operation strategy, and continuous rolling review can be conducted to achieve corporate sustainability.	NA	●	●	●	●		●








Significant Topics of Concern	Explanation of Meaning/Impact Boundary to Formosan Union Chemical Corporation	GRI Indicator	Inside Organization		Outside Organization			
			Taipei Headquarters	Kaohsiung Factory	Shareholder/ Director	Client	Government	Supplier / Contractor / Subcontractor
Employment	Employee is the Company's most critical asset. The Company provides employee with the most competitive overall compensation to attract and retain the best talents so that these talents become the best power engine for the Company's sustainable growth. In addition to providing attractive compensation and diversified development channels, employees are also allowed to be engaged in complete reflection of comments as well as communication and exchange for the purpose of facilitating harmony between management and labor while creating win-win for corporate and employees	401-1 401-2	●	●			●	
Training and Education	Talent is the most critical asset for the Company's sustainable growth. To cultivate professional talents, we are dedicated to establishing a comprehensive training system, improving course quality and providing diversified learning channels. Meanwhile, through optimized training measures, the Company also enhances talent's value and creates a win-win joint growth for employees and corporate.	401-1	●	●				

2.4.8 Compliance with United Nations' Sustainable Development Goal

United Nations released a message on September 17th, 2014 announcing its adoption of the Sustainable Development Goals (SDGs) resolution. This policy has presented issues faced by all countries and accordingly proposes 17 Goals for sustainable development and 169 Targets for tracking based on aggressive realization of equality and human rights. These shall serve as standards for governments, corporates in private sectors as well as non-profit organizations around the world in drafting their long-term goals and sustainable development missions, and they shall also serve as the ultimate instruction principles for human's sustainable development for the 15 years to come (prior to 2030).



Connection between United Nations SDGs and The Company's Sustainability Goals

No.	U.N. SDGs	Corporate Vision/Goal	2021 Performance	Sec. of Report
1	No Poverty 	Disadvantaged Groups are sponsored through donation.	The Company demonstrated its actions of feedback to community by donating NTD1.286 million in 2021 for emergency aid for low-income households in neighboring community and subsidy to community events.	6.1
3	Good Health and Well-Being 	Caring for Employee's Health and Well-Being	In Kaohsiung Factory, 173 employees accepted general health check in 2021 with basic exam fees fully subsidized by the Company. Exam rate was 100%, 87 man-times of special operation health check was conducted in Kaohsiung Factory with exam rate of 100%. Special operations include operations of benzene, n-hexane, ionizing radiation, nickel and its compounds. Exam results for this year were all normal. In HQ, 49 employees accepted general health check in 2021 and results were all normal.	5.4
4	Education and Quality 	Realize Effective Utilization of Employee's Knowledge and Achieve Organization's Performance Goals	Conduct employee training to increase every employee's training hours, and encourage employees to take long-term training courses.	5.2
5	Gender Equality 	Equal salary system is adopted and there are no differences between genders.	Proportion of male employee and manager's salary to that of female employee and manager is 1:1.	5.3
6	Clean Water & Sanitation 	Enhance Waste Water Discharge Efficiency	In 2021, a total of NT\$44,520,000 were invested in soil and underground water pollution prevention	4.1
7	Affordable Energy 	Energy Saving & Carbon Reduction	1.Old rotary pumps, tepefaction air-drying machines and utility equipment were replaced with new ones. 2.Greenhouse Gas Offset Program 3.Old PD P-10A was replaced with new one.	4.1 4.2
13	Climate Action 			

No.	U.N. SDGs	Corporate Vision/Goal	2021 Performance	Sec. of Report
9	Industry, Innovation and Infrastructure 	Increase in R&D Spending Encouragement to Innovation	R&D spending reached NT\$69,293,000. Trial production for desalinated resin UL-90\UL-120 is completed.	3.1
12	Responsible Consumption and Production 	Investment in Environmental Protection Production of Environmental Friendly Products	Spending in environmental protection reached NT\$56,620,000 The Company produces colorless and odorless hydrogenated resin and environmental friendly products with good proximity to human body.	4.1 3.2
16	Peace, Justice System 	Reduction in Various Forms of Corruption and Bribes	Guidelines of “Corporate Governance Best-Practice Principles” and “Whistleblower Protection Clause” were drafted to regulate management and employees. A comprehensive audit system inspection is therefore established.	2.2



03

Product Overview and Operational Performance

3.1 Product Overview

3.2 Market Analysis

3.3 Supply Chain and Customer Relations

3.4 Operational Performance

3.1 Product Overview

The manufacture and sale of the following products represents FUCC's main line of business: Alkyl Benzene, Alkyl Phenol, Alkyl Benzene Sulfonic Acid, and Hydrocarbon Resin. Alkyl Benzene and Alkyl Benzene Sulfonic Acid are required upstream materials for household chemical products, laundry detergents, and other detergents. Alkyl Phenol is an upstream material for surfactants and lubricant additives. It can also be utilized for industrial detergents and lubricating oils. Hydrocarbon Resin is an upstream material added to adhesives and hot-melt adhesives for tackifying and lubricating effects.

Hydrocarbon Resin

Raw material for the production of ethylene-vinyl acetate polymer (EVA) and thermal plastic rubber (TPR) series hot-melt adhesives

Alkyl Phenol

Basic raw materials for surfactants, rubbers, and rubber anti-oxidant agents etc. specialty chemicals

Alkyl Benzene & Alkyl Benzene Sulfonic Acid

Main raw materials for detergents

3.1.1 Up-, Mid-, and Downstream Linkages

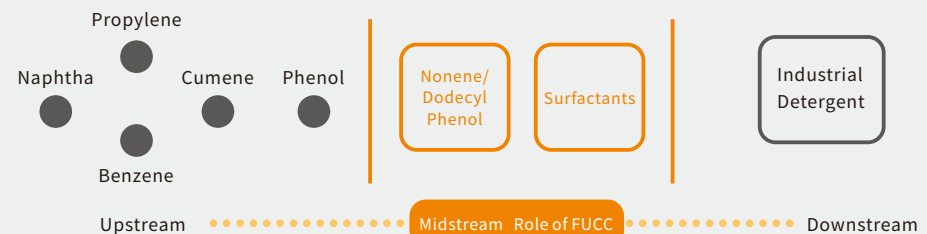
Alkyl Benzene

Alkyl Benzene is a midstream component for household chemical products and industry detergents. This irreplaceable material is of great relevance to industrial development. Oil refineries which represent the upstream manufacturers for this material supply kerosene. Normal Paraffin is manufactured from kerosene through a process of extraction and refinement. FUCC processes procured Normal Paraffin to convert it into Alkyl Benzene or Alkyl Benzene Sulfonic Acid which are supplied to downstream detergent manufacturers such as P&G, Unilever, and Kao.



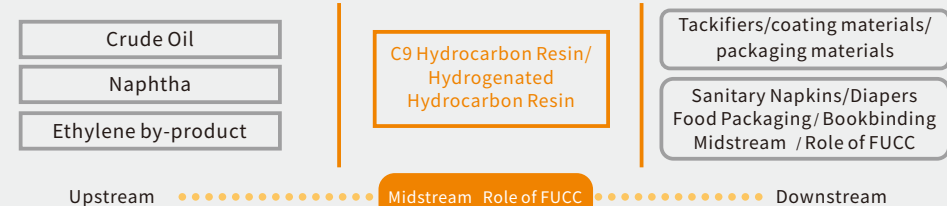
Alkyl Phenol

Alkyl Phenol is located in the midstream sector of the industrial detergent and lubricating oil industry. The petrochemical industry represents the upstream sector. Naphtha is derived from the refinement of crude oil by oil refineries. It is then converted sequentially into Propylene, Benzene, Cumene, and Phenol. FUCC adds Nonene, Dodecene-synthesized Nonyl Phenol, or Dodecyl Phenol to procured Phenol and supplies the end product to surfactant and lubricant additive manufacturers. The final products are industrial detergents and lubricating oils.



C9 Hydrocarbon Resin/ Hydrogenated Hydrocarbon Resin

Hydrogenated Hydrocarbon Resin is a solid or liquid by-product derived through the polymerization of C5, C9, and diene and monoene components in the distillate cut generated in the naphtha cracking and refinement process for ethylene production. The petrochemical industry therefore represents the upstream sector. Hydrogenated Hydrocarbon Resin has wide application areas in the downstream sector including tackifiers and coating materials. Final products include diapers, sticky notes, and road sign paint.



3.1.2. Product Competitiveness

Naphtha or natural gas represent the raw materials of the petrochemical industry. Fundamental materials such as Ethylene, Propylene, and Benzene are manufactured through naphtha cracking. Intermediate materials such as plastic, rubber, and fiber can be derived through further processing of the abovementioned fundamental materials. Downstream products of the petrochemical industry which is considered a basic industry are widely applied in household products, construction materials, auto parts, and hi-tech products and components. Since our products mainly serve as raw materials for laundry and other detergents, our competitiveness analysis focuses on the following three product categories:

Alkyl Benzene	C9 Hydrocarbon Resin/ Hydrogenated Hydrocarbon Resin	Alkyl Phenol
Alkyl Benzene manufactured by FUCC has a domestic market share of 99%. International competitors include large manufacturers such as Cepsa, Sasol, and Huntsman.	In Taiwan, only FUCC and a few other companies are currently engaged in the manufacture of C9 Hydrocarbon Resin. As for Hydrogenated Hydrocarbon Resin, FUCC is the sole manufacturer. The domestic market for these products can therefore be characterized as an oligopoly.	FUCC's main domestic competitor in this field is China Man-Made Fiber Corporation (CMFC), which mainly supplies this material to its joint venture Pan Asia Chemical Corporation. FUCC's main buyers, on the other hand, are Sino-Japan Chemical Co., Ltd. and Chang Chun Group. The global market for Alkyl Phenol has been deeply affected by China's non-tariff trade barriers. FUCC is therefore gradually shifting its focus from the Chinese to the US and European markets. International competitors include the US-based manufacturer SI and Yokkaichi Chemical Co., Ltd. In view of the impact of environmental issues and trade barriers on market demand, FUCC is actively committed to the development of new Dodecyl Phenol products. In addition to the expansion into new markets, this move is also conducive to the full utilization of untapped production capacities in the field of Alkyl Phenol with the ultimate goal of maintaining or increasing the Group's profits.

3.1.3 Product R&D

FUCC's R&D efforts are closely aligned with industry developments and market demands. The company is fully committed to the pursuit of maximum benefits and economic development. The progress and projected outcomes of current and past R&D initiatives can be summarized as follows:

R&D Results and Expense Statistics

Unit: 1000 NTD

Year	Expenses	R&D results
2011	20,867	1. Successful completion of the trial production stage for the High Silica Zeolite Catalyst experimental plant and testing of the dehydrogenation experimental plant 2. Commercial mass production testing for Calcium Dialkyl Benzene Neutral Sulfonate
2012	16,738	1. Testing of the High Silica Zeolite Catalyst and Dehydrogenation experimental plants and negotiations on commercial feasibility with a catalyst company 2. Feasibility analysis for commercial mass production of Calcium Dialkyl Benzene Neutral Sulfonate
2013	15,534	1. Testing of the High Silica Zeolite Catalyst and Dehydrogenation experimental plants and catalyst pilot run in cooperation with the catalyst company for evaluation 2. Completion of feasibility analysis for commercial mass production of Calcium Dialkyl Benzene Neutral Sulfonate 3. Successful completion of quality improvements and trial mass production of solid acid-manufactured Alkyl Benzene and Dialkyl Benzene

Year	Expenses	R&D results
2014	14,594	1. Testing of the High Silica Zeolite Catalyst and Dehydrogenation experimental plants and catalyst pilot run in cooperation with the catalyst company for evaluation 2. Completion of feasibility analysis for commercial mass production of Calcium Dialkyl Benzene Neutral Sulfonate 3. Successful completion of quality improvements and trial mass production of solid acid-manufactured Alkyl Benzene and Dialkyl Benzene
2015	21,012	1. Commercialization of micro-hydrogenated Hydrocarbon Resin 2. Commercialization of Dodecyl Phenol
2016	53,693	Tecloftalam plant trial run
2017	56,444	Completion of solid acid-manufactured Short-chain Alkyl Benzene testing (commercial production pending)
2018	52,364	Completion of Tecloftalam trial production
2019	49,550	Initiation of trial production for the Environmental Restoration Agent plant
2020	63,093	Trial production of Hydrogenated Resin FA-100, FU-100
2021	69,293	Trial production of diluted resin UL-90\UL-120

Research of high value-added products

Resin improvers are macromolecular synthetic monomers with heat-resistant radical groups. The imide groups possess unique sterilizing and algicide characteristics. Copolymers or plastic alloys that contain this monomer have exceptional heat-resistant and sterilizing properties. Material performance is not affected by addition of these monomer components. These improvers which are currently in the R&D stage are therefore widely applied in the manufacture of engineering plastics, building plastics, and ship antifouling coatings with heat-resistant PP, PMMA, or weather-resistant, high-tensile PVC.

Substitution of diols for diacids

Diols with two hydroxyl groups are important fine chemical engineering materials due to their unique properties. This non-polluting, eco-friendly, high value-added material has wide application areas. A process suited for diol production is developed by harnessing currently available mature hydrogenation technologies. Diols are widely applied as macromolecular materials and added to other materials in adequate amounts to achieve modification effects and enhanced product applications. They are mainly used for the manufacture of polyester, polyurethane, acrylic materials, coating materials, plasticizers, medicine, pesticides, synthetic fibers, detergents, and mechanical parts and components. The Company currently focuses on the testing of different hydrogenation catalysts.



Future R&D Projects

- (1) Research of hydrogenation technologies and development of hydrogenation products and its derivatives
- (2) Research and development of surfactant derivatives
- (3) Development of adhesive technologies
- (4) Research and development of high value-added chemical products
- (5) Investment in feasibility studies of other industries to achieve diversification effects
- (6) Development of pesticide protomers, fragrances, and biotech materials

3.2 Market Analysis

Our AP and NP products have a global market share of 5% and 10-15%, respectively. In 2021, there were no instances of huge fines imposed for legal violations associated with product and service provision and use. In addition to the domestic market, our business scope encompasses Asian markets (China, Japan, and Southeast Asia) and western markets (Australia, Europe, and the Americas). Market prices and quantity requirements must be considered when carrying out sales operations. In the face of a wide range of customer requirements, we pursue maximum benefits under the premise of conformity to the requirements of both the Company and its customers.

3.2.1 Market Overview

Alkyl Benzene	Hydrocarbon Resin	Alkyl Phenol
Alkyl Benzene manufactured by FUCC has a domestic market share of 99%. A survey conducted by a professional institution reveals that the global output of Alkyl Benzene currently amounts to 3.8 million metric tons. Based on our production capacity of 132,000 metric tons in 2021, it can be projected that our global market share is around 3.8%. International competitors include large manufacturers such as Cepsa, Sasol, and Huntsman.	<ul style="list-style-type: none"> ● C9 Hydrocarbon Resin ● C9 Hydrocarbon Resin manufactured in Asia currently accounts for around 90% of the global output. The remaining 10% is supplied by manufacturers in Europe and the Americas. Against the backdrop of rising raw materials process, Asian, European, and US manufacturers enjoy a competitive advantage. According to the DeWitt annual report for 2021, United Performance Materials Corp. accounts for 2.0% of the global output of around 2.1 million tons. ● Hydrogenated Hydrocarbon Resin ● The DeWitt report estimates a global output of 1.04 million tons of Hydrogenated Hydrocarbon Resin for 2021. FUCC's annual output of 28,000 tons is equivalent to a global market share of around 2.6%. 	FUCC's main domestic competitor in this field is China Man-Made Fiber Corporation (CMFC), which mainly supplies this material to its joint venture Pan Asia Chemical Corporation. FUCC's main buyers, on the other hand, are Sino-Japan Chemical Co., Ltd. and Chang Chun Group. The global market for Alkyl Phenol has been deeply affected by China's non-tariff trade barriers. FUCC is therefore gradually shifting its focus from the Chinese to the US and European markets. International competitors include the US-based manufacturer SI and PCC in Poland. In view of the impact of environmental issues and trade barriers on market demand, FUCC is actively committed to the development of new Dodecyl Phenol products. In addition to the expansion into new markets, this move is also conducive to the full utilization of untapped production capacities in the field of Alkyl Phenol with the ultimate goal of maintaining or increasing the Group's profits.

3.2.2 Competitive Niche

Firm control of raw material sources	Autonomous R&D capabilities	Superior geographical location and operations management advantages
With a view to stabilizing production costs, raw material procurement is mostly conducted through long-term agreements. Direct delivery of materials via a pipeline connected to our main supplier Chinese Petroleum Corporation (CPC) ensures maximum safety and generates cost savings. It also facilitates production operations. Distillation facilities have been added in recent years to ensure there are no concerns in the field of quality.	FUCC possesses autonomous R&D technologies in the fields of Nonyl Phenol and Hydrogenated Resin and is firmly committed to the ongoing development of innovative new processes, which generates cost savings in the field of royalty expenses and thereby increases price competitiveness. FUCC also has the capability to develop upstream materials, which ensures greater diversity in terms of raw material sources and results in reduced procurement expenses, enhanced profitability, and improved price competitiveness.	FUCC is located in Taiwan, a hub of transportation routes in Asia. Compared to competitors in other countries, our bulk shipping costs to regional markets all over the world are relatively low. This is highly conducive to the rapid provision of services to meet immediate customer needs and gives FUCC a competitive edge in the field of operations management.

3.2.3 Factors Favorable and Unfavorable to the Development Vision

Favorable factors

- In view of a steadily growing demand for Alkyl Benzene, Alkyl Phenol, and Hydrocarbon Resin, high technical thresholds (e.g., Hydrogenated Hydrocarbon Resin), the low number of competitors who possess the required manufacturing technologies, and a rising environmental awareness, significant growth can be expected especially in the field of Hydrogenated Resin, which is color- and odorless and has a high affinity to the human body.
- FUCC maintains excellent cooperative relations with domestic and international manufacturers to secure long-term, stable supply sources.
- In addition to its partnerships with downstream manufacturers, FUCC relies on its distributor network which is perfectly aligned with solid international marketing channels.

Unfavorable factors

- petrochemical industry is highly susceptible to international crude oil price fluctuations. Political unrest and frequent riots and strikes in several oil-exporting nations can result in damage to oil producing facilities or transportation and storage equipment, which in turn tends to cause price fluctuations.
Contingency strategy: In addition to the maintenance of long-term partnerships with major supplier (e.g., CPC), FUCC concludes supply agreements with upstream suppliers to ensure long-term, stable supply sources.
- Talent recruitment difficulties: The fact that fresh graduates tend to favor key domestic industries in the fields of IT and electronics coupled with the profound experience and technical expertise required for the chemical industry makes it difficult to recruit outstanding R&D talent.
Contingency strategy: In addition to improvements of hard- and software facilities in work environments and adoption of a sound employee benefits system, FUCC has stepped up its employee training efforts to attract and retain talent. Job assignment is based on the professional skills and unique characteristics of new hires. FUCC has made an ongoing commitment to raising the professional competence and skill levels of its staff members.

3.2.4 Future Demand and Supply Situation and Market Growth Potential

Alkyl Benzene

The decrease of effective ingredients coupled with increasing imports of detergents has resulted in a constantly dropping domestic demand. However, there is still significant growth potential in international markets. FUCC has been able to maintain stable export sales due to its long-term supply-demand partnerships with international customers.

C9 Hydrocarbon Resin/ Hydrogenated Hydrocarbon Resin

Hydrocarbon Resin is an essential ingredient of numerous consumer goods. Generally speaking, the ups and downs of this industry (C5 and C9 Hydrocarbon Resin) are closely intertwined with global economic cycles and fluctuations. Due to its color and odor, Hydrocarbon Resin was rated and positioned in the market as the lowest-end product of the industry in the past. It has been applied as a secondary material in the oil-based paint, rubber, and ink industries for several decades. In view of tightening environmental protection requirements in recent years, it is projected that the market for oil-based paint and ink which rely on solvent naphtha will gradually shrink. The market for high-end products used for tackifiers, on the other hand, is expected to expand. High-end Hydrocarbon Resin or C5/C9 Hydrocarbon Resin are therefore expected to exhibit a steady growth pattern.

Alkyl Phenol

In line with the latest market trends, FUCC has already initiated production of Dodecyl Phenol by relying on process improvements to raise the competitiveness of the Company. The ultimate goal is to develop new markets and secure market share, which in turn is highly beneficial to the Company's overall sales volume and sales amount.

3.3 Supply Chain and Customer Relations

Our suppliers and customers are key partners in our pursuit of sturdy operational growth. The dedicated efforts and support of our suppliers represent an indispensable link in the process of sustainable competitiveness enhancement. The scope of corporate sustainability not only encompasses the enterprise itself but rather involves the whole supply chain. The fulfillment of corporate sustainability is a pressing need for every link of the supply chain. We are fully aware that the implementation of corporate sustainability cannot be confined to our internal operations, but instead requires the participation of the whole supply chain. We have therefore adopted sound management mechanisms in the fields of “supplier selection”, “raw material procurement”, and “contractor management” to implement our supplier management concepts. In addition to meeting existing quality and delivery requirements, all our suppliers must fulfill additional criteria in the fields of work safety, environmental protection, and human rights. We call on all our suppliers to prioritize and implement corporate sustainability.

3.3.1 Supply Chain Management

Procurement Practices

- FUCC not only relies on large petrochemical companies in Taiwan but also cooperates with renowned European, American, Japanese, and Australian manufacturers to secure its raw material sources. Procurement is conducted based on relevant quality requirements and quantity considerations. In addition, the Company enters into long- and -short-term agreements in different formats to ensure there are no concerns in the field of quality.
- Suppliers are requested to transition to non-hazardous materials and provide Letters of Commitment (e.g., ISO, radiation-free guarantee).
- FUCC proactively implements green procurement concepts. Eco-friendly products of a total value of NT\$ 298,000 procured in 2021 include PCs, plastic pallets, and toner cartridges.
- FUCC upholds sustainability and fairtrade principles and therefore requires its suppliers and contractors to meet relevant criteria in the fields of environmental protection, work safety, and human rights. Starting in October 2019, the Company has successively added a Social Responsibility Letter of Commitment and a Social Responsibility Questionnaire for suppliers and contractors. This Letter of Commitment and the Questionnaire must be filled out, signed, and returned by its suppliers or contractors after a contract is entered or an order is placed.

Supplier Evaluation

- Supplier evaluations: A system of tiered management and annual supplier evaluations has been adopted
- FUCC has included a clearly defined supplier rating system which is based on factors such as delivery quality, time, and quantity in its quality management system operating procedures to ensure conformity of raw materials to product and environmental safety quality system requirements. In addition to regular supplier ratings, FUCC also closely observes environmental protection measures adopted by suppliers, such as impacts on the local ecological environment caused by the Gulf of Mexico Oil Spill, and environmental, human rights, labor policies adopted by Shell and its sustainable development. In the future, FUCC will pay rising attention to negative social impacts caused by its suppliers and concrete actions taken in response.
- In 2021, FUCC rated suppliers of seven kinds of raw materials and three storage tank providers. All suppliers met the required criteria at the time of delivery. Upon completion of the rating procedures, it was determined that all 20 raw material suppliers and storage tank providers conform to FUCC’s procurement standards.

3.3.2 Customer Services

In addition to the domestic market, FUCC’s business scope encompasses Asian markets (Northeast and Southeast Asia), Central and South America, and other regions. Market prices and quantity requirements must be considered when carrying out sales operations. In the face of a wide range of customer requirements, the Company pursues maximum benefits under the premise of conformity to the requirements of both the Company and its customers.

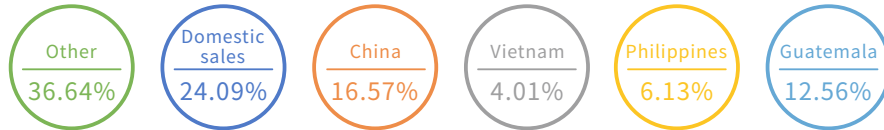
Sales Regions for Principal Products

Unit: 1000 NTD/%

Sales regions/ Year		2018		2019		2020		2021	
		Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
Domestic sales		2,279,311	23.29	2,181,007	24.79	2,206,972	26.02	2,215,897	24.09
Export sales	China	2,381,933	24.34	1,560,851	17.74	1,268,727	14.96	1,524,141	16.57
	Vietnam	668,367	6.83	629,212	7.15	566,044	6.67	368,947	4.01
	Philippines	567,365	5.80	446,176	5.07	557,011	6.57	564,261	6.13
	Guatemala	731,908	7.48	743,304	8.45	904,514	10.66	1,155,197	12.56
	Other	3,156,501	32.26	3,236,612	36.80	2,978,561	35.12	3,370,711	36.64
Net sales		9,785,385	100.00	8,797,162	100	8,481,829	100	9,199,154	100

Note: FUCC Consolidated revenue

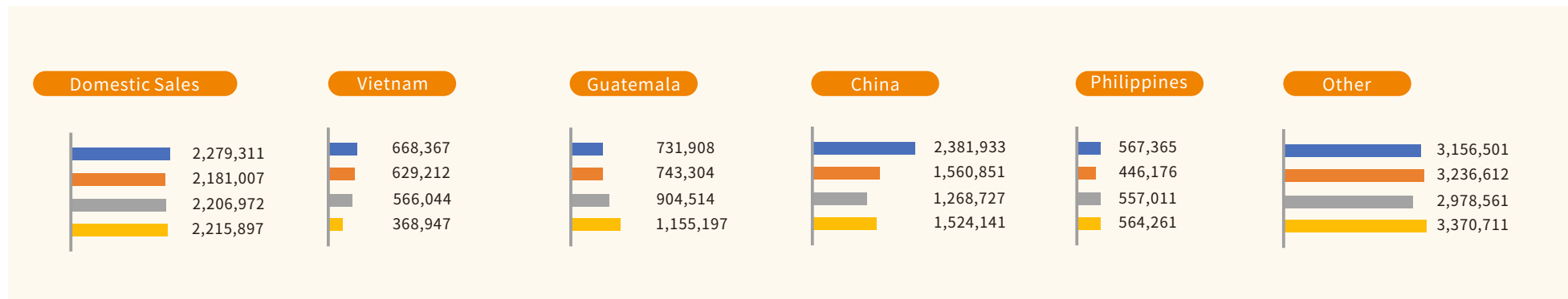
Revenue ratios of different sales regions in 2021



With a view to stabilizing product sales and ensuring smooth production operations, clearly formulated production & sales plans have been included in the quality management system operating procedures to establish standardized procedures and thereby ensure a perfect balance of production and sales. The Sales Department utilizes daily inventory reports submitted by the Storage & Transportation Section as its main reference for the negotiation of order amounts and delivery times. Dedicated sales specialists who are highly familiar with their products and customers are assigned for every product category. Products are delivered in line with different customer and quality requirements. We are firmly committed to delivering our goods to our customers who are distributed all over the world in a safe and punctual manner by relying on well-planned transportation arrangements and adequate packaging. We therefore require ourselves

Revenue distribution among sales regions (Unit: 1000NTD)

● 2018 ● 2019 ● 2020 ● 2021



3.3.3 Customer Satisfaction Surveys

We put strong emphasis on customer relations. With a view to protecting customer privacy, we have adopted Personal Data Management Guidelines to regulate employee and customer data management and prevent data leakage or improper use, which would cause damage to the rights and interests of parties involved. Our employment contracts contain clearly stipulated non-disclosure provisions that require every employee to maintain strict confidentiality of data they become privy to in the performance of their duties with a view to ensuring scrupulous data protection. In addition to the implementation of strict authorization controls for employee and customer data, we appoint dedicated personnel for the handling and safekeeping of important confidential documents to prevent data breaches that undermine data security of employees and customers. In 2021, no instances of infringement of customer privacy or complaints associated with customer data loss occurred in the process of customer communication and data transmission. We highly value our customers and process all their complaints in a prompt manner. In addition, we implement permanent corrective action (PCA) and extend it to all products with a view to satisfying all customer requirements and clear misunderstandings caused by different perceptions. We have developed excellent relationships with numerous domestic and international customers by relying on e-mail correspondence, phone calls, and personal visits with the ultimate goal of increasing customer intimacy.

With a view to facilitating execution of services required by customers and tracking and implementation of customer suggestions, customer satisfaction surveys and improvements of customer service performance are clearly prescribed in the quality management system operating procedures. We therefore annually distribute customer satisfaction survey forms to sampled customers who use our products. Data collected through these surveys is organized and analyzed and corrective action is taken in response to suggestions or dissatisfaction expressed by customers. The ultimate goal is to ensure ongoing conformity to customer requirements and achieve Sustainable Customer Relationship Management.

3.4 Operational Performance

Material Topic	Significance for the Company	Policies/Commitment	Short-term Goal	Mid- and Long-term Goals	1. Invested Resources in the Respective Year 2. Concrete Achievements	Responsible Department/ Grievance Mechanism	Assessment Mechanism/ Results
Economic Performance	FUCC has made an unwavering commitment to the pursuit of maximum profits. This not only strengthens the trust of investors, employees, supply chain partners, and customers in the Company but also greatly facilitates the realization of mutual benefit and prosperity and ensures continued progress on the path toward sustainability.	Creation of stable, long-term economic value and realization of sustainable operations to further and safeguard stakeholder rights and interests	<ul style="list-style-type: none"> ● Enhancement of customer services and consolidation of existing markets ● Market expansion and increase of market shares in European and US market in line with a shifting focus to western markets ● Launch of comprehensive hydrogenated and non-hydrogenated C9 Hydrocarbon Resin product lines and development of highly hydrogenated Hydrocarbon Resin with high softening points in line with customization requirements 	<ul style="list-style-type: none"> ● Expansion of production capacities and enhancement of production performance ● Firm grasp of future product trends and acceleration of innovative product development and market launch schedules 	<ul style="list-style-type: none"> ● R&D expenses of NT\$ 69,293,000 ● Completion of trial production of diluted resin UL-90 and UL-120 	Sales Department/ Phone or Email feedback	<ul style="list-style-type: none"> ● Review of operational performance in Senior Executive Meetings ● YoY revenue growth of 9.4% in 2021 ● EPS of NT\$ 1.99



Our top ten customers mainly procure Alky Benzene, Alkyl Phenol, and Alkyl Benzene Sulfonic Acid which are applied in cleaning products. They mainly fall into the following two categories: Manufacturers of detergents or other chemical products and professional dealers and distributors of the chemical industry

3.4.1 Operational Performance

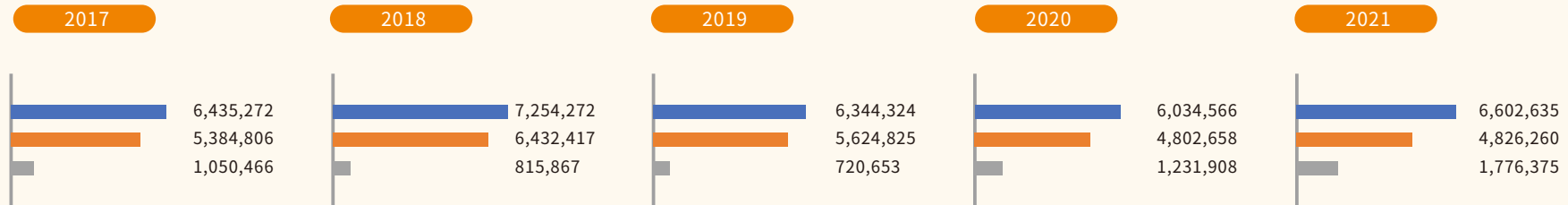
Unit: 1000 NTD

Item/Year	2017	2018	2019	2020	2021	Item/Year	2017	2018	2019	2020	2021
Operating revenues	6,435,272	7,254,272	6,344,324	6,034,566	6,602,635	Profit before tax	733,288	457,609	270,127	702,214	1,024,199
Operating costs	5,384,806	6,432,417	5,624,825	4,802,658	4,826,260	Income tax expenses	103,962	77,541	54,864	(147,424)	(76,612)
Operating gross profit	1,050,466	815,867	720,653	1,231,908	1,776,375	Current net income/loss	629,326	380,068	215,263	554,790	947,587
Operating expenses	495,703	487,386	452,675	511,264	617,838	Other comprehensive income	43,528	(30,819)	41,766	(21,879)	69,383
Operating income	554,763	328,481	267,978	720,644	1,158,537	Current total comprehensive income	672,854	349,249	257,029	532,911	1,016,970
Non-operating revenue and expenses	178,525	129,128	2,149	(18,430)	(134,338)	EPS (in NTD)	1.32	0.77	0.44	1.16	1.99

Note: This table presents data disclosed in 2017-2021 individual financial reports

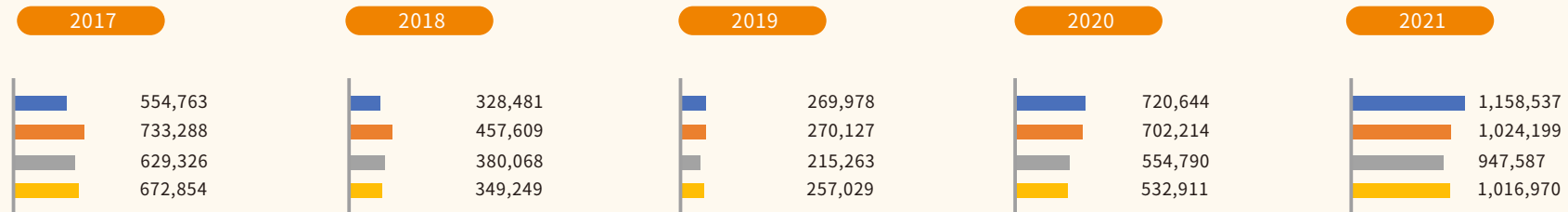
Past Operational Performance (Unit: 1000NTD)

● Operating revenue ● Operating costs ● Operating gross profit



Past Profitability (Unit: 1000NTD)

● Operating profit ● Profit before tax ● Current net income/loss ● Current total comprehensive income



3.4.2 Disclosure of Financial Information



FUCC places strong emphasis on financial information transparency and therefore fully discloses its financial information on its official website. Stakeholders and investors can download shareholders’ meeting reports, financial reports, and other financial information from this website to gain an accurate understanding of the Company’ s operating status and financial health.





04

Environment and Safety

- 4.1 Legal Compliance and Environmental Protection
- 4.2 Energy Resource Management
- 4.3 Work Safety

Environment and Safety

Material Topic	Significance for the Company	Policies/Commitment	Short-term Goals	Mid- and Long-term Goals	1.Invested Resources in the Respective Year 2.Concrete Achievements	Responsible Department/ Grievance Mechanism	Assessment Mechanism/ Results
Air pollution Management/ Waste Management/ GHG Emissions	In the wake of an upsurge of global environmental awareness, environmental issues have been transformed from localized regional problems to challenges on a global scale. Environmental protection and management are no longer confined to traditional pollution control but also begin to include climate change management. With a view to minimizing the impact of climate change, efforts in the field of air pollution control, waste reduction, and energy conservation must be stepped up to achieve GHG emission reductions and environmental sustainability.	Pollution reductions Ongoing improvements	<ul style="list-style-type: none"> Legal compliance Implementation of air pollution control Waste reduction Inclusion of GHG inventories into the scope of corporate operations 	<ul style="list-style-type: none"> Purchase of air pollution control equipment to enhance environmental quality and prevent pollution nuisance GHG reductions Selection of low-carbon energy options Development of low-carbon processes and products 	<ul style="list-style-type: none"> Environmental expenditures of NT\$ 56.62 million Ongoing implementation of ISO 14001 Environmental management Systems and ISO 14064 GHG Management Systems by FUCC plants 	Environmental Safety/ Phone or Email	<ul style="list-style-type: none"> Reduction of industrial waste by 8.3% compared to 2020 Air pollutant testing conforms to control requirements GHG reductions by over 20%-30% (GHG emissions dropped from a high of 123,000 metric tons in the base year of 2012 to around 90,000 metric tons in 2021 due to the implementation of improvements)

Key performance indicators in the environmental and safety dimensions in 2021

3

Applications for Extension/Update of Environmental Permits/Licenses

Increase by
6.6%

Co2 equivalent emissions (CO2e) compared to the previous year

Decrease by
4.8%

Water consumption compared to the previous year

Increase by
0.8%

Wastewater and sewage generation compared to the previous year

Increase by
4.2%

Energy consumption per million revenues

1

Adopted energy conservation measures in 2021

38

Number of Occupational Health & Safety Meeting resolutions

0

Occupational accident cases in 2021

We passed the certification audit for the ISO 14001 International Environmental Management System and the new version of the ISO 45001 Occupational Health and Safety Management System in 2009 and 2020, respectively. In 2021, implementation of these systems was continued. Environmental protection and work safety have always been integral components of our business philosophy. It is our deep conviction that environmental protection and work environment safety represent the cornerstone of corporate sustainability. We are therefore firmly committed to legal compliance, enhanced resource utilization, and environmental risk control to guarantee work safety and workplace environmental quality. In addition, we closely monitor the latest developments in the field of global environmental issues and adopt various eco-friendly actions. We also require our suppliers to achieve corporate sustainability and jointly assume responsibility for the environment and workplace safety.

ESH policy

We adopted the International Environmental Quality Certification and Management System and the Occupational Health and Safety Management Certification many years ago. An ESH policy based on a spirit of ongoing improvements and advances in the field of management systems has been formulated and implemented to incorporate environmental protection and work safety as an integral part of our corporate culture. In addition to the fulfillment of our environmental responsibility and attainment of our sustainable development goals, we are deeply committed to safeguarding the health and safety of our employees, contractors, customers, and community residents. We do our utmost to prevent hazards associated with raw materials, supplies, gases, steam, and solvents and ensure the safety of workers who are exposed to hazardous substances in their operations. The ultimate goal lies in the effective control of health and safety impacts while maintaining normal operations.

- We have made a pledge to implement the following policies and actions:
- Compliance with ESH-related laws, regulations, and requirements: Conformity audits in accordance with regulatory management procedures
 - Ongoing improvements: Waste gas, wastewater, soil, ground water, and dust contamination prevention and treatment upgrades
 - Eradication of hazardous substance leakages to prevent dangers and health hazards; provision of healthcare information and adoption of health promotion measures
 - Pollution reduction: Decrease of Sox, NOx, DUST, VOC, waste, and GHG emissions and discharges
 - Enhancement of energy usage efficiency: Decrease of raw material wastage and increase of energy usage efficiency
 - Improvement of ESH management performance: Employee participation in the establishment, implementation, and maintenance of ISO 14001, ISO 45001, and CNS 45001 ESH management systems and strengthening of hazard identification, risk assessment, and emergency response measures; rigorous implementation of procurement, contractor, and change management; and bolstering the ability to respond to toxic substance accidents and fires in an effective manner
 - Implementation of responsible care: Enforcement of management principles in the fields of process safety, emergency response, contractor safety, waste management and reduction, distribution and product safety

4.1 Legal Compliance and Environmental Protection

Compliance with legal requirements is the cornerstone of corporate sustainability. We have therefore established a mechanism for identification of applicable laws and actively gather information on relevant environmental laws. Ongoing legal compliance is ensure through regular reviews, audits, and internal and external grievance channels. All acquired permits and licenses are still within the validity period. Our efforts in this area bear testimony to our deep commitment to the enforcement of applicable laws in coordination with the government.

In the field of climate change issues, we fully support the GHG reduction targets set by the government and spare no effort to improve our processes, which includes the regular replacement of outdated equipment each year to enhance our energy efficiency. We have successfully completed carbon reduction measures such as the conversion of seven heating furnaces employed for the manufacturing process from oil fuel to natural gas.

As of 2015, we regularly commission BSI to conduct third-party verification with the goal of ascertaining the implementation results of GHG reduction initiatives and gaining an accurate grasp of the emission status of different GHG sources. This information is used as a reference for follow-up improvements. Our environmental permits and licenses and environmental expenditures in recent years are listed in the table below.

List of Environmental Permits/Licenses

Type	Permit/License No.	Valid until
Alkyl Benzene Manufacturing Process (M-02)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No.E1496-04	Nov 1, 2023
Phenolic Chemicals Manufacturing Process (M-04)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E1417-03	Dec 31, 2026
Alkyl Benzene Manufacturing Process (M-01)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E0914-04	Dec 31, 2026
Manufacturing Process for Other Basic Chemical Materials (M-03)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E1013-02	May 12, 2025

Type	Permit/License No.	Valid until
Alkyl Benzene Manufacturing Process (M-08)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E1366-02	Dec 26, 2023
Manufacturing Process for Other Synthetic Resins or Plastics (M-06)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E0507-04	Jun 11, 2025
Manufacturing Process for Other Synthetic Resins or Plastics (M-09)	Gao-Shi-Huan-Ju-Kong-Cao-Xu-Zheng-Zi No. E0915-04	Feb 18, 2024
Water Pollution Control Planning	Gao-Shi-Fu-Huan-Shui-Shui-Cuo-Zi No. 01217-08	Dec 30, 2022
Usage or Storage Registration Documents for Toxic Chemicals (Benzene, Nonylphenol)	Gao-Xiong-Shi-Du-Deng-Zi No. 000009	May 7, 2024
Import and Sales Permit for Toxic Chemicals (Benzene, Nonylphenol)	Tai-Pei-Shi-Du-Xu-Zi No. 00059	Dec 12, 2022
Manufacturing and Storage Permit for Toxic Chemicals (Nonylphenol)	Gao-Xiong-Shi-Du-Xu-Zi No. 000004	May13, 2024
Industrial Waste Disposal Plan	Gao-Shi-Fu-Huan-Ju-Fei-Guan-Zi No. 11036808100	Jul 4, 2024
Radioactive Material Permit	Wu-Zi No. 1204106/7/8/9	Permanently valid Annual wipe test required

Environmental Expenditures 2017~2021

Expenditure Items	2017	2018	2019	2020	2021
Soil and ground water pollution control fees (in 10,000 NTD)	598	291	749	1302	4452
Processing fee for air pollution control reporting (in 10,000 NTD)	30	26	32	48	41
Waste disposal and treatment fees (in 10,000 NTD)	1,573	737	413	236	264
Wastewater treatment fees (in 10,000 NTD)	31	30	35	29	25
GHG reductions (in 10,000 NTD)	19	19	408	482	365
ISO management system-related fees (in 10,000 NTD)	20	20	20	15	16
Other (fees in categories not listed above) (in 10,000 NTD)	134	477	589	618	499
Total (in 10,000 NTD)	2,405	1,600	2,246	2,730	5,662

4.1.1 GHG Reduction Strategy

Rising GHG emissions have a dramatic impact on the global climate and environment. As a member of the global community, Formosan Union Chemical Corporation strives to gain an accurate grasp of its GHG emissions through GHG inventories conducted in compliance with legal requirements. Feasible GHG reduction initiatives are deliberated and proposed based on these inventories and GHG reduction programs are implemented accordingly.

The following plans have been adopted so far: A carbon reduction program which relies on the gradual conversion of heating furnaces required for the manufacturing process from oil fuel to natural gas was initiated in 2011 and completed in 2017. Process equipment improvements were carried out in the period from 2018 to 2019. Outdated rotating pumps were replaced and inverters were added in 2018. In the period from 2019 to 2021, obsolete rotating pumps, micro-thermal air dryers, and public facilities were replaced. These programs required enormous investments totaling around NT\$ 98 million, which clearly demonstrates our determination to care for our planet through carbon reduction and energy conservation initiatives.

In addition, FUCC received an assurance statement issued by a third-party certification unit for a GHG Reduction Offset Project conducted in cooperation with the Foundation of Taiwan Industry Service. The Environmental Protection Administration (EPA) approved the application for registration of the Adoption of Low-carbon Fuel for Process Heat-Medium Boilers/Heating Furnaces in 2018. As of 2019, monitoring of registered and approved projects and programs is implemented. A monitoring report was composed in 2021. After acquisition of a verification statement by a third-party verification body, an application for emission reduction credits (ERC) was submitted to EPA. After holding a review meeting, EPA granted the Company ERCs amounting to 26,794 metric tons CO₂e in 2022.

The table below clearly illustrates how the Company has been able to decrease its total GHG emissions from an all-time high of 123,000 metric tons in 2012 to around 90,000 metric tons in 2021 by adopting the aforementioned improvement measures. In recent years, GHG reductions have exceeded a total of 20%-30% (emissions generated in 2021 have not yet been certified by an external organization).

Year	Have inventories been completed	Inventories conducted in accordance with ISO 14064-1 principles	Total emissions (metric tons CO ₂ e/year)	Scope 1 (metric tons CO ₂ e/year)	Scope 2 (metric tons CO ₂ e/year)	Third-party verification
2009	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	10,7019	70,707	36,354	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N Name of verification body BSI
2010	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	10,3403	66,981	36,422	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N Name of verification body BSI
2011	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	11,9533	79,712	39,821	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N Name of verification body BSI
2012	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	12,3059	81,140	41,919	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N Name of verification body BSI
2013	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	11,3207	85,640	27,566	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N Name of verification body BSI
2014	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	10,0226	75,235	24,991	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2015	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	87,753	63,737	24,016	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI

Year	Have inventories been completed	Inventories conducted in accordance with ISO 14064-1 principles	Total emissions (metric tons CO ₂ e/year)	Scope 1 (metric tons CO ₂ e/year)	Scope 2 (metric tons CO ₂ e/year)	Third-party verification
2016	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	85,773	61,006	24,707	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2017	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	90,285	63,908	26,376	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2018	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	87,393	63,342	24,052	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2019	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	93,942	70,622	23,320	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2020	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	84,490	62,022	22,468	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI
2021	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Autonomous estimate	90,478	67,429	23,049	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Name of verification body BSI

4.1.2 Direct GHG Emissions (Scope 1)

Direct emission sources owned or controlled by FUCC are mostly associated with production processes and include the following: Manufacture of Alkyl Benzene, other basic chemical materials, phenolic chemicals, other synthetic resins or plastics, and fixed combustion sources for emergency power generation and staff canteens (boilers, flare towers, emergency power generators, and gas stoves). In 2021, the Company's direct emissions amounted to 67,429 metric tons CO₂e. Scope 1 emissions accounted for 74.52% of the total emissions of the Linyuan Plant.

FUCC Emission Statistics by Emission Source for 2017~2021

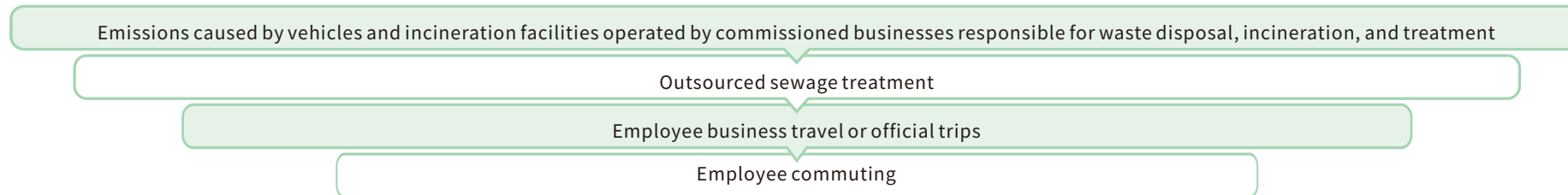
Emission source type		Scope 1			Fugitive	Scope 2	Scope 3	Total equivalent emissions
		Stationary	Process	Mobile		Energy indirect	Other emissions	
2021	Co2e equivalent emissions (metric tons CO2e/year)	67,252.5954	0.0992	32.2657	144.0475	23,049.7314	-----	90,478.739
	Percentage accounted for (%)		67,429.0078			25.48%	-----	100%
2020	Co2e equivalent emissions (metric tons CO2e/year)	61,976.3949	0.10666	30.4949	15.4325	22,468.1975	-----	84,490.626
	Percentage accounted for (%)		62,022.4289			26.59%	-----	100%
2019	Co2e equivalent emissions (metric tons CO2e/year)	70,569.6631	0.0992	36.5142	15.6475	23,320.4301	-----	93,942.354
	Percentage accounted for (%)		70,621.9240			24.82%	-----	100%
2018	Co2e equivalent emissions (metric tons CO2e/year)	63,287.6908	0.1906	36.9498	16.8725	24,051.6203	-----	87,393.324
	Percentage accounted for (%)		63,341.7037			28.22%	-----	100%
2017	Co2e equivalent emissions (metric tons CO2e/year)	63,829.3809	0.0338	32.7653	46.1551	26,376.7292	-----	90,285.064
	Percentage accounted for (%)		63,908.3351			29.21%	-----	100%

FUCC Emission Statistics by GHG Category in 2021

GHG category	CO ₂	CH ₄	N ₂ O	HFC	PFC _s	SF ₆	NF ₃	Total Co _{2e} (in metric tons)
Co2e equivalent emissions (metric tons CO2e/year)	90,290.1282	35.4750	24.4360	128.7000	0.0000	0.0000	0.0000	90,478.739
Percentage accounted for (%)	99.79%	0.04%	0.03%	0.14%	0.00%	0.00%	0.00%	100.00%

4.1.3 Energy Indirect (Scope 2) and Other Indirect GHG Emissions (Scope 3)

Indirect GHG emissions mostly stem from purchased electricity and steam. This includes the power consumption of process equipment, offices, and public areas and steam purchased from Linyuan Advanced Materials Technology Co., Ltd. In 2021, energy indirect emissions reached 23,049.7314 metric tons CO₂e/year, which constituted around 25.48% of the total emissions of the Linyuan Plant. Other indirect GHG emissions (Scope 3) are generated by other operating activities of the FUCC Linyuan Plant. The emission sources are owned or controlled by other companies/units. Due to the fact that it is impossible to gain a firm grasp of operating activities associated with other indirect GHG emissions, we have only identified the sources of such unquantifiable emissions. Qualitatively listed sources include:



4.1.4 Air Pollution Control and Improvements

Process fuels (mostly gas) represent the main source of air pollutants. Air pollution has been decreased significantly as a result of the following measures: Regular inspections of emission sources in line with environmental laws and regulations are paired with outsourced VOC testing of equipment components by third-party certification businesses on a quarterly basis to ensure conformity of emissions to national standards. Optimal feasible solutions and air pollution control equipment such as Flue-Gas Desulfurization Equipment (FGD), Cyclone Dust Collectors, bag filter dust collectors, Low NO_x Burners, high-temperature furnace combustion treatment, flare towers (abnormal emissions), scrubbers, and internal floating roofs have been adopted for process control and pollutant treatment. Constant surveillance and recording facilities have been installed for these different types of equipment to ensure effective monitoring of its operations. Optimal equipment performance and effective pollution control is ensured through preventive maintenance, training, and accurate operations.

Installation and operation licenses have been obtained for all processes. In addition, 178 non-seal pumps have been installed to reduce VOC emissions generated by plant equipment components and dedicated personnel has been assigned to prevent acid leakages and conduct VOC testing. Regular testing of flue gas discharge, equipment components, VOCs in internal floating roofs, cooling towers, and bio-tank water, and abnormal odors in areas surrounding wastewater treatment plants is carried out as scheduled. The results of these tests are monitored, analyzed, and tracked on an ongoing basis to ensure that gas emissions generated inside the plant conform to applicable laws and regulations.

In response to the worsening impact of global warming, FUCC has made an unwavering commitment to energy conservation and carbon reduction. The FUCC plant has therefore adopted a multi-pronged approach encompassing replacement of fuel oil with LNG, upgrades of rotating pumps to non-seal pumps, OFF GAS hydrogen and waste gas recovery, and installation of inverters. This requires enormous investments totaling around NT\$ 98 million, which clearly demonstrates the Company's determination to care for our planet through carbon reduction and energy conservation initiatives.

Air Pollutant Testing Values for Heating Furnaces in the Linyuan Plant from 2015 to 2021

Test items	Legal requirement	2015 Testing data	2016 Testing data	2017 Testing data	2018 Testing data	2019 Testing data	2020 Testing data	2021 Testing data
PAR(particles)(mg/m ³)	100	1	1	9	3	1	2	1
Sox (PPM)	100	6	3	3	3	2	3	2
Nox (PPM)	150	86	73	73	66	80	70	64
VOC (PPM)	---	3	8	Exempted from testing	Exempted from testing	Exempted from testing	Exempted from testing	11

Note: Starting in 2015, LNG (Liquefied Natural Gas) has been used in place of fuel oil, which has resulted in a noticeable drop of testing values for air pollutants.

4.1.5 Waste Treatment and Control

Waste treatment is outsourced to qualified waste disposal and treatment businesses pursuant to environmental regulations of the competent authority and The Company doesn't engage in cross-border transportation and treatment of hazardous waste. All waste disposal and treatment operations are tracked and audited by competent departments to ensure the legality and safety of final treatment. No serious leakages of waste or raw materials were recorded in 2021. Waste disposal amounts in recent years are specified in the table below. Due to the fact that Taipei HQ is situated in a collective office building, all generated waste is disposed of collectively by the Building Management Committee. Waste amounts of individual users are therefore not recorded separately. However, the Company carries out waste sorting in accordance with official announcements of the Committee. General, industrial, and hazardous waste generated by the Linyuan Plant amounted to 38.11, 163.09, and 0.02 tons, respectively.

Overview of Waste Generation Amounts

Item	2015	2016	2017	2018
General domestic waste (in tons)	53.73	66.04	63.88	53.77
Industrial waste (in tons)	343.72	461.13	607.61	306.89
Hazardous industrial waste (in tons)	—	—	0.08	0

Item	2019	2020	2021
General domestic waste (in tons)	49.75	40.53	38.11
Industrial waste (in tons)	206.8	177.89	163.09
Hazardous industrial waste (in tons)	0	0.04	0.02

Note 1: General domestic waste is incinerated

Note 2: Industrial waste is treated, incinerated, or landfilled based on a clearly defined classification system

4.1.6 Noise Management

FUCC conducts annual noise tests in the vicinity and perimeter area of vibration noise equipment to prevent impacts on the quality of life in neighboring communities. The analysis of noise fluctuations serves as a key reference for noise improvements. Such tests are outsourced to EPA-certified businesses or conducted autonomously with noise meters. All test results have so far been in conformity to applicable noise control standards. No instances of noise complaints or detected anomalies occurred in 2021.

Perimeter Noise Testing Data in 2021

和益化學工業股份有限公司										
噪音量測報告表										
附件 7.1				編號:						
測定日期: 111 年 5 月 19 日				噪音測定計外校有效日期: 2024/05/04						
管制標準: (分貝: dB(A))				(頻率: 20Hz~20kHz)						
區 域		日間 0700~1900		晚間 1900~2300		夜間 2300~0700				
法規管制標準(廠區周界)		< 80 分貝		< 70 分貝		< 65 分貝				
本 廠		廠區周界		< 75 分貝		< 65 分貝		< 60 分貝		
管制標準		製程區周界、走道、 輔助設施周界				< 85 分貝				
測 定 地 點 (多點量測, 取最高值紀錄)				管制值(分貝)			實際量測值(分貝)			改善 措施
				日	晚	夜	日	晚	夜	
1. 廠區周界	廠區北邊			< 75	< 65	< 60	66.1	60	53	
	廠區東邊						63.6	58	56	
	廠區南邊						62.3	55	51	
2. 辦公區	1F 走道						54			
	2F 走道						53			
3. 各製程區周界、走道、輔助設施周界	3F 乾藥室			< 85			40.1			
	脫氫工場(PD)						43			
	脫化一場(DA)						40			
	脫化二場(DB)						76			
	脫化三場(SA)						78			
	主鹼工場(NP)						72			
	氫化工場(RH)						73			
	(含包裝/製氫機)						74			
脫化二場(RS)										
(含包裝/製氫機)										
4. 控制室內							63			
5. 堆棧場內							71			
6. 營業室內							61			
7. MCC 室內							66			
噪音超過九十分貝之工作場所, 應標示並公告噪音危害之預防事項, 使勞工周知。				量測者			王美玉	黃嘉	黃	
廠 長		張國輝		環保部		葉國輝		審核		王美玉

4.1.7 Water Resources and Wastewater Treatment

The FUCC Linyuan Plant is situated in a non-conservation area in an Industrial Park zone. Taiwan Water Corporation supplies all the intake water of the Company (a total of 110.07 million liters in 2021). The water intake required for the Company's operations generated no significant impact on relevant water sources. Wastewater treatment facilities (plants) are planned in an adequate manner based on wastewater source characteristics. Dedicated personnel are responsible for the effective management of wastewater treatment to ensure that the discharged water quality conforms to national effluent standards. Wastewater quality testing is carried out regularly. If the water quality does not meet the required criteria, it is pumped back to the water treatment plant. Wastewater that conforms to the required standards is channeled to the joint sewage plant of the industrial park for further treatment to eliminate environmental impacts. Sewage discharged by the Company did not cause any impacts on the surrounding environment in 2021. Total wastewater discharge reached 64.5 million liters in the same year.

Comparison of Pre- and Post-treatment Wastewater Quality in 2021

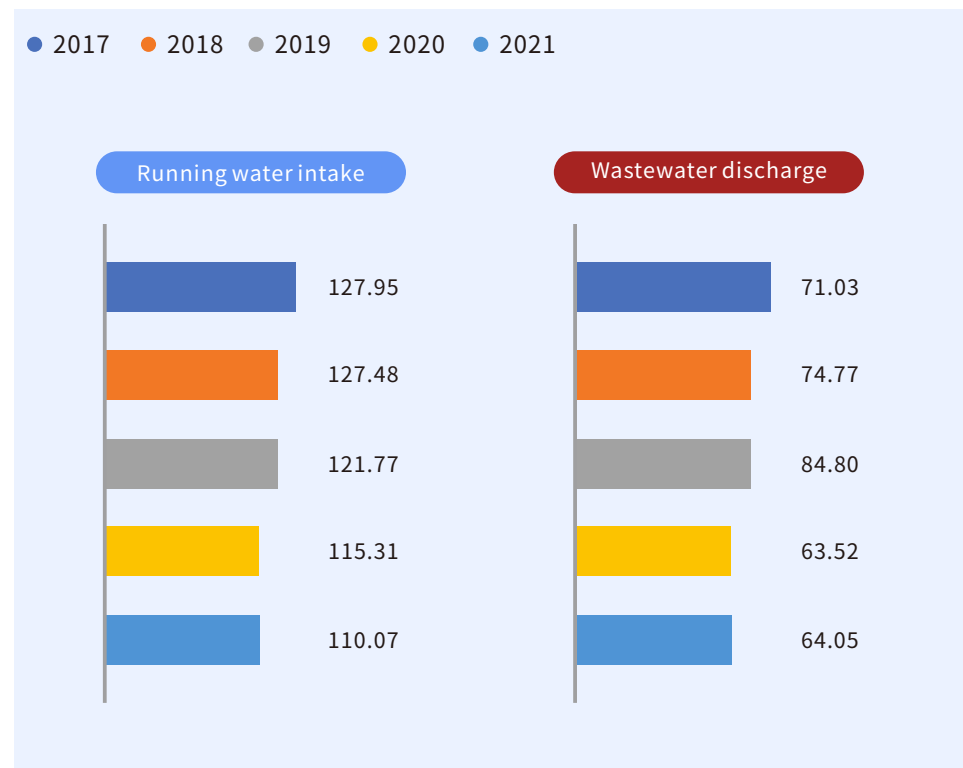
Item	Pre-treatment	Post-treatment
Water temperature (°C)	30.5	29.8
pH	8.1	7.8
BOD (mg/L)	13.3	<2.0
COD (mg/L)	29.0	<10
SS (mg/L)	7.5	4.2
Grease (mg/L)	3.8	3.2
True Color	28	<25
Ammonia Nitrogen (mg/L)	0.54	<0.05
Nitrite Nitrogen (mg/L)	1.11	1.37
Manganese (mg/L)	0.012	0.026
Iron (mg/L)	0.474	0.410
Phenol (mg/L)	0.206	0.082
Benzene (mg/L)	0.0885	ND

Overview of Wastewater Amounts and Running Water Consumption

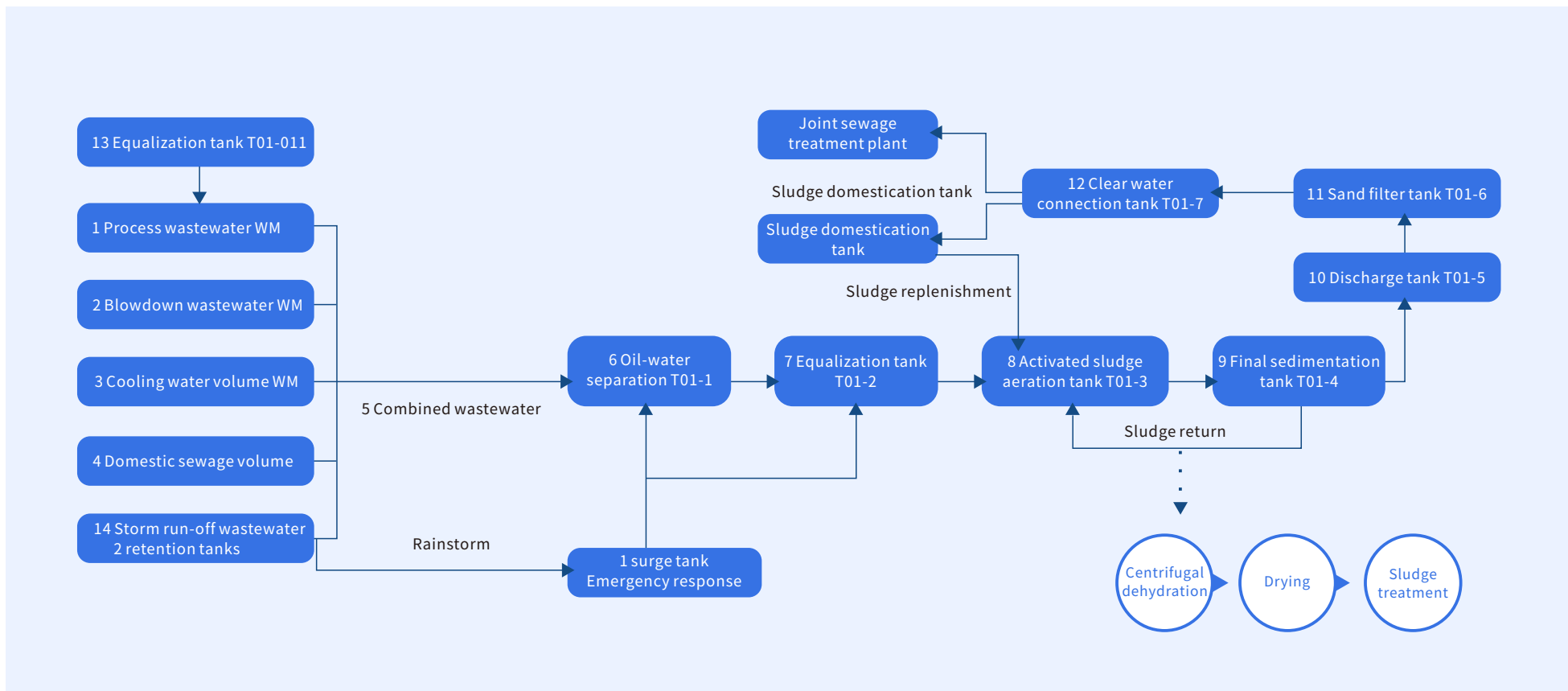
Unit: Million liters

Item	2017	2018	2019	2020	2021
Running water intake	127.95	127.48	121.77	115.31	110.07
Wastewater and sewage discharge	71.03	74.77	84.80	63.52	64.05

Water resource intake and discharge statistics (Unit: Million liters)



Wastewater Treatment Process



4.2 Energy Resource Management

Against the backdrop of ever-changing technologies and limited energy resources, enterprises all over the world face a worsening energy crisis caused by the depletion of resources. Energy usage efficiency has therefore turned into a key indicator for industrial competitiveness. In the field of energy consumption and management, FUCC has adopted relevant strategies and continues to implement energy conservation initiatives

to make a contribution to protecting our planet and saving energy under the premise of corporate sustainability.



4.2.1 Direct Energy Consumption

FUCU consumes fuel oil, electricity, steam, and natural gas in its operating activities.

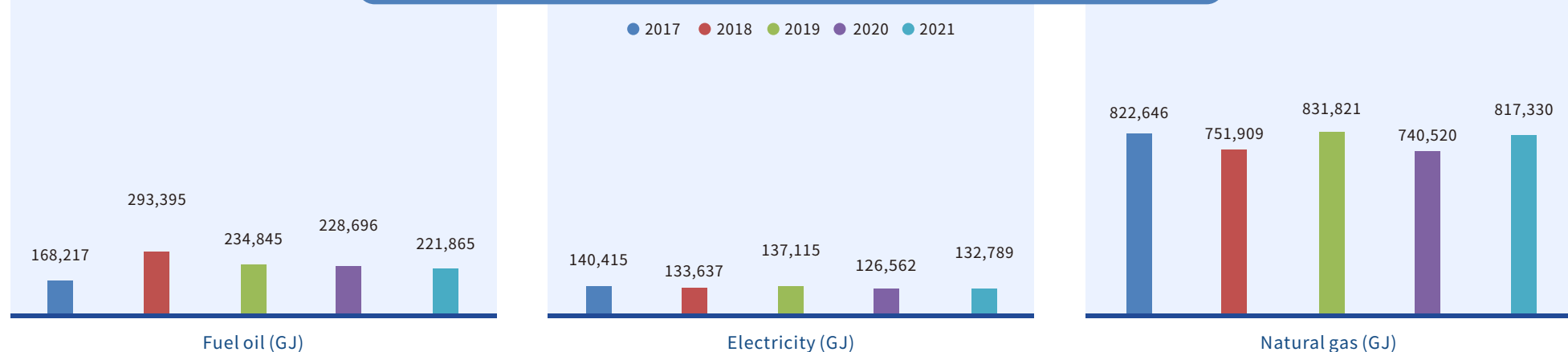
The company's total energy consumption amounted to 1,222,811GJ in 2021.

Energy categories	2017	2018	2019	2020	2021
Fuel oil (KL)	4,186	7,301	5,844	5,691	5,521
Fuel oil (GJ)	168,217	293,395	234,845	228,696	221,865
Steam (tons)	—	—	—	—	18,268
Steam (GJ)	—	—	—	—	50,827
Electricity (kWh)	39,004,200	37,121,405	38,087,400	35,156,000	36,885,800
Electricity (GJ)	140,415	133,637	137,115	126,562	132,789
Natural gas (m ³)	21,835,897	19,958,300	22,079,434	19,655,994	21,694,801
Natural gas (GJ)	822,646	751,909	831,821	740,520	817,330

Note 1: According to the Greenhouse Gas Emission Factor Management Table (6.0.4), the fuel oil and natural gas heating values are 9,600kcal/l and 9,000 kcal/m³, respectively. One kcal equals 4,186J (Joule) and one kWh is equivalent to 3,600KJ (1GJ=1*10⁹ Joules).

Note 2: Steam consumption amounts have been recorded since 2021. The assumed steam heating value is 664,670kcal

Energy Consumption broken down by energy category from 2017-2021 Unit: GJ

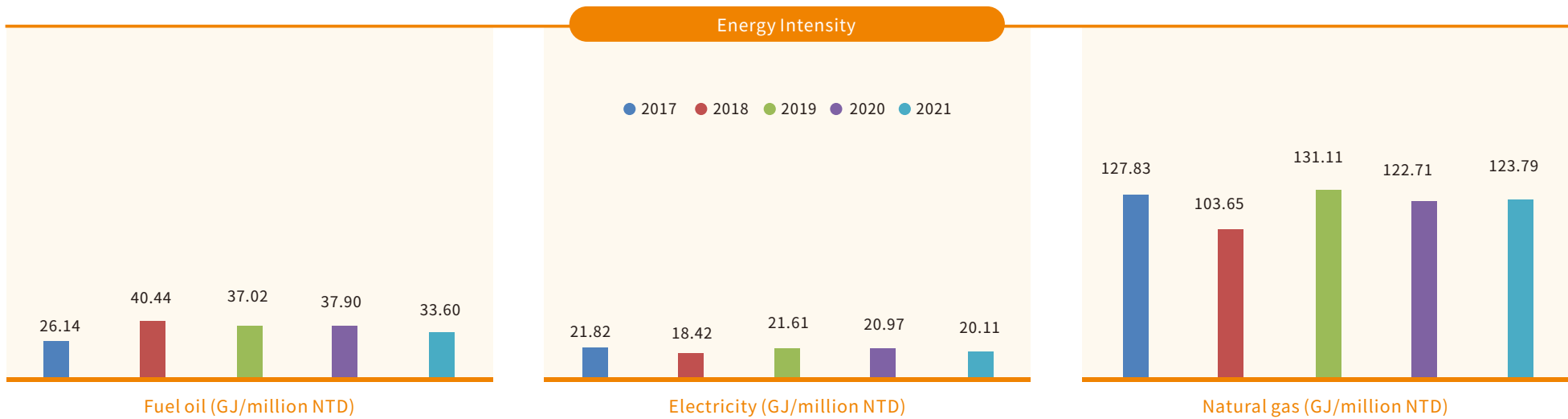


Note: Steam is not included in the chart above for comparison over the years because its statistics started 2021

2017~2021 Energy Intensity Statistics

Year	2017	2018	2019	2020	2021
Total output (all product categories) in tons (excluding OEM)	120,359	115,559	108,410	127,407	126,529
Operating revenue (million NTD) (excluding OEM)	6,435.27	7,254.27	6,344.33	6,034.57	6,602.64
Fuel oil (GJ/million NTD)	26.14	40.44	37.02	37.90	33.60
Electricity (GJ/million NTD)	21.82	18.42	21.61	20.97	20.11
Natural gas (GJ/million NTD)	127.83	103.65	131.11	122.71	123.79
Steam (GJ/million NTD)	—	—	—	—	7.70

Note: Energy intensity calculation formula: Energy consumption ÷ Operating revenue (million NTD)



Note: Steam is not included in the chart above for comparison over the years because its statistics started 2021

4.2.2 Energy Conservation

In the face of worsening climate change and global warming, energy conservation has turned into a global trend. Enterprises worldwide play a key role in the implementation of energy conservation and sustainable development.

FUCC has established an internal energy conservation promotion mechanism to enhance energy use and management. Regular reviews of implementation performance are conducted to ensure that energy usage efficiency meets the preset energy conservation targets. AN equal emphasis on social responsibility in the field of GHG reductions and pursuit of corporate growth is a pressing task that all enterprises should be firmly committed to. All-out implementation of analyses, reviews, and improvements is a key prerequisite for achievement of the ultimate goal of reduced energy consumption. The Company therefore adopts and implements annual energy conservation projects. Ongoing energy conservation initiatives and their projected benefits in 2021 can be described as follows:

2021 Ongoing energy conservation initiatives:

Overview of Energy Conservation Actions and Measures in 2021

Energy conservation measures	Power savings (in kWh)	Cost savings (in NTD)
PD P-10A Replacement	152,027	-4,820,000

Overview of Projected Energy Conservation Actions and Measures in 2022

Energy conservation measures	Power savings (in kWh)	Cost savings (in NTD)
DA C-10/PD C-7A/B Replacement	249,660	-2,000,000

Note: Cost savings are currently indicated as negative since investments have not yet been recovered

4.2.3 Raw Material Use

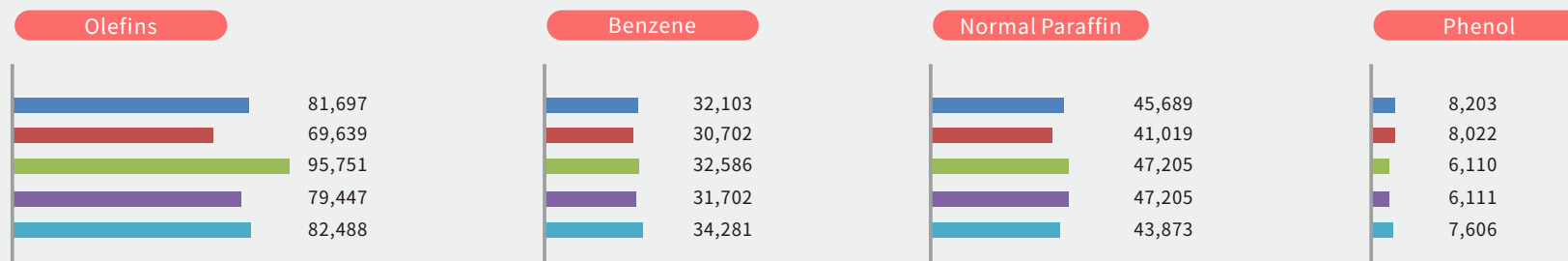
Petrochemical synthetics which are defined as non-renewable materials in the GRI Standards represent the main petrochemical raw materials used by FUCC. Most raw materials are procured from supply chain partners that the Company has long-term dealings with to minimize the risk of supply shortages. No supply shortages have occurred in recent years. The Company further strives to build long-lasting solid relations with its customers based on sales services. Due to unique product attributes, the main raw materials employed by the Company are Olefins, Alkyl Benzene, Benzene, Normal Paraffin, and Phenols. Total raw material consumption amounted to 168,428 metric tons in 2021. Raw material consumption statistics are shown in the chart below.

Raw material consumption from 2017-2021

Year	2017	2018	2019	2020	2021
Olefins	81,697	69,639	95,751	79,447	82,488
Benzene	32,103	30,702	32,586	31,702	34,281
Alkyl Benzene	45,689	41,019	47,205	47,205	43,873
Phenol	8,203	8,022	6,110	6,111	7,606

Raw material consumption statistics from 2017-2021 (Unit: tons)

● 2017 ● 2018 ● 2019 ● 2020 ● 2021



4.3 Work Safety

Material Topics	Significance for the Company	Policies/Commitment	Short-term Goals	Mid- and Long-term Goals	1. Invested Resources in the Respective Year 2. Concrete Achievements	Responsible Department/ Grievance Mechanism	Assessment Mechanism/ Results
Occupational Health and Safety	Healthy workplace culture and safety & health management are of paramount importance. Potential hazards and risks are effectively mitigated, accidents are prevented, the physical and mental health of workers is safeguarded, and company assets and operations are protected through management system operations and dissemination of accurate concepts.	Risk management Legal compliance Ongoing improvements Healthy workplace	Zero major accidents		<ul style="list-style-type: none"> ● Ongoing implementation of ISO 45001 ● Annual occupational health & safety training 	Environmental Safety Office Email or phone	Quarterly tracking and reviews of occupational health and safety performance by the Occupational Health & Safety Committee/Zero Accidents in 2021

Since FUCC is a chemical company, the most common worksite hazards are chemical burns and splashes, slips, scalds, and electrocution. A clear understanding of worry-free work conditions is a key prerequisite for high efficiency and high-quality work performance. With a view to ensuring smooth production operations, safeguarding the lives and property of staff members and local community residents, we rely on a sound management mechanism to mitigate risks posed for personnel, equipment, and environments on an ongoing basis. We place high emphasis on damage prevention and promotion of employee physical and mental health and uphold health & safety as one of our core corporate values.

Work safety is the cornerstone of corporate sustainability and one of our core values. The goals of exemplary work safety and zero accidents can only be achieved by ongoing efforts to build employee safety awareness. No process safety incidents occurred in 2021.

4.3.1 Occupational Health and Safety Organizations

We have established the Formosan Union Chemical Corp. Linyuan Plant Corporate Union and the Occupational Health & Safety Committee (below referred to as “OHS Committee”) pursuant to the Occupational Health and Safety Management Guidelines. 12 labor representatives elected by FUCC employees from among themselves account for 50% of the committee membership, which exceeds the legally required quota of 1/3. The committee convenes once a quarter to discuss health and safety-related issues including training plans, operational environment improvement strategies, hazard prevention management and audits, contractor management, and health promotion. Responsible units are instructed to complete required corrective action within prescribed time limits. The Committee also formulates health & safety management plans and tracks the progress of adopted corrective actions.

Percentage of Management/Labor Representatives on the OHS Committee in 2021

OHS Committee	Number of members	Percentage
Labor representatives	12	50 %
Management representatives	12	50 %
Total	24	100 %

4.3.2 Occupational Health and Safety Operations

FUCC passed the certification audits for the OHSAS 18001&TOSHMS Occupational Health and Safety Management System administered by the Bureau of Standards, Metrology, and Inspection of the Ministry of Economic Affairs and the Performance Recognition of the Occupational Safety and Health Management Systems of Business Entities of the Council of Labor Affairs. Health and safety management tasks are carried out by relying on a systematic framework and the PDCA cycle methodology with the ultimate goal of reducing accidents and operational risks and achieve advanced international standards in the field of health and safety performance. An occupational health and safety management system was established in 2019 in line with the requirements set forth in the ISO 45001:2018 Occupational Health and Safety Management System Standard. The Company passed a third-party verification in 2020.

In addition, FUCC is a member of the Taiwan Responsible Care Association (TRCA) and the Linyuan Industrial Park Health & Safety Promotion Committee. In the field of work safety, health, and environmental protection, we rely on mutual observation and learning to enhance and safeguard the safety and health of our operating personnel.

Major OHS Committee Resolutions in 2021

Meeting date	Major resolution
2021.02.04	Review of ESH policy/targets/initiatives and other items (total of 9 items)
2021.07.05	Review and deliberation of working environment monitoring plan results (total of 10 items)
2021.09.29	Review and deliberation of health & safety-related proposals (total of 9 items)
2021.12.29	Review and deliberation of working environment monitoring plan results (total of 10 items)



Hazard and accident prevention

In addition to the formulation of procedures, instructions, principles, and guidelines for different types of on-site operations, the Company requires the submission of advance applications for “Hot Work and Construction Safety Permits” for all work operations that pose potential safety hazards for personnel, environments, or equipment such as electric welding, argon welding, cutting, grinding, electric sawing, operations in tanks or pits, work at height, electrical equipment operations, high-altitude work, and equipment dismantling and repair with the goal of effectively controlling hazards and preventing accidents. Hazard announcements have been implemented for the whole plant area and employee safety awareness is reinforced through placement of signs and warnings.



Operational control through Hot Work and Construction Safety Permits

All in-plant operations posing potential hazards for personnel, environments, or equipment require submission of advance applications for “Hot Work and Construction Safety Permits”. Upon classification and notification of work procedures, matters for compliance, and precautions, approval by the top executive of the plant is formally requested. Prior to initiation of construction operations, protective and construction personnel and unit heads complete preparations and environment testing in accordance with the information specified in the “Hot Work and Construction Safety Permit”. Final confirmation by work safety personnel is required. The ultimate goal is to raise the safety awareness of staff members with regard to hazardous operations and reinforce control operations. All required safety arrangements and protective measures are put in place beforehand to minimize accident risks, ensure personnel and equipment safety, and prevent the incidence of fires and explosions.

Operational control for confined space operations in tanks and pits

Potential hazards of confined space operations in tanks and pits include low oxygen concentration, cumulative hazards, or flammable gases. If no precautions are adopted beforehand, rescue operations in case of accidents are extremely difficult. Initiation of such operations is subject to formal approval, application for “Hot Work and Construction Safety Permits” for operations in tanks and pits, and environmental testing. Required measures include preparation of protective gear, dispatch of monitoring and protective personnel, and sign placement in operation areas to prevent oxygen deficiency, poisoning, falls, and falls from height.

Power supply interruption control

With a view to ensuring the safety of maintenance personnel and preventing personnel injuries caused by electrocution or electrical equipment actuation during maintenance and repair of electric power, electrical, and rotating equipment, such inspection and repair operations are also subject to prior formal approval and application for “Hot Work and Construction Safety Permits”. The power supply must be cut off and power interruption must be confirmed prior to initiation of maintenance to effectively prevent electrocution hazards.

Isolation of equipment from pipelines

With a view to protecting maintenance personnel against hazards caused by internal or external leakage of the contents of pipes and minimize the risk of fires and explosions caused by oils and lubricants during chemical engineering process-related operations or maintenance, equipment must be isolated from such pipelines and properly tagged and locked prior to repair, cleaning, turning on, or dismantling of such equipment to ensure personnel safety during operations and maintenance.

Contractor health and safety management

FUCC is firmly committed to fulfillment of its responsibility in the field of effective implementation and enhancement of its health and safety performance. In addition to ranking employee health and safety as top priorities, operational safety of contractor personnel, announcement of dangers associated with hazardous chemicals, safety advocacy, safety training, labor conditions, coordinative organizations for contractor operations, encouragement of contractors to submit health and safety proposals, and reporting of near misses are listed as key objectives in the field of health and safety management. In addition, a contractor health and safety rating mechanism has been adopted to ensure high-quality cooperative relationships.

Dangerous goods management

In the field of hazardous chemicals management, FUCC has implemented controls by security and supervisory personnel and fire prevention personnel. In addition, the Company has formulated operational health and safety principles and operating guidelines for compliance by employees during operations involving hazardous chemicals. Hazardous chemicals-related information and safety data sheets (SDS) are made available in security rooms, control rooms, and computer systems and at work sites to facilitate retrieval and viewing by employees. 6-hour training courses on hazardous chemical labeling and general regulations are administered in the context of annual environmental safety training. Prior to initiation of in-plant operations by contractors, they are notified of potential hazards. Chemical inventories are created for the entire plant and online registration is completed (Priority Management Chemicals and Existing Chemicals).

4.3.3 Fire safety facilities

Fire sources, fire evacuation facilities, fire safety equipment in buildings on the plant premises and on-site fire safety equipment are regularly inspected and maintained by dedicated personnel assigned by the Company. In addition, qualified businesses are commissioned to conduct comprehensive inspections and repairs based on the current status and functionality of fire safety equipment. The inspection and maintenance results are reported to the Competent authority. The ultimate goal is to maintain a firm grasp and guarantee the reliability of such equipment to ensure optimal preparedness for emergencies. Fire suits and fire equipment are updated as required to effectively enhance on-site fire equipment capabilities and fire protection facilities of employees.

Images of fire equipment



4.3.4 Emergency response measures

The goal is to enable the Company to rapidly mobilize and organize its employees and adopt accurate measures to effectively control accidents and minimize losses in case of emergencies occurring in the plant. We have emergency procedures in place that enable us to provide timely instructions, handle emergencies effectively, organize our employees, utilize PPE and fire safety equipment in case of emergencies, and conduct regular emergency drills. The goal is to give emergency response personnel the ability to deal with emergencies in an organized and systematic manner, provide them with the basic knowledge required for effective responses, and cultivate their judgment skills. Damage and losses can be minimized by relying on optimized emergency response capabilities. Responsible personnel receive comprehensive training to ensure achievement of expected results and attainment of the necessary knowledge and skill level. We also rely on regular drills and case simulations to familiarize our employees with different emergency procedures and processes. Shortcomings are constantly reviewed, and improvements are implemented on an ongoing basis. Our emergency response plan encompasses the following procedures:

First-level
response:

Material leakage on the plant premises does not cause a fire or the resulting fire does not affect other materials or regions; leakage of toxic substances does not spread to surrounding areas and does not affect nearby ecosystems

Second-level
response:

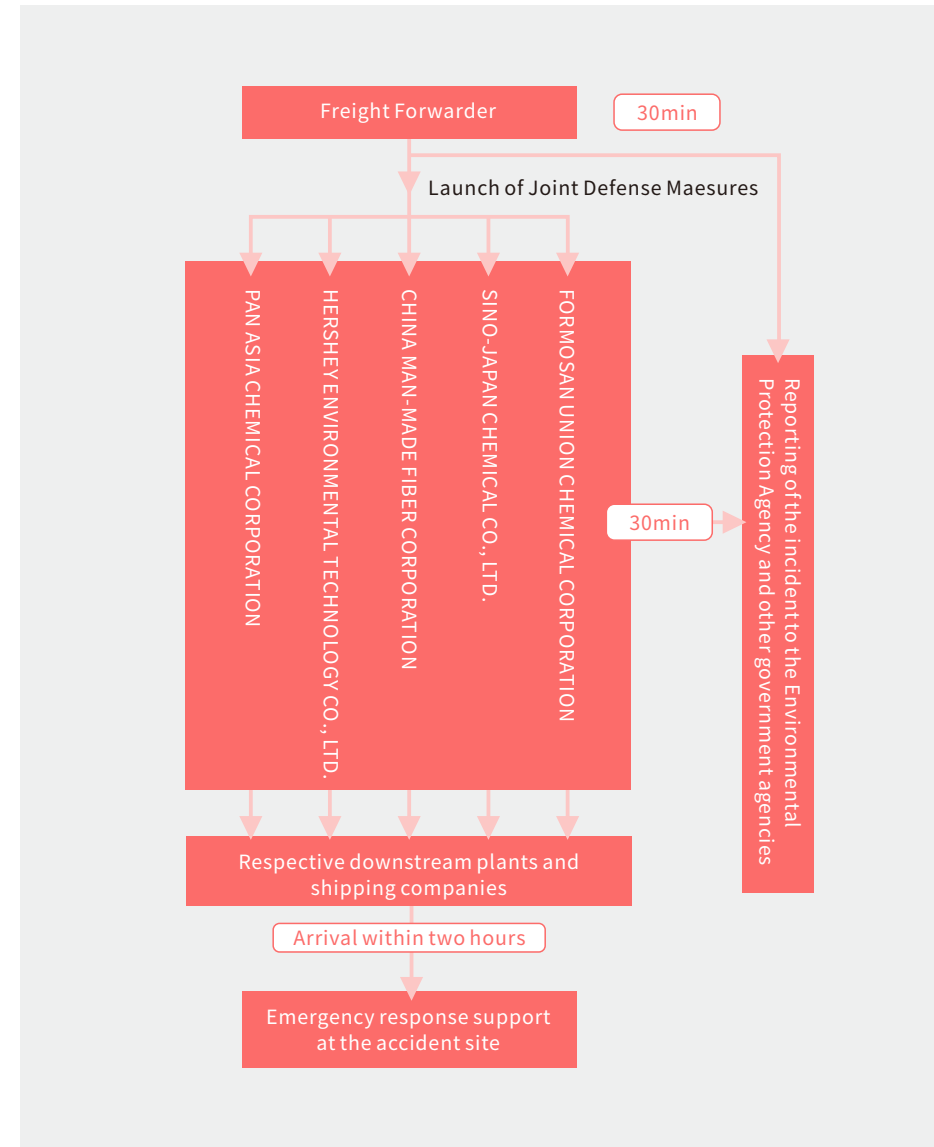
Occurring fire affects other materials or regions on the plant premises; there is a risk that toxic gas leakages could affect nearby ecosystems (such impacts have not occurred yet)

Third-level
response:

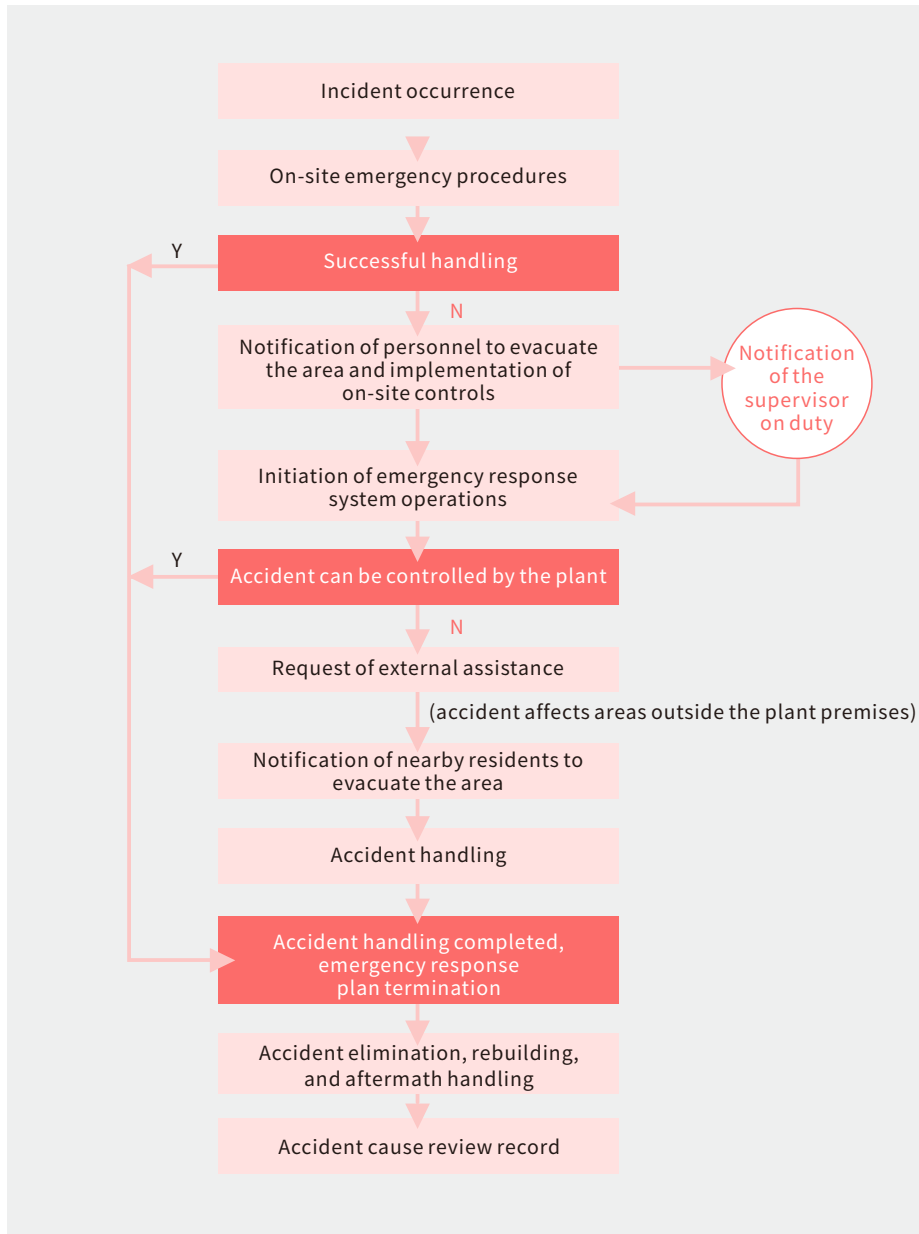
Occurring fire affects other materials or regions on the plant premises; there is a serious danger that severe leakage of toxic gases could affect the entire plant or spread to neighboring plants and residential areas

Plantwide emergency response drills are conducted on a monthly basis to ensure optimal preparedness for sudden incidents, different emergency situations, and compound emergencies. A total of 12 drills were held in 2021. Strong and weak points of the drills were identified for review upon conclusion of the drills.

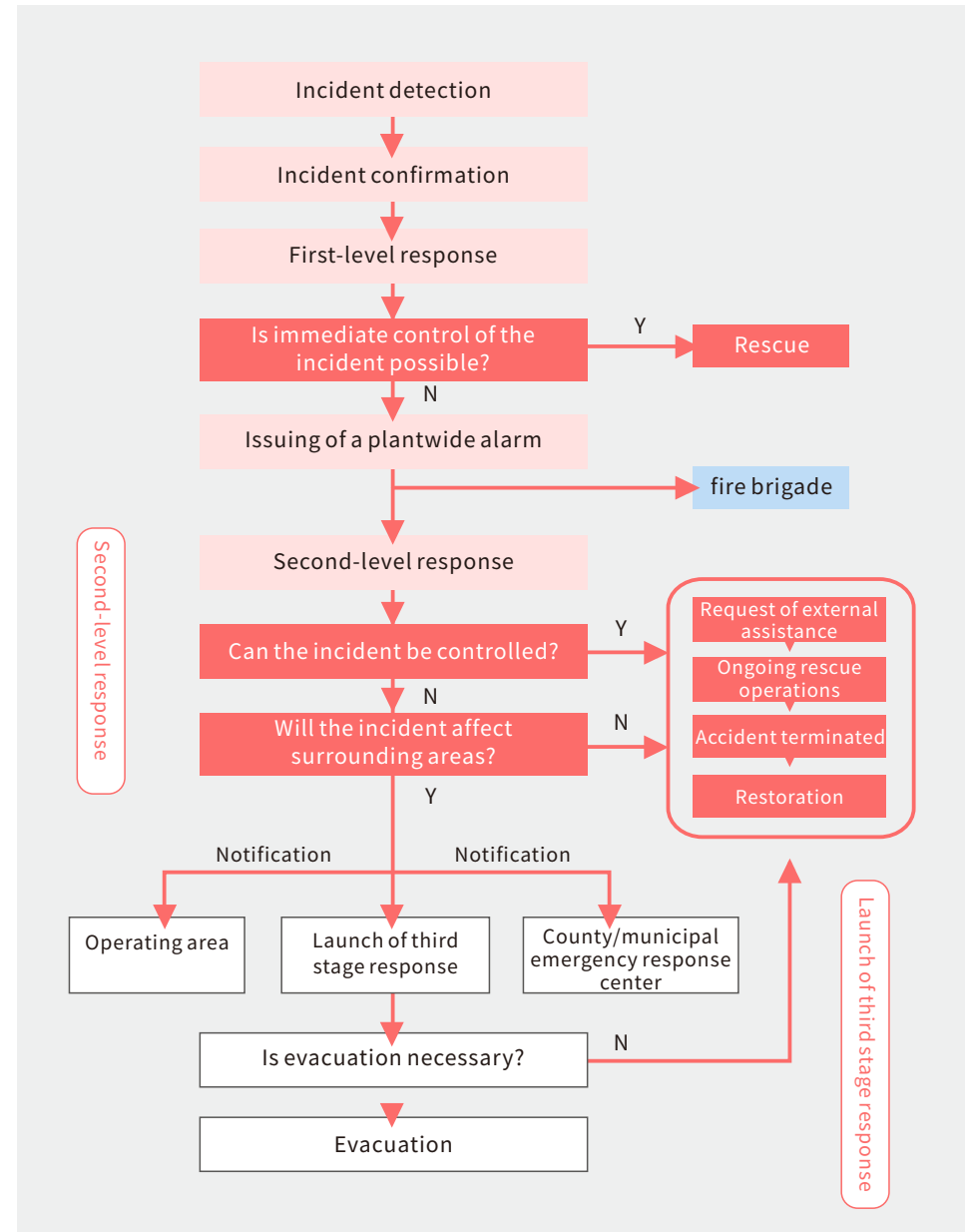
Membership in the Toxic Disaster Prevention Task Force: With a view to reinforcing the spirit of responsible care and mutual aid and assistance on the part of businesses in the region whose operations involve toxic chemicals and implementing a vertical and horizontal reporting mechanism, we have joined the Kaohsiung Toxic Disaster Prevention Task Force. In addition, we plan to form an integrated joint disaster prevention organization with up- and downstream Nonyl Phenol manufacturers, which involves the regular organization of unannounced testing drills and training courses. Two testing drills and one integrated drill were held in 2021. Improvements were implemented for equipment shortcoming and deficiencies detected in joint fire prevention drills.



Emergency/accident handling procedures



In-plant mobilization, operations, testing, and drills



Self-Defense Fire Organization Drills in 2021 & images provided for verification

Hydrogen gas and oil leakage drills in process areas (SA R-1D)



Assembly of drill participants after announcement of an emergency incident



Task delegation by the commander



Detection team (Safety Protection Squad) identifies "warm" and "hot" zones based on concentrations detected with professional equipment



Reporting Squad initiates the reporting process and contacts the local firefighting unit



Vigilance Team (Evacuation Guidance Squad) initiates personnel and vehicle controls



Personnel donning protective gear engage in drills requiring the isolation of equipment affected by the incident



Personnel donning protective gear engage in drills requiring the isolation of equipment affected by the incident



Activation of the sprinkler system in areas surrounding the accident site



Repair team stops leakage and repairs damaged equipment



First-Aid Squad evacuates injured personnel



Upon lifting of the emergency, personnel assemble at the command post for a final roll call



Discussion of items requiring improvement after conclusion of the drill

4.3.5 Transportation safety

We engage freight forwarders to transport our products via road tankers. Every tanker is equipped with fire extinguishers, Level C protective clothing, respirators, protective boots, simple face shields, protective goggles, and simple plugging tools for leakages. The speed of every vehicle is controlled below 90km/hr through a locked throttle mechanism. Transportation personnel are required to conduct vehicle performance and equipment inspections prior to vehicle dispatch and entry of plant premises. The GPS system is turned on in sync with vehicle dispatch to enable surveillance of vehicle driving and loading conditions and thereby ensure transportation safety. No transportation safety incidents occurred in 2021.



4.3.6 Occupational accident statistics

We have achieved the goal of zero occupational accidents for five consecutive years starting in 2016. We have established an occupational accident management mechanism and administer occupational safety training on a regular basis to facilitate rapid responses and post-incident management. This includes root cause analysis and adoption of corrective action and improvement plans upon deliberation to prevent recurrence of similar incidents.

Fucc Occupational Safety Statistics 2019-2021

Item		2019		2020		2021	
		Taipei HQ	Kaohsiung Plant	Taipei HQ	Kaohsiung Plant	Taipei HQ	Kaohsiung Plant
Occupational injury death rate	Occupational injury death rate (Fucc employees)	0	0	0	0	0	0
	Occupational injury death rate (Contractor personnel)	0	0	0	0	0	0
Severe occupational injury rate (excluding deaths)	Severe occupational injury rate (Fucc employees)	0	0	0	0	0	0
	Severe occupational injury rate (Contractor personnel)	0	0	0	0	0	0
Recordable occupational injury rate (including deaths and severe occupational injuries)	Recordable occupational injury rate (Fucc employees)	0	0	0	0	0	0
	Recordable occupational injury rate (Contractor personnel)	0	0	0	0	0	0

Notes:

- Work safety data does not include employee commuting accidents.
- Occupational injury death rate = Number of deaths caused by occupational injuries/total working hours *1,000,000.

- Severe occupational injury rate = Number of severe occupational injuries (excluding deaths)/total working hours*1,000,000.
- Recordable occupational injury rate = Number of recordable occupational injuries/total working hours *1,000,000.

FUCC Quantified Occupational Safety Statistics 2019-2021

Item		2019		2020		2021	
		Taipei HQ	Kaohsiung Plant	Taipei HQ	Kaohsiung Plant	Taipei HQ	Kaohsiung Plant
Disabling Injury Frequency Rate (FR)	(Total number of disabling injuries/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of disabling injuries among female employees/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of disabling injuries among male employees/Total hours worked) *1,000,000	0	0	0	0	0	0
Occupational Disease Rate (ODR)	(Total number of occupational disease cases/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of occupational disease cases among female employees/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of occupational disease cases among male employees/Total hours worked) *1,000,000	0	0	0	0	0	0
Lost Day Rate (LDR)	(Total number of lost days/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of lost days among female employees/Total hours worked) *1,000,000	0	0	0	0	0	0
	(Total number of lost days among male employees/Total hours worked) *1,000,000	0	0	0	0	0	0
Absence Rate	(Total number of missed (absentee) days/Total number of workdays of the whole staff for the entire year) *100%	0	0	0	0	0	0
	(Total number of missed (absentee) days of female employees/Total number of workdays of female employees for the entire year) *100%	0	0	0	0	0	0
	Total number of missed (absentee) days of male employees/Total number of workdays of male employees for the entire year) *100%	0	0	0	0	0	0

Note: Work safety data does not include employee commuting accidents

4.3.7 Operation environment testing

We carry out environmental monitoring and testing for all operation sites and environments twice a year (in February and August). The goal lies in the detection of substances that pose a potential health hazard to employees in these environments. The results of these tests are publicly announced to make employees aware of the concentration of potential pollutants or hazardous substances in their work environments. We implement engineering improvements or adoption of PPE to achieve the goal of providing our employees with comfortable, healthy, safe, and high-quality operation environments. All environmental monitoring and testing results in 2021 met the required criteria. The results are given in the table below:

Operation environment monitoring results

HF <0.012~<0.014 ppm (Allowable concentration 3 ppm)

Benzene <0.072~<0.085 ppm (Allowable concentration 1 ppm)

Phenol <0.049~<0.058 ppm (Allowable concentration 5 ppm)

Sulfuric acid<0.003 mg/m³(Allowable concentration 1 mg/m³)

Total dust 0.27 ~ 0.79 mg/m³(Allowable concentration 10 mg/m³)

Acetone <0.728 ~ 0.860 ppm (Allowable concentration 750 ppm)

Toluene <0.480 ~<0.567 ppm (Allowable concentration 100 ppm)

n-Hexane<0.494~<0.494 ppm (Allowable concentration 50 ppm)

Office CO₂ 435 ~ 493 ppm (Allowable concentration 5000 ppm)

Nickel<0.003~<0.003 mg/m³ (Allowable concentration 1 mg/m³)

4.3.8 Health services and promotion

Against the backdrop of social and economic changes, the International Labor Organization (ILO) and World Health Organization (WHO) advocate workplace safety and health services as basic rights. FUCC is actively committed to planning, promotion, and execution of relevant measures in the field of health issues in line with ILO and WHO intentions and applicable laws and regulations. These measures encompass the following three dimensions: health services, health education, and healthy work environments. We regularly organize disease prevention and healthcare advocacy events, health-related lectures, employee preventive healthcare consultation, and employee health checks. With a view to safeguarding employee health, we are steadfastly dedicated to providing high-quality services in the fields of health risk assessment, health management, health promotion, and work environment hazard assessment and advice. We also provide our employees with health education concepts to ensure that their work performance is not affected by health issues and occupational healthcare is properly implemented. Achievements in this area can be described as follows:



In 2021, a total of 173 employees of the plant underwent health checks. No unusual conditions were detected in these exams, but the employees were urged to control their diets and engage in moderate exercise to reduce abnormality rates. No confirmed or suspected cases of occupational diseases were detected in these exams.



In 2021, 36 specially engaged professional nurses provided on-site healthcare services encompassing health management and occupational disease prevention



From 2021 to 2022, a Waist Circumference Reduction Health Promotion Program has been implemented to reinforce health promotion, assist employees in adopting healthy & sustainable lifestyles, and encourage them to take up an exercise regimen as part of their daily routine with the ultimate goal of preventing cardiovascular and other chronic diseases. All staff members were eligible to participate in this program. In addition, information pertaining to food and medication safety is publicly posted on the bulletin board to reinforce health promotion education in the areas of smoking and betel quid cessation.





05

Employee Care

- 5.1 Staff Structure
- 5.2 Training & Education
- 5.3 Employee Care and Benefits
- 5.4 Employee Health Management
- 5.5 Labor-Management Relations

Employee Care

Human society has marched into a new era which relies heavily on knowledge economy resource and information resource. Intellectual capital has become a critical factor for obtaining productivity, competitiveness and economic achievement. Faced with fierce international competition, enterprises need more and more cross-border management talents for competition. Formosan Union Chemical Corporation encourages its employees to take part in training and education. Through employee training, businesses are able to enhance their new product research and development capability and continue to incubate high-quality talents. This is also supported by offering quality remuneration to enhance the possibility for talent retention, and conducting regular employee health check show its care for employee's health. Meanwhile, the Company also listens to employee's opinion through labor union and labor and management meetings, improves office environment, exerts its effort to create good work environment and culture and retains employees to grow together with Formosan Union Chemical Corporation for the purpose of achieving corporate's sustainable operation.

5.1 Staff Structure

With the expansion of business, total number of Formosan Union Chemical Corporation's employees has continued to increase and turnover rate is dropping. This indicates that employees have complete confidence on the Company. Stability in personnel assists in business smooth operation and a corporate's stable and sound management.

Employee Analysis		2019		Number of Individuals		2020		2021	
Total Number of Employees		228		242		237			
Labor/Management Contract		Full-Time Staff (Irregular)	Temporary Staff (Regular)	Full-Time Staff (Irregular)	Temporary Staff (Regular)	Full-Time Staff (Irregular)	Temporary Staff (Regular)		
Gender	Male	199	0	206	1	202	0		
	Female	29	0	34	1	35	3		
Region	Taipei Company	50	0	63	2	59	3		
	Kaohsiung Factory	178	0	177	0	178	0		
Labor/Management Category		Full-Time Staff (Normal Staff)	Part-Time Staff (Work-Study Student, Part-time Worker)	Full-Time Staff (Normal Staff)	Part-Time Staff (Work-Study Student, Part-time Worker)	Full-Time Staff (Normal Staff)	Part-Time Staff (Work-Study Student, Part-time Worker)		
Gender	Male	199	0	206	1	202	0		
	Female	29	0	34	1	35	3		

Note 1: Workers of non-employees without significant proportion

Note 2: No significant change in this year's number of individuals

Actual Number of Physically Disadvantaged Individuals Employed

Year	Mandatory Number of Individuals Employed	Mild	Moderate	Severe	Total (Individual)
2021	4	2	0	3	5

Note 1: Pursuant to Article 38 of the "People with Disabilities Rights Protection Act," organizations with total number of employees of more than 67 shall employ physically disadvantaged individuals with working capability of no less than 1% of total employees (employees with labor insurance) and shall not be less than one individual.

Note 2: The same article also prescribes that employment of 1 severe physically disadvantaged employee will be counted as employment of 2 individuals on statistics.

5.1.1 Percentages for New Employees

Analysis of New Employees		2019		2020		2021	
		Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Number of Employees for That Year (Total)		228		242		237	
New Employees		8	3.51%	13	5.37%	17	7.18%
Age	≤ 30	4	1.75%	9	3.72%	6	2.53%
	31~49	4	1.75%	4	1.65%	7	2.95%
	≥ 50	0	0%	0	0%	4	1.70%
Gender	Male	5	2.19%	7	2.89%	8	3.38%
	Female	3	1.32%	6	2.48%	9	3.80%
Region	Taipei Company	7	3.07%	9	3.72%	13	5.48%
	Kaohsiung Factory	1	0.44%	4	1.65%	4	1.70%

Note 1: New Employee Rate = Total Number of New Employees / Total Number of Employees at Year End

5.1.2 Percentages for Resigned Employees

Analysis of Employee's Resignation		2019		2020		2021	
		Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Number of Employees for That Year (Total)		228		242		237	
Number of Resigned Employees		18	7.89%	9	3.71%	17	7.18%
Age	≤ 30	4	1.75%	2	0.82%	5	2.11%
	31~49	7	3.07%	3	1.25%	9	3.80%
	≥ 50	7	3.07%	4	1.64%	3	1.27%
Gender	Male	6	2.63%	7	2.89%	8	3.38%
	Female	12	5.26%	2	0.82%	9	3.80%
Region	Taipei Company	11	4.82%	8	3.30%	9	3.80%
	Kaohsiung Factory	7	3.07%	1	0.41%	8	3.38%

Note 1: Turnover Rate = Total Number of Resigned Employees / Total Number of Employees at Year End

5.1.3 Distribution of Age

Employee	2019		2020		2021	
	Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Under 30	30	13%	36	15%	39	16.5%
Between 30-50	150	66%	156	64%	142	59.9%
Over 50	48	21%	50	21%	56	23.6%
Total	228	100%	242	100%	237	100%
Corporate Governance Members	2019		2020		2021	
	Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Under 30	0	0%	0	0%	0	0%
Between 30-50	7	44%	9	53%	2	11.76%
Over 50	9	56%	8	47%	15	88.24%
Total	16	100%	17	100%	17	100%

5.2 Training & Education

Major Topics	Training & Education	
Importance to the Company	Employees are the Company's precious assets. The Company provides employees with comprehensive training and development planning to ensure that the Company and employees grow together.	
Policy /Commitment	1. Good environment and training programs are established for employee's occupational development. Employee's knowledge power and life-time learning concept are enhanced, and employee learning subsidy guidelines are drafted and implemented accordingly. 2. Corresponding training courses are drafted in accordance with responsibility categories. Identification and incubation of talents will be continued to enhance employee's professional capability.	
Short-Term Goal	100% of certificate re-training will be implemented in 2022 in accordance with laws.	
Mid/Long Term Goal	Various education and training programs are drafted to ensure that employees advance their knowledge and experience as the Company grows.	
1.Resources Invested for Current Year (Expense, Manpower, Execution of XX Project)	2.Specific Achievements	1.Annual average training hours per employee in 2021: 3.29 hours/year for each employee. Total accumulated training hours is 781 hours with external training expense of NT\$574,266. 2.New staffs are offered responsibility education and training as well as factory internship training courses (including the Company's various task requirements and systems, integrity and ethics promotion, common sense for factory environmental health and safety, and so on). Percentage for completion of training is 100%. 3.Percentage for certificate re-training as required by laws is 100%.
Responsible Department /	Complaint Mechanism	Headquarters: General Affairs Factory: Department of Factory Affairs, Department of Industrial Safety
Assessment Mechanism / Achievements	1.100% of new staffs accepted training. 2.Percentage for certificate re-training as required by laws is 100%.	

Employees are Formosan Union Chemical Corporation's most precious assets. We also expect that every employee will be able to fully exert his/her efforts to pursue and fulfill his/her expertise on this occupational stage sincerely established by the Company. Formosan Union Chemical Corporation exerts its efforts to building a safe, equal work place full of opportunities for employees, and designs comprehensive training and development planning for employees to allow all employees to grow together with us.

5.2.1 Average Hours of Employee Education and Training

Taipei Headquarters (/hours)													
Employee Category	Business		Finance		General Affairs		Shareholder Service		Information Management		Auditing		Average Per Employee (Taipei + Kaohsiung)
Year	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
2019	18	0	0	12	153	80	96.5	19	6	3	13	77.5	
2020	0	0	34	20	5	54	20	32.5	2	0	42	66	
2021	20	0	60	42	128	64	42	36	2	0	36	60	
Note1: Hour statistics are for respective department’s external professional training hours which include new staff training hours starting from 2021.													

Kaohsiung (/hours)					
Employee Category	Manufacturing Departments		Logistics Departments		
Year	Male	Female	Male	Female	
2019	985	0	72	0	
2020	207	0	25	0	
2021	223	0	53	15	
Note1: Hour statistics are for respective department’s external professional training hours which include new staff training hours starting from 2021. (Due to severe COVID-19 pandemic situation and for the purpose of reducing cluster infection, education and training have been flexibly adjusted.)					
Note 2: Manufacturing departments shall mean departments of maintenance, manufacturing, instrument & electricity and engineering.					
Note 3: Logistics departments shall mean departments of factory affairs, environmental safety, technology and R&D.					

5.2.2 Employee training and development

In addition to planning of fundamental new staff training and understanding work environment and rules, employees may apply for professional courses and training based on their different departments, responsibilities as well as their personal needs. The Company will subsidize internal/external training expenses to allow employees to grow themselves continuously and enhance work skills and efficiency during their occupational career for the purpose of cultivating professional talents.

Human Resources Enhancement Program

The Company started to participate in Ministry of Economic Affairs' Corporate Human Resources Enhancement Program (Major Human Resource Enhancement) in 2021. Government provides subsidy to assist in corporate's incubation of talents as well as enhancement of human resource quality. Employee's professional knowledge and skills are enhanced through systematic learning and training programs of various phases. Regular assessment on performance is conducted to ensure incubation of talents. Major Human Resource Enhancement started its implementation in February, 2022. Total training expense authorized is NT\$440,000. Contents of courses are mainly for related trainings on ISO 50001 and ISO 14067. Formosan Union Chemical Corporation dispatches its employees to learn energy and carbon footprint management for the purpose of energy saving and carbon reduction. In addition to enhancement of employee's work performance and competitiveness, the Company has also achieved organization operation goal as well as the Company's sustainable operation.



Professional Training Course for Respective Departments

Kaohsiung Factory

Department	Contents of Courses
Department of Engineering	Organization and Rules for Industrial Health and Safety / Contingency Plan for Emergency / Mobile Crane Operations (Crane Operations) / Equipment Maintenance Operation / Items such as health and safety operation guidelines for contractor' s entering into factory
Department of Instruments & Electricity	Related knowledge on maintenance of machines and equipment as well as calibration on manufacturing instruments / Labor health and safety management knowledge / Air pollution and waste water discharge management knowledge / Radiation protection test and maintenance of radiation safety certificate / Continued education and training on radiation protection / Ionizing Radiation Operator
Department of Factory Affairs	Forklift Operator / Stationary Crane Operation
Maintenance Workshop	Forklift Operator / Stationary Crane Operation / Safety Valve Test & Inspection Personnel
Department of Technology	Organic Solvent Operation Supervisor
Department of Manufacturing	Pump operation skill workshop / Training class for chemical plant' s heat integration process and exhaust gas recycling / Factory energy saving & carbon reduction technology workshop / Forklift operator / Oxygen deficiency operation supervisor / Class A boiler operator / Type A pressure vessel / High pressure gas specific equipment operator / High pressure gas operation supervisor / First aid personnel / Specialized operation supervisor / Organic solvent operation supervisor / High pressure gas manufacturing safety supervisor
Department of Environmental Safety/ Department of Industrial Safety	Class B occupational health and safety management personnel / Air pollution responsible personnel / Noise inspection personnel

Taipei Headquarters

Department	Contents of Courses
Sales Department	Golf training courses
Department of Finance	Continued education classes for accounting supervisor of issuing securities firm in stock exchange / Legal liabilities and precautions for insider equities trading / Preparation and precautions on annual budget for cutting costs while increasing revenue / Exploration of legal liabilities for insider trading / Promotion on enterprise's adoption of / iXBRL to report financial statements / English learning courses
Department of General Affairs	English learning courses / Japanese and Korean learning courses / Regulations and practices for property insurance / Management courses for international trading management strategy / Golf training courses / Master's Program of Institute of Human Resource Management of National Sun Yat-Sen University / Information software learning class / Promotion of subsidy program for work/life balance
Auditing Office	Requirements of internal control system standards for shareholder service units / Practical workshops on necessary laws and concepts to corporate finance and accounting personnel / Audit operation workshop on depository share matters / Prevention of material financial scandals (hollow out, insider trading, transfer of benefits, share price manipulation, irregular transaction, false financial statement, and so on) / Utilization of digital technologies to explore and improve operation process and detect fraud / Internal audit guidelines on sales, collection cycle and regulation compliance during 2021 corporate governance and business integrity seminar / Audit practices on manufacturing industry's production cycle / Shareholder service audit operation workshop on business contract management and audit practices / Audit practices and management on fraud risks / Audit application and computer operations of statistics analysis / Audit practices on manufacturing industry's material management system / Precautions and practice analysis on "shareholders' meeting" and "Company Act" / National Taiwan University financial statement analysis class
Office of Shareholder Service	Workshop on shareholder service personnel's business / Promotions on digital learning in share depository business / Seminar on requirement amendments for internal control system standards in shareholder service units / Online meeting for market tests on Chinese coding transfer / Courses of Board of Directors Meeting performance assessment / Education courses on Company Act
Information Management	Chinese code transfer

5.3 Employee Care and Benefits

Significant Topics		Labor/Management Relationship
Importance to the Company		The Company emphasizes communication with employee and development and protects employee's rights and a work environment of quality and safety for the purpose of achieving harmonious labor/management relationship.
Policy /Commitment		<ol style="list-style-type: none"> 1.The Company protects labor's rights in accordance with laws, and mitigates risks to employee's safety and health under considerations of chemical industry's characteristics in order to prevent occupational disaster. 2.Channels of regular communication and dialogue with employees have been established to ensure channels for employees to obtain information and express opinions. 3.Competitive remuneration system and comprehensive employee benefit and retirement benefit systems have been established.
Short-Term Goal		<ol style="list-style-type: none"> 1. Announcement of Human Rights Protection and Prevention of Child Labor 2.100% of Employees Receiving Regular Health Checks on Special Operations Health Check and Average Health Check 3. Annual Regular Salary Adjustments for Provision of Attractive and Competitive Remuneration System 4.Distribution of 0.15%, the Highest Percentage Required by Law, of Sales Revenue to Employee Benefit Fund 5. Establishment of Comprehensive Report Channels with Zero Complaint Received from Labor
Mid/Long Term Goal		Harmony between Labor and Management, Operation Concept of Creating Excellent Work Environment
1.Resources Invested for Current Year (Expense, Manpower, Execution of XX Project)	2.Specific Achievements	<ol style="list-style-type: none"> 1.1 Labor Union meeting 2.4 Labor/Management meetings 3.Total expenditure for Employee Benefit Committee's benefit in 2021was NT\$10,414,691. 4.Introduction of ISO 45001 with internal audit already conducted 5.Holding of 8 Sessions of Occupational Safety Promotion and Improvement of Occupational Safety Environment
Responsible Department /	Report Mechanism	Fill out forms in Auditing Office/ Official Website Report Channel and send out forms through mails or E-mail. Reported matter will be forwarded to responsible departments for project handling accordingly.
Assessment Mechanism / Achievements		<ol style="list-style-type: none"> 1.Factory will conduct regular industrial/environmental safety assessments on respective departments, and departments with excellent performance will be awarded accordingly. 2.Zero complaint was received from labor in 2021.

Employee is Formosan Union Chemical Corporation's indispensable partner. In addition to compliance with related labor laws, we have also established various management guidelines to protect employee's rights as possible as we can. The Company also emphasizes communication and development with employee, and is dedicated to providing a work environment of good quality and safety so that employees can develop their respective talents and have trust in the Company.

5.3.1 Employee's Rights

1. Remuneration System

Salary determination standards are based on academic and experience background as well as professional knowledge, skills and personal performance. There are no differential treatments from gender, race, religion, political stance or marital status. Formosan Union Chemical Corporation's basic salary standards are better than minimum wages prescribed in the Labor Standards Act. For the purpose of retaining talents, Formosan Union Chemical Corporation highly emphasizes treatments and benefits to its employees. All of its monthly salaries are higher than basic wage and each year there will be a 2-month holiday bonus. Salary will be routinely adjusted on July 1st of every year. The Company will consult with labor union and make salary adjustments based on sales revenue situation of the previous year. Meanwhile, in addition to basic salary, bonus will also be calculated and distributed to all employees as year-end bonus based on performance of that year. Additionally, the Company also offers cash gift and employee bonus during three major holidays. Under agreement with employees, calculation formula for year-end bonus is established openly. Year-end bonus will be calculated and appropriated from pre-tax income based on the formula for the purpose of achieving the goal of corporate's sharing profits with employees.

Average and Median Salary for Non-Executive Employees

Year		2019		2020		2021	
Item		Numerical Value	Difference	Numerical Value	Difference	Numerical Value	Difference
Number of Full-Time Non-Executive Employees		220	-9	221	1	221	0
Full-Time Non-Executive Employee Salary (thousands/year)	Average	1,009	-111	1,365	356	1,706	341
	Median	889	—	1,221	332	1,527	306

Note 1: Pursuant to "Guidelines for Preparation and Filing of Corporate Sustainability Report by Listed Companies," median value of salary (thousands/annual salary) for 2019 full-time non-executive employee was disclosed starting from 2020 annual report.

2. Insurance and Retirement Systems

In addition to providing labor insurance and national health insurance as required by laws, the Company also encourages employees to receive full-body health check every year and offers 36 monthly salary amount of group life insurance, 48 monthly salary of group accident insurance as well as cancer insurance for hospitalization and treatment for the purpose of bringing more protection for employees.

In terms of retirement system, Employee Retirement Management Guidelines are drafted in accordance with "Labor Standards Act" and "Labor Pension Act" and pensions are appropriated accordingly for each employee as required by laws. Please refer to p. 227 of Formosan Union Chemical Corporation's 2021 Annual Report for related detail information.

5.3.2 Leave System

Various leaves are established in accordance with Labor Standards Act, personnel management guidelines, work rules and Act of Gender Equality in Employment. They include marriage leave, funeral leave, public leave, occupational sickness leave, sick leave, normal leave, menstrual leave, family care leave, maternity leave, paternity leave, parental leave, special leave and so on. These leaves are rendered in accordance with regulations and requirements. Additionally, given the fact that employees may not be able to take all special leaves they deserve in a specific year due to work factors, the Company specifically added deferral period for special leave allowing employees to take all leaves they deserve before the end of next year.

Occupational Sickness Leave, Parental Leave and Death Compensation Data Table

Year	Occupational Sickness Leave	Parental Leave	Death Compensation
2019	0 Employee	2 Employee	0 Employee
2020	0 Employee	0 Employee	0 Employee
2021	0 Employee	0 Employee	0 Employee

5.3.3 Employee Care

Protection of human rights has been explicitly announced to the Company's employees. In addition to explicit prohibition on child labor employment, no discrimination or differential treatments shall be exerted to job seeker or employee's recruitment, test, employment, performance review or promotion based on factors of race, religion, party, gender, age, marriage, appearance or physical/mental disability. In the event of cases to be reported, employees can report through opinion box, telephone or directly to supervisor during normal days, or allow cases to be processed through labor union, labor/management meeting or sexual harassment report investigation committee for the purpose of maintaining harmony between labor and management. There was no reported case or legal incident in 2021. Meanwhile, there were no reported cases on sexual harassment or violation of related labor laws. The Company also drafted "Management Guidelines for Personal Data Protection" for the purpose of fulfilling protection and management over personal data.

Formosan Union Chemical Corporation possesses sound management system and benefit system and it enjoys very harmonious labor/management relationship. Going forward, the Company shall continue to uphold operation concepts of previous harmonious labor/management relationship, creating excellent work environment and establishing various education and training programs to ensure that employees excel their knowledge and experience together with the Company's growth.

5.3.4 Benefit Measures

In addition to insurance, retirement and holiday measures for employee's benefits, the Company also established Employee Benefit Committee in accordance with Employee Benefit Guidelines. Each year, certain amount will be appropriated from sales revenue to serve as benefits. Appropriation percentage reaches the highest mandatory amount of 0.15%. This committee is responsible for employee benefit related matters including offering of cash gift to wedding and funeral, travel subsidy for employee's domestic and offshore travel, distribution of cash gift for Labor Day, Dragon Boat Festival, Moon Festival, year-end party and birthday, scholarship subsidy, discounts from collaborating kindergartens, and so on. Additionally, labor union provides labor/management consulting channels, holds irregular employee recreational activities, makes employee uniforms, distributes coupons, and so on.

2021 Details of Employee Benefit Committee's Total Amount for Various Cash Gifts and Subsidy

Item	Name	Amount (NTD)
1	Wedding/Funeral Cash Gift	532,000
2	Employee Travel Expense	7,090,794
3	Scholarship (Education Subsidy)	1,078,000
4	Labor Day and Dragon Boat Festival Cash Gift	199,000
5	Moon Festival Cash Gift and Gift Box	190,000
6	Year-End Cash Gift	760,417
7	Birthday Cash Gift and Birthday Party Expense	564,480
Total		10,414,691

Birthday party held before the COVID-19 pandemic



5.4 Employee Health Management

For the purpose of employee's health and safety concern as well as advance detection of occupational disease risks and rectification of problems while providing employees with a healthy and safe work environment, Formosan Union Chemical Corporation is engaged in a long-term collaboration with Yuan's General Hospital, Kaohsiung in conducting routine general health check on all employees in the factory every year. Employees of special operations also need to take special operation health check. Doctors of collaborating hospital will conduct health instruction and irregularity follow-up based on health check results for the purpose of finding irregularity and offering necessary assistance as soon as possible. Department of Environmental Safety will come up with a statistics analysis based on health check results, adjust employee's work style and conduct follow-up and health management. Health check results for special operation employees will be submitted to local competent authorities for reference.

In 2021, a total of 173 employees in Lin Yuan Factory accepted general health check with a checking rate of 100%. A total of 87 man/times accepted special operation health check which included types of operations for benzene, n-hexane, ionizing radiation, nickel and its compounds. This year's inspection results for health check are normal and there is no finding of impairment on employee's lung functions. For Taipei Headquarters, one health check is conducted for every 3 years and items provided for health check are better than those required by laws. Expenses for basic health check will be fully subsidized by the Company. In 2021, there were a total of 49 employees in Taipei Headquarters accepted health check. For employees who had completed health check earlier in that year, the Company also considered these employees as also participating in this health check and offered full-amount subsidy accordingly.

For the purpose of responding to COVID-19 pandemic as well as protecting employee's health during Command Center's announcement of nationwide level 3 alert in 2021, Taipei Headquarters implemented alternate work from home and offered taxi commute subsidy to employees to reduce employee's risk of pandemic infection through public transportation.

5.5 Labor-Management Relations

Scope of labor/management is wide. Every labor term including wage, work time, holiday, leave, health and safety, benefit facilities and protection over child labor and female worker falls within the scope. For the sake of their respective interests, both parties of labor and management unite with each other and communicate with each other to achieve win-win purpose.

5.5.1 Labor Union System

Labor union is a medium group between government and labor. It is also a critical bridge between labor and management. Labor union is the most critical part of civil associations. It plays an important role in a nation's political development, social stability, economic prosperity and happy life.

Formosan Union Chemical Corporation establishes "Formosan Union Chemical Corporation Labor Union" and holds routine member assembly. One labor union meeting had already been held in 2021. Labor's opinions were heard through the meeting. Meeting results will be communicated and discussed between labor union representatives and management to ensure a more harmonious labor/management relationship.



5.5.2 Labor/Management Relationship Committee

The Company has established regular communication mechanism with employee. In terms of operation changes which may cause significant impact to employees, Formosan Union Chemical Corporation regularly holds labor/management meeting in each quarter. Four labor/management meetings had already been held in 2021 for communication and discussions on work related respective fields. Employees may freely check on labor/management meeting resolutions. Meanwhile, monthly publication of "Formosan Union Newsletter" offers timely notification on operation changes which may cause impact. Good communication ensures the Company's harmonious labor/management relationship. There is no major labor/management dispute for this year.

Formosan Union Newsletter Cover Page

FUCC

和益通訊
黃登選題

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06

Social Engagement

6.1 Community Relations and
Sponsorship

6.2 Social Welfare Activities

Social Engagement

We firmly believe that local links and fulfillment of social responsibility are even more important indicators for the quality of an enterprise than excellent business operations. We maintain very positive interactions with local communities in the vicinity of our Linyuan Plant and constantly monitor the impact of our operating activities on living environments with the ultimate goal of preventing harm to local environments. In addition, we have set up a special fund to provide subsidies and emergency aid for underprivileged groups. We encourage all staff members to participate in charity and social welfare activities since we are deeply convinced that the pursuit of the goal of an ideal society requires concerted efforts by all its members.

6.1 Community Relations and Sponsorship

6.1.1 Community care

The Linyuan Plant has adopted the following measures to give back to local communities to promote neighborly relations based on friendship and harmony:



Creation of employment opportunities

Employee statistics of the Linyuan Plant in 2021 reveal that 81 employees, accounting for over 47.6% of the plant’s workforce, have their household registration in Linyuan. This represents a significant contribution to raising the local employment rate.



Increase of local consumption

Priority is given to local suppliers in the procurement of materials and labor services provided that prices and quality are equal. The plant currently cooperates with over 30 local suppliers, which is a shot in the arm for the local economy.



Giving back to local communities

We have made total donations of around 1.286 million to the fund for harmonious neighborhood relations set up by the Linyuan Petrochemical Industry Zone. This fund provides emergency aid for low-income households and subsidizes community activities to demonstrate the commitment to concrete action in support of local communities.

6.1.2 Community safety

Based on a deep concern for community safety, Linyuan Plant has various procedures and controls in place to guarantee the safety of local residents and environments in the vicinity of the plant. We therefore strive to identify all potential impacts on local communities and adopt measures to protect the local environment accordingly. Community residents are notified of the results of such measures via public announcement or other means to give them a clear understanding of our efforts and achievements in the protection of their communities and demonstrate our sincerity in caring for them. The results and adopted measures can be described as follows:

Identification of potential negative social impacts	Results of the assessment of environmental and social impacts	Leakage eradication and hazard reporting method		
		Adopted control method	Preventive measures	Hazard reporting method (this only refers to external reporting)
Toxic and concerned chemical substances	Potential impact on sensory receptors	<ul style="list-style-type: none">● Implementation of management and hazard prevention measures for toxic and concerned chemical substances during operations● Due reporting of operational records	<ul style="list-style-type: none">● Placement of emergency response equipment● Detection and warning equipment● Disaster prevention and response training, drills, and education	Adoption of emergency control measures and notification of the competent authority under whose jurisdiction the incident takes place via phone or fax within the prescribed time limit

Leakage eradication and hazard reporting method

Identification of potential negative social impacts	Results of the assessment of environmental and social impacts	Adopted control method	Preventive measures	Hazard reporting method (this only refers to external reporting)
Waste gas	Potential air pollution hazard	<ul style="list-style-type: none"> Prevention of H-1 black smoke emissions at all work sites: Installation of black smoke detectors and SHUTDOWN devices 	<ul style="list-style-type: none"> Installation of continuous monitoring and recording facilities whose proper functioning can be effectively ensured VOCVOC testing conducted on a quarterly basis by commissioned third-party accreditation bodies 	Adoption of adequate response measures and notification of the competent authority via phone or fax within the prescribed time limit
Wastewater	Potential wastewater/ sewage contamination	<ul style="list-style-type: none"> Regular autonomous sampling and testing inside the wastewater/sewage plant Wastewater/sewage/rainwater discharge is carried out in accordance with applicable management regulations 	<ul style="list-style-type: none"> Installation of continuous monitoring facilities whose proper functioning can be effectively ensured Designation of dedicated personnel to ensure effective management of wastewater treatment 	The wastewater generated by the plant is channeled to the joint sewage plant of the industrial park for further treatment and processing. It is not discharged into surface water bodies and therefore has a relatively low impact on external environments and society in general
Waste	Potential waste contamination	<ul style="list-style-type: none"> Due reporting of waste generation, storage, and disposal Autonomous in-plant patrols, inspections, and management 	Regular tracking and audits by the competent authority to ensure the legality and safety of final treatment	No impact on external areas outside the plant
Soil and groundwater	Soil and groundwater contamination – originally listed for control and remediation	Implementation of a soil and groundwater remediation program; as a result of this program, site listing for soil and groundwater remediation was removed in 2021	Autonomous sampling and testing of groundwater for two years after lifting of controls	Due to successful implementation of improvements in 2021, EPA announced the removal of site listing and controls and ordered regular sampling and testing
Dust pollution	Dust pollution	Installation of properly functioning dust control equipment	Preventive maintenance and regular environmental monitoring	No impact on external areas outside the plant
Noise	Noise pollution	Regular in-plant and perimeter noise testing	Preventive maintenance and regular environmental monitoring	No impact on external areas outside the plant
Overall environmental monitoring	Environmental pollution	Daily routine patrols and inspections of environmental safety, manufacturing, storage, and transportation	Regular environmental monitoring	Due reporting



6.2 Social Welfare Activities

Due to our deep roots in Taiwan, we actively participate in community development and activities organized by charity and social welfare organizations to provide community residents with a better living environment and give back to local villages and townships. In addition, our employees have spontaneously formed a charity club which is engaged in various tasks

Support for maintenance of law and order

In 2021, Linyuan Plant donated investigation equipment to the Investigation Unit of Linyuan Precinct to show its gratitude for the dedicated efforts of the local precinct and thereby strengthen law and order and give back to the community.



Support for orphaned and abandoned children and teenagers

FUCC donated NT\$ 100,000 to the Holy World Foundation Children's Home. The goal is to offer these underprivileged children and teenagers care and support and a loving and welcoming home, show them the right direction.



Sponsorship of a student tennis tournament

Based on the belief that a strong youth is a key prerequisite for a strong nation, FUCC subsidized the New Taipei Municipal Bi-Hua Junior High School Tennis Invitational Tournament with a donation of NT\$ 100,000 to cultivate an athletic spirit and encourage students to actively participate in sports tournaments with the goal of strengthening their physique and enabling them to learn valuable lessons from victory or defeat.



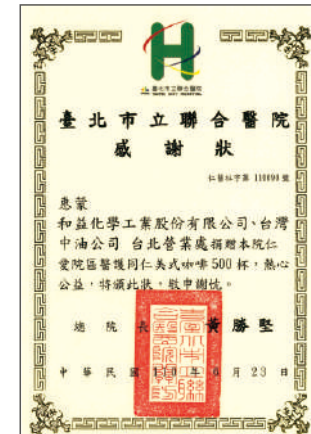
Donation in support of Taiwanese- Japanese Friendship

During the Covid-19 pandemic, the Japanese government donated vaccines to assist Taiwan in weathering this crisis. The Taiwan-Japan Cultural and Economic Association organized an event titled "Celebration of the Tokyo Olympics Opening Ceremony" to show its appreciation for the support and assistance provided by Japan. FUCC donated NT\$ 50,000 for this event to demonstrate its strong support for the mutual friendship between these two countries.



Token of appreciation for the efforts of healthcare workers

In recent years, first-line healthcare workers have been tireless in their efforts to combat the COVID-19 pandemic. FUCC donated 500 cups of Americano to Taipei City Hospital to show its gratitude and appreciation for their dedicated and selfless contributions.





07

Appendix

Appendix: GRI Content Index
Sustainability Accounting Standards Board (SASB) Index
Third-Party Assurance Statement

Appendix GRI Content Index

★ Material topic

Topic	Disclosure	Description	Corresponding chapter	Page
GRI 102: General Disclosures				
Organizational profile	102-1	Name of the organization	1.1 Company Profile	07
	102-2	Activities, brands, products, and services	3.1 Product Overview	39
	102-3	Location of headquarters	1.1 Company Profile	07
	102-4	Location of operations	1.1 Company Profile	07
	102-5	Ownership and legal form	1.1 Company Profile	07
	102-6	Markets served	3.3.2 Customer Services	44
	102-7	Scale of the organization	1.1 Company Profile 5.1 Staff Structure	07 75
	102-8	Information on employees and other workers	5.1 Staff Structure	75
	102-9	Supply chain	3.1.1 Up-, Mid-, and Downstream Linkages 3.3.1 Supply Chain Management	39 44
	102-10	Significant changes to the organization and its supply chain	No significant changes occurred during the current reporting period	
	102-11	Precautionary Principle or approach	2.3.2 Risk Management	23
	102-12	External initiatives	Nil	
	102-13	Membership of associations	1.3 Membership in Societies and Associations	08
Strategy	102-14	Statement from senior decision-maker	Message from the Chairman	02
★ Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	2.2 Ethical Corporate Management	19

Topic	Disclosure	Description	Corresponding chapter	Page
★Governance	102-18	Governance structure	2.1 Organization Structure	12
	102-19	Delegating authority	2.4.2 Establishment of Sustainable Development Committee	30
	102-21	Consulting stakeholders on economic, environmental, and social topics	2.4.1 Stakeholder Engagemen	30
	102-25	Conflicts of interest	2.2 Ethical Corporate Management	19
	102-26	Role of highest governance body in setting purpose, values, and strategy	3.2.2 Competitive Niche 3.2.3 Factors Favorable and Unfavorable to the Development Vision	42 43
	102-36	Process for determining remuneration	2.1.3 Remuneration Committee	17
Stakeholder engagement	102-40	List of stakeholder groups	2.4.4 Verification of Stakeholders	31
	102-41	Collective bargaining agreements	5.1 Staff Structure	75
	102-42	Identifying and selecting stakeholders	2.4.4 Verification of Stakeholders	31
	102-43	Approach to stakeholder engagement	2.4.5 Collection of Sustainable Issues	31
	102-44	Key topics and concerns raised	2.4.5 Collection of Sustainable Issues	31
Reporting practice	102-45	Entities included in the consolidated inancial statements	Editorial Policy	04
	102-46	Deining report content and topic Boundaries	2.4.6 Investigation of Stakeholder' s Topics of Concern and Analysis of Significance	33
	102-47	List of material topics	2.4.6 Investigation of Stakeholder' s Topics of Concern and Analysis of Significance	33
	102-48	Restatements of information	There are no influences or reasons to re-draft any materials provided by 2020 report	
	102-49	Changes in reporting	There are no obvious changes in scope and consideration boundaries compared with the ones in report period for 2020.	

Topic	Disclosure	Description	Corresponding chapter	Page
Reporting practice	102-50	Reporting period	Editorial Policy	04
	102-51	Date of most recent report	Editorial Policy	04
	102-52	Reporting cycle	Editorial Policy	04
	102-53	Contact point for questions regarding the report	Editorial Policy	04
	102-54	Claims of reporting in accordance with the GRI Standards	Editorial Policy	04
	102-55	GRI content index	Appendix: GRI Content Index	91
	102-56	External assurance	Appendix: Assurance Statement	101
Economic Aspects				
★Economic Performance				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	3.2 Market Analysis	42
	103-2	The management approach and its components	3.2.2 Competitive Niche	42
	103-3	Evaluation of the management approach	3.2.3 Factors Favorable and Unfavorable to the Development Vision	43
GRI 201: Economic Performance 2016	202-1	Direct economic value generated and distributed	3.4.1 Operational Performance	47
	202-3	Defined benefit plan obligations and other retirement plans	5.3 Employee Care and Benefits	81
Procurement Practices				
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	3.3.1 Supply Chain Management	44
Anti-corruption				
GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	2.2 Ethical Corporate Management	19

Topic	Disclosure	Description	Corresponding chapter	Page
Environmental Aspects				
Materials				
GRI 301 : Materials 2016	301-1	Materials used by weight or volume	4.2.3 Raw Material Use	63
Energy				
GRI 302: Energy 2016	302-1	Energy consumption within the organization	4.2.1 Direct Energy Consumption	61
	302-3	Energy intensity	4.2.1 Direct Energy Consumption	61
	302-4	Reduction of energy consumption	4.2.2 Energy Conservation	63
Water				
GRI 303: Water 2016	303-1	Water withdrawal by source	4.1.7 Water Resources and Wastewater Treatment	59
	303-2	Water sources significantly affected by withdrawal of water	4.1.7 Water Resources and Wastewater Treatment	59
Emissions				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	4. Environment and Safety	51
	103-2	The management approach and its components	4. Environment and Safety	51
	103-3	Evaluation of the management approach	4. Environment and Safety	51
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	4.1.2 Direct GHG Emissions (Scope 1)	55
	305-2	Energy indirect (Scope 2) GHG emissions	4.1.3 Energy Indirect (Scope 2) and Other Indirect GHG Emissions (Scope 3)	57
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	4.1.4 Air Pollution Control and Improvements	57
★ Waste				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	4. Environment and Safety	51
	103-2	The management approach and its components	4. Environment and Safety	51
	103-3	Evaluation of the management approach	4. Environment and Safety	51

Topic	Disclosure	Description	Corresponding chapter	Page
★ Waste				
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	4.1.5 Waste Treatment and Control	58
	306-2	Management of significant waste-related impacts	4.1.5 Waste Treatment and Control	58
	306-3	Waste generated	4.1.5 Waste Treatment and Control	58
★ Environmental Compliance				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	2.2 Ethical Corporate Management 4.1 Legal Compliance and Environmental Protection	19
	103-2	The management approach and its components		52
	103-3	Evaluation of the management approach		
GRI 307 : Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	2.2 Ethical Corporate Management	19
			4.1 Legal Compliance and Environmental Protection	52
Supplier Environmental Assessment				
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	3.3.1 Supply Chain Management	44
	308-2	Negative environmental impacts in the supply chain and actions taken (Mandatory requirements from Taiwan Stock Exchange on chemical industry)	3.3.1 Supply Chain Management 6.1.2 Community safety	44 87
Social Aspects				
★ Employment				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	5.3 Employee Care and Benefits	81
	103-2	The management approach and its components	5.3 Employee Care and Benefits	81
	103-3	Evaluation of the management approach	5.3.3 Employee Care	83

Topic	Disclosure	Description	Corresponding chapter	Page
Social Aspects				
★ Employment				
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	5.1.1 Percentages for New Employees 5.1.2 Employee Statistics	76
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.3.4 Benefit Measures	84
	Salary	The company shall disclose the number of its full-time employees who are not in a managerial position, the average and medium of the salaries of the full-time employees who are not in a managerial position, and the difference of the three figures from the previous year (Mandatory requirements from Taiwan Stock Exchange on all industries)	5.3.1 Employee' s Rights	82
Labor/Management Relations				
GRI 402: Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	5.5.2 Labor/Management Relationship Committee	85
★ Occupational Health & Safety				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	4.3 Work Safety	64
	103-2	The management approach and its components	4.3 Work Safety	64
	103-3	Evaluation of the management approach	4.3 Work Safety	64
GRI 403: Occupational Health & Safety 2018	403-1	Occupational health and safety management system	4.3 Work Safety	64
	403-2	Hazard identification, risk assessment, and incident investigation	4.3 Work Safety	64
	403-3	Occupational health services	4.3 Work Safety	64
	403-4	Worker participation, consultation, and communication on occupational health and safety	4.3 Work Safety	64
	403-5	Worker training on occupational health and safety	4.3 Work Safety	64
	403-6	Promotion of worker health	4.3 Work Safety	64
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.3 Work Safety	64
	403-10	Work-related ill health	4.3 Work Safety	64

Topic	Disclosure	Description	Corresponding chapter	Page
★Training and Education				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	5.2 Training & Education	77
	103-2	The management approach and its components	5.2 Training & Education	77
	103-3	Evaluation of the management approach	5.2 Training & Education	77
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	5.2.1 Average Hours of Employee Education and Training	78
Non-discrimination				
GRI 406 : Non- discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	5.3.3 Employee Care	84
Local Communities				
GRI 413 : Local Communities 2016	413-2	Operations with significant actual and potential negative impacts on local communities (Mandatory requirements from Taiwan Stock Exchange on chemical industry)	6.1.2 Community safety	87
Supplier Social Assessment				
GRI 414: Supplier Social Assessment 2016	414-2	Negative social impacts in the supply chain and actions taken (Mandatory requirements from Taiwan Stock Exchange on chemical industry)	3.3.1 Supply Chain Management	44
Marketing and Labeling				
GRI 417: Marketing and Labeling 2016	417-2	Incidents of non-compliance concerning product and service information and labeling	3.2 Market Analysis	42
Customer Privacy				
GRI 418: CUSTOMER PRIVACY 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.3.3 Customer Satisfaction Surveys	46

Topic	Disclosure	Description	Corresponding chapter	Page
Socioeconomic Compliance				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries		
	103-2	The management approach and its components	2.2 Ethical Corporate Management	19
	103-3	Evaluation of the management approach	5.3.3 Employee Care	83
GRI 419: Socioeconomic Compliance 2016	404-1	Non-compliance with laws and regulations in the social and economic area	2.2 Ethical Corporate Management	19
			5.3.3 Employee Care	83

Sustainability Accounting Standards Board (SASB) Index

Chemical Industry SASB Standards		CODE	Corresponding chapter	Remark
Greenhouse Gas Emissions	Gross global Scope 1 emissions (in tonnes of Co2e), percentage(%) covered under emissions-limiting regulations	RT-CH-110a.1	4.1.1 GHG Reduction Strategy	Partial disclosure
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	RT-CH-110a.2	4.1.1 GHG Reduction Strategy	Partial disclosure
Energy Management	(1) Total energy consumed(GJ), (2) percentage(%) grid electricity, (3) percentage(%) renewable, (4) total self-generated energy(GJ)	RT-CH-130a.1	4.2 Energy Resource Management	Partial disclosure
	Management strategy to enhance energy efficiency and energy structure strategy, including self-generated energy or what kind of forms for renewable energy to offset electricity fee	RT-CH-130a.1	4.2 Energy Resource Management	Partial disclosure
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	RT-CH-140a.1	4.1.7 Water Resources and Wastewater Treatment	Partial disclosure
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	RT-CH-140a.2	4.1.7 Water Resources and Wastewater Treatment	Partial disclosure
	Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	4.1.7 Water Resources and Wastewater Treatment	
Hazardous Waste Management	Amount of hazardous waste generated, percentage recycled	RT-CH-150a.1	4.1.5 Waste Treatment and Control	Partial disclosure
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	RT-CH-320a.1	4.3 Work Safety	Partial disclosure
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	RT-CH-320a.2	4.3 Work Safety	Partial disclosure

Chemical Industry SASB Standards		CODE	Corresponding chapter	Remark
Genetically Modified Organisms	Percentage of products by revenue that contain genetically modified organisms	RT-CH-410c.1	Company does not have genetically modified products	
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	2.2 Ethical Management	
Operational Safety, Emergency Preparedness & Response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	4.3 Work Safety	
	Number of transport incidents	RT-CH-540a.2	4.3 Work Safety	

Third-Party Assurance Statement



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Independent Limited Assurance Report

To Formosan Union Chemical Corp.

We were engaged by Formosan Union Chemical Corp. ("FUCC") to provide limited assurance over the selected information attached as Appendix I ("the Underlying Subject Matter") on the 2021 Sustainability Report of FUCC ("the Report") for the year ended December 31, 2021.

Reporting Criteria of the Underlying Subject Matter

FUCC shall prepare the Underlying Subject Matter in accordance with reporting criteria required by the Subparagraph 2, Paragraph 1, Article 4 of Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies ("the Regulation") as set forth in Appendix I.

Management's Responsibility for the Report

FUCC is responsible for determining its objectives with respect to sustainable development performance and reporting, including the identification of stakeholders and material aspects, and using the reporting criteria to fairly prepare and present the Underlying Subject Matter. FUCC is also responsible for establishing and maintaining internal controls relevant to the preparation and presentation of the Underlying Subject Matter that is free from material misstatement, whether due to fraud or error.

Our Responsibilities

We performed our work in accordance with the Standard on Assurance Engagements No. 1 – "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation and to issue a limited assurance conclusion on whether the Underlying Subject Matter is free from material misstatement. Also, we have considered appropriate limited assurance procedures according to the understanding of relevant internal controls in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the internal control over the design or implementation of the Report.

Independence, Professional Standards and Quality Control

We have complied with the independence and other ethical requirements of the Code of Professional Ethics for Certified Public Accountant in the Republic of China, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In addition, we applied Statements of Auditing Standard No. 46 – "Quality Control for Public Accounting Firms" in the Republic of China. Accordingly, we maintained a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements and professional standards as well as applicable legal and regulatory requirements.

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Summary of Work Performed

As stated in reporting criteria of the Underlying Subject Matter paragraph, our main work on the selected information included:

- Reading the Report of FUCC;
- Inquiries with responsible management level and non-management level personnel to understand the operational processes and information systems used to collect and process the Underlying Subject Matter;
- On the basis of the understanding obtained mentioned above, perform analytical procedures on the Underlying Subject Matter and if necessary, inspect related documents to gather sufficient and appropriate evidence in a limited assurance engagement.

The work described above based on professional judgment and consideration of the level of assurance and our assessment of the risk of material misstatement of the Report, whether due to fraud or error. We believe that the work performed and evidence we have obtained are sufficient and appropriate to provide a basis of our conclusion. However, the work performed in a limited assurance engagement varies in nature and timing from, and is less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained has a reasonable assurance engagement been performed.

Inherent limitations

The Report for the year ended December 31, 2021 includes the disclosures of non-financial information that involved significant judgments, assumptions and interpretations by the management of FUCC. Therefore, the different stakeholders may have different interpretations of such information.

Conclusion

Based on the work we have performed and the evidence we have obtained, as described above, nothing has come to our attention that causes us to believe that the Underlying Subject Matter has not been properly prepared, in all material aspects, in accordance with the reporting criteria.

Other Matters

The management of FUCC is responsible for the maintenance of its website where includes the Limited Assurance Report, we shall not be responsible for any further changes on the Underlying Subject Matter or its applicable reporting criteria, nor be responsible for reconducting any assurance work after the issuance date of the Limited Assurance Report.

KPMG

Taipei, Taiwan (Republic of China)
August 24, 2022

Notes to reader

The limited assurance report and the accompanying selected information are the English translation of the Chinese version prepared and issued in the Republic of China. If there is any conflict between, or any difference in the interpretation of, the English and Chinese language limited assurance report and the selected information, the Chinese version shall prevail.

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Appendix I: Summary of the Selected Information

No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
1	4.Environment and Safety_4.2.1 Direct Energy Consumption	61	<ul style="list-style-type: none"> FUCC consumes fuel oil, electricity, steam, and natural gas in its operating activities. The company's total energy consumption amounted to 1,222,811GJ in 2021. <ul style="list-style-type: none"> Fuel oil: 221,865 GJ Steam: 30,827 GJ Electricity: 132,789 GJ Natural gas: 817,330 GJ According to the Greenhouse Gas Emission Factor Management Table (6.0.4), the fuel oil and natural gas heating values are 9,600kcal/l and 9,000 kcal/m³, respectively. One kcal equals 4,186J (Joule) and one kWh is equivalent to 3,600KJ, 1GJ=1*10⁹kcal. Steam consumption amounts have been recorded since 2021. The assumed steam heating value is 664,670kcal. 	<ul style="list-style-type: none"> Details on energy consumption by FUCC 	<p>Items 1, Subparagraph 2, Article 4</p> <p>Total energy consumption</p>
2	4.Environment and Safety_4.1.7Water Resources and Wastewater Treatment	59	<ul style="list-style-type: none"> The FUCC Linxuan Plant is situated in a non-conservation area in an Industrial Park zone. Taiwan Water Corporation supplies all the intake water of the Company (a total of 110.07 million liters in 2021). Total wastewater discharge reached 64.5 million liters in 2021. 	<ul style="list-style-type: none"> Details on water consumption by FUCC 	<p>Items 2, Subparagraph 2, Article 4</p> <p>Total amount of water withdrawn, and volume of effluent required to be disclosed under the law or to be disclosed voluntarily</p>
3	4.Environment and Safety_4.1.5 Waste Treatment and Control	58	<ul style="list-style-type: none"> Waste treatment is outsourced to qualified waste disposal and treatment businesses pursuant to environmental regulations of the competent authority and the company doesn't engage in cross-border transportation and treatment of hazardous waste. All waste disposal and treatment operations are tracked and audited by competent departments to ensure the legality and safety of final treatment. No serious leakages of 	<ul style="list-style-type: none"> Details on waste disposal by FUCC 	<p>Items 3, Subparagraph 2, Article 4</p> <p>Total quantity of hazardous wastes generated during the production process of</p>

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			<p>waste or raw materials were recorded in 2021. Waste disposal amounts in recent years are specified in the table below. Due to the fact that Taipei HQ is situated in a collective office building, all generated waste is disposed of collectively by the Building Management Committee. Waste amounts of individual users are therefore not recorded separately. However, the Company carries out waste sorting in accordance with official announcements of the Committee.</p> <ul style="list-style-type: none"> Hazardous waste generated by the Linxuan Plant amounted to 0.02 tons in 2021. 		<p>products required to be disclosed under the law or to be disclosed voluntarily</p>
4	4.Environment and Safety_4.3.6 Occupational accident statistics	71-72	<ul style="list-style-type: none"> We have achieved the goal of zero occupational accidents in 2021. We have established an occupational accident management mechanism and administer occupational safety training on a regular basis to facilitate rapid responses and post-incident management. This includes root cause analysis and adoption of corrective action and improvement plans upon deliberation to prevent recurrence of similar incidents. FUCC Occupational Safety Statistics in 2021 <ul style="list-style-type: none"> Occupational injury death rate: <ul style="list-style-type: none"> Occupational injury death rate (FUCC employees): 0 Occupational injury death rate (Contractor personnel): 0 Severe occupational injury rate (excluding deaths): <ul style="list-style-type: none"> Severe occupational injury rate (FUCC employees): 0 Severe occupational injury rate (Contractor personnel): 0 Recordable occupational injury rate (including deaths and severe occupational injuries): <ul style="list-style-type: none"> Recordable occupational injury rate (FUCC employees): 0 Recordable occupational injury rate (Contractor personnel): 0 FUCC Quantified Occupational Safety Statistics 	<ul style="list-style-type: none"> Details on Performance of Occupational Safety and Health by FUCC 	<p>Items 4, Subparagraph 2, Article 4</p> <p>Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities</p>

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			<p>in 2021</p> <ul style="list-style-type: none"> Disabling Injury Frequency Rate (FR) <ul style="list-style-type: none"> Total: 0 Female: 0 Male: 0 Occupational Disease Rate (ODR) <ul style="list-style-type: none"> Total: 0 Female: 0 Male: 0 Lost Day Rate (LDR) <ul style="list-style-type: none"> Total: 0 Female: 0 Male: 0 Absence Rate <ul style="list-style-type: none"> Total: 0 Female: 0 Male: 0 		

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