FUCC

2022 FUCC

Sustainability Report

Contents

Message from the Chairman

Formosan Union Chemical Corporation (below referred to as FUCC) through the annual process of release sustainability reports provide us with an opportunity to review pratices in the environmental ,social, corporate governance and economic sustainability fields,and urge ourselves to strive for continuous improvement . Looking back on 2022, the continuing global economic tension caused by the Russo-Ukrainian War and 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 external environment. 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.
- 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. In 2022, subsidiary UPM will be included in this year's disclosure of sustainability performance.

Sustainability 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 demonstrates 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 2022, total reductions in different areas exceed 30%. Concrete achievements are as follows:

- Reduction of industrial waste by 8.3% compared to 2021
- Decrease of running water consumption by 4.35% compared to 2021

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 2022 are as follows:

- Zero accidents for seven consecutive years
- Organization of four trade union and four labor-management meetings in 2022 – 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 orreported in 2022

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 cover the period from January 1 to December 31, 2022. It is the 8th complete CSR report released by Formosan Union Chemical Corporation. For the current fiscal year, subsidiary UPM is included for the first time in the consolidated disclosure of this report. We have adopted the requirements set out in 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 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.3000 (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 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 economic and financial performance discussed in this report pertains to the consolidated financial statements. 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 and UPM Pingnan Plant in Pingtung. Our disclosure of social performance indicators focuses on FUCC and UPM operating sites in Taiwan, including the FUCC Corporate HQ in Taipei, FUCC Linyuan Plant in Kaohsiung, UPM Corporate HQ in Taipei, and UPM Pingnan Plant in Pingtung. 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. Furthermore, in Section 6.1.1 Community Care, information is exclusively related to FUCC, while the remaining sections include content pertaining to UPM.

Report Preparation Management Process

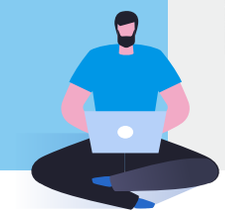
Stage	Topic	Competent Unit
Collection of issues	1.Determination of stakeholders 2.Collection of topics of concerns 3.Determination of material topics	Sustainability Committee
Compilation and organization	Compilation of management approaches and performance information	Sustainability Committee
Preparation 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

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

Publication Date and Frequency

FUCC releases reports on an annual basis.
Publication dates are follows:
Previous issue: September 2022
This issue: September 2023
Next issue (projected): September 2024.



Please don’ t hesitate to contact us if you have any questions or suggestions regarding this report.
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FUCC stakeholders section
http://www.fucc.com.tw/fucc/fucc_index_contact.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_retailer1.asp

1.1Company Profile

FUCC

Company name: 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

UPM

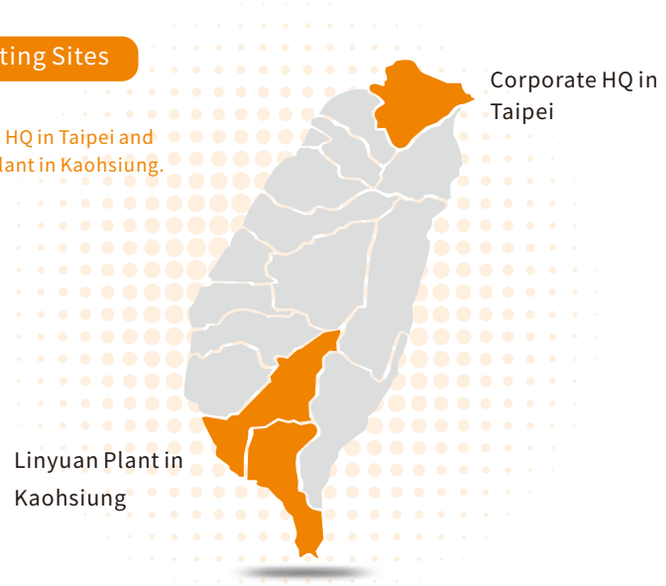
Company name: United Performance Materials Corporation
Date of establishment: June 21, 1973
Total capital: NT$ 919,372,000
Revenue: NT$ 1,694,384,000
Industry type: Petrochemical Materials Manufacturing
Corporate HQ: 13F.-5, No. 206, Sec. 2, Nanjing E. Rd., Zhongshan Dist., Taipei City
Operating Site: Pingnan Plant in Pingtung

Annual Production Capacity (Unit: metric tons): Alkalization series 131,583/ Resin series 45,662/Pesticide and others 2,149
Note: The scope of annual production capacity is the same as that of consolidated financial statements.

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 nationwide. 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 environment 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.

Operating Sites

Note:
Corporate HQ in Taipei and Linyuan Plant in Kaohsiung.



1.2Business 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

- Strengthening of R&D and process improvements, development of new product applications, implementation of ISO 9001 quality management and ISO 14001 environmentalmanagement 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 downstreambusinesses 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 andenvironmental 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, andenhancement 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 social responsibility 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.

Society/Association	Participant	Mission & Vision	Role
Taiwan Cleaning Product Association	FUCC	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)	FUCC	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)	FUCC	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)	FUCC	PIAT strives to boost economic development through coordination of relations between competitors, enhancement of mutual benefits, and pursuit of industry improvements and promotion.	Member
Linyuan Petrochemical Industry Zone Manufacturer Conference	FUCC	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

Society/Association	Participant	Mission & Vision	Role
Sino-Arabian Cultural & Economic Association	FUCC	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)	FUCC	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)	FUCC	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
Taiwan Synthetic Resins & Adhesives Industrial Association	UPM	Investigation, statistics, research, improvement, and development matters concerning the domestic and international synthetic resin adhesive industry, as well as mediation of disputes among peers and assistance in the resolution of labor-management disputes.	Member
Taiwan Regional Association of Adhesive Tape Manufacturers (TAAT)	UPM	Investigation, statistics, research, improvement, and development matters related to the domestic and international adhesive tape industry, as well as coordination of technical collaborations and promotion activities.	Member

1.4 Awards and Recognitions

2011

- Taiwan Excellence Gold Awards – Minister of Economic Affairs Award (ranked 20th)
- Supplier Excellence Award presented by Kao (Taiwan) Corporation

2012~2020

- Ranking Among the Top 500 Companies in Terms of Export/Import Performance

2021

- Ranked 328th among the Top Taiwanese Importers/Exporters in Terms of Export/Import Performance


出進口績優廠商
證明標章授予證書
和益化學工業股份有限公司
Award for International Trade
Outstanding Export/Import Business Certificate
This is to certify that
FORMOSAN UNION CHEMICAL CORPORATION
Cynthia Kiang
Director-General
Bureau of Foreign Trade, MOEA

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 stakeholders' rights through the 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 shareholders' maximum benefits. The Shareholders' Meeting is the ultimate decision-making body, while the Board of Directors Meeting and its respective functional committees are responsible for the supervision and execution of operation. The Chairman of the Board does not assume any posts in the Company's senior management. The responsibility of the Company's operation lies in the hands of a professional management team to ensure the achievement of operation performance. Shareholders' Meeting regularly listens to reports made by the 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 the review of financial performance for the purpose of ensuring the Company's compliance with various regulations. The 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 the 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 2022 is as follows:

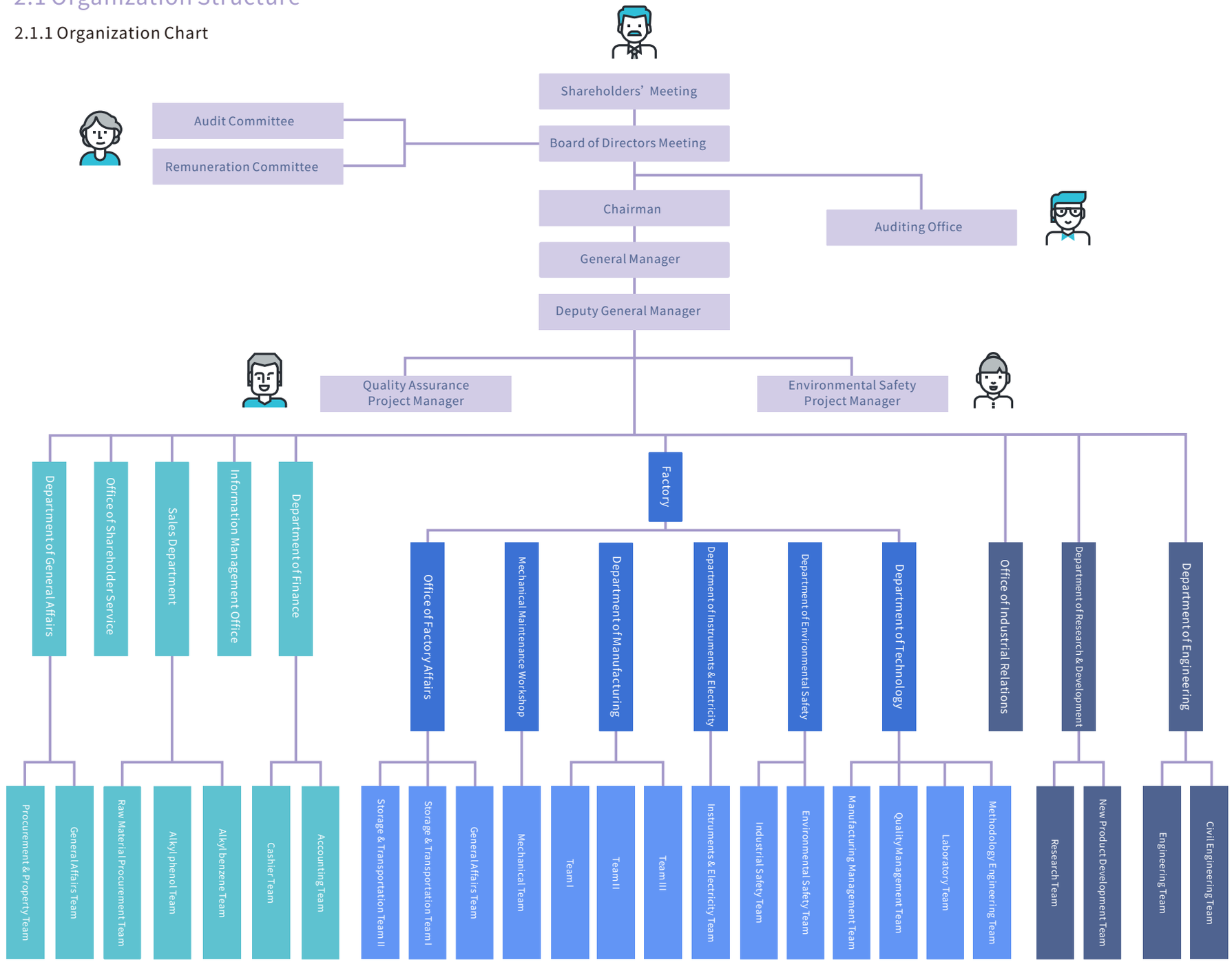
01 Approval of the Company’ s Articles of Incorporation
02 Revision of Shareholders' Meeting Rules
03 Amendment of Asset Acquisition or Disposal Procedures
04 Establishment of Job Authorization and Agency System
05 Revision of Internal Control System Standards in the Share Service Unit
06 Formulation of Sustainable Reporting and Verification Procedures

Corporate Governance Procedures(Presented in a Stage-by-Stage Flowchart)

Stage	Approach
Compliance	Establish a system that complies with corporate governance-related requirements from competent authorities such as the Taiwan Stock Exchange and diligently execute the system.
Competence	Establish a Remuneration Committee and Audit Committee with members composed of independent directors to ensure the fulfillment of supervision responsibilities and the management team's compliance with regulations in terms of operations. Both committees regularly report to the Board of Directors Meeting.
Assessment	Participate in Corporate Governance Assessment Operations for Listed/OTC Companies each year and conduct regular reviews of strategies to optimize corporate governance effectiveness through benchmarking.
Communication	Hold Regular Shareholders' Meetings on a routine basis to convey messages, including those related to corporate governance. Compile an annual report and corporate sustainability report and disclose messages concerning corporate sustainability and risk control on the website.
Disclosure	Take responsibility for stakeholders by publishing the Board of Directors Meeting's decisions on critical resolutions on the website.

2.1 Organization Structure

2.1.1 Organization Chart



Department	Major Responsibilities
Audit Committee	This committee assists the Board of Directors Meeting in fulfilling its supervision over the quality and integrity of the Company's execution of processes related to accounting, auditing, financial reporting, and financial control.
Remuneration Committee	This committee is responsible for strengthening the Company's remuneration system for directors, supervisors, and managers. The committee is commissioned through a Board of Directors Meeting resolution and convenes meetings in accordance with regulations.
Auditing Office	This office is responsible for verifying the establishment of an internal audit system, implementing reviews and audits of the 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 financial management, wealth management analysis, capital utilization, and handling accounting and tax matters.
Department of General Affairs	This department is responsible for investment planning, the purchase of materials, and related tasks in 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 the arrangement of production plans and production management in respective factories.
Department of Technology	This department is responsible for product quality assurance and the improvement of the current manufacturing process.
Department of Environmental Safety	This department is responsible for planning and supervising industrial safety and health design, as well as promoting and executing environmental protection business.
Department of Instruments & Electricity	This department is responsible for the management of instruments and electrical engineering.
Mechanical Maintenance Workshop	This workshop is responsible for the installation and maintenance of all machinery and equipment in the factory.
Office of Factory Affairs	This office is responsible for factory purchasing, storage and transportation, warehouse operations, and the management and maintenance of buildings.
Department of Engineering	This department is responsible for the 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 computer operation systems, program design, and information management.
Office of Shareholder Service	This office is responsible for the preparation of shareholder meetings and Board of Directors Meetings, as well as related business on shareholder service.

2.1.2 Board of Directors Meeting

In addition to consideration of the 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

Crisis Management Capability

Operation 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.

To supervise the implementation of corporate governance, independent directors and internal audit executives hold regular seminars with accountants and make records accordingly

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

Performance of Corporate Governance Execution

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

- An 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."

Director Nomination and Selection Process

01 Qualifications

In accordance with the company's articles of incorporation, corporate governance best practices, and director election regulations, the election of directors (including independent directors) follows a candidate nomination system. The Board of Directors considers individuals recommended by directors from various fields of expertise for directorship, and the list of directors (including independent director) candidates is reviewed by the Board to ensure they possess the required knowledge, skills, and qualifications.

02 Invitation and Document Review

The Chairman of the Board extends invitations to the selected candidates who have passed the screening process to become director (including independent director) candidates. Upon obtaining the candidate's consent, they are requested to complete a Director (including Independent Director) Educational and Professional Background Declaration, accompanied by copies of their highest educational degree or relevant academic credentials, professional certifications, and documents verifying their past and current positions held, issued by respective institutions.

03 Board Resolution

The nomination of director (including independent director) candidates is submitted for discussion and resolution by the Board of Directors. Once approved, the candidates are elected and appointed at the shareholders' meeting.

Director's Responsibilities:

A director's responsibilities include ensuring the Company's compliance with all relevant government regulations, preventing conflicts of interest, and making decisions on critical Company matters. The Board of Directors Meeting convenes at least once each quarter. To establish an effective governance system for the Board of Directors Meeting, enhance supervision functions, and improve management mechanisms, meeting procedure rules have been established for compliance, following the requirements outlined in the "Regulations Governing Procedure for Board of Directors Meetings of Public Companies."

In recent years, Formosan Union Chemical Corporation has been progressively planning to establish a comprehensive corporate governance system and is committed to becoming a sustainably operated enterprise. Considering that there are no specific conflicts of interest between independent directors and the Company's operations, independent directors provide objective and unbiased opinions based on their professionalism and independence to diversify decision-making during Board of Directors Meetings. The establishment of independent directors assists in supervising the Company's operations while safeguarding shareholder rights. Formosan Union Chemical Corporation modified its articles of incorporation and established independent directors and an audit committee during the Board of Directors Meeting elections in 2017.

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

To uphold the spirit of corporate governance and enhance information transparency, Formosan Union Chemical Corporation fully discloses information regarding various operations and finances on the annual report, the company website, and the market observation post system.

The Board of Directors Meeting is responsible for passing resolutions related to the operation plan and (semi)annual financial reports, reviewing the Company's established or modified internal control system, and examining handling procedures prepared or modified by the Company for significant financial or business conducts, such as asset acquisition or disposal, derivative product transactions, capital lending, endorsement/guarantees for others, and more. The Board of Directors Meeting also reviews matters involving directors' interests, transactions involving significant assets or derivative products, major capital lending, endorsements, or guarantees, equity-type securities offerings, the appointment or dismissal of certified accountants and the compensation they receive, and significant matters related to the hiring or dismissal of finance, accounting, or internal audit executives. Any objections or reservations from independent directors, if any, will be recorded in the meeting minutes.

Prevention of Conflict of Interests:

Formosan Union Chemical Corporation' s Ethical Management Procedures and Conduct Guidelines specifically prescribe that directors shall possess a high degree of self-discipline. In the event that a director or the legal entity represented by a director has personal interests in proposals listed in the Board of Directors Meeting, and such interests may harm the Company's interests, such director may express their 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 engage in inappropriate support for one another. In the fiscal year 2022, there were no situations in which any director needed to recuse themselves from conflicts of interest resolutions.

Composition of Board of Directors Meeting:

At present, Formosan Union Chemical Corporation has 19 director positions, with 2 female directors, accounting for 10.5% of the total board members. According to relevant regulations, shareholders holding more than 1% of the total outstanding shares issued by the Company have the right to propose a list of director candidates.

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

The structure of Formosan Union Chemical Corporation's Board of Directors Meeting not only complies with relevant regulatory requirements but also determines appropriate director positions based on the Company's operational development scale, the status of major shareholders' holdings, and the practical needs of operations. Members of the Board of Directors Meeting generally possess the knowledge, skills, and competence required to perform their duties, and they also bring diversified perspectives and policies.

Operations of Board of Directors Meeting:

The Board of Directors Meeting is convened at least once each quarter to review corporate operational performance and discuss critical strategies and issues. Critical resolutions from the Board of Directors Meeting are also promptly published on the Taiwan Stock Exchange's Market Observation Post System and the Corporate Governance Section of the Company's website. The Company's articles of incorporation and rules for meeting procedures for the Board of Directors Meeting are also openly published for inquiry purposes.

A total of 6 Board of Directors Meetings were held in 2022 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	6	0	100%
Deputy Chairman	Huang, Sheng-Shun	5	0	83.33%
Director	Lien, De-Shih	6	0	100%
Director	Liao, Jia-Guo	6	0	100%
Director	Shin Chang Construction Co., Ltd. Representative: Guo, Jhih-Cyun	6	0	100%
Director	Guo, Jhen-Jhih	5	0	83.33%
Director	Lion Home Products (Taiwan) Co., Ltd. Representative: He, Hao	6	0	100%
Director	He Mao Venture Investment Co., Ltd. Representative: Zhang, Li-Qiu	2	2	33.33%
Director	Chen, De-Fong	6	0	100%
Director	Shi, Jia-An	5	0	83.33%
Director	Guo, Jhih-Mao	5	0	83.33%
Director	Formosa Chemicals & Fibre Corporation Representative: Wu, Xin-Chang	5	0	83.33%
Director	Huang, De-Lun	5	1	83.33%
Director	Ever-Prosperous Multi-Technologies Enterprise Ltd. Representative: Ke, Chang-Ci	6	0	100%
Director	Chi-Tong Investment Co., Ltd. Representative: Huang, Cheng-Fong	5	0	83.33%
Independent Director	Liao, Sogn-Yue	6	0	100%
Independent Director	Lin, Lai-Di	4	1	66.67%
Independent Director	Chen, Hong-Wen	5	0	83.33%
Independent Director	Zhuo, Xun-Rong	6	0	100%

The Company conducts an assessment of the Board of Directors Meeting's operational efficiency based on the "Guidelines for Performance Assessment on Board of Directors Meeting." The execution of the assessment in 2022 is as follows:

Assessment Cycle	Assessment Period	Contents of Assessment
Assessment is conducted once every year.	January 1st, 2022 to December 31st, 2022	Contents of Assessment: Board of Directors Meeting' s self-assessment on performance: ● Level of participation in the Company' s operations ● Enhancement of Board of Directors Meeting' s decision-making quality ● Board of Directors Meeting' s composition and structure ● Director' s selection and continued education Internal control Board of Directors Meeting member' s self-assessment on performance: ● Tracking of the Company' s goal and mission ● Awareness of director' s responsibilities ● Level of participation in the Company' s operation ● Management and communication on internal relationship ● Director' s professionalism and continued education ● Internal control Functional committee' s self -assessment on performance: ● Level of participation in the Company' s operations ● Awareness of functional committee' s responsibilities ● Enhancement of functional committee' s decision-making quality ● Composition of functional committee and selection of members ● Internal control
Scope of Assessment	**Assessment Measures**	
● Performance assessment on Board of Directors Meeting ● Performance assessment on individual directors ● Performance assessment on functional committees	● Internal self-assessment conducted by Board of Directors Meeting ● Self-assessment conducted by directors ● Self-assessment conducted by functional committees	

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 the 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. The remuneration committee commissioner' s term for this plenary is identical to the one for the Board of Directors Meeting.

Please refer to p.45 of Formosan Union Chemical Corporation' s 2022 annual report for information with respect to Remuneration Committee members' background and experiences.

1.Functions of the Remuneration Committee:

The Remuneration Committee will exercise due care, perform its duties truthfully, establish and conduct regular reviews of director and manager' s performance assessment, as well as policies, systems, standards, and structures for salary and compensation. It will also conduct regular assessments and establish salary and compensation for directors and managers, submitting suggestions based on assessment results to the Board of Directors Meeting for discussion.

2. Operations of the Remuneration Committee:

During its assessments, the Remuneration Committee will consider director and manager' s performance assessment and salary/compensation, referencing industry-standard payment norms and considering the rationality of individual performance, the Company' s operational performance, and future risks. This is done to ensure that directors or managers are not enticed to engage in behavior exceeding the Company' s risk appetite solely for the pursuit of salary and compensation.

Regarding the proportion of bonuses distributed and the timing of payment for variable salary/compensation provided to directors and senior management for their short-term performance, the Remuneration Committee will make decisions while taking into account industry characteristics and the Company's business nature. The Committee will exercise due care as a responsible administrator, perform its duties truthfully, establish and conduct regular reviews of director and manager's performance assessment, as well as policies, systems, standards, and structures for salary and compensation. It will then submit suggestions based on assessment results to the Board of Directors Meeting for discussion.

The Remuneration Committee conducts regular assessments of director and manager's performance in corporate governance and operation.

It ensures that the performance of directors and managers is proportionate to their personal salary or compensation.

The Remuneration Committee proposes modification suggestions and assists the Board of Directors Meeting in executing and assessing the Company's overall remuneration and benefit policy, as well as director and manager's compensation.

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

3. Remuneration Committee' s critical resolutions in 2022

The Remuneration Committee held 3 meetings in 2022. The overall attendance percentage for commissioners Zhuo, Xun-Rong, Chen, Chang, and Chen, Hong-Wen is 100%. The major resolutions passed are as follows:

Times	Date	Contents of Resolution
1	2022.01.18	Proposal for the distribution of the 2021 year-end bonus was passed.
2	2022.03.18	Proposal for the distribution of the 2021 directors' and employees' compensation was passed.
3	2022.07.14	Proposal to distribute the 2021 director compensation to the Company's directors in 2021 was passed. Proposal for the 2021 salary adjustment was passed.

2.1.4 Audit Committee

To solidify supervision functions and enhance management functions, the Audit Committee ("Audit Committee") was established in 2017 in accordance with the Securities and Exchange Act. This committee consists of 4 commissioners with a term of 3 years. These four commissioners have practical experiences in business management and finance. The audit commissioner's term for this plenary is identical to the term for the Board of Directors Meeting.
For information regarding the background and experience of Audit Committee members, please refer to the audit commissioner's composition, responsibility, and operation section in Formosan Union Chemical Corporation's 2022annual report.

1. Audit Committee' s Responsibilities:

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

2. Operation of Audit Committee:

The main purpose of the Audit Committee's operations is to supervise the following:

1.Appropriate representation of the Company's financial statements.
2.Selection (dismissal), independence, and performance of certified accountants.
3.Effective implementation of the Company's internal control.
4.The Company's compliance with related regulations and rules.
5.Control over the Company's existing or potential risks.

3. Audit Commissioner' s Critical Resolutions in 2022

Audit Committee held 4 meetings in 2022. The overall attendance percentage for commissioners Lin, Lai-Di, Liao, Song-Yue, Zhuo, Xun-Rong, and Chen, Hong-Wen is 81%. Major resolutions passed are as follows:

Times	Date	Contents of Resolution
1	2022.03.18	Proposal for the 2021 financial statements was passed. Proposal for the 2021 earnings distribution was passed. Proposal for the 2021 internal control statement was passed. Proposal for amendments to the Company's "Articles of Incorporation" was passed. The proposal to abolish the "Rules of Meeting Procedure for Shareholder's Meeting" of the Company and to establish a new set of "Rules of Meeting Procedure for Shareholder's Meeting" was approved. Proposal for amendments of the Company' s "Procedures for Acquisition or Disposal of Assets" was passed. The proposal to establish the "Authority Delegation and Agency System " for the Company was approved.ystem" for the Company was approved.
2	2022.05.12	Proposal for amendments of the Company' s "Internal Control System for Shareholder Service Units" was passed.
3	2022.08.11	The Company' s 2021 2nd quarter financial statements were passed.
4	2022.11.10	Proposal to establish the Company' s "2023 Audit Plan" was passed. Approved the amendment to the "Sales and Receipts Cycle" for the Company. Approved the establishment of the "Sustainability Report Preparation and Verification Procedures" for the Company.

2.2 Ethical Corporate Management

Material Issues Regulation Compliance

Importance to the Company	Policy / Commitment	Short Term Goal	Mid/Long Term Goals	1.Invested Resources for Current Year 2.Specific Achievements	Responsible Department/ Report Mechanism	Assessment Mechanism/ Achievements
Regulation compliance is the cornerstone of corporate responsibility. A corporation 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%.	● ESG-Related Regulation Compliance Annual Training Rate of 100% ● Zero Occurrence of Violations	● Completion of identification and execution of environmental and occupational safety regulations. ● 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 2022

Formosan Union Chemical Corporation is engaged in commercial activities based on principles of fairness, honesty, trustworthiness, and transparency. To fulfill the ethical management policy and actively prevent unethical behavior, the "Formosan Union Chemical Corporation Ethical Management Operation Procedure and Code of Conduct" has been established in accordance with the "Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies." This code specifically regulates matters to which the company's directors, managers, employees, and individuals with substantial control capability must pay attention when executing business.

In the meantime, to prevent insider trading, the Board of Directors Meeting has passed the "Handling Operation Process for Formosan Union Chemical Corporation's Internal Material Information" to further solidify the prevention of insider trading.

Formosan Union Chemical Corporation has also established diversified reporting channels on the company's official website to allow internal and external stakeholders to express their opinions on the company's involvement in regulation compliance issues. Furthermore, for the purpose of enhancing the reporting mechanism, Formosan Union Chemical Corporation has incorporated a "Whistleblower Protection Clause" into its Guidelines for the Report System, expecting to protect the whistleblower's identity and related rights.

Additionally, Formosan Union Chemical Corporation has established separate Guidelines of Ethical Requirements for senior management, directors, managers, and employees for compliance accordingly. Through the 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.

Ethical Management Procedures | Good Corporate Governance | Ethical Behavior Guidelines

Diversified Report Channels

Mailing Address:	Email:	Telephone:
Auditing Office, 14F, No. 206, Sec. 2, Nanking E. Rd., Taipei	fuccauditing@gmail.com fucc@fucc.com.tw	(02)2507-1234 Auditing Office

Core Concepts Fairness, Honesty, Trustworthiness, and Transparency

Establishment of "Ethical Management Operation Procedures and Code of Conduct"

Separate ethical guidelines have been established for senior management and employees

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 attempts to gain personal interest.
- This prescribes the duty of vigilant compliance with confidentiality.
- This complies with regulations and establishes reporting channels to encourage the reporting 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 a salary.
- This avoids conflicts of interest.
- This prohibits attempts to gain personal interest.
- This prescribes the duty of vigilant compliance with confidentiality.
- This complies with regulations and requirements.

Ethical Management Operation Procedures and Code of Conduct

- Prohibition of Unethical Behavior.
- Establishment of a Report Mechanism for Violations of Ethical Behavior
- Ensuring Transaction Counterparty' s Compliance with the Company' s Ethical Policy.
- Avoidance of Conflict of Interests.
- policy implementation and reports to the Board of Directors
- Compliance with Business Confidentiality and Safeguarding the Company' s

Short/Long Term Plan for Ethical Management

Short-Term Plan

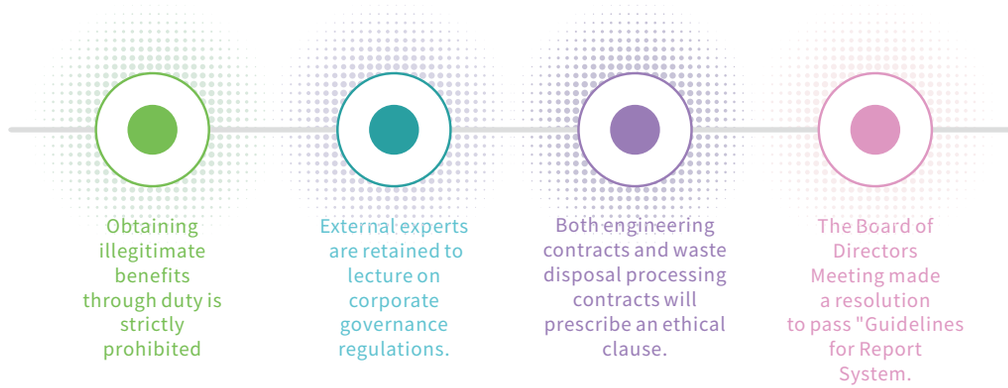
Encourage members of the Board of Directors Meeting to continue taking regulation compliance courses.

Long-Term Plan

Irregular courses will be offered to the Company' s colleagues to enhance their awareness of the rule of law.

2.2.2 Execution Situation in 2022

- Senior management, including directors and managers, all managed their businesses from objective perspectives and refrained from allowing themselves, their spouses, parents, children, or relatives within the 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 to offer courses related to corporate governance and securities regulations for the benefit of Board members; In 2022, a course on corporate governance laws and regulations will be held, with a total of 21 participants in physical and online..
- After Formosan Union Chemical Corporation's review in 2022, the contents of Formosan Union Group's engineering contracts and waste disposal processing contracts all included prescribed ethical clauses. The short-term goal is set at achieving 100% prescription of ethical clauses in engineering contracts and waste disposal processing contracts. As for the long-term goal, ethical clauses and a reporting mailbox will both be prescribed in Formosan Union Chemical Corporation's various contracts, and the reporting situation will be closely monitored to ensure fulfillment of ethical management policy.



2.2.3 Regulation Compliance

Regulation compliance is the foundation of a corporate's management. Formosan Union Chemical Corporation introduces ethical internal requirements to new employees during their onboarding process. Additionally, various departments stay informed about the status of related regulations through timely interactions with government institutions or media reports. These departments then conduct internal and external training for their colleagues to ensure the company's operations comply with various regulations.

In terms of corporate governance, a functional committee has been established to oversee the company's financial operations and internal systems. Directors are encouraged to actively participate in the decision-making process for critical proposals. Moving forward, Formosan Union Chemical Corporation is committed to adhering to corporate governance best practices and enhancing colleagues' awareness of regulation compliance.

Regarding personnel management, the company has developed internal guidelines related to ethics. It has also built a comprehensive regulation compliance framework through internal meetings that promote the company's core values of ethics and integrity. This includes the drafting and vigilant implementation of a series of guidelines, self-review processes, the establishment of smooth reporting channels, and mechanisms for protecting whistleblowers. Management acts as role models and ensures that every colleague complies with regulations, company policies, and internal guidelines.

Annual self-reviews are conducted to assess compliance, and internal audits are carried out accordingly. Guidelines are drafted, and colleagues are required to adhere to them when conducting business. All colleagues within the Group's various companies, regardless of their titles, positions, or locations, are expected to comply with the "Ethical Management Best Practice Guidelines" and "Employee Work Rules." These documents contain guidelines on work environment, equal opportunities, confidentiality clauses, restrictions on concurrent positions, avoidance of conflicts of interest, offering or receiving gifts and business hospitality, respecting employees and clients, reporting procedures, protection mechanisms, exemptions, and more. These guidelines aim to gain the public's trust, enhance corporate image, and ensure the company's sustainable operations and development.

The company has also established a code of conduct to prevent it from facing penalties due to violations of fair competition practices or anti-trust regulations. This code serves as behavioral guidelines for the company's management and personnel during their business practices to mitigate the risk of regulation violations. Formosan Union Chemical Corporation actively participates in industry competition based on ethical and fair principles, fosters a corporate culture of regulation compliance, and builds a trustworthy and respectful company reputation.

In terms of personnel training, Formosan Union Chemical Corporation aims to enhance colleagues' awareness of work ethics and regulation compliance. The company's legal department collaborates with other responsible departments to conduct routine training on relevant regulations for colleagues across different departments and ranks. This training includes sessions tailored to colleagues with various business responsibilities, such as new employee training, in-person courses, promotions within respective departments, and external training opportunities. Additionally, regulation compliance guidance is made accessible to colleagues through factory posters and the company's internal webpage, ensuring that they can access regulation compliance knowledge at any time.

Regarding environmental health and safety, Formosan Union Chemical Corporation adheres to the requirements of ISO14001 Environmental Management Systems and ISO45001 Occupational Health and Safety Management Systems. The company has established a regulation verification management system and related supervision, measurement, and performance management guidelines to ensure compliance with environmental and occupational safety regulations throughout its product life cycles. The environmental and occupational safety management system is operated effectively, and potential issues can be detected through management cycle measures. This proactive approach allows for timely adoption of control measures to prevent damage to the company.

In summary, Formosan Union Chemical Corporation's regulation compliance practices in 2022 did not involve any significant illegal incidents related to corporate governance, securities transactions, environmental protection, labor human rights, occupational safety, or the disclosure of client's privacy, marketing, labeling, or product liability. The company maintains a commitment to ethical and compliant business practices.

2.3 Internal Audits and Risk Management

2.3.1 Internal Audits

Formosan Union Chemical Corporation's Auditing Office operates independently, objectively, and impartially, reporting directly to the Board of Directors Meeting. This office conducts reviews and verifications to assess the effectiveness of the company's internal controls. In addition to its regular reports during Board of Directors Meetings, the Auditing Office also communicates its findings to independent directors or senior management when necessary.

Audit tasks primarily follow an audit plan developed based on identified risks. Targeted audits are performed either routinely or as needed to verify compliance with regulations and the company's internal control system in various internal operations. Moreover, targeted audits are conducted when circumstances require, and the results are presented to the Board of Directors Meeting to help identify potential operational risks.

Furthermore, the Auditing Office assists the Board of Directors Meeting and senior management in conducting independent and objective assessments of the completeness, effectiveness, and execution of the internal control system. Recommendations for improvements are provided in a timely manner to ensure the continuous execution of the internal control system. The office also offers related inspection, assessment, or consultation services to support the Board of Directors Meeting in fulfilling its corporate governance responsibilities.

Internal Audit Process and Operation Practices

- **A total of 70 audits were conducted in 2022 / Deficiencies detected: Zero / Percentage of Qualified Audit: 100%**

2.3.2 Risk Management

Material Issues Operation Risk Management

Importance to the Company	Policy / Commitment	Short Term Goal	Mid/Long Term Goals	1.Invested Resources for Current Year 2.Specific Achievements	Responsible Department/ Report Mechanism	Assessment Mechanism/ Achievements
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 preventthe Company' s operation risks.	Cultivation of risk culture with all members' participation for effective prevention and control.	• Establish Risk Management Policy and Procedures • Establish Sustainable Indicators for ESG Risks	Effectiveness for ESG Risk Measures	• Completion of Identification and Handling of ESG Related Risks • 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 the market.
Finance	Interest Rate Fluctuation	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.
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.	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.

Risk Perspectives		Responding Strategies
Environmental Health & Safety	Participation in the Toxic Chemical Incident Mutual Aid Team	To enhance the spirit of responsible care and mutual aid of vendors operating toxic substances in the 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		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 the 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		1.ISO 14001 Environmental Management System is implemented. 2.The Company echoes the government's energy-saving policy and implements greenhouse gas reduction inspection. 3.The Company meets with requirements from government regulations and clients.
Raw Material Demand & Supply Risk Management		1.To respond to uncertainty in product supply from China, the Company not only explores and transfers the country of supply but also conducts risk aversion purchases as a supportive measure to mitigate the risk of supply disruption. 2.The percentage for LCL (Less Than Container Load) shipment is increased through utilization of logistics collection mechanism and requests on suppliers f or the purpose of mitigating control risks on bulk shipments.
New Type of Pandemic		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

The 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 2022 and rolling respond measures are conducted continuously to respond to changes in pandemic.

Personnel Management	1.Disinfection on work environment and personnel is enhanced. Control is enforced to distribute employees for the purpose of lowering infection risks. 2.Body temperature is measured at entrance and exit. Business visits by employees, clients, and vendors are reduced. Individuals visiting the 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.

2.3.3 Climate Change Management

Each year, the Company establishes management plans on material themes and conducts rolling follow-up and review on execution effectiveness in the ESG Committee. Extreme weather has become more frequent in recent years, indicating 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 the "Task Force on Climate-Related Financial Disclosures" (TCFD) published by the Financial Stability Board (FSB) and incorporates four core disclosures of "governance," "strategy," "risk management," and "indicator and goal" into operation management. The Company also discloses its governance performance in sustainability reports, hoping that stakeholders understand the impact from climate change-related risks and opportunities to Formosan Union Chemical Corporation as well as related responding measures.

TCFD Risk Management Procedures

Step1
The ESG Committee completes the collection of climate environment background information. Assesses climate risks and operation scope.

Step2
Establish a list of climate risks and opportunity items. Establish a survey questionnaire on the impact on internal operations.

Step3
ESG commissioners conduct an analysis of climate risk, opportunity, and operation impact. Material risk items are determined.

Step4
Establish an execution strategy and target setting.

Step5
Rolling reviews on the effectiveness of execution strategy and goals are conducted through ESG Committee meetings each year.

2022 Annual Short, Medium, and Long-term Climate Risks and Opportunities

Number	Climate Change Risk Issue	Risk Level	Timeframe
R1	Increased Pricing of Greenhouse Gas Emissions	High	Short-term, Medium-term
R2	Strengthening Emission Reporting Obligations	Medium	Short-term, Medium-term, Long-term
R3	Regulatory Requirements for Existing Products and Services	Medium	Medium-term, Long-term
R4	Substitution of Existing Products and Services with Low-Carbon Alternatives	Medium	Short-term
R5	Cost Implications of Low-Carbon Technology Transition	High	Medium-term, Long-term
R6	Changes in Customer Behavior	Medium	Short-term
R7	Changes in Rainfall Patterns and Extreme Climate Events	Medium	Medium-term, Long-term
R8	Increased Severity of Extreme Weather Events (e.g., Typhoons and Floods)	High	Medium-term, Long-term
R9	Escalation in Raw Material Costs	Medium	Short-term, Medium-term, Long-term
R10	Cost Implications of Low-Carbon Technology Transition	High	Medium-term, Long-term
R11	Rising Sea Levels	Medium	Medium-term, Long-term

Number	Climate Change Risk Issue	Opportunity Level	Timeframe
O1	Reduction in Water Usage and Consumption	High	Medium-term, Long-term
O2	Adoption of More Efficient Production and Distribution Processes	Medium	Medium-term, Long-term
O3	Recycling and Reuse	Medium	Medium-term, Long-term
O4	Transition to More Energy-Efficient Buildings	Medium	Medium-term, Long-term
O5	Adoption of More Efficient Transportation Methods	Medium	Short-term, Medium-term, Long-term
O6	Adoption of Low-Carbon Energy Sources	High	Medium-term, Long-term
O7	Implementation of Incentive Policies	Medium	Medium-term, Long-term
O8	Utilization of New Technologies	Medium	Medium-term, Long-term
O9	Participation in Carbon Trading MarketsMedium	Medium	Medium-term, Long-term
O10	Shift to Decentralized Energy Sources	Low	Medium-term, Long-term

TCFD Disclosure Structure for Climate Change Related Risks and Opportunities

Governance

1.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.
2.The execution status of climate change risks and opportunities is reported annually to the Board of Directors.

Strategy

After verification of climate change potential risks and opportunities, the implementation of strategies is disclosed as follows:

- Transformation Risk – Policy and Regulations: Increase Pricing on Greenhouse Gas Emission

In 2022, Taiwan Climate Change Law intends to collect a 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 USD 3-10/ton and this will be increased to more than USD 50 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:

- 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.

Increase existing equipment's energy efficiency and the 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.

- Risk/Technology Perspective for Transformation Low-Carbon Technology Transformation
- 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.

Physical Risk – Immediacy

1. Occurrence frequency for typhoon and rainstorm has increased due to a growing number of extreme weather incidents. This may cause flooding in Kaohsiung factory as well as impact 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, the 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.

- Resource Efficiency Opportunity – Reduction in Water Utilization and Water Consumption

In addition to collaboration with the government' s water resource-saving policy, the Company has also initiated planning of a water recycling system in order to lower dependence on raw water resources and reduce wastewater 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.

- Energy Resource Opportunity – Utilization of Low-Carbon Energy

1. The Company utilizes low-carbon resources and replaces fuel oil with liquid natural gas.
2. The Company plans to utilize a certain percentage of renewable energy as the main energy resource for manufacturing power.

Risk Management

The Company conducted discussions in the "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 2022 Carbon Inspection – Emission is 62,059tons of CO2e/year. Emission for scope II is 19,646 tons of CO2e/year. Total emission amount for 2022 is 81,705tons of CO2e/year.

2.3.4 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 the company and stakeholders. The Information Management Office is responsible for organizing and implementing data security policy, promoting data security messages, enhancing employees' data security awareness, collecting and improving the performance of the organization's data security management system, as well as effective technology, products, or procedures. Every year, the Auditing Office conducts data security inspections over the 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:

01 Ensure Information Asset' s Confidentiality and Completeness.

02 Ensure that data storage/retrieval complies with department function guidelines.

03 Ensure Information System' s Continued Operations.

04 Prevent Unauthorized Modification or Utilization of Data and System.

05 Regular Implementation of Data Security Audit Operations to Ensure Rigorous Implementation of Data Security.

Data Security Management Project

Internet Data Security Control

- 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.

Data Storage/ Retrieval Control

- Designated personnel shall be assigned to maintain computer equipment, establish accounts, and passwords.
- Different access rights shall be assigned in accordance with job functions.
- Original access rights for transferred personnel shall be canceled.
- Confidential or sensitive materials or copyrighted software shall be removed or overwritten before equipment is scrapped.
- Remote log-in into the management information system shall be approved appropriately.

Contingency Recovery Mechanism

- 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.

2022 Data Security Performance

- There were no occurrence of material data security incidents in 2022.
- Data security audit was completed in 2022. 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 a smooth communication and response mechanism with stakeholders, Formosan Union Chemical Corporation adopts an open and rigorous attitude. It 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, the engagement process includes verification of stakeholders, communication channels, 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

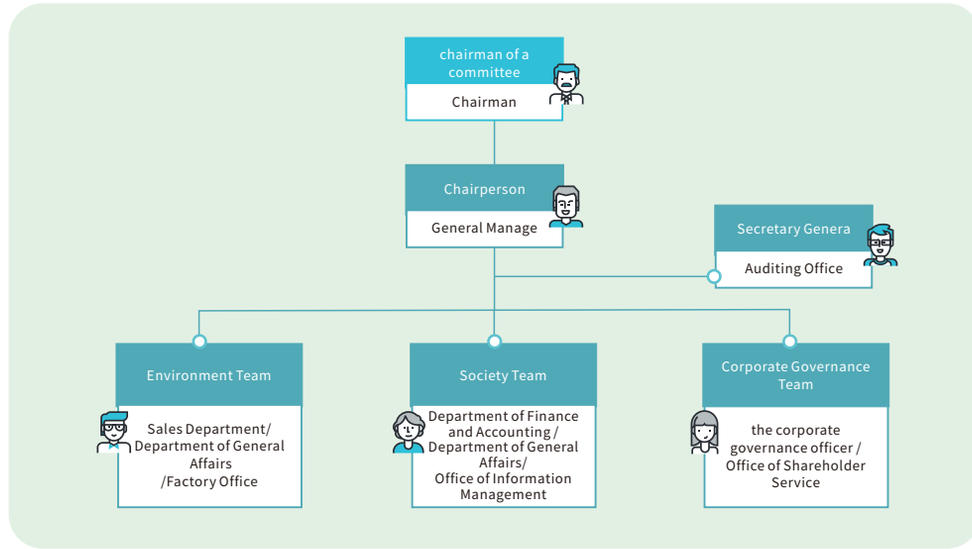
Under considerations of stakeholders' influence on the Company or internal/external groups or individuals influenced by the Company, and for the purpose of fulfilling commitments to stakeholders and respecting the rights they deserve, respective responsible departments in the Company have established good communication platforms with each stakeholder through appropriate communication channels. They respond to issues of stakeholder concern to maintain the Company's good relationship.

Formosan Union Chemical Corporation utilizes the drafting of sustainable development ESG (Environmental, Social, and Governance) reports and collaborates with the 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 matters smoothly and ensuring effective communication and response with stakeholders, the Company established a Sustainable Development Committee, the chairman supervises the operation of the committee. This committee is composed of commissioners, including department executives from various areas such as factory management, manufacturing, health and safety, quality assurance, environmental safety, human resources, R&D, and production. The General Manager assumes the post of Chairperson, while the Auditing Office takes on the role of secretary-general. The committee is responsible for the formulation, promotion and supervision of the company's sustainable development goals and strategies, the preparation and verification of sustainability reports, and other implementation matters related to the company's sustainable development this committee also lists corporate sustainable development-related matters as part of its long-term operations. The Chairperson and secretary-general regularly review the performance and target achievement rate of their respective teams and report to the chairman, and report on effectiveness and plans to the Board of Directors Meeting each year.

The Company's corporate sustainable development policy is summarized as follows: Implement Corporate Governance, build a Friendly Workplace, Take Care of the Sustainable Environment, and Participate in Society Charity.

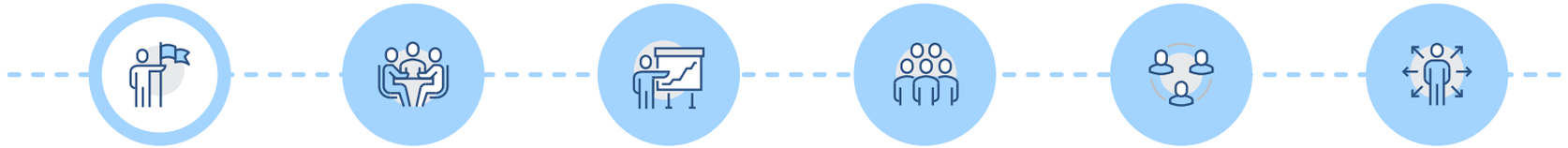


2.4.3 Verification Procedures for Stakeholders and Issues

There is an inseparable relationship between stakeholders and the Company's operations. We pay close attention to stakeholders' needs. To ensure that the information disclosed in our reports meets these needs, the Sustainable Development Committee conducts a thorough analysis of the reports. This analysis involves five major steps: "Verification of Stakeholder," "Collection of Sustainable Issues," "Investigation of Stakeholders' Concerned Issues," "Analysis of Material Issues," and "Review and Result." These steps help us determine the material issues for the 2022 Corporate Social Responsibility Report.

2.4.4 Verification of Stakeholders

Based on the impact of the Company's operations on various groups or individuals, as well as their interest in the Company's performance in sustainable development, and considering our daily interactions and experiences with stakeholders, the Sustainable Development Committee has identified five categories of material stakeholders. These categories include employees, government entities, suppliers/contractors/subcontractors, clients, and shareholders/directors



2.4.5 Collection of Sustainable Issues

The Chairperson of the Committee, who is also the General Manager, convened the commissioners of the Corporate Social Responsibility Committee. They integrated stakeholders' concerned issues and communication measures with stakeholders through meetings, following the references of GRI Guidelines released by the Global Reporting Initiative, and also utilized benchmark learning results.

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 Email, Telephone, and Fax Company Website	Irregular Irregular Irregular IrregularIrregular	Economy Performance / Regulation Compliance Customer's Health and Safety Product and Service Labeling 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

Stakeholders	Communication Channels	Communication Frequency	Concerned Issues
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 an online questionnaire survey, the Sustainability Committee conducts an investigation into stakeholders' level of concern over topics of interest. After collecting responses from the e-questionnaire, commissioners of the Corporate Social Responsibility Committee assess these topics and their impact on Formosan Union Chemical Corporation's operations. The questionnaire results are summarized and analyzed, including combined scores for the level of concern and impact on operations, to identify priorities among stakeholders' topics of concern.

The Sustainability Committee's commissioner questionnaire and meeting resolutions have generated 21 topics of concern, including 9 significant topics, 12 middle-level topics, and 2 low-level topics. A report on these 9 significant topics has been prepared based on the results. Moving forward, the company remains committed to communicating with stakeholders and maintaining a collaborative relationship that fosters good interaction and sustainable operations.

No.	Topics
O4	Air Pollution Prevention
O5	Waste Management
O3	Emission of Greenhouse Gases
13	Human Rights Policy
10	Energy Management
12	Water Resources Management
11	Supplier Sustainable
O2	Regulatory Compliance
O1	Economic Performance
O7	Risk Management
20	Social Participation

No.	Topics
15	Information Security
21	Customer Service
14	Climate Change Response
06	Occupational Health and Safety
08	Employment
09	Training and Education
16	Inclusion and Diversity
17	Corporate Governance
18	Production Liability and Safety
19	Market Presence

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/ Subcontracto
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	The greenhouse gas effect has impacts on the entire ecological environment as well as on the supply of raw materials, energy utilization, and business management. The Company has achieved energy savings and carbon reduction through waste management and energy management.	305-1 305-2 305-7 306-1 306-2	●	●			●	

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/ Subcontracto
Occupational Health and Safety	Factory environment safety is the Company's responsibility. Suppliers are requested to meet the Company's requirements in providing products and services to ensure the protection of employees' health and safety.	403-1/ 403-2/ 403-3/ 403-5/ 403-6/ 403-7/ 403-10/	●	●				●
Risk Management	Comprehensive risk management enhances the planning capability for operational strategy, and continuous rolling reviews can be conducted to achieve corporate sustainability.	NA	●	●	●	●		●
Employment	Employees are the Company's most critical asset. The Company provides its employees with the most competitive overall compensation to attract and retain the best talents, making them the driving force behind the Company's sustainable growth. In addition to offering attractive compensation and diverse development opportunities, employees are encouraged to engage in open communication and exchange of ideas, facilitating harmony between management and labor and creating a win-win situation for both the company and its 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 enhances the value of its talent and creates a win-win scenario for both employees and the corporate.	401-1	●	●				

2.4.8 Compliance with UnitedNations' Sustainable Development Goal

The United Nations released a message on September 17th, 2014, announcing its adoption of the Sustainable Development Goals (SDGs) resolution. This policy addresses issues faced by all countries and proposes 17 Goals for sustainable development and 169 Targets for tracking progress, with a focus on achieving equality and human rights. These goals and targets serve as standards for governments, private sector corporations, and non-profit organizations worldwide when formulating their long-term goals and sustainable development missions. They also act as the guiding principles for humanity's sustainable development over the next 15 years, leading up to 2030.

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

No.	U.N. SDGs	Corporate Vision/Goal	2022 Performance	Sec. of Report
1	No Poverty	● Disadvantaged Groups are sponsored through donation.	The Company demonstrated its commitment to giving back to the community by donating NTD 1.45 million in 2022. These funds were allocated for emergency aid to support low-income households in the neighboring community, as well as to provide financial assistance for community events.	6.1
3	Good Health and Well-Being	● Caring for Employee' s Health and Well-Being.	In 2022, a total of 175 employees at the Kaohsiung Factory received general health check-ups, and an additional 82 employees from UPM also underwent these check-ups. The Company fully subsidized the basic examination fees for all these employees. The examination results for this year 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.	The proportion of male employee and manager's salary to that of female employee and manager is 1:1	5.3

No.	U.N. SDGs	Corporate Vision/Goal	2022 Performance	Sec. of Report
6	Clean Water & Sanitation 	● Enhance Waste Water Discharge Efficiency	In 2022, a total of NT$830,000 was invested in soil and underground water pollution prevention.	4.1
7 13	Affordable Energy  Climate Action 	● Energy Saving &Carbon Reduction	1.Regular replacement of insulation and cooling materials for pipelines or storage tanks. 2.Upgrading of heat exchangers. 3.Replacement of PDA C-10/PD C-7A/B equipment. 4.Implementation of tail gas recovery for H-2 thermal boilers, with the installation of a heat exchanger to exchange heat between high-temperature tail gas and combustion air for the burner. 5.Increasing the hot brine outlet temperature for 100RT refrigeration machines A/C/D/E.	4.1 4.2
9	Industry, Innovation and Infrastructure 	● Increase in R&D Spending	R&D spending reached NT$85,245,000.	3.1
		● Encouragement to Innovation	1. Production of Multi-Purpose Metal Remover Agent MeRA. 2. Production of Dilution Resins UL-90 and UL-120 has been completed.	3.1
12	Responsible Consumption and Production 	● Investment in Environmental Protection	FUCC spending on environmental protection reached NT$22,690,000. UPM spending on environmental protection reached NT$26,230,000.	4.1
		● Production of Environmental Friendly Products	The Company produces colorless and odorless hydrogenated resin and environmentally friendly products with good compatibility with the human body.	3.2
16	Peace, Justice System 	● Reduction in Various Forms of Corruption and Bribes	Guidelines for "Corporate Governance Best-Practice Principles" and a "Whistleblower Protection Clause" were drafted to regulate management and employees, leading to the establishment of a comprehensive audit system inspection.	2.2

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, Hydrocarbon Resin, and Environmental Remediation Agents.

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. Customized environmental remediation agents - SP series soil remediation and cleaning agents, are provided to environmental consulting firms for soil and groundwater remediation purposes.

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

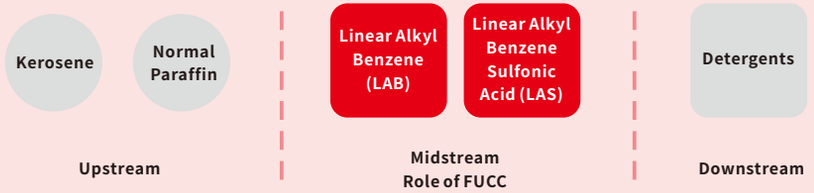
Alkyl Benzene & Alkyl Benzene Sulfonic Acid
Main raw materials for detergents

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

3.1.1 Up-, Mid-, and Downstream Linkages

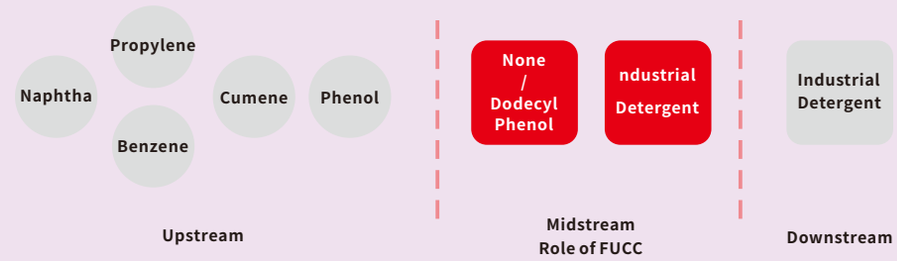
Alkyl Benzene

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.



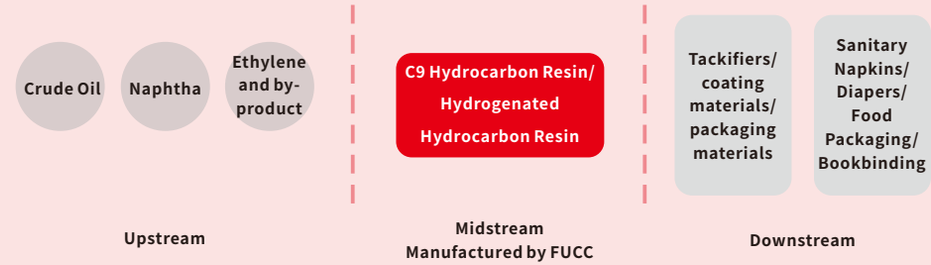
Alkyl Phenol

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 or , 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.



Environmental Remediation Agents

The SP series soil remediation and cleaning agents are designed for the removal of total petroleum hydrocarbons or light non-aqueous phase liquid pollutants from soil and groundwater. These customized agents are provided to environmental consulting firms for soil and groundwater remediation purposes.

3.1.2. Product Competitiveness

Naphtha or natural gas represents 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 four product categories:

Alkyl Benzene

Alkyl Benzene manufactured by FUCC has a domestic market share of 99%. International competitors include large manufacturers such as Cepsa, Sasol, and Huntsman.

C9 Hydrocarbon Resin/Hydrogenated Hydrocarbon Resin

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.

Alkyl Phenol

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.

Environmental Remediation Agents

The SP series soil remediation and cleaning agents are primarily used for the removal of total petroleum hydrocarbons or light non-aqueous phase liquid pollutants from soil and groundwater. Currently, in the domestic context, only FUCC is capable of providing customized surfactants for soil and groundwater remediation purposes, which classifies this industry as an oligopoly.

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
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	Commercialization of micro-hydrogenated Hydrocarbon Resin 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 Remediation Agent plant
2020	63,093	Trial production of Hydrogenated Resin FA-100, FU-100
2021	69,293	1. Trial production of diluted resin UL-90, UL-120 2. Production of colloidal substrate LCS, NCS
2022	71,723	1. Production of the multifunctional metal remover MeRA 2. Dilution resins UL-90 and UL-120 have been produced

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 the 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 Project

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 protomers, fragrances, and biotech materials
7. Development of long-lasting groundwater buffering agents
8. Development of oxidant
9. Development of low-carbon process and product

3.2 Market Analysis

Our AB and NP products have a global market share of 5% and 10-15%, respectively. In 2022, 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

- 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 3.08%. International competitors include large manufacturers such as Cepsa, Sasol, and ISU.

Alkyl Phenol

- 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 market for Nonyl Phenol has been deeply affected by China' s anti-dumping duty Therefore, FUCC is gradually shifting its focus from the China 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.

Hydrocarbon Resin

- A. C9 Hydrocarbon Resin
- C9 Hydrocarbon Resin capacity in Asia currently accounts for around 90% of the global output, the others from Europen and US manufacturers. Against the backdrop of rising raw materials prices, Asian manufacturer has more advantage compare to Europea and US in the furture. 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.
- B. 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%.

Environmental Remediation Agents

Currently, soil and water remediation agents are primarily imported from abroad, resulting in extended shipping times and high costs. Integrating resources within the FUCC Chemical Group , we have undertaken the development of localized production of soil and water remediation agents. This approach aims to serve environmental consulting firms, offering greater flexibility in delivery timelines and more affordable pricing. Moreover, our remediation agents have received positive feedback for their effectiveness, leading to increasing recognition and growing supply volume among remediation companies.

3.2.2 Competitive Niche

Firm control of raw material sources

- 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.

Autonomous R&D capabilities

- 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.
- The produced surfactant raw materials can be provided to subsidiary companies and collaborative environmental protection organizations for the development of soil remediation agents.

Superior geographical location and operations management advantages

- 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.
- In recent years, environmental issues have become a significant concern for the general public. The demand for environmental remediation agents has been Increasing in response to ongoing investigations and discoveries of remediation sites. The produced remediation agents possess characteristics of customization, effectiveness, and environmental friendliness. As a result, their market share and sales volume have been progressively rising year by year.

Unfavorable factors

- The petrochemical industry is highly susceptible to international crude oil price fluctuations. Political unrest, frequent riots, and strikes in several oil-exporting nations can lead to damage to oil-producing facilities or transportation and storage equipment, resulting in price fluctuations. Contingency strategy: In addition to the maintenance of long-term partnerships with major suppliers (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.

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.

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.

Environmental Remediation Agents

The demand for environmental remediation agents increases as continuous investigations reveal the need for site cleanup. The production of such agents is characterized by customization, effectiveness, and environmental friendliness. As a result, market share and sales volume have been steadily rising year by year.

3.3 Supply Chain and Customer Relations

Our suppliers and customers are key partners in our pursuit of robust 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 development not only encompasses the enterprise itself but rather involves the entire 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 development cannot be confined to our internal operations but instead requires the participation of the entire 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 development.

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). There were no new suppliers added in the year 2022.
- FUCC proactively implements green procurement concepts. The main eco-friendly products purchased include PCs, plastic pallets, and toner cartridges.
- FUCC upholds sustainability and fair trade 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 an order is placed.

Supplier Evaluation

- Supplier evaluations: A system of tiered management and annual supplier evaluations has been adopted. 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 corporate responsilibity of sustainability development. In the future, FUCC will pay rising attention to negative social impacts caused by its suppliers and concrete actions taken in response.
- In the supplier rating for 2022, the evaluation of 16 types of raw material suppliers and 3 storage tank suppliers is conducted by visiting official supplier websites, making inquiries with suppliers, or obtaining ESG or other environment-related reports or disclosures from major suppliers. All suppliers have met the requirements of FUCC during the delivery process.

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 Region / Year		2020		2021		2022	
		Amount	Percentage	Amount	Percentage	Amount	Percentage
Domestic sales		2,206,972	26.02	2,215,897	24.09	2,180,587	20.63
Export sales	China	1,268,727	14.96	1,524,141	16.57	2,025,813	19.17
	Vietnam	566,044	6.67	368,947	4.01	584,562	5.53
	Philippines	557,011	6.57	564,261	6.13	863,971	8.17
	Guatemala	904,514	10.66	1,155,197	12.56	1,515,184	14.33
	Other	2,978,561	35.12	3,370,711	36.64	3,401,109	32.17
Net sales		8,481,829	100	9,199,154	100	10,571,226	100

Note: FUCC consolidated revenue.

To ensure the smooth product sales and factory production operations of FUCC, a production and sales plan is established within the Quality Management System Operating Procedures Manual to establish standardized procedures for achieving a balance between production and sales. The Sales Department refers to daily inventory reports from the Warehousing and Transportation Team to negotiate order quantities and delivery schedules. Within FUCC, each product is associated with a dedicated sales representative, allowing the Sales team to possess a thorough understanding of both the products and customers. Prior to supply, FUCC provides corresponding products based on different customer and quality requirements. Our customers are distributed globally, and we prioritize proper arrangement of shipping and packaging to ensure safe and timely delivery of goods to customers.

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 the data security of employees and customers. In 2022, 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 email 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.	● Enhancement of customer services and consolidation of existing markets. ● Market expansion and increase of market shares in European and US markets 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.	● 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.	● R&D expenses of NT$71,723,000 Pproduction of diluted ● resin UL-90、and UL-120 and the multifunctional metal remover MeRA	Sales Department / Phone or Email feed back	● Review of operational performance in Senior Executive Meetings ● YoY revenue growth of 14.9% in 2022 ● EPS of NT$ 2.27

Our top ten customers mainly procure Alkyl 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	2020	2021	2022
Operating revenues	6,034,566	6,602,635	8,196,847
Operating costs	4,802,658	4,826,260	6,438,890
Operating gross profit	1,231,908	1,776,375	1,757,957
Operating expenses	511,264	617,838	673,971
Operating income	720,644	1,158,537	1,083,986
Non-operating revenue and expenses	(18,430)	(134,338)	240,842
Profit before tax	702,214	1,024,199	1,324,828
Income tax expenses	(147,424)	(76,612)	(240,189)
Current net income/loss	554,790	947,587	1,084,639
Other comprehensive income	(21,879)	69,383	386,556
Current total comprehensive income	532,911	1,016,970	1,471,195
EPS (in NTD)	1.16	1.99	2.27
Employee wages and benefits	432,356	544,568	549,682
Payments to providers of capital	238,508	572,420	810,927
Payments to government	42,552	211,696	109,371
Community investments	784	550	900

Note: This table presents data disclosed in 2020-2022 individual financial reports of FUCC.

Unit: 1000 NTD

Item / Year	2020	2021	2022
Operating revenues	1,809,095	1,939,702	1,694,384
Operating costs	1,659,674	1,699,105	1,567,145
Employee wages and benefits	113,819	120,649	102,058
Payments to providers of capital	95,720	21,228	32,862
Payments to government	1,970	12,665	5,205
Community investments	——	——	——
Economic value retained	(62,088)	86,065	(12,886)

Note: This table presents data disclosed in 2020-2022 individual financial reports of UPM.

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.

Environment and Safety

Material Topic : Air pollution Management/Waste Management/GHG Emissions

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
As global concerns for sustainable development continue to grow, stakeholders are placing higher demands on the ESG performance of companies. Therefore, the significance of air pollution management, waste management, and greenhouse gas emissions for our company cannot be underestimated. Effective policies for air pollution and waste management can reduce environmental risks for the company and protect ecological ecosystems. Additionally, greenhouse gas emissions are a major contributor to global climate change, making the reduction of such emissions an essential responsibility and challenge for businesses. Optimizing energy efficiency and implementing energy-saving measures will contribute to emission reduction and enhance overall efficiency.	Pollution reduction Ongoing improvements	1.Legal compliance 2.Implementation of air pollution control 3.Waste reduction 4.Inclusion of GHG inventories into the scope of corporate operations	1.Purchase of air pollution control equipment to enhance environmental quality and prevent pollution nuisance 2.GHG reduction 3.Selection of low-carbon energy options 4.Development of low-carbon processes and products	1.Environmental expenses of NT$ 22.69 million 2.Ongoing implementation of ISO 14001 Environmental Management Systems and ISO 14064 GHG Management Systems by FUCC plants 3.Introduction of ISO 50001 Energy Management Systems in 2023	Environmental Safety Department/ Phone or Email	1. Business waste of 2022 decreased by 8.3% in comparison to the year 2021. 2. Air pollutant testing conforms to control requirements 3. After reduction efforts, the total GHG emissions for the year 2022 were approximately 81,705 metric tons, a significant decrease from the peak of 123,000 metric tons in 2012. Overall, GHG emissions have been reduced by more than 30% to 40%.

Key performance indicators in the environmental and safety dimensions in 2022

Applications for Extension/Update of Environmental Permits/Licenses	Co2 equivalent emissions (CO2e) compared to the previous year	Water consumption compared to the previous year	Wastewater and sewage generation compared to the previous year	Energy consumption per million revenues	Adopted energy conservation measures in 2022	Number of Occupational Health & Safety Meeting resolutions	Occupational accident cases in 2022
	Decrease by	Decrease by	Decrease by	Decrease by			
2	9.6%	4.35%	2.31%	19.4%	9	12	0

FUCC achieved ISO 14001 International Environmental Management System certification in the year 2000. In 2020, the certification was updated to ISO 45001 Occupational Health and Safety Management System certification. Throughout 2022, we have continued to implement management systems, and concurrently introduced the ISO 50001 Energy Management System. Environmental protection and occupational safety have always been the primary considerations in our business philosophy. We recognize that environmental protection and worker safety are the cornerstones of sustainable business practices. We uphold our commitment to regulatory compliance, enhance resource utilization and pollution prevention, control environmental risks, and ensure workplace safety and a favorable environment at operational sites. Concurrently, we stay attuned to the latest developments in global environmental issues and take various environmentally friendly actions. Therefore, we require suppliers to share in environmental and safety responsibilities to achieve the sustainable development of the enterprise. We will persistently devote ourselves to upholding environmental protection and occupational safety, and collaborate with stakeholders to jointly establish a better future.

ESH policy

We adopted the International Environmental Quality Certification and Management System and the Occupational Health and Safety Management Certification many years ago. We have consistently upheld a culture of continuous improvement in our management systems and the spirit of implementation, integrating the maintenance of environmental protection and occupational health and safety into our corporate culture. We prioritize the safety and health of our employees, contractors, customers, and community residents, while fulfilling our environmental responsibilities to ensure the sustainable development of our company. We are dedicated to safeguarding the health of workers engaged in hazardous substance operations, preventing hazards arising from raw materials, materials, gases, steam, solvents, etc., and managing the impact on safety and health during normal operations. We will continue our efforts to care for the well-being of our employees, ensure the safety and health of contractors, customers, and community residents, and fulfill our environmental responsibilities, all in pursuit of achieving the company's sustainable development goals.

We continue to adhere to the previously established commitment to implement the following policy action items.

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 achieving sustainable development for the company. To this end, we have established a identification mechanism of applicable laws, proactively collecting relevant environmental regulations, and ensuring our ongoing compliance with regulatory requirements through regular reviews, audits, and internal and external complaint channels. All licenses and permits are within their valid periods, and we wholeheartedly support the implementation of government-related regulations.

In addressing the issue of climate change, we endorse the government's greenhouse gas reduction targets and remain committed to process improvement. For instance, we continuously upgrade equipment to enhance energy efficiency. We have successfully implemented a series of carbon reduction measures, such as converting the fuel source from oil to natural gas for seven manufacturing process furnaces. To verify the effectiveness of our greenhouse gas reduction efforts, we have engaged BSI as a third-party verifier since 2015. This verification allows us to precisely monitor emissions from various greenhouse gas sources, providing a foundation for subsequent improvement measures. The environmental permits and licenses for FUCC and UPM, as well as the recent overall environmental expenditure, are detailed in the following table.

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
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, 2027
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, 2027
Manufacturing and Storage Permit for Toxic Chemicals (Nonylphenol)	Gao-Xiong-Shi-Du-Xu-Zi No. 000004	May 13, 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

List of Environmental Permits/Licenses of UPM

Type	Permit/License No.	Valid until
Manufacturing Process for Other Synthetic Resins or Plastics (M-01)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0477-15	113.08.14
Heating Process for Thermal Coal (M-02)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0478-11	117.03.01
Heating Process for Thermal Coal (M-04)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0681-05	113.01.21
Generating Process for Boiler Steam (M-05)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0737-05	116.10.17
Generating Process for Boiler Steam (M-06)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0831-03	116.03.01
Heating Process for Thermal Coal (M-07)	Ping-Fu-Huan-Kong-Cao-Xu-Zheng-Zi No. T0864-04	117.10.17
Water Pollution Control Planning and Permit	Ping-Xian-Huan-Shui-Xu-Zi No. 01487-01	116.07.04
Manufacturing and Storage Permit for Toxic Chemicals (Boron trifluoride, Dicyclopentadiene, Potassium bromate)	Ping-Dong-Xian-Du-He-Zi No.000010	114.02.18
Import, Export and Sales Registration Document for Toxic Chemicals (Boron trifluoride, Dicyclopentadiene)	Tai-Pei-Shi-Du-Xu-Zi No. 000202	116.01.09
Industrial Waste Disposal Plan	Ping-Fu-Huan-Fei-Zi No. 1113282290	116.06.20

Environment Protection Expenditures of FUCC 2020-2022

Expenditure Item	2020	2021	2022
Soil and ground water pollution control fees (in 10,000 NTD)	1302	4452	83
Processing fee for air pollution control reporting (in 10,000 NTD)	48	41	60
Waste disposal and treatment fees (in 10,000 NTD)	236	264	264
Wastewater treatment fees (in 10,000 NTD)	29	25	51
GHG reductions (in 10,000 NTD)	482	365	246
ISO management system-related fees (in 10,000 NTD)	15	16	15
Other fees (in categories not listed above) (in 10,000 NTD)	618	499	113
Total (in 10,000 NTD)	2,730	5,662	2,269

Environment Protection Expenditures of UPM 2022

Expenditure Item	2022
Processing fee for air pollution control reporting (in 10,000 NTD)	2
Waste disposal and treatment fees (in 10,000 NTD)	2318
Wastewater treatment fees (in 10,000 NTD)	103
GHG reductions (in 10,000 NTD)	100
ISO management system-related fees (in 10,000 NTD)	100
Total (in 10,000 NTD)	2623

4.1.1 GHG Reduction Strategy

As integral members of the Earth, both FUCC and UPM recognize that in the face of global concerns over climate change, we cannot remain indifferent. Urgent action is needed to reduce greenhouse gas emissions. FUCC and UMP are committed to conducting a comprehensive greenhouse gas inventory in accordance with regulatory requirements. This process will provide a clear understanding of the company's emissions profile, enabling the formulation of feasible reduction strategies. These strategies will be diligently executed to achieve meaningful reductions in greenhouse gas emissions.

Since 2011, FUCC has been actively implementing its greenhouse gas reduction plan with a focus on fuel and energy carbon reduction initiatives. Gradually, the company transitioned its process heating furnaces from fuel oil to liquid natural gas, completing the furnace conversions by 2017. In the years 2018 and 2019, efforts were directed towards improving process-related equipment. In 2018, old rotating pumps were replaced and variable frequency drives were installed. From 2019 to 2022, a series of ongoing measures were carried out, including the replacement of high-efficiency rotating pumps, regular maintenance of process equipment, and the installation of micro-heat air dryers. These actions aimed to maintain the efficient operation of energy sources such as heating, cooling, fuel, and electricity. The cumulative investment in these initiatives has reached approximately 73.8 million NT dollars. While substantial, these expenditures align with FUCC's steadfast commitment to environmental carbon reduction, energy conservation, and a deep concern for the planet.

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.

As evidenced from the table below, it can be observed that following the aforementioned improvement measures, the greenhouse gas emissions have been significantly reduced. The total emissions decreased from the highest recorded level of 100,200 metric tons CO2e in 2014 (verified by a third-party) to approximately 81,705 metric tons CO2e in 2022. This represents a reduction of over 20%-30% in greenhouse gas emissions in recent years.

FUCC Greenhouse Gas Emissions Summary

Year	Have inventories been completed	Inventories conducted in accordance with ISO 14064-1 principle	Total emissions (metric tons CO2e/year)	Scope 1 (metric tons CO2e/year)	Scope 2 (metric tons CO2e/year)	Third-party verification
2022	■ Y ☐ N	■ Y ☐ N ☐ Autonomous estimate	81,705	62,059	19,646	■ Y ☐ N ☐ Name of verification body BSI
2021	■ Y ☐ N	■ Y ☐ N ☐ Autonomous estimate	90,478	67,429	23,049	■ Y ☐ N ☐ Name of verification body BSI
2020	■ Y ☐ N	■ Y ☐ N ☐ Autonomous estimate	84,490	62,022	22,468	■ Y ☐ N ☐ Name of verification body BSI

UPM Greenhouse Gas Emissions Summary

Year	Have inventories been completed	Inventories conducted in accordance with ISO 14064-1 principle	Total emissions (metric tons CO2e/year)	Scope 1 (metric tons CO2e/year)	Scope 2 (metric tons CO2e/year)	Third-party verification
2022	■ Y ☐ N	■ Y ☐ N ☐ Autonomous estimate	22,359	15,380	6,979	☐ Y ☐ N ■ Under planning, verification will be completed prior to the timeline specified in the Financial Supervisory Commission (FSC) announcement.Name of verification body

In 2022, UPM conducted its first self-assessment according to ISO 14064-1. The data has not yet been verified by a third party. The plan is to complete third-party verification by the end of 2023.

4.1.2 Direct GHG Emissions (Scope 1)

Direct emission sources currently 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 2022, the Company's direct emissions amounted to 62,058.7541metric tons CO2e. Scope 1 emissions accounted for 5.95% of the total emissions of the Linyuan Plant.

FUCC Emission Statistics by Emission Source for 2020~2022

	Emission source type	Scope 1				Scope 2	Scope 3	Total equivalent emissions
		Stationary	Process	Mobile	Fugitive	Energy indirect	Other emissions	
2022	Co2e equivalent emissions (metric tons CO2e/year)	62,005.1319	0.0508	19.1984	34.373	19,646.1041	------	81,704.86
			62,058.7541					
	Percentage accounted for (%)		75.95%			24.05%	------	100%
2021	Co2e equivalent emissions (metric tons CO2e/year)	67,252.5954	0.0992	32.2657	144.0475	23,049.7314	------	90,478.739
			67,429.0078					
	Percentage accounted for (%)		74.52%			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
			62,022.4289					
	Percentage accounted for (%)		73.41%			26.59%	------	100%

UPM's direct emission sources mainly stem from production processes, including the manufacture of other synthetic resins or plastics, fixed combustion sources for emergency power generation and staff canteens. These sources encompass three fuel oil boilers, two steam fuel oil boilers, a regenerative waste gas combustion furnace, emergency power generators, and gas stoves.

In 2022, UPM's direct emissions amounted to 15,379.6881 metric tons CO2e. Scope 1 emissions accounted for 65.19% of the total emissions of the Pingnan Plant.

UPM Emission Statistics by Emission Source for 2022

	Emission source type	Scope 1				Scope 2	Scope 3	Total equivalent emissions
		Stationary	Process	Mobile	Fugitive	Energy indirect	Other emissions	
2022	Co2e equivalent emissions (metric tons CO2e/year)	14,595.6986	0.6092	13.0607	770.3196	6,978.3900	1,233.0188 ------	23,591.587
			15,379.6881					
	Percentage accounted for (%)		65.19%			29.58%	5.23%	100%

FUCC Emission Statistics by GHG Category in 2022

GHG category	CO_2	CH_4	N_2O	HFC	PFC_s	SF_6	NF_3	Total CO2e (in metric tons)
Co2e equivalent emissions (metric tons CO2e/year)	81,632.8809	30.9775	20.115	19.448	0.0000	0.0000	0.0000	81,704.858
Percentage accounted for (%)	99.91%	0.04%	0.03%	0.02%	0.00%	0.00%	0.00%	100.00%

UPM Emission Statistics by GHG Category in 2022

GHG category	CO_2	CH_4	N_2O	HFC	PFC_s	SF_6	NF_3	Total CO2e (in metric tons)
Co2e equivalent emissions (metric tons CO2e/year)	22,777.7304	22.1424	28.5405	763.1740	0.0000	0.0000	0.0000	23,591.587
Percentage accounted for (%)	96.55%	0.09%	0.12%	3.23%	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 by FUCC mainly arise from purchased electricity and steam. This encompasses the power consumption of process equipment, offices, public areas, and steam acquired from Linyuan Advanced Materials Technology Co., Ltd. In 2022, energy-related indirect emissions amounted to 19,646.104120,109.5069 metric tons CO2e/year, representing approximately 24.05 25.59% 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 and UPM. The emission sources are owned or controlled by other companies/units.

Due to the fact that it is impossible for FUCC 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:

a. Emissions caused by vehicles and incineration facilities operated by commissioned businesses responsible for waste disposal, incineration, and treatment
b. Outsourced sewage treatment
c. Employee business travel or official trips
d. Employee commuting

Indirect GHG emissions by UPM mainly arise from purchased electricity. This encompasses the power consumption of process equipment, offices, and public areas. In 2022, energy-related indirect emissions amounted to 6,978.3900 metric tons CO2e/year, representing approximately 31.20% of the total emissions of the Pingnan Plant. Other Indirect GHG emissions (Scope 3) by UPM amounted to 1,233.0188 metric tons/year.

UPM conducted the inventory in accordance with the principles of ISO 14064-1:

Year	Have inventories been completed	Inventories conducted in accordance with ISO 14064-1 principles	Scope 3 (metric tons CO2e/year)	Third-party verification
2022	■ Y ☐ N	■ Y ☐ N ☐ Autonomous estimate	1,233.0188	☐ Y ☐ N ■ Under planning, verification will be completed prior to the timeline specified in the Financial Supervisory Commission (FSC) announcement. Name of verification body

4.1.4 Air Pollution Control and Improvements

The primary emission source following the use of process fuels in the company is air pollutants. In order to reduce pollution emissions, the company predominantly employs natural gas as a fuel, resulting in a significant reduction in emissions. As per environmental regulations, the company conducts regular tests on emission sources and commissions external certified testing companies to perform quarterly Volatile Organic Compound (VOC) tests to ensure compliance with national standards.

In terms of processes and pollutant treatment, we adopt the most feasible control and treatment methods, including Flue Gas Desulfurization (FGD), cyclone dust collectors, bag filters, Low NOx Burners, high-temperature combustion furnace treatment, exhaust gas combustion towers (for abnormal emissions), scrubbers, internal floating roofs, and other air pollution prevention and control devices. All these control devices are equipped with continuous monitoring and recording facilities to effectively monitor their proper operation.

Furthermore, we rigorously implement preventive maintenance, training, and operational measures to ensure optimal performance of each device, effectively carrying out pollution prevention and control work. Presently, all processes of FUCC have acquired installation and operation permits. Additionally, we have completed the replacement of 178 non-sealed pumps to reduce VOC emissions from equipment components in the plant area. Regular testing operations are carried out by designated personnel, including chimney exhaust, equipment components, VOCs in internal floating roof tanks, VOCs in cooling water towers, VOCs in biological ponds, perimeter odor testing of wastewater plants, etc. Results are consistently monitored, analyzed, and tracked to ensure that gas emissions within the plant comply with regulatory requirements.

Faced with the increasingly severe issue of global warming, we have upheld the belief in energy conservation and carbon reduction. The factory has implemented various measures, including the use of Liquefied Natural Gas (LNG) to replace oil, converting pumps to non-sealed rotary pumps, implementing OFF GAS hydrogen recovery, adding waste gas recovery systems, and installing frequency converters, among others. Despite the significant investment in these measures, they align with our steadfast commitment to environmental carbon reduction and energy saving, driven by our determination to care for our planet.

Air Pollutant Testing Values for Heating Furnaces in the Linyuan Plant

Test items	Legal requirement	2020 Testing data	2021 Testing data	2022 Testing data
PAR(particles)(mg/m^3)	100	2	1	3
Sox (PPM)	100	3	2	2
Nox (PPM)	150	70	64	59
VOC (PPM)	---	Exempted from testing	11	Exempted from testing

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.

Air Pollutant Testing Values for Heating Furnaces of UPM

Test items	Legal requirement	2021 Testing data	2022 Testing data
PAR(particles)(mg/m^3)	30	---	7
Sox (PPM)	50	16	10
Nox (PPM)	100	59	57
VOC (PPM)	---	110	165

4.1.5 Waste Treatment and Control

FUCC and UPM adhere to the environmental regulations set forth by the competent authorities and rigorously execute waste disposal procedures. All waste is handled by qualified cleaning and disposal contractors, there is no transboundary transportation issue of hazardous waste. Various types of waste disposal tasks are regularly monitored and audited by relevant departments to ensure the legality and safety of the final disposal.

In 2022, there is no recorded leakage incidents of waste or raw material. In recent years, our waste production is as illustrated in the table below. Concerning the headquarters located in Taipei, being a comprehensive commercial office building, waste generated is managed by the Building Management Committee, no waste production data is collected for each individual user. However, FUCC complies with the committee's waste classification guidelines.

The waste production for FY2022 at FUCC's Linyuan Plant is summarized as follows: general waste production of 30.67 metric tons, total industrial waste production of 147.35 metric tons, and hazardous industrial waste production of 0.06 metric tons.

Overview of Waste Generation Amounts by FUCC

Item		Waste disposal	2020	2021	2022
General domestic waste (in tons)		Incineration	40.53	38.11	30.67
Industrial waste (in tons)	General	Incineration	0	16.72	13.53
		Other disposal operation(Note 1)	177.89	146.37	133.82
		Subtotal	177.89	163.09	147.35
	Hazardous	Incineration	0.04	0.02	0.06
		Other disposal operations(Note 1)	0	0.001	0.00
		Subtotal	0.04	0.021	0.06
	Subtotal		177.93	163.11	147.41
Total			218.46	201.22	178.08

Note 1: Other disposal operations: including chemical and non-incineration thermal treatment.
Note 2: Hazardous industrial waste recycling rate: 0%.

Overview of Waste Generation Amounts by UPM

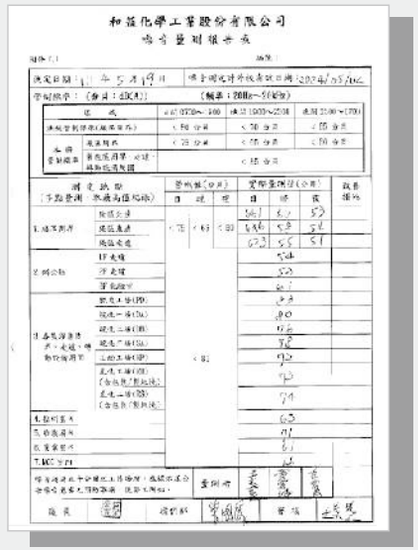
Item	Waste disposal	2020	2021	2022
General domestic waste (in tons)	Incineration	21.61	23.4	18.92
General industrial waste (in tons)	Incineration	862.44	800.93	46.70
	Landfill/Tempering	9.35	0	434.66
	Reuse	7.7	10.04	11.12
	Subtotal	879.49	810.97	492.48
	Total	901.1	834.37	511.40

Note: UPM has no hazardous industrial waste.

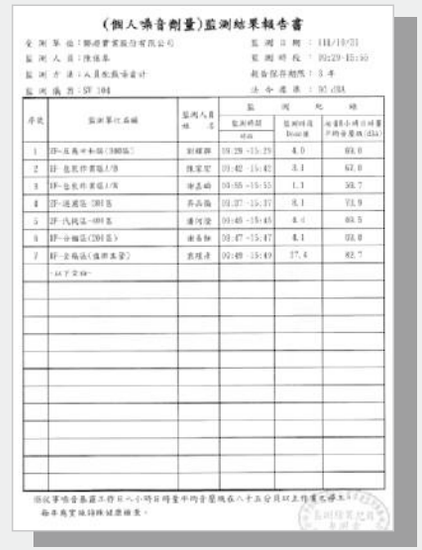
4.1.6 Noise Management

To ensure the quality of life for residents in the surrounding areas remains undisturbed and to ensure the safe and effective operation of the factory's noise and vibration equipment, our company conducts an annual comprehensive noise measurement. Special attention is given to the vicinity of transmission equipment and the surrounding areas. By analyzing variations in noise levels, we are able to develop corresponding noise improvement plans. The measurements are carried out by qualified vendors announced by the Environmental Protection Administration or by our own use of noise meters. Up to now, the measurement results from both FUCC and UPM have complied with the noise control standards. In 2022, there were no noise complaints or abnormal verification cases reported.

Perimeter Noise Testing Data of FUCC in 2022



Perimeter Noise Testing Data of UPM in 2022



4.1.7 Water Resources and Wastewater Treatment

The location of the Linyuan Plant of FUCC is situated within an industrial zone, rather than in ecologically conserved areas. The water supply is drawn from the Taiwan Water Corporation. The water supply obtained from the Taiwan Water Corporation for the year 2022 was 105.05 thousand cubic meters. There were no incidents in this year where our operational water usage affected the water source. Both FUCC and UPM have appropriately planned wastewater treatment facilities based on the characteristics of wastewater sources. Dedicated personnel are assigned to effectively manage wastewater treatment operations to ensure the discharged water quality conforms to national effluent standards. Regular water quality tests are conducted on wastewater. If water quality does not meet the standards, it is redirected back to the wastewater treatment facility for further treatment. Wastewater meeting the criteria is then discharged into the joint sewage treatment plant within the industrial zone for further processing. These measures guarantee that our operations have no adverse impact on the environment. Throughout the current year, no incidents of sewage discharge into the surrounding environment have occurred. The total amount of wastewater discharged in 2022 was 65.35 thousand cubic meters.

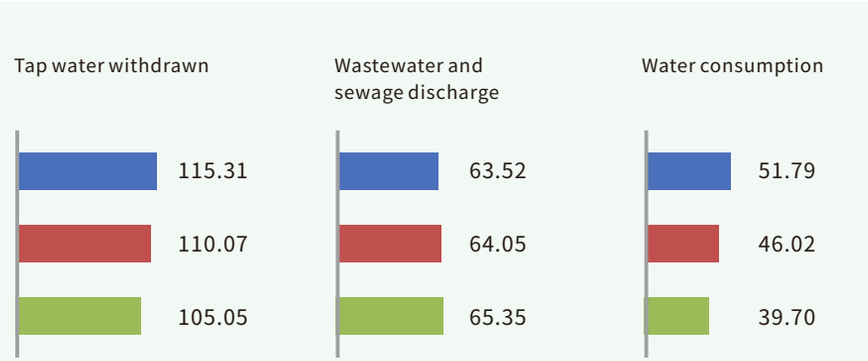
Overview of Wasterwater (sewage) discharged and Tap water withdrawn

Unit: Thousand cubic meters

Item	2020	2021	2022
Tap water withdrawn	115.31	110.07	105.05
Wastewater and sewage discharge	63.52	64.05	65.35
Water consumption	51.79	46.02	39.70

FUCC'S Water resource consupmtion statistics

2020 2021 2022 Unit: Thousand cubic meters



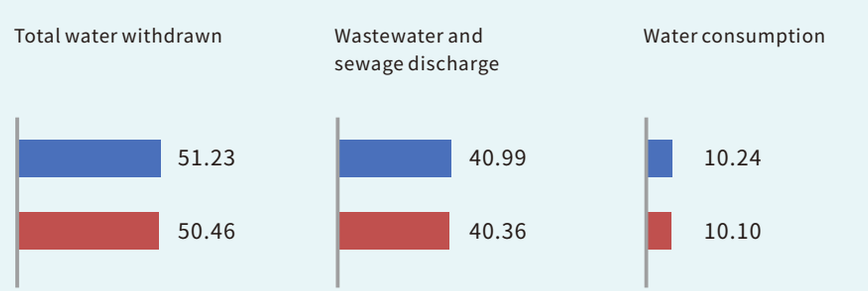
Overview of Wasterwater (sewage) discharged, Tap water withdrawn and Underground water withdrawn

Unit: Thousand cubic meters

Item	2021	2022
Tap water withdrawn	1.51	2.71
Underground water withdrawn	49.72	47.75
Total water intake	51.23	50.46
- Wastewater and sewage discharge	40.99	40.36
Water consumption	10.24	10.10

UPM'S Water resource consupmtion statistics

2021 2022 Unit: Thousand cubic meters



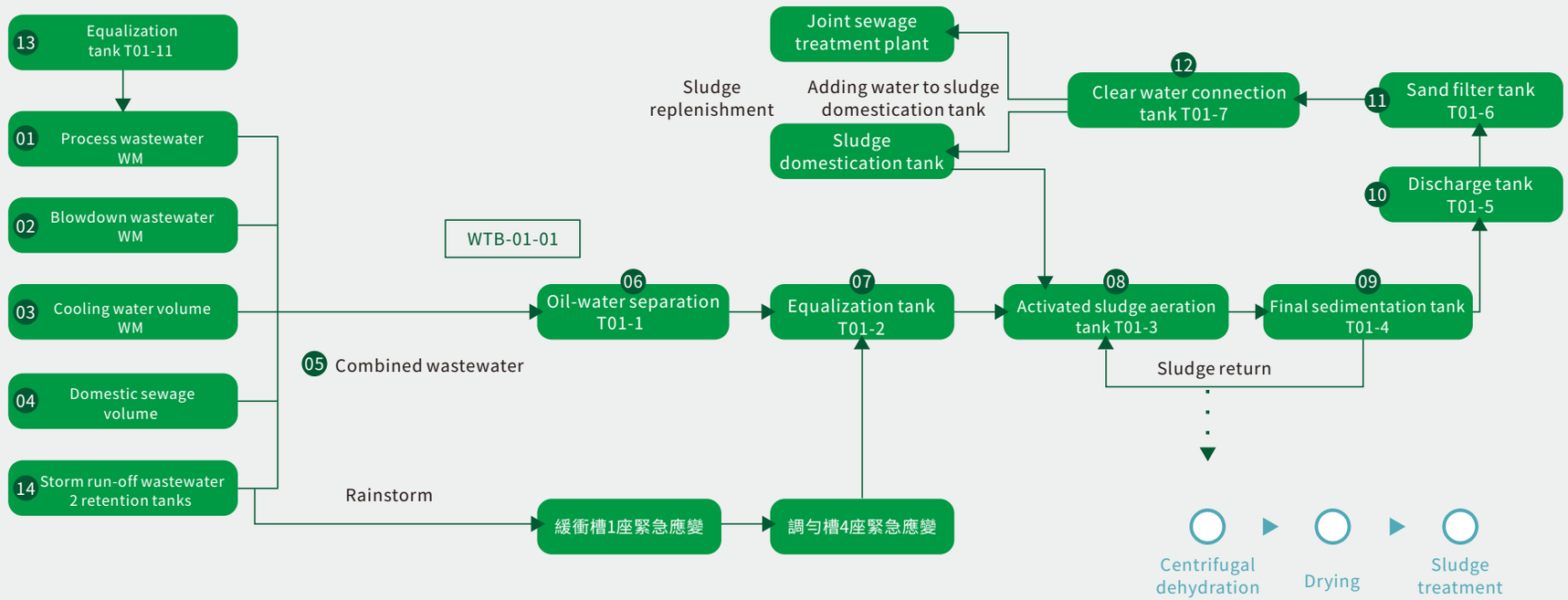
Comparison of Pre- and Post-treatment Wastewater Quality of FUCC in 2022

Item	Pre-treatment	Post-treatment
Water temperature (℃)	35.5	30.5
pH	8.3	7.5
BOD (mg/L)	76.2	<2.0
COD (mg/L)	138	11.2
SS (mg/L)	5.3	4.2
Grease (mg/L)	2.9	3.2
True Color	<25	<25
Ammonia Nitrogen (mg/L)	2.64	0.08
Nitrite Nitrogen (mg/L)	2.57	4.01
Manganese (mg/L)	0.029	0.018
Iron (mg/L)	0.883	0.32
Phenol (mg/L)	0.0648	<0.005
Benzene (mg/L)	0.0795	ND

Comparison of Pre- and Post-treatment Wastewater Quality of UPM in 2022

Item	Pre-treatment	Post-treatment
Water temperature (℃)	31	29.7
pH	7.3	7.1
BOD (mg/L)	339	ND
COD (mg/L)	5340	43.6
SS (mg/L)	950	15.5
Grease (mg/L)	1680	9.4
True Color	<50	<50
Ammonia Nitrogen (mg/L)	0.06	0.04
Nitrite Nitrogen (mg/L)	0.03	0.9
Manganese (mg/L)	0.082	ND
Iron (mg/L)	0.061	ND
Phenol (mg/L)	1.32	<0.1
Benzene (mg/L)	<0.01	ND

Wastewater Treatment Process



4.2 Energy Resource Management

With the rapid advancement of technology and the increasing global concerns over finite energy resources, businesses are facing escalating issues related to energy depletion. In this context, enhancing energy efficiency has become a pivotal indicator for bolstering industry competitiveness. To achieve our company's sustainability goals and contribute to both environmental preservation and energy conservation, we have consistently been dedicated to formulating relevant strategies and promoting energy-saving initiatives. These efforts are aimed at minimizing energy consumption to the fullest extent possible and effectively managing resource utilization.

4.2.1 Direct Energy Consumption

The energy sources consumed during our company's operational processes include fuel oil, electricity, steam, and natural gas. In 2022, the total energy consumption amounted to 1,299,940 gigajoules (GJ).

FUCC' s Consumption

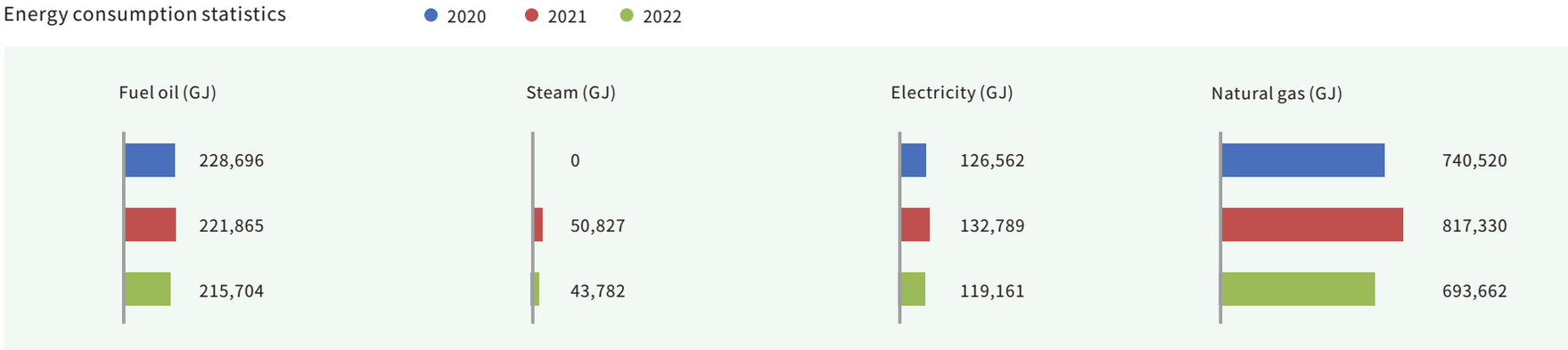
Energy categories	2020	2021	2022
Fuel oil (KL)	5,691	5,521	5,368
Fuel oil (GJ)	228,696	221,865	215,704
Steam (tons)	—	18,268	15,736
Steam (GJ)	—	50,827	43,782
Electricity (kWh)	35,156,000	36,885,800	33,100,200
Electricity (GJ)	126,562	132,789	119,161
Natural gas (m3)	19,655,994	21,694,801	18,412,229
Natural gas (GJ)	740,520	817,330	693,662
Total energy	1,095,778	1,222,811	1,072,309

UPM' s Consumption

Energy categories	2022
Fuel oil (KL)	4,436
Fuel oil (GJ)	178,275
Electricity (kWh)	13,710,000
Electricity (GJ)	49,356
Total energy (GJ)	227,631

Note 1: According to the Greenhouse Gas Emission Factor Management Table (6.0.4), the fuel oil and natural gas heating values are 9,600 kcal/l and 9,000 kcal/m^3, respectively. One kcal equals 4,186 J (Joule), and one kWh is equivalent to 3,600 KJ (1 GJ = 1 * 10 ^{9} Joules).
Note 2: Steam consumption amounts have been recorded since 2021. The assumed steam heating value is 664,670 kcal.
Note3: All electricity is purchased from outside.

Energy consumption statistics



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

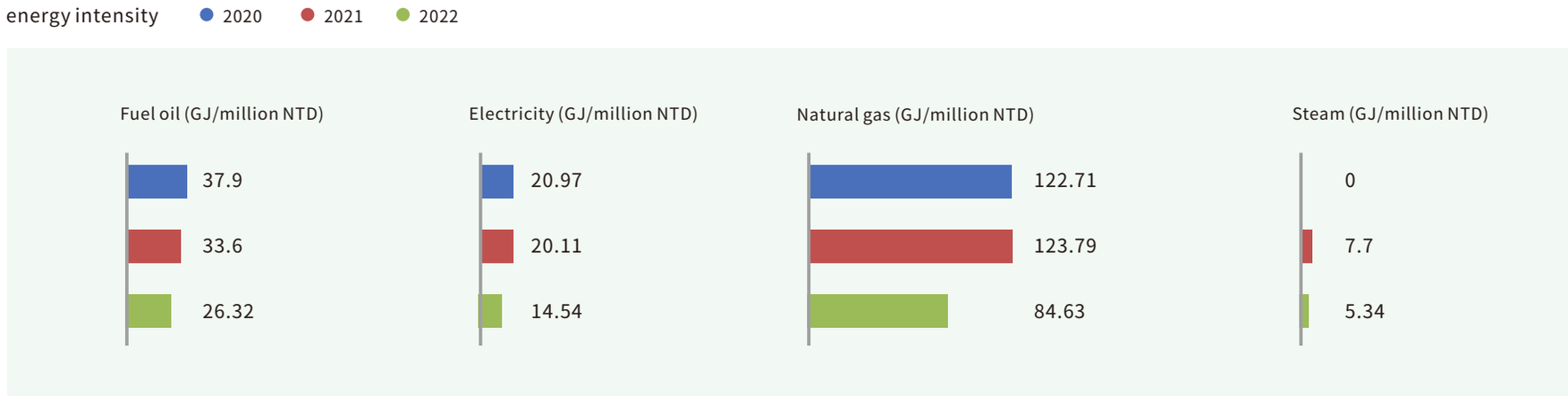
2020~2022 FUCC's Energy Intensity Statistics

Year	2020	2021	2022
Total output (all product categories) in tons (excluding OEM)	127,407	126,529	122,127
Operating revenue (million NTD) (excluding OEM)	6,034.57	6,602.64	8,196.85
Fuel oil (GJ/million NTD)	37.90	33.60	26.32
Electricity (GJ/million NTD)	20.97	20.11	14.54
Natural gas (GJ/million NTD)	122.71	123.79	84.63
Steam (GJ/million NTD)	—	7.70	5.34

2022 UPM's Energy Intensity Statistics

Year	2022
Total output (all product categories) in tons (excluding OEM)	45,625
Operating revenue (million NTD) (excluding OEM)	1,694.38
Fuel oil (GJ/million NTD)	105.22
Electricity (GJ/million NTD)	29.13

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



Note: Steam consumption has been recorded since 2021.

4.2.2 Energy Conservation

The global emphasis on addressing climate change and global warming has propelled energy conservation into a worldwide trend. Enterprises play a vital role in achieving sustainable development. In response to challenges related to energy utilization and management, both FUCC and UPM have established internal energy-saving initiatives. These initiatives involve periodic reviews of implementation effectiveness, whether energy-saving goals have been achieved, improvements in energy efficiency, and fulfillment of social responsibility to reduce greenhouse gas emissions.

While pursuing corporate growth, energy conservation is an imperative concern we collectively share. Comprehensive analysis, review, and enhancement must be thoroughly executed to effectively curtail energy consumption; this stands as the ultimate objective of the company. Annually, energy-saving projects are devised and implemented, and the continued promotion of energy-saving initiatives and expected benefits for the year 2022 are detailed as follows:

2022 Ongoing energy conservation initiatives:

Overview of Energy Conservation Actions and Measures by FUCC in 2022

Equipment improvement	Conservation actions and measures	Energy conservation (a)	Energy categories (b)	consumption reduction baseline (c)	Standard calculation method (d)
Thermal Insulation Projects	Periodically replacing insulation or cooling materials for pipes or storage tanks	Maintaining energy efficiency for heating, cooling, and other energy consumption purposes.			
Fuel Energy Efficiency Enhancement/ Maintenance Equipment	Updating heat exchangers	Sustaining fuel energy usage efficiency.			
Electric Power Energy Efficiency Enhancement/ Maintenance Equipment	DA C-10/PD C-7A/B Equipment replacement	137,970 kWh =496.7 GJ =4.966 $\times 10^8$ kilojoule [kJ]	Electricity	Year electricity consumption before equipment replacement: 637,290 kWh	Year electricity consumption after equipment replacement: 499,320 kWh

Overview of Energy Conservation Actions and Measures by UPM in 2022

Equipment improvement	Conservation actions and measures	Energy conservation (a)	Energy categories (b)	consumption reduction baseline (c)	Standard calculation method (d)
Thermal Insulation Projects	Periodically replacing insulation or cooling materials for pipes or storage tanks	Maintaining energy efficiency for heating, cooling, and other energy consumption purposes.			
Fuel Energy Efficiency Enhancement/ Maintenance Equipment	H-2 thermal fluid boiler flue gas recovery, by installing a heat exchanger, facilitates the heat exchange between the high-temperature flue gas and the combustion air for the burner.	5.4147 $\times 10^8$ [KJ]	Fuel	Comparison of energy consumption before and after equipment installation.	Actual measurement
Electric Power Energy Efficiency Enhancement/ Maintenance Equipment	Raise the water outflow temperature of chiller A/C/D/E	2.8467 $\times 10^8$ [KJ]	Electricity	Before and after comparison of adjustments	Actual measurement
Other expenditures for equipment maintenance or energy reduction (air, water, etc.)	Maintenance and Efficiency of 100RT Chiller Units A and D	5.0146 $\times 10^8$ [KJ]	Electricity	Before and after comparison of yearly maintenance	Actual measurement
	Demand Bidding Measures (Economic Type)	7.5168 $\times 10^7$ [KJ]	Electricity	Comparison of the previous day and the day of operation	Taipower Demand Bidding Platform

Overview of Projected Energy Conservation Actions and Measures by FUCC in 2023

Equipment improvement	Energy conservation(a)	Energy categories (b)	consumption reduction baseline (c)	Standard calculation method (d)
Thermal Insulation Projects	Periodically replacing insulation or cooling materials for pipes or storage tanks	Maintaining energy efficiency for heating, cooling, and other energy consumption purposes.	Periodically replacing insulation or cooling materials for pipes or storage tanks	Maintaining energy efficiency for heating, cooling, and other energy consumption purposes.
Replace DA P-27B with a vacuum pump of lower horsepower	131,250 kWh =472.5 GJ =4.725×10 ^{8} kilojoules [kJ]	Electricity	Before replacement: Rated motor power =37.5KW, annual electricity consumption =262,500 kWh	After replacement: Rated motor power =18.75KW, annual electricity consumption =131,250 kWh

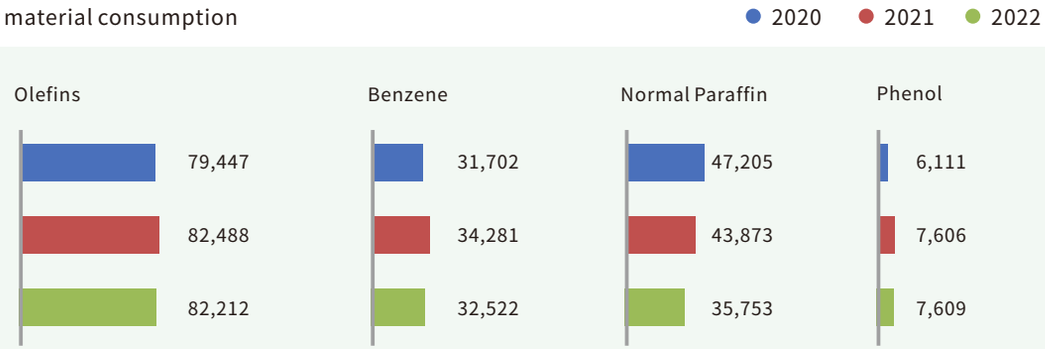
4.2.3 Raw Material Use

Both FUCC and UPM primarily utilize raw materials from petrochemical synthetic products, as the nature of the industry is petrochemical. These materials fall under GRI Standards' definition of non-renewable raw materials. The majority of the company's raw materials are sourced from qualified suppliers who offer long-term stability and are not prone to supply shortages. In recent years, we have established enduring and reliable sales and service relationships with our suppliers, ensuring a consistent supply without shortages. Additionally, we have fostered long-standing and robust partnerships with our clients. The raw materials used for our products, mainly including olefins, alkyl benzene, benzene, normal paraffin, and phenols, amounted to a total of 158,096 metric tons in 2022. The annual usage figures are presented in the chart depicting the consumption of major raw materials.

Raw material consumption Unit: Ton

Year	2020	2021	2022
Olefins	79,447	82,488	82,212
Benzene	31,702	34,281	32,522
Normal Paraffin	47,205	43,873	35,753
Phenol	6,111	7,606	7,609

raw material consumption



Raw material consumption of UPM in 2022 Unit: Ton

Year	2022
Resin oil	43,968.63
Boron Trifluoride	81.03
Phenol	615.96
lime	229

Proportions of UPM's Raw Material Consumption

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	Ensuring a healthy work environment and fostering a positive workplace culture are of paramount importance. Through well-operated management systems and extensive awareness campaigns, we effectively reduce potential hazard risks, prevent accidents, and safeguard the physical and mental well-being of our employees. This is also a crucial measure to ensure the smooth operation of the company.	Risk management Legal compliance Ongoing improvements Healthy workplace	● Continuously conduct relevant awareness and drills ● Maintain zero major occupational accidents continuously		● Ongoing implementation of ISO 45001 ● 2022 occupational health & safety training FUCC: 166 participants for a total of 1,042 hours UPM: 82 participants for a total of 1,125 hours	Environmental Safety office Email or phone 07-6412921 ext. 336	Quarterly tracking and reviews of occupational health and safety performance by the Occupational Health & Safety Committee/ Zero Accidents in 2022

As a chemical industry company, we place a strong emphasis on workplace safety. We recognize that only by ensuring a safe environment for our employees can we enhance work efficiency and quality. To ensure smooth production processes and protect the lives and property of our employees and the local community, the company continually enhances its risk management mechanisms, with a focus on damage prevention and the promotion of employee physical and mental well-being. Safety and health are among our core values as a business and form the foundation for achieving sustainable operations. We continuously strive to instill a sense of self-safety awareness in our employees, aiming for a 100% safety target and zero accidents. In the year 2022, no process safety incidents occurred.

2022 occupational health & safety training of FUCC:
166 participants for a total of 1,042 hours

Item	person/hours
Industrial Safety	166 people / 882 hr
Fire protection	160 people / 160hr
Total	1,042 hours

2022 occupational health & safety training of UPM:
82 participants for a total of 1,125 hours

Item	person/hours
Industrial Safety	82 people / 1049 hr
Fire	40 people / 76hr
Total	1,125 hours

4.3.1 Occupational Health and Safety Organizations

FUCC has established the Formosan Union Chemical Corp. Linyuan Plant Corporate Union and the Occupational Health & Safety Committee (hereafter referred to as "OHS Committee") pursuant to the Occupational Health and Safety Management Guidelines. 13 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 2022

OHS Committee	Number of members	Percentage
Labor representatives	13 位	56 %
Management representatives	10 位	44 %
Total	23 位	100 %

UPM has established the "United Performance Material Corp. Corporate Union" at the Pingnan Site in Pingtung. According to the Occupational Health and Safety Management Regulations, an Occupational Health & Safety Committee (hereafter referred to as the "OHS Committee") has been established. The OHS Committee convenes an annual OHS management review meeting to discuss safety and health plans, including education and training plans, strategies for improving the work environment, hazard prevention management, audits, contractor management, and health promotion. For items that require improvement, relevant departments are instructed to complete the improvements within the prescribed timeframe or to formulate safety and health management plans and track the progress of improvements in accordance with the provisions of Article 10 of the Occupational Safety and Health Management Regulations, which applies to businesses falling under the scope of Article 2-1 and Article 6, paragraph 2. As UPM's workforce does not exceed 100 employees, the establishment of an Occupational Safety and Health Committee is not required.

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 achieving 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 and continues to comply with the requirements of ISO 45001 annually.

On the other hand, FUCC actively participates in the Taiwan Responsible Care Association (TRCA) and the Linyuan Industrial Zone Occupational Health and Safety Promotion Association. In the areas of occupational safety, health, and environmental protection, we engage in mutual observation and learning to effectively enhance the safety and health protection of our operations personnel.

Major OHS Committee Resolutions in 2022

Meeting Date	Major Resolution
2022.02.09	Review of ESH policy/targets/initiatives and other items (total of 9 items)
2022.06.29	Review and deliberation of workplace enviromental monitoring plan results (total of 10 items)
2022.10.03	Review and deliberation of health & safety-related proposals (total of 10 items)
2022.12.28	Review and deliberation of working environment monitoring plan results (total of 10 items)

UPM 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. 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 achieving 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 and continues to comply with the requirements of ISO 45001 annually.

On the other hand, UPM Corporation actively participates in the "Safety and Health Family-Ping-An-Yieh-Phui Family" program. In the areas of occupational safety, health, and environmental protection, we engage in mutual observation and learning to effectively enhance the safety and health protection of our operations personnel.

Major OHS Committee Resolutions in 2022

Meeting Date	Major Resolution
2022.11.21	Review of ESH policy/targets/initiatives and other items (total of 12 items)

FUCC

UPM

Hazard and Accident Prevention

To ensure safety, the Company has established corresponding control measures for various on-site operations, including the development of procedures, operational instructions, guidelines, and regulations. For operations that may pose risks to personnel, the environment, and equipment, such as welding, argon welding, cutting, grinding, sawing, confined space entry, high-altitude work, electrical work, process venting, equipment dismantling, etc., an "Hot Work and Construction Safety Permit" must be applied for in advance to effectively control hazardous operations and prevent accidents. Furthermore, we conduct comprehensive hazard notifications throughout the plant, reinforcing personnel safety awareness through various signage and warnings.

Hazard and accident prevention of FUCC


Hazard and accident prevention of UPM


Operational control through Hot Work and Construction Safety Permits

To ensure the safety of personnel, the environment, and equipment, FUCC and UPM require the submission of a "Hot Work and Construction Safety Permit" application before conducting any potentially hazardous operations within the premises. This process involves a graded review of the work procedures and final approval by the highest authority within the facility. Prior to commencing construction, the preparatory and environmental checks are conducted by safety guardians, construction personnel, unit supervisors, etc., in accordance with the "Hot Work and Construction Safety Permit." Ultimately, final confirmation is performed by safety personnel. Through these measures, awareness of hazardous operations is heightened among personnel, control efforts are reinforced, and all necessary safety protocols and protective measures are prearranged to mitigate accident risks. This approach ensures the safety of personnel and equipment by proactively minimizing potential hazards.

Operational control for confined space operations in tanks and pits

During confined space operations such as tank or trench entry, FUCC and UPM Chemical face potential hazards including inadequate oxygen levels and accumulation of harmful or flammable gases. Failure to take preventive measures could lead to extremely challenging rescue efforts in case of accidents. Hence, prior to entering confined space areas, authorization and issuance of "Hot Work and Construction Safety Permit" are mandatory, along with environmental monitoring. Additionally, the provision of safety equipment, deployment of dedicated monitoring personnel, and proper signage within the work area are essential to mitigate risks of oxygen deficiency, poisoning, falls, and other hazards. These measures are implemented to ensure the safety of personnel operating within confined spaces.

Power supply interruption control

To ensure the safety of equipment maintenance operations and prevent electrical shock or harm caused by electrical and rotating equipment during maintenance of power, electrical, and rotating equipment, both FUCC and UPM Chemical require the issuance and approval of "Hot Work and Construction Safety Permit" prior to conducting various equipment maintenance tasks. Before commencing any operation, it is mandatory to disconnect power sources and confirm the absence of electrical supply, thereby effectively mitigating the risk of electrical hazards. We are committed to ensuring the safety of maintenance activities to safeguard personnel from electrical-related injuries.

Isolation of equipment from pipelines

In order to ensure the safety of personnel during operations or maintenance involving piping and equipment within chemical processes, as well as to mitigate the risk of fire and explosion due to the nature of the substances involved, both FUCC and UPM Chemical are required to perform equipment and pipeline isolation, tagging, and locking procedures before engaging in equipment repairs, cleaning, opening, or disassembly. This approach ensures the safety of operations and maintenance activities and prevents any unforeseen incidents. We are committed to safeguarding the well-being of maintenance personnel and ensuring secure operations within the production process.

Contractor health and safety management

FUCC and UPM are dedicated to effectively fulfilling corporate responsibilities and enhancing safety and health performance. In addition to prioritizing the safety and well-being of our employees, we also place significant emphasis on the safety of contractor personnel working within our company. We attach importance to informing contractor personnel about hazardous chemicals, providing safety guidance, conducting safety education and training, establishing labor conditions, and organizing agreements for contracting work. Furthermore, we encourage contractors to submit safety and health recommendations and reports of near-miss incidents, and have implemented a contractor safety and health evaluation system to ensure the achievement of mutually agreed-upon safety and health management goals. We are committed to jointly maintaining a safe and healthy working environment with our contractors.

Dangerous goods management

FUCC and UPM, in addition to appointing security supervisors and fire management personnel for the management of hazardous chemicals, have also formulated various operational safety and health guidelines and procedures for hazardous chemical substances. These guidelines are designed to guide employees in their operations. Furthermore, information regarding hazardous chemical substances and Safety Data Sheets (SDS) are made available in multiple locations, including the guard room, control room, various workplaces, and within the computer system, facilitating easy access and retrieval for employees.

Every year, a six-hour training session on hazardous chemical labeling and general rules is conducted as part of environmental and safety training, aimed at enhancing employees' awareness of hazardous materials. Additionally, before contractors commence on-site operations, hazard awareness within the facility is conducted. A comprehensive chemical inventory is undertaken throughout the plant, and entries are recorded online (priority management chemical registry and existing chemical registry).

These measures collectively demonstrate our commitment to fostering a safety-conscious environment, effective management of hazardous chemicals, and comprehensive awareness among both employees and contractors.

4.3.3 Fire Safety Facilities

The daily maintenance and inspection of fire sources, fire evacuation facilities, fire safety equipment within the buildings, and on-site fire safety equipment within the premises of FUCC and UPM are undertaken by designated personnel. Additionally, the company annually engages qualified vendors to conduct comprehensive inspections and repairs of all fire safety equipment. The results of these inspections and actions taken are reported to the regulatory authorities to ensure the reliability of fire equipment and preparedness for various emergency situations. We also periodically update fire-resistant clothing and firefighting equipment to enhance both the firefighting capabilities of the premises and the protective capabilities of personnel.

Photos of FUCC's fire protection facility equipment





Photos of UPM's fire protection facility equipment





4.3.4 Emergency response measures

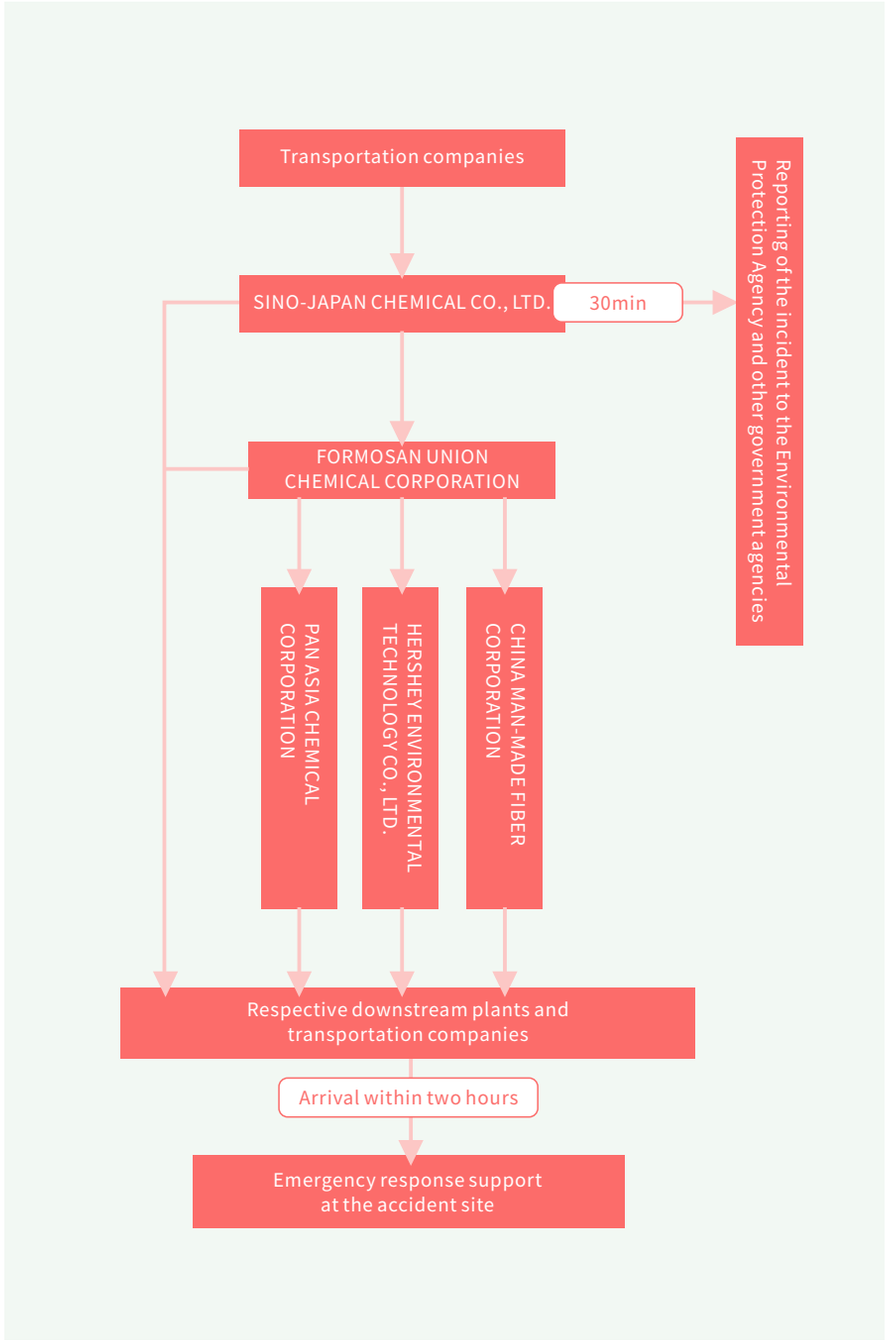
FUCC

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:

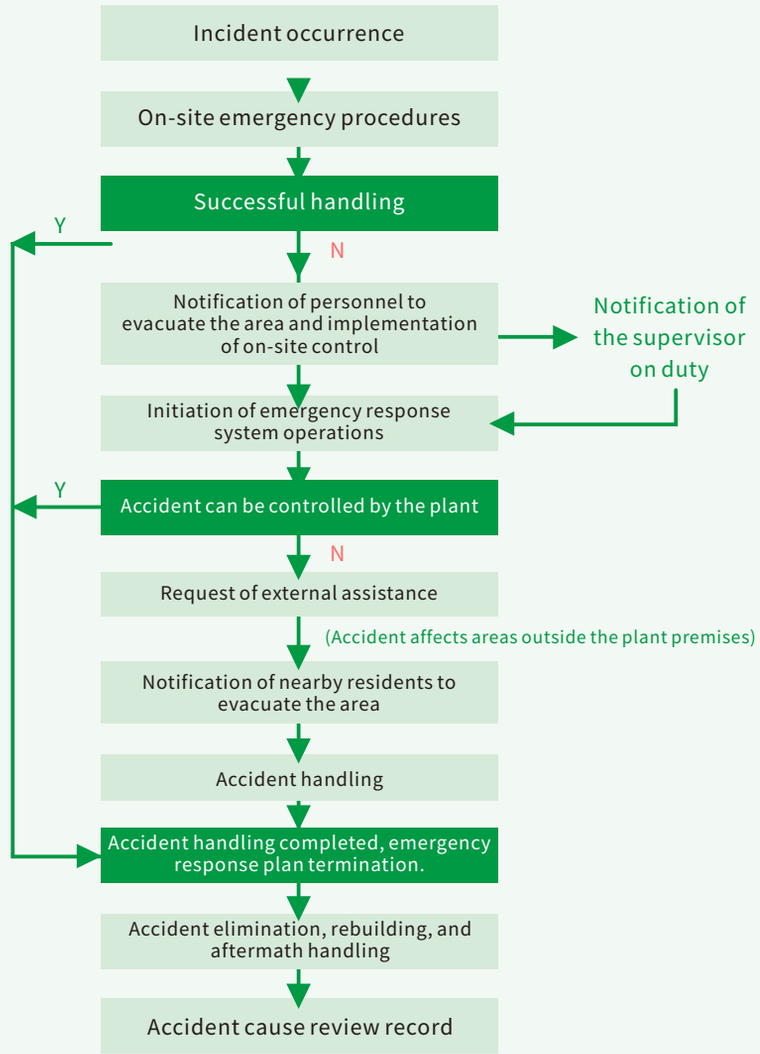
- First level response: Material leakage on the plant premises does not cause a fire or the resulting fire does not affect other materials or regions; leakage of toxic substances does not spread to surrounding areas and does not affect nearby ecosystems.
- Second level response: Occurring fire affects 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 10 drills were held in 2022. Strong and weak points of the drills were identified for review upon conclusion of the drills.

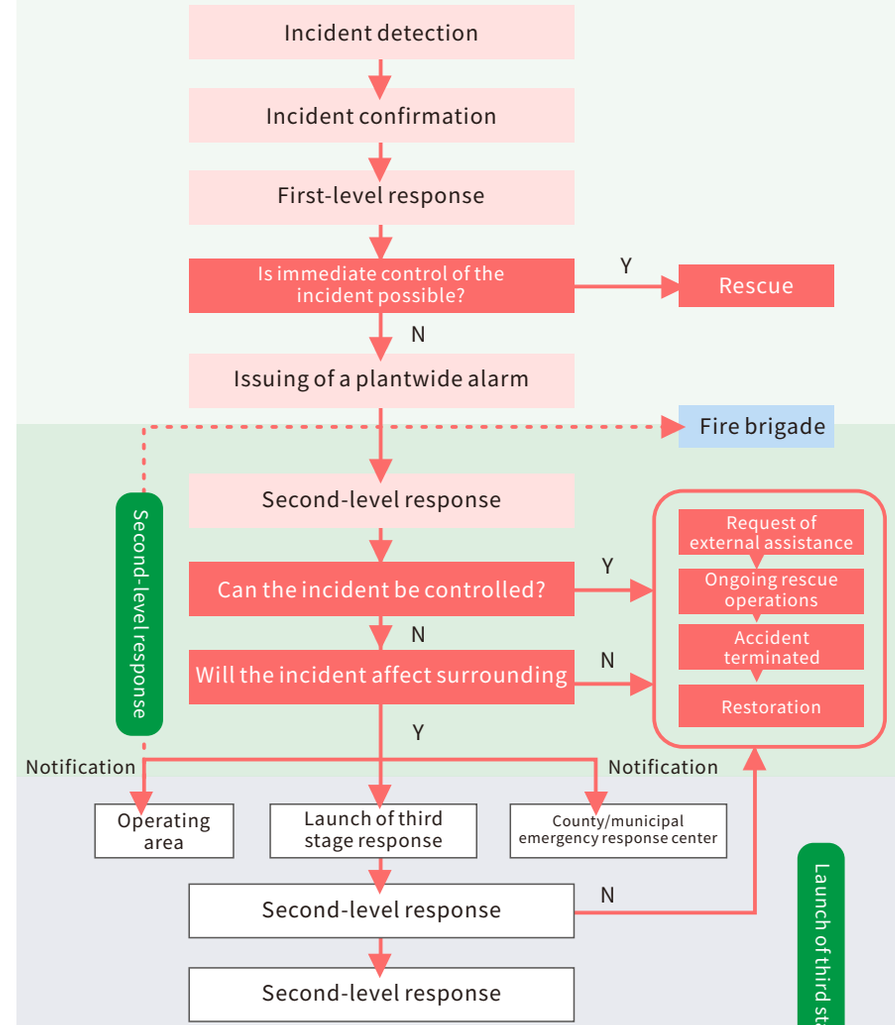
Membership in the Toxic Disaster Prevention Task Force: With a view to reinforcing the spirit of responsible care and mutual aid and assistance on the part of businesses in the region whose operations involve toxic chemicals, and implementing a vertical and horizontal reporting mechanism, we have joined the Kaohsiung Toxic Disaster Prevention Task Force. In addition, we plan to form an integrated joint disaster prevention organization with upstream 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 shortcomings 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 2022 & images provided for verification (FUCC)

Emergency Drill Scenario

Joint Response Drill for Massive Hydrogen Leak from RS C-2B Export FLG

01

The drill commences, and on-site personnel discover a hydrogen leak at the accident site, prompting a call to the duty supervisor.

02

The duty supervisor arrives at the scene, assesses the situation, and determines a hydrogen gas leak from the hydrogen compressor flange.

03

The control room broadcasts the situation and initiates the industrial area's joint emergency response.

04

Office personnel initiate evacuation procedures.

05

The area's joint response team reports and records the incident.

06

The duty supervisor instructs the discoverer to perform remote emergency shutdown and isolation.

07

Personnel gather at the designated area, and the on-site commander issues commands.

08

Safety protection and fire extinguishing teams don protective gear.

09

The detection team defines the boundaries of the hot and cold zones.

10

The detection team defines the boundaries of the hot and cold zones.

Joint Response Drill for Massive Hydrogen Leak from RS C-2B Export FLG

11 Fire extinguishing team members deploy a fan-shaped water mist curtain to protect personnel entering the disaster zone.

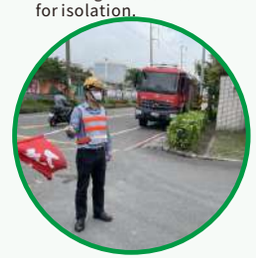
12 Fire extinguishing team members deploy a fan-shaped water mist curtain to protect personnel entering the disaster zone for isolation.

13 LCY Chemical Corp. personnel stand by to support with supplies.

14 Emergency medical team establishes a first aid station and distributes emergency medical supplies.

15 CPC Corporation support fire truck personnel report to the on-site commander.

16 Fire department support fire truck personnel report to the on-site commander.



17 Evacuation guidance controls traffic at entry points.

18 CPC Corporation support fire trucks stand by at intersections.

19 Kaohsiung City Fire Bureau support fire trucks arrive at the facility for standby support.

20 Fire department support team members set up a mobile water mist cannon in standby mode.

21 Linyuan Advanced Materials Technology Corp. supports pipeline operations by fire water connection.

22 Repair team members enter the disaster zone for leak point repairs.

23 Repair team members complete the isolation of the leak point and report back.

24 Repair team members complete the isolation of the leak point and report back.

25 The scene is cleared, personnel gather for headcount, and a review of improvements is conducted.

UPM

Ensure that in the event of unforeseen or accidental incidents and potential emergencies, appropriate emergency measures can be swiftly taken to prevent or mitigate harm to personnel, equipment losses, and environmental impacts.

Emergency Response Procedures::

Incident detection → Incident confirmation → Notification → Contacting All Units → Operation of the emergency response organization → Recovery and review → Record → Management review

Self-handling completion

Report to supervisor

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 2 drills were held in 2022. Strong and weak points of the drills were identified for review upon conclusion of the drills.

Self-Defense Fire Organization Drills in 2022 & images provided for verification

Resin oil leakage emergency drill

01 Explanation: Broadcast the occurrence of an unexpected incident; gather participants for the drill.

02 Commander assigns tasks

03 Safety Protection Team uses detectors to define the boundaries of the warm and hot zones by detecting concentration levels

04 Notification Team reports the incident and contacts the firefighting unit

05 Alert Team (Evacuation and Guidance Team) conducts personnel and traffic control.

06 Operating personnel practice wearing appropriate gear.

07 Maintenance personnel put on protective clothing and practice sealing and repairing the equipment involved in the incident.

08 Water is sprayed around the incident site to prevent fire.

09 Maintenance Team operates firefighting pumps to ensure normal operation.

10 After the drill, take attendance and review areas for improvement.

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 90 km/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 2022.

FUCC tanker filling operations

01 Confirmation of proper connection of high-pressure tubes

02 Feed valve confirmation

03 Inspection of proper placement of wheel chocks

04 Confirmation of proper connection of ground wires

05 Check tanker-related certificates and contingency equipment.

06 Actual loading and unloading of tankers should be conducted

07 The actual loading and unloading of tankers should be completed as required by regulations.

UPM tanker filling operations

01 Confirmation of proper connection of exhaust tube

02 Feed valve confirmation

03 Inspection of proper placement of wheel chocks

04 Confirmation of proper connection of ground wires

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 The statistics of occupational accident 2020-2022

Item		2020 Taipei HQ andTaipei HQ Kaohsiung Plant	2021 Taipei HQ and Kaohsiung Plant	2022 Taipei HQ	2022 Kaohsiung Plant
Total Work Hours		384,600	385,201	99,008	387,282
Occupational injury death rate	Occupational injury death rate (FUCC employees)	0	0	0	0
	Occupational injury death rate (Contractor personnel)	0	0	0	0
	Occupational injury deaths (FUCC employees)	0	0	0	0
	Occupational injury deaths (Contractor personnel)	0	0	0	0
Severe occupational injury rate (excluding deaths)	Severe occupational injury rate (FUCC employees)	0	0	0	0
	Severe occupational injury rate (Contractor personnel)	0	0	0	0
	Severe occupational injuries (FUCC employees)	0	0	0	0
	Severe occupational injuries (Contractor personnel)	0	0	0	0
Recordable occupational injury rate (including deaths and severe occupational injuries)	Recordable occupational injury rate (FUCC employees)	0	0	0	0
	Recordable occupational injury rate (Contractor personnel)	0	0	0	0
	Recordable occupational injuries (FUCC employees)	0	0	0	0
	Recordable occupational injuries (Contractor personnel)	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.
- The Taipei HQ did not meet the declaration standards report for the years 2020 and 2021.

UPM Occupational Safety Statistics2022

UPM Occupational Safety Statistics

Item		2021 HQ	2021 Pingnan Plant	2022 HQ	2022 Pingnan Plant
Total Work Hours		176,404		160,128	
Occupational injury death rate	Occupational injury death rate (FUCC employees)	0	0	0	0
	Occupational injury death rate (Contractor personnel)	0	0	0	0
	Occupational injury deaths (FUCC employees)	0	0	0	0
	Occupational injury deaths (Contractor personnel)	0	0	0	0
Severe occupational injury rate (excluding deaths)	Severe occupational injury rate (FUCC employees)	0	0	0	0
	Severe occupational injury rate (Contractor personnel)	0	0	0	0
	Severe occupational injuries (FUCC employees)	0	0	0	0
	Severe occupational injuries (Contractor personnel)	0	0	0	0
Recordable occupational injury rate (including deaths and severe occupational injuries)	Recordable occupational injury rate (FUCC employees)	0	0	0	0
	Recordable occupational injury rate (Contractor personnel)	0	0	0	0
	Recordable occupational injuries (FUCC employees)	0	0	0	0
	Recordable occupational injuries (Contractor personnel)	0	0	0	0

4.3.7 Operation environment testing

We perform environmental monitoring and testing for all operational sites and environments biannually, with specific assessments carried out in the months of February and August. Similarly, UPM conducts environmental monitoring and testing for its operational sites and environments during the months of April and October.The primary objective of these efforts is to identify substances that may potentially pose health hazards to employees within these environments. The outcomes of these tests are made publicly available to raise awareness among employees regarding the concentration of potential pollutants or hazardous substances present in their work areas.

We proactively implement engineering improvements and the adoption of personal protective equipment (PPE) to achieve the overarching aim of providing our employees with comfortable, healthy, safe, and high-quality operational environments. In the year 2022, all the results from environmental monitoring and testing met the required criteria. The specific results are provided in the table below:

FUCC workplace enviromental monitoring results

- HF ＜0.015～＜0.016 ppm (Allowable concentration 3 ppm)
- Benzene ＜0.072～＜0.083 ppm (Allowable concentration 1 ppm)
- Phenol ＜0.029～＜0.03 ppm (Allowable concentration 5 ppm)
- Sulfuricacid ＜0.003 mg/m3(Allowable concentration 1 mg/m3)
- Totaldust 0.12～ 0.49 mg/m3(Allowable concentration 10 mg/m3)
- Acetone <0.0209 ppm (Allowable concentration 750 ppm)
- Toluene ＜0.0236 ppm (Allowable concentration 100 ppm)
- n-Hexane＜0.0247 ppm (Allowable concentration 50 ppm)
- Office CO2 819～ 847 ppm (Allowable concentration 5000 ppm)
- Nickel ＜<0.002 mg/m3 (Allowable concentration 1 mg/m3)

UPM operation environment monitoring results

- Phenol ＜0. 059 ppm (Allowable concentration 5 ppm)
- Xylene ＜0. 429 ppm (Allowable concentration 100 ppm)
- Styrene ＜0. 299 ppm (Allowable concentration 50 ppm)
- Boron Trifluoride ＜0. 012 mg/m3(Allowable concentration 2.5 mg/m3)
- Total Particulate Matter (Packaging Area) 0.19 mg/m3(Allowable concentration 10 mg/m3)
- Total Dust (Lime Mixing Area) 0.42 ppm (Allowable concentration 10 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 for workplace safety and health services as fundamental rights. FUCC is actively committed to planning, promoting, and executing relevant measures in the field of health issues, in alignment with the intentions of the ILO and WHO, as well as applicable laws and regulations. These measures encompass three dimensions: health services, health education, and healthy work environments.

We consistently organize events for disease prevention and healthcare advocacy, deliver health-related lectures, offer employee preventive healthcare consultations, and conduct employee health checks. With the goal of safeguarding employee health, we are steadfastly dedicated to providing high-quality services in health risk assessment, health management, health promotion, and work environment hazard assessment and advice.

We also impart health education concepts to our employees, ensuring that their work performance is not hindered by health issues and that occupational healthcare is properly implemented. Achievements in this area can be described as follows:

In 2022, a total of 175 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 2022, on-site services were provided by contract occupational physicians and general medical personnel to manage health, prevent occupational diseases, and address labor health protection matters.

Item	Contents
● On-Site Services	Occupational physicians and general medical personnel: 6 times/year Occupational nurses: 6 times/month
● Disease prevention and health promotion campaigns, hygiene-related presentations, health-related lectures,employee preventive health consultations Number of individuals	Number of participants: 144 individuals

On-site services by general medical personnel

On-site visits by specialized occupational physicians in 2022

During the period from 2021 to 2022, a Waist Circumference Reduction Health Promotion Program was implemented to enhance health promotion, support employees in adopting healthy and sustainable lifestyles, and encourage them to incorporate an exercise routine into their daily lives. The ultimate goal of the program is to prevent cardiovascular and other chronic diseases. All staff members were eligible to participate in this program. Additionally, information related to food and medication safety is publicly displayed on the bulletin board to reinforce health promotion education in the areas of smoking and betel quid cessation.

Item	Contents
Waist Circumference Reduction Health Promotion Program/ Participation Count	Participation Count: 100 individuals Average Waist Circumference Reduction: 1.5 cm per person

UPM

- In 2022, a total of 82 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 2022, a total of 12 on-site visits by contracted occupational physicians and nurses were conducted for health management, occupational disease prevention, and other labor health protection matters. Additionally, there was 1 on-site visit by an occupational physician for the year.

Item	Contents
On-Site Services	Occupational Physicians: 1 Occupational Nurses: 12
Disease Prevention Advocacy and Health Promotion	30 minutes
Employee Preventive Health Consultation	13 people

Human society has embarked on a new era that heavily relies on the knowledge economy and information resources. Intellectual capital has emerged as a critical factor in achieving productivity, competitiveness, and economic accomplishments. Confronted by fierce international competition, enterprises increasingly require cross-border management talents for staying competitive. Formosan Union Chemical Corporation encourages its employees to actively engage in training and education. Through employee training, businesses can enhance their capabilities in new product research and development, thereby cultivating high-quality talents. This effort is reinforced by providing competitive remuneration to improve talent retention, and regular employee health checks demonstrate the company's concern for employee well-being. Furthermore, the company values its employees' opinions, actively involving them through labor union activities and labor-management meetings. By enhancing the office environment and fostering a positive work culture, the company aims to retain employees and promote mutual growth with Formosan Union Chemical Corporation, all toward achieving sustainable corporate operations.

5.1 Staff Structure

With the expansion of the business, the total number of employees at Formosan Union Chemical Corporation has consistently increased, and the turnover rate has decreased. This trend indicates that employees have full confidence in the company. Personnel stability contributes to the smooth operation of the business and ensures stable and sound corporate management.

Number of Individuals

Employee Analysis		2020		2021		2022	
Total Number of Employees		242		237		237	
Labor/Management Contract		Irregular	Regular	Irregular	Regular	Irregular	Regular
Gender	Male	206	1	202	0	204	0
	Female	34	1	35	3	33	0
Region	Taipei Company	63	2	59	3	62	0
	Kaohsiung Factory	177	0	178	0	175	0
Labor/Management Category		Normal Staff	Work-Study Student, Part-time Worker	Normal Staff	Work-Study Student, Part-time Worker	Normal Staff	Work-Study Student, Part-time Worker
Gender	Male	206	1	202	0	204	0
	Female	34	1	35	0	33	0

Note 1: Workers of non-employees without significant proportion

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

Number of Individuals

UPM Employee Analysis		2020		2021		2022	
Total Number of Employees		109		107		96	
Labor/Management Contract		Irregular	Regular	Irregular	Regular	Irregular	Regular
Gender	Male	96	0	94	0	83	0
	Female	13	0	13	0	13	0
Labor/Management Contract		Normal Staff	Work-Study Student, Part-time Worker	Normal Staff	Work-Study Student, Part-time Worker	Normal Staff	Work-Study Student, Part-time Worker
Gender	Male	96	0	94	0	83	0
	Female	13	0	13	0	13	0

Note: UPM does not have any non-employee workers.

Actual Number of Physically Disadvantaged Individuals Employed

Year	Mandatory Number of Individuals Employed	Mild	Moderate	Severe	Total (Individual)
2022	4	2	0	3	5

Note 1: Pursuant to Article 38 of the "People with Disabilities Rights Protection Act," organizations with a total number of employees of more than 67 shall employ physically disadvantaged individuals with a 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		2020		2021		2022	
		Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Number of Employees for That Year (Total)		242		237		237	
New Employees		13	5.37%	17	7.18%	24	10.13%
Age	≤ 30	9	3.72%	6	2.53%	11	4.64%
	31~50	4	1.65%	7	2.95%	12	5.06%
	≥50	0	0%	4	1.70%	1	0.42%
Gender	Male	7	2.89%	8	3.38%	22	9.29%
	Female	6	2.48%	9	3.80%	2	0.84%
Region	Taipei Company	9	3.72%	13	5.48%	6	2.53%
	Kaohsiung Factory	4	1.65%	4	1.70%	18	7.60%

UPM Analysis of New Employees		2020		2021		2022	
		Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Number of Employees for That Year (Total)		109		107		96	
New Employees		2	1.84%	8	7.48%	5	5.21%
Age	≤ 30	0	0.00%	0	0.00%	3	3.13%
	31~50	1	0.92%	7	6.54%	1	1.04%
	≥50	1	0.92%	1	0.94%	1	1.04%
Gender	Male	1	0.92%	4	3.74%	2	2.08%
	Female	1	0.92%	4	3.74%	3	3.13%

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		2020 Number of Employees	2020 Percentage	2021 Number of Employees	2021 Percentage	2022 Number of Employees	2022 Percentage
Number of Employees for That Year (Total)		242		237		237	
Number of Resigned Employees		9	3.71%	17	7.18%	24	10.13%
Age	≤ 30	2	0.82%	5	2.11%	4	1.69%
	31~50	3	1.25%	9	3.80%	10	4.22%
	≥50	4	1.64%	3	1.27%	10	4.22%
Gender	Male	7	2.89%	8	3.38%	17	7.18%
	Female	2	0.82%	9	3.80%	7	2.95%
Region	Taipei Company	8	3.30%	9	3.80%	9	3.80%
	KaohsiungFactory	1	0.41%	8	3.38%	15	6.33%

UPM Analysis of Employee's Resignation		2020 Number of Employees	2020 Percentage	2021 Number of Employees	2021 Percentage	2022 Number of Employees	2022 Percentage
Number of Employees for That Year (Total)		109		107		96	
Number of Resigned Employees		3	2.75%	11	10.28%	16	16.67%
Age	≤ 30	1	0.92%	1	0.93%	1	1.04%
	31~50	1	0.92%	9	8.42%	10	10.42%
	≥50	1	0.92%	1	0.93%	5	5.21%
Gender	Male	2	1.83%	5	4.68%	13	13.54%
	Female	1	0.92%	6	5.60%	3	3.13%

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

5.1.3 Distribution of Age

Non-Management Employees	2020 Number of Employees	2020 Percentage	2021 Number of Employees	2021 Percentage	2022 Number of Employees	2022 Percentage
≤ 30	36	15%	39	16.5%	31	13.1%
31~50	156	64%	142	59.9%	155	65.4%
≥50	50	21%	56	23.6%	51	21.5%
Total	242	100%	237	100%	237	100%
Management Employees	**Number of Employees**	**Percentage**	**Number of Employees**	**Percentage**	**Number of Employees**	**Percentage**
≤ 30	0	0%	0	0%	0	0%
31~50	9	53%	2	11.76%	2	11.76%
≥50	8	47%	15	88.24%	15	88.24%
Total	17	100%	17	100%	17	100%

UPM Employee Statistics / Annual				2020 Number of Employees	2020 Percentage	2021 Number of Employees	2021 Percentage	2022 Number of Employees	2022 Percentage
Employees	Non-Management	Gender	Male	49	86%	47	87%	41	84%
			Female	8	14%	7	13%	8	16%
		Age	≤ 30	10	18%	6	11%	6	12%
			31~50	35	61%	36	67%	31	63%
			≥50	12	21%	12	22%	12	24%
	Management	Gender	Male	47	90%	47	89%	42	89%
			Female	5	10%	6	11%	5	11%
		Age	≤ 30	1	2%	0	0%	1	2%
			31~50	38	73%	38	72%	28	62%
			≥50	13	25%	15	28%	16	36%

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 employees' 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 Investedfor Current Year 2.Specific Achievements	1. Annual average training hours per employee in 2022: 46.7 hours/year for each employee. Total accumulated training hours are 11,086 hours with external training expenses of NT$864,689. 2. New staff members 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 more. The completion rate for training is 100%. 3. Percentage for certificate re-training as required by laws is 100%, with a cumulative total of 432 hours.
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 Training and Education

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	
2022	183	0	12	157	234	232	0	39	6	0	130	55	46.7
2021	20	0	60	42	128	64	42	36	2	0	36	60	3.29
2020	0	0	34	20	5	54	20	32.5	2	0	42	66	2.09
2019	18	0	0	12	153	80	96.5	19	6	3	13	77.5	6.73

Note 1: Hour statistics are for respective department's external professional training hours which include new staff training hours starting from 2021.

Training Statistics for FUCC Kaohsiung Factory in 2022					
Manufacturing Department	Number	Hours	Other Departments	Number	Hours
Supervisors and Above	17	204	Supervisors and Above	18	270
Frontline Staff	68	7,344	Frontline Staff	65	1,172

UPM Training Performance Statistics/Annual		2020	2021	2022
Average Training Hours per Employee		9.86	10.35	11.2
Average Training Hours by Gender	Female	5.38	4.15	5.46
	Male	10.47	11.20	11.61

5.2.2 Employee Training and Development

In addition to planning 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.

Major Human Resource Enhancement

The Company started to participate in the Ministry of Economic Affairs' Corporate Human Resources Enhancement Program (Major Human Resource Enhancement) in 2021. The Government provides subsidy to assist in the 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. The total authorized training expense 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 Instruments & Electricity	● Related knowledge on maintenance of machines and equipment as well as calibration on manufacturing instruments ● Labor health and safety management knowledge / Ionizing Radiation Operator / Forklift Operator
Department of Factory Affairs	● Forklift Operator / Stationary Crane Operation(Below 5 tons) / Scaffold Assembly and Installation Supervisors ● Oxygen deficiency operation supervisor
Maintenance Workshop	● Forklift Operator / Stationary Crane Operation(Below 5 tons) / Safety Valve Test & Inspection Personnel ● Organic solvent operation supervisor / Argon Tungsten Arc Welding Operator / Mobile Crane Rigging Operator
Department of Technology	● Organic solvent operation supervisor / Specialized operation supervisor / Process Safety Assessment Personnel ● First aid personnel / Energy Management Personnel

Kaohsiung Factory

Department	Contents of Courses
Department of Manufacturing	● 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 Director ● Security / Specialist for Air, Water, Waste, and Toxic Substances / Dust Operation Supervisor ● Toxic Substance Emergency Response Personnel / Stationary Crane Operation (Below 3 tons) / Security Inspector
Department of Environmental Safety / Department of Industrial Safety	● Class B occupational health and safety management personnel / Specialist for Air, Water, Waste, and Toxic Substances ● Process Safety Assessment Personnel / Type A Occupational Safety and Health Business Supervisor ● Fire Prevention Manager / Health Risk Assessment Personnel / Toxic Substance Emergency Response Personnel

Taipei Headquarters

Department	Contents of Courses
Sales Department	● Factory Internship Training Course
Department of Finance	● Continued education classes for accounting supervisor of issuing securities firm in stock exchange ● International Trade Business Strategy Management Course / English learning courses
Department of General Affairs	● English and Korean learning courses / Factory Internship Training Course / Occupational Health and Safety Management Course ● Management courses for international trading management strategy / Coffee Roasting Advanced Subsidy ● HR External Training Certification Course / Corporate Governance Executive Course
Auditing Office	● Japanese learning courses / Requirements of Internal Control System Standards for Shareholder Service Units ● Internal Audit Points for Sales and Receivables Cycle and Regulatory Compliance / Information Business Audit Practical ● Fraud Case Analysis and Design and Implementation of Internal Control / Audit operation workshop on depository share matters ● Excel Macros I - Range Processing / Information Technology (IT) and Operational Technology (OT) Security Control Audit ● Exploring the Impact and Countermeasures of ESG Risks on Corporate Internal Control in the Face of Climate Change and Sustainable Development Trends / Practical Operation of Internal Audit and Internal Control Personal Data Protection Act ● Regulations and Practical Analysis of Funding, Endorsement Guarantee, and Disposal of Assets ● Why Enterprises Need to Develop a "Code of Business Ethics” ● The Way of Legal Self-Protection - How to Face Investigation and Trial Procedures ● Corporate Fraud Audit - In-Depth Analysis of Risk Management / Dangerous Goods Training Course ● National Taiwan University - Marketing and Financial Management
Office of Shareholder Service	● Workshop on shareholder service personnel’ s business / Promotions on digital learning in share depository business
Information Management	● Dell Forum - Key Insights into Digital Innovation. Practical Industry Upgrading

5.3 Employee Care and Benefits

Significant Topics	Labor/Management Relationship
Importance to the Company	● The Company emphasizes communication with employees and development, protecting employees' rights, and ensuring a work environment of quality and safety. This is done with the purpose of achieving a harmonious labor/management relationship.
Policy/Commitment	● The Company ensures labor rights are protected in accordance with laws and takes measures to mitigate risks to employee safety and health, considering the chemical industry's characteristics, in order to prevent occupational disasters. ● Regular channels of communication and dialogue with employees have been established to provide avenues for employees to access information and express opinions. ● A competitive remuneration system, as well as comprehensive employee benefit and retirement benefit systems, have been established.
Short-Term Goal	● Announcement of Human Rights Protection and Prevention of Child Labor ● 100% of Employees Receiving Regular Health Checks on Special Operations Health Check and Average Health Check ● Annual Regular Salary Adjustments for Provision of an Attractive and Competitive Remuneration System ● Distribution of 0.15%, the Highest Percentage Required by Law, of Sales Revenue to Employee Benefit Fund ● Establishment of Comprehensive Report Channels with Zero Complaints 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	● Labor Union meeting ● 4 Labor/Management meetings ● Total expenditure for Employee Benefit Committee’ s benefit in 2022 was NT$12,500,291. ● Introduction of ISO 45001 with internal audit already conducted ● Conducted a total of 882 hours of occupational safety awareness general courses and improved the occupational safety environment.
Responsible Department / Report Mechanism	● Fill out forms in the Auditing Office/Official Website Report Channel and send out forms through mails or E-mail. Reported matters will be forwarded to responsible departments for project handling accordingly.
Assessment Mechanism / Achievements	● Factory will conduct regular industrial/environmental safety assessments on respective departments, and departments with excellent performance will be awarded accordingly. ● Zero complaint was received from labor in 2022.

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 comprehensively as possible. The Company also emphasizes communication and development with employees and is dedicated to providing a work environment of high quality and safety, enabling employees to develop their respective talents and have trust in the Company.

5.3.1 Employee' s Rights

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 based on gender, race, religion, political stance, or marital status. Formosan Union Chemical Corporation' s basic salary standards exceed the minimum wages prescribed in the Labor Standards Act.

To retain talents, Formosan Union Chemical Corporation highly emphasizes treatments and benefits for its employees. All monthly salaries are higher than the basic wage, and there is a 2-month holiday bonus annually. Salaries are routinely adjusted on July 1st of every year. The Company consults with the labor union and makes salary adjustments based on the previous year's sales revenue situation.

Additionally, the Company calculates and distributes a year-end bonus to all employees based on the performance of that year. Cash gifts and employee bonuses are also offered during three major holidays. Under agreement with employees, an openly established calculation formula for the year-end bonus exists. The year-end bonus is calculated and appropriated from pre-tax income based on the formula, aiming to achieve the goal of sharing profits with employees.

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 a full-body health check every year. Additionally, the Company offers a group life insurance coverage equivalent to 48 monthly salaries, group accident insurance coverage equivalent to 36 monthly salaries, as well as cancer insurance for hospitalization and treatment. These measures are taken to provide enhanced protection for employees.

Regarding the retirement system, the Employee Retirement Management Guidelines are drafted in accordance with the "Labor Standards Act" and "Labor Pension Act." Pensions are appropriated accordingly for each employee as mandated by laws. For more detailed information, please refer to page 227 of Formosan Union Chemical Corporation's 2022 Annual Report.

5.3.2 Leave System

Various leaves are established in accordance with the Labor Standards Act, personnel management guidelines, work rules, and the Act of Gender Equality in Employment. These 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 granted in compliance with regulations and requirements.

Additionally, recognizing that employees might not be able to take all the special leaves they deserve in a specific year due to work factors, the Company has introduced a deferral period for special leave. This allows employees to take all the leaves they deserve before the end of the next year.

Occupational Sickness Leave, Parental Leave and Death Compensation Data Table

Year	Occupational Sickness Leave	Parental Leave	Death Compensation
2022	0 Employee	0 Employee	0 Employee
2021	0 Employee	0 Employee	0 Employee
2020	0 Employee	0 Employee	0 Employee
2019	0 Employee	2 Employee	0 Employee

UPM Employee Parental Leave Statistics / Annual	Gender	Statistics 2022	2021	2020
Number of eligible employees for parental leave entitlement	Male	8	4	4
	Female	1	1	1
Number of employees applying for parental leave	Male	0	0	0
	Female	1	1	1
Number of employees whose parental leave period has ended and should return to work (A)	Male	0	0	0
	Female	1	1	1
Number of employees who actually returned to work after parental leave period ended (B) (including early return)	Male	0	0	0
	Female	0	0	1
Return-to-Work Rate (B/A)	Male	0	0	0%
	Female	0	0	100%
Number of employees who completed parental leave period in the previous year and remained employed for twelve months after returning (C)	Male	0	0	0
	Female	0	0	1
Retention Rate (C/previous year B)	Male	0	2	0
	Female	0	0	100%

Note 1: The number of eligible employees for parental leave entitlement is based on the total number of male and female employees who applied for maternity and paternity leave in the past 3 years.

Note 2: Return-to-Work Rate = (Total number of employees who actually returned to work in the current year / Total number of employees who should return to work in the current year) * 100%.

Note 3: Retention Rate = (Total number of employees who remained employed for twelve months after returning in the previous year / Total number of employees who actually returned in the previous year) * 100%.

5.3.3 Employee Care

Protection of human rights has been explicitly communicated to the Company's employees. Alongside the explicit prohibition of child labor employment, the Company refrains from practicing discrimination or providing differential treatments during job seeking, recruitment, testing, employment, performance review, or promotion based on factors such as race, religion, political affiliation, gender, age, marriage, appearance, or physical/mental disability.

In the event of reported cases, employees can communicate through suggestion boxes, telephone, or directly to their supervisors during normal working days. Alternatively, cases can be processed through the labor union, labor/management meetings, or the sexual harassment report investigation committee to maintain harmony between labor and management. No reported cases or legal incidents were recorded in 2021, and no cases of sexual harassment or violation of related labor laws were reported.

Furthermore, the Company has developed "Management Guidelines for Personal Data Protection" to ensure the safeguarding and management of personal data. Formosan Union Chemical Corporation maintains a robust management system and benefits structure, contributing to a harmonious labor/management relationship. Moving forward, the Company remains committed to upholding the operational principles of fostering a harmonious labor/management relationship, fostering an excellent work environment, and implementing various education and training programs to enhance employee knowledge and experience in line with the Company's growth.

5.3.4 Benefit Measures

In addition to insurance, retirement, and holiday benefits for employees, the Company has also established an Employee Benefit Committee in accordance with Employee Benefit Guidelines. Each year, a certain amount is allocated from sales revenue to be utilized as benefits. The appropriation percentage reaches the highest mandatory threshold of 0.15%. This committee is responsible for managing various employee benefit-related matters, including providing cash gifts for weddings and funerals, offering travel subsidies for both domestic and offshore travel, distributing cash gifts for occasions like Labor Day, Dragon Boat Festival, Moon Festival, year-end parties, and birthdays, as well as providing scholarship subsidies and discounts from collaborating kindergartens, among other offerings. Additionally, the labor union provides labor/management consulting channels, organizes occasional employee recreational activities, facilitates the provision of employee uniforms, distributes coupons, and more.

2022 Details of Employee Benefit Committee's Total Amount for Various Cash Gifts and Subsidies

Wedding/Funeral Cash Gift	482,000
Employee Travel Expense	9,184,426
Scholarship (Education Subsidy)	1,096,000
Labor Day and Dragon Boat Festival Cash Gift	195,000
Moon Festival Cash Gift and Gift Box	185,000
Year-End Cash Gift	815,000
Birthday Cash Gift and Birthday Party Expense	542,865
Total	12,500,291

Birthdayparty

5.4 Employee Health Management

For the purpose of employee's health and safety concerns, as well as the advanced detection of occupational disease risks and the 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 checks on all employees in the factory every year. Employees of special operations also need to undergo special operation health checks. Doctors from the collaborating hospital will provide health instructions and irregularity follow-up based on health check results, with the purpose of identifying irregularities and offering necessary assistance as soon as possible. The Department of Environmental Safety will analyze health check results to come up with statistical insights, adjust employee's work styles, and conduct follow-up and health management. Health check results for employees involved in special operations will be submitted to local competent authorities for reference. In 2022, a total of 174 employees in Lin Yuan Factory underwent general health checks, achieving a checking rate of 100%. Additionally, a total of 89 man/times accepted special operation health checks, which included various types of operations involving substances such as benzene, n-hexane, ionizing radiation, nickel, and its compounds. This year's inspection results for health checks were found to be normal, and there was no impairment detected in the lung functions of employees, General (specialist) physicians and nurses are required to be present to provide employee health consultations and conduct classification management in accordance with regulations. In response to the COVID-19 pandemic and to safeguard employee health during the nationwide level 3 alert declared by the Command Center in 2022, Taipei Headquarters implemented remote work arrangements and provided taxi commute subsidies to employees. These measures aimed to mitigate the risk of pandemic infection among employees using public transportation.

5.5 Labor-Management Relations

The scope of labor/management is extensive. It encompasses every aspect of labor, including wage, work hours, holidays, leaves, health and safety, benefits, facilities, and protection for child labor and female workers. Both labor and management collaborate and communicate with each other to achieve a win-win outcome for their respective interests.

5.5.1 Labor Union System

A labor union serves as an intermediary group between the government and labor, acting as a crucial bridge connecting labor and management. It holds a significant role within civil associations, contributing to a nation's political development, social stability, economic prosperity, and the well-being of its citizens. Formosan Union Chemical Corporation has established the "Formosan Union Chemical Corporation Labor Union" and regularly organizes member assemblies. In 2022, a labor union meeting was conducted where labor's viewpoints were heard and discussed. The outcomes of these meetings are communicated and deliberated between labor union representatives and management, aiming to foster a more harmonious labor/management relationship.

No significant agreements were signed in the year 2022.

5.5.2 Labor/Management Relationship Committee

The Company has established a regular communication mechanism with employees. In terms of operational changes that may have a significant impact on employees, Formosan Union Chemical Corporation consistently holds labor/management meetings each quarter. Four labor/management meetings were conducted in 2022 to facilitate communication and discussions on various work-related matters. Employees have the freedom to review resolutions from labor/management meetings. Additionally, the monthly publication of the "Formosan Union Newsletter" provides timely updates on operational changes that could potentially impact the workforce. Effective communication plays a crucial role in maintaining a harmonious labor/management relationship within the Company. There were no major labor/management disputes reported this year.

和益通訊封面

發行人：黃勝材　　編輯：總務部　　出刊日期：111年05月15日

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:

01 Creation of employment opportunities: Employee statistics of the Linyuan Plant in 2022 reveal that 80 employees, accounting for over 45.2% of the plant' s workforce, have their household registration in Linyuan. This represents a significant contribution to raising the local employment rate.

02 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.

03 Giving back to local communities: We have made total donations of around 1.45 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.

04 For the manufacturing processes involving the utilization, production, storage, and other basic chemical materials at FUCC, all operations adhere to environmental regulations and hold various permits and licenses. To ensure the environmental and living safety of the neighboring community of Linyuan Plant, strict operational controls and regulations are in place within the plant area.

6.1.2 Community safety

Based on a deep concern for community safety, Linyuan Plant has implemented various procedures and controls to ensure the safety of local residents and the environment in the vicinity of the plant. We are committed to identifying all potential impacts on local communities and taking appropriate measures to safeguard the local environment. The outcomes of these measures are communicated to community residents through public announcements or other means, aiming to provide them with a clear understanding of our efforts and achievements in protecting their communities. 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	● Implementation of management and hazard prevention measures for toxic and concerned chemical substances during operations ● Due reporting of operational records	● Placement of emergency response equipment ● Detection and warning equipment ● Disaster prevention and response training, drills, and education ● Establishment of specialized emergency response personnel	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.
Waste gas	Potential air pollution hazard	● Smoke detectors and emergency shutdown devices are installed in heating furnaces of various processes ● VOCs recovery equipment is installed to prevent dispersion ● Equipment components with low leakage design are used for hazardous air pollutants	● Installation of continuous monitoring and recording facilities whose proper functioning can be effectively ensured. ● VOC testing conducted on a quarterly basis by commissioned third-party accreditation bodies. ● Random inspections conducted at irregular intervals	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.
Wastewater	Potential wastewater/ Sewage contamination	● Regular autonomous sampling and testing inside the wastewater/sewage plant ● Wastewater/sewage/rainwater discharge is carried out in accordance with applicable management regulations	● 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	● 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 remediation program.	Due to the successful implementation of improvements in 2021, the 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 are conducted.	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 orphaned and abandoned children and teenagers

FUCC donated 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, showing them the right direction.

Caring for stray animals

we donated to the "Kaohsiung Stray Animal Conservation Association," supporting the association in providing a space for homeless animals and giving them the opportunity to be adopted by caring individuals.

Local Talent Cultivation at Zero Distance

Due to the widening gap between urban and rural development, which affects local learning resources, FUCC donated to the "Foundation for Rural Education" to provide more learning resources and internship opportunities for local students in Taiwan. This enables students to progressively explore career and vocational planning with proper guidance and companionship, eliminating the distinction between urban and rural areas in talent development in Taiwan.

GRI Sustainability Reporting Standards Comparison Table

- Declaration of Use: FUCC has reported in accordance with the GRI Standards for the period from January 1 to December 31, 2022.
- Utilization of GRI 1: GRI 1: Foundation 2021
- Applicable GRI industry standards: The Company belongs to the chemical industry and currently does not have applicable GRI industry standards.

Note: Topics marked with an asterisk (*) before the heading are considered significant issues.

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
GRI 2: General Disclosures 2021					
The organization and its reporting practices	2-1	Organizational details	1.1 Company Profile	06	
	2-2	Entities included in the organization' s sustainability reporting	Editorial Policy	04	
	2-3	Reporting period, frequency and contact point	Editorial Policy	04	
	2-4	Restatements of information	Editorial Policy	04	There is no re-statement in the first report.
	2-5	External assurance	Editorial Policy	04	
Activities and workers	2-6	Activities, value chain and other business relationships	1.1 Company Profile	06	
	2-7	Employees	5.1 Staff Structure	78	
	2-8	Workers who are not employees	5.1 Staff Structure	78	
Governance	2-9	Governance structure and composition	2.1 Organizational Structure	11	
	2-10	Nomination and selection of the highest governance body	2.1 Organizational Structure	11	
	2-11	Chair of the highest governance body	2.1 Organizational Structure	11	
	2-12	Role of the highest governance body in overseeing the management of impacts	2.1 Organizational Structure 2.3 Internal Audits and Risk Management	11 22	
	2-13	Delegation of responsibility for managing impacts	2.1 Organizational Structure 2.3 Internal Audits and Risk Management	11 22	

Appendix: GRI Content Index

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
GRI 2: General Disclosures 2021					
Governance	2-14	Role of the highest governance body in sustainability reporting	2.4 Stakeholder Engagement	27	
	2-15	Conflicts of interest	2.1 Organizational Structure	11	
	2-16	Communication of critical concerns	2.1 Organizational Structure	11	
	2-17	Collective knowledge of the highest governance body	2.1 Organizational Structure	11	
	2-18	Evaluation of the performance of the highest governance body	2.1 Organizational Structure	11	
	2-19	Remuneration policies	2.1 Organizational Structure	11	
	2-20	Process to determine remuneration	2.1 Organizational Structure	11	
	2-21	Annual total compensation ratio	The highest annual total remuneration is considered confidential information of the company.		
Strategy, policies and practices	2-22	Statement on sustainable developmentstrategy	Message from the Chairman	02	
	2-23	Policy commitments	2.1 Organizational Structure 4.1 Legal Compliance and Environment Protection 4.3 Work Safety 5.1 Staff Structure	11 48 63 78	
	2-24	Embedding policy commitments	2.1 Organizational Structure 4.1 Legal Compliance and Environment Protection 4.3 Work Safety 5.1 Staff Structure	11 48 63 78	
	2-25	Processes to remediate negative impacts	2.1 Organizational Structure 2.3 Internal Audits and Risk Management	11 22	
	2-26	Mechanisms for seeking advice and raising concerns	2.1 Organizational Structure	11	
	2-27	Compliance with laws and regulations	2.2 Ethical Corporate Management 4.1 Legal Compliance and Environment Protection	18 48	
	2-28	Membership associations	1.3 Membership in Societies and Associations	07	
Stakeholder engagement	2-29	Approach to stakeholder engagement	2.4 Stakeholder Engagement	27	
	2-30	Collective bargaining agreements	5.5 Labor-Management Relations	90	

Appendix: GRI Content Index

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
GRI 3: Material Topics 2021					
Material topics	3-1	Process to determine material topics	2.4 Stakeholder Engagement	27	
	3-2	List of material topics	2.4 Stakeholder Engagement	27	
* Compliance with Laws and Regulations					
GRI 3: Material Topics 2021	3-3	Management of material topics	2.2 Ethical Corporate Management 4.1 Legal Compliance and Environment Protection	18 48	
*Risk Management					
GRI 3: Material Topics 2021	3-3	Management of material topics	2.3 Internal Audits and Risk Management	22	
Economic Aspects					
*Economic Performance					
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	3.4 Operational Performance	45	
	201-2	Financial implications and other risks and opportunities due to climate change	2.3 Internal Audits and Risk Management	22	
	201-3	Defined benefit plan obligations and other retirement plans	5.3 Employee Care and Benefits	86	
Procurement Practices					
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	3.3.1 Supply Chain Management	43	
Anti-corruption					
GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	2.2 Ethical Corporate Management	18	

Appendix: GRI Content Index

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
Environmental Aspects					
Materials					
GRI 301: Materials 2016	301-1	Materials used by weight or volume	4.2.3 Raw Material Use	62	
Energy Management					
GRI 302: Energy 2016	302-1	Energy consumption within the organization	4.2.1 Direct Energy Consumption	59	
	302-3	Energy intensity	4.2.1 Direct Energy Consumption	59	
	302-4	Reduction of energy consumption	4.2.2 Energy Conservation	60	
Water Management					
GRI 303: Water and Effluents 2018 Management Policies	303-1	Interactions with water as a shared resource	4.1.7 Water Resources and Wastewater Treatment	57	
	303-2	Management of water discharge-related impacts	4.1.7 Water Resources and Wastewater Treatment	57	
	303-3	Water withdrawal	4.1.7 Water Resources and Wastewater Treatment	57	
***GHG Emissions/*Air Pollution Management**					
GRI 3: Material Topics 2021	3-3	Management of material topics	4. Environment and Safety	47	
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	4.1.2 Direct GHG Emissions (Scope 1)	51	
	305-2	Energy indirect (Scope 2) GHG emissions	4.1.3 Energy Indirect (Scope 2) and Other Indirect GHG Emissions (Scope 3)	53	
	305-3	Other indirect (Scope 3) GHG emissions	4.1.3 Energy Indirect (Scope 2) and Other Indirect GHG Emissions (Scope 3)	53	
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	4.1.4 Air Pollution Control and Improvements	54	

Appendix: GRI Content Index

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
		*Waste Management			
GRI 3: Material Topics 2021	3-3	Management of material topics	4. Environment and Safety	47	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	4.1.5 Waste Treatment and Control	55	
	306-2	Management of significant waste-related impacts	4.1.5 Waste Treatment and Control	55	
	306-3	Waste generated	4.1.5 Waste Treatment and Control	55	
		Supply Chain Environmental Assessment			
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	3.3.1 Supply Chain Management	43	
	308-2	Negative environmental impacts in the supply chain and actions taken	3.3.1 Supply Chain Management 6.1.2 Community Safety	43 91	
		Social Aspects			
		*Employment			
GRI 3: Material Topics 2021	3-3	Management of material topics	5.3 Employee Care and Benefits	86	
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	5.1.1 Percentages for New Employees 5.1.2 Percentages for Resigned Employees	79 80	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.3.4 Benefit Measures	89	
	401-3	Parental leave	5.3.2 Leave System	87	
		Labor/Management Relations			
GRI 402: Labor/ Management Relations 2016	402-1	Minimum notice periods regarding operational changes	5.5.2 Labor/Management Relationship Committee	00	
		*Occupational Health and Safety			
GRI 3: Material Topics 2021	3-3	Management of material topics	4.3 Work Safety	63	

Appendix: GRI Content Index

Topic	Disclosure	Description	Corresponding chapter	Page	Omission/Remark
		*Occupational Health and Safety			
GRI 403: Occupational Health and Safety 2018 Management Policies	403-1	Occupational health and safety management system	4.3 Work Safety	63	
	403-2	Hazard identification, risk assessment, and incident investigation	4.3 Work Safety	63	
	403-3	Occupational health services	4.3 Work Safety	63	
	403-4	Worker participation, consultation, and communication on occupational health and safety	4.3 Work Safety	63	
	403-5	Worker training on occupational health and safety	4.3 Work Safety	63	
	403-6	Promotion of worker health	4.3 Work Safety	63	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.3 Work Safety	63	
	403-9	Work-related injuries	4.3 Work Safety	63	
	403-10	Work-related ill health	4.3 Work Safety	63	
		*Training and Education			
GRI 3: Material Topics 2021	3-3	Management of material topics	5.2 Training & Education	82	
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	5.2.1 Average Hours of Employee Training and Education	83	
	404-2	Programs for upgrading employee skills and transition assistance programs	5.2.2 Employee training and development	84	
		Diversity and Equal Opportunity			
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	5.1.3 Distribution of Age	81	

Appendix 2: Sustainability Accounting Standard Board (SASB) Index

Chemical Industry SASB Standards		Code	Corresponding chapter	Remark
Greenhouse Gas Emissions	Gross global Scope 1 emissions (in tons 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		
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			
Water Management	(1) Total water withdraw (2) Total water consumed (3) Operational sites located in areas of "high" or "extremely high" water scarcity, along with the proportion they represent of (1) and (2)	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		
	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 direct employees and 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		
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 policies proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	2.2 Ethical Corporate 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		

Appendix 3: TWSE Sustainability Disclosure Indicators - Chemical Industry

Number	Indicator	Type of indicator	Annual disclosure status	Unit
01	Total energy consumption, percentage of purchased electricity, utilization rate of renewable energy, and total self-generated energy (Note 1).	Quantitative	4.2 Energy Resource Management	1 billion joules, percentage (%)
02	Total amount of water withdrawn, total water consumed, and volume of effluent required to be disclosed under the law or to be disclosed voluntarily	Quantitative	4.1.7 Water Resources and Wastewater Treatment	thousand cubic meter (m^3) , percentage (%)
03	Total quantity and percent recovery of hazardous wastes generated during the production process of products required to be disclosed under the law or to be disclosed voluntarily.	Quantitative	4.1.5 Waste Treatment and Control	metric ton (t), ratio (%)
04	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.	Quantitative	4.3.6 Occupational accident statistics	ratio (%), quantity
05	Operations with significant actual and potential negative impacts on local communities.	Qualitative description	3.3.1 Supply Chain Management	Not applicable
06	Negative environmental or social impacts in the company itself and its supply chain and actions taken.	Qualitative description	3.3.1 Supply Chain Management	Not applicable
07	Product production quantities by product category.	Quantitative	1.1 Company Profile	• Alkalization series 131,583 mt • Resin series 45,662 mt • Pesticide and others 2,149 mt

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Independent Limited Assurance Report

To Formosan Union Chemical Corp.:

We were engaged by Formosan Union Chemical Corporation ("FUCC") to provide limited assurance over the selected information attached as Appendix 1 ("the Subject Matter Information") on the 2022 Sustainability Report of FUCC and its subsidiary, United Performance Materials Corporation ("UPM") ("the Report") for the year ended December 31, 2022.

Reporting Criteria of the Subject Matter Information

FUCC shall prepare the Subject Matter Information in accordance with reporting criteria required by the 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 Subject Matter Information. FUCC is also responsible for establishing and maintaining internal controls relevant to the preparation and presentation of the Subject Matter Information 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 TWSAE3000 – "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 Subject Matter Information 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 and Standards on Quality Management

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 Standards on Quality Management. Accordingly, we maintained a comprehensive system of quality management, including documented policies and procedures regarding compliance with ethical requirements and professional standards as well as applicable legal and regulatory requirements.

Summary of Work Performed

As stated in reporting criteria of the Subject Matter Information 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 Subject Matter Information.
- On the basis of the understanding obtained mentioned above, perform analytical procedures on the Subject Matter Information 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 Subject Matter Information, 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, 2022 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 Subject Matter Information 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 Subject Matter Information 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)
September 22, 2023

Notes to reader

The limited assurance report and the accompanying selected information are the English translation of the Chinese version prepared and used 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.

Appendix: GRI Content Index

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Appendix I: Summary of the Subject Matter Information

No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
1	1. FUCC Overview_1.1 Company Profile	6	■ Annual production capacity of FUCC and its subsidiaries ("FUCC Group") for alkalization series is 131,583 metric tons, of which FUCC produced 124,339 metric tons. ■ Annual production capacity of FUCC Group for resin series is 45,662 metric tons, of which UPM produced 45,662 metric tons.	■ Annual production capacity listing of both factories	Table 1-2 No.7 Production by product category
2	3. Product Overview and Operational Performance_3.3 Supply Chain and Customer Relations & 3.3.1 Supply Chain Management	43	■ Supply Chain and Customer Relations: FUCC is fully aware that the implementation of corporate sustainability development cannot be confined to its internal operations but instead requires the participation of the entire supply chain. FUCC has therefore adopted sound management mechanisms in the fields of "supplier selection", "raw material procurement", and "contractor management" to implement supplier management concepts. In addition to meeting existing quality and delivery requirements, all suppliers must fulfill additional criteria in the fields of work safety, environmental protection, and human rights. FUCC calls on all suppliers to prioritize and implement corporate sustainability development. ■ Supply Chain Management - Procurement Practices – Suppliers are requested to transition to non-hazardous materials and provide Letters of Commitment (e.g., ISO, radiation-free guarantee). There were no new suppliers added in the year 2022. – FUCC proactively implements green procurement concepts. The main eco-friendly products purchased include PCs, plastic pallets, and toner cartridges. – FUCC upholds sustainability and fair trade principles and therefore requires its suppliers and contractors to meet relevant criteria in the fields of environmental protection, work safety, and human rights.	■ FUCC's supply chain management mechanism and its evaluation	Table 1-2 No.6 Concrete valid mechanisms and actions implemented by the company itself and its suppliers to mitigate negative environmental or social impact

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			Starting in October 2019, FUCC 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 an order is placed. ■ Supply Chain Management – Supplier Evaluation – In the supplier rating for 2022, the evaluation of 16 types of raw material suppliers and 3 storage tank suppliers is conducted by visiting official supplier websites, making inquiries with suppliers, or obtaining ESG or other environment-related reports or disclosures from major suppliers. All suppliers have met the requirements of FUCC during the delivery process.		
3	4. Environment and Safety_ 4.1.5 Waste Treatment and Control	55	■ FUCC and UPM adhere to the environmental regulations set forth by the competent authorities and rigorously execute waste disposal procedures. All waste is handled by qualified cleaning and disposal contractors, there is no transboundary transportation issue of hazardous waste. Various types of waste disposal tasks are regularly monitored and audited by relevant departments to ensure the legality and safety of the final disposal. In 2022, there is no recorded leakage incidents of waste or raw material. Concerning the headquarters located in Taipei, being a comprehensive commercial office building, waste generated is managed by the Building Management Committee, no waste production data is collected for each individual user. However, FUCC complies with the committee's waste classification guidelines. ■ In 2022, hazardous industrial waste production of FUCC's Linyuan Plant is 0.06	■ Details on waste disposal by FUCC	Table 1-2 No.3 Total quantity of hazardous wastes generated during the production process of products required to be disclosed under the law or to be disclosed voluntarily

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Appendix: GRI Content Index

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			metric tons. Hazardous industrial waste recycling rate is 0%.		
4	4. Environment and Safety_ 4.1.7 Water Resources and Wastewater Treatment	57	■ The location of the Linyuan Plant of FUCC is situated within an industrial zone, rather than in ecologically conserved areas. The water supply is drawn from the Taiwan Water Corporation. In 2022, – Tap water withdrawn: 105.05 thousand cubic meters – Wastewater (sewage) discharged: 65.35 thousand cubic meters – Water consumption: 39.70 thousand cubic meters ■ UPM's water supply is drawn from the Taiwan Water Corporation and from the underground. In 2022, – Tap water withdrawn: 2.71 thousand cubic meters – Underground water withdrawn: 47.75 thousand cubic meters – Wastewater (sewage) discharged: 40.36 thousand cubic meters – Water consumption: 10.10 thousand cubic meters	■ Details on water consumption by FUCC and UPM	Table 1-2 No.2 Total water withdrawn, total water consumption, mandatorily or voluntarily disclosed total wastewater (sewage) discharged
5	4. Environment and Safety_4.2.1 Direct Energy Consumption	59	■ In 2022, the total energy consumption amounted to 1,299,940 gigajoules (GJ). ■ FUCC consumes fuel oil, electricity, steam, and natural gas in its operational processes. FUCC's total energy consumption amounted to 1,072,309 GJ in 2022. – Fuel oil: 215,704 GJ (Note 1) – Steam: 43,782 GJ (Note 2) – Electricity: 119,161 GJ (Note 1, Note 3) – Natural gas: 693,662 GJ (Note 1) ■ UPM consumes fuel oil and electricity in its operational processes. UPM's total energy consumption amounted to 227,631 GJ in	■ Details on energy consumption by FUCC and UPM	Table 1-2 No.1 Total energy consumption, percentage of purchased electricity, utilization rate (renewable energy/total energy), and total self-generated and self-use energy

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			2022. – Fuel oil: 178,275 GJ (Note 1) – Electricity: 49,356 GJ (Note 1, Note 3) 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*10⁶Joules. Note 2: Steam consumption amounts have been recorded since 2021. The assumed steam heating value is 664,670kcal. Note 3: All electricity is purchased from outside.		
6	4. Environment and Safety_4.3.6 Occupational accident statistics	74	■ FUCC and UPM have achieved the goal of zero occupational accidents in 2022. FUCC and UPM 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 and UPM's Occupational Safety Statistics 2022 – Occupational injury death rate: • Occupational injury death rate (FUCC employees): 0 • Occupational injury death rate (Contractor personnel): 0 • Occupational injury deaths (FUCC employees): 0 • Occupational injury deaths (Contractor personnel): 0 – Severe occupational injury rate (excluding deaths): • Severe occupational injury rate (FUCC employees): 0 • Severe occupational injury rate (Contractor personnel): 0	■ Details on Performance of Occupational Safety and Health by FUCC and UPM	Table 1-2 No.4 Number of employees in and rate of occupational accidents

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			• Severe occupational injuries (FUCC employees): 0 • Severe occupational injuries (Contractor personnel): 0 – Recordable occupational injury rate (including deaths and severe occupational injuries): • Recordable occupational injury rate (FUCC employees): 0 • Recordable occupational injury rate (Contractor personnel): 0 • Recordable occupational injuries (FUCC employees): 0 • Recordable occupational injuries (Contractor personnel): 0		
7	6. Social Engagement_ 6.1. Community Relations and Sponsorship_ 6.1.2 Community safety	91	■ Leakage eradication and hazard reporting method - Adopted control method • Toxic and concerned chemical substances: – Implementation of management and hazard prevention measures for toxic and concerned chemical substances during operations – Due reporting of operational records • Waste gas: – Smoke detectors and emergency shutdown devices are installed in heating furnaces of various processes – VOCs recovery equipment is installed to prevent dispersion – Equipment components with low leakage design are used for hazardous air pollutants • Wastewater: – Regular autonomous sampling and testing inside the wastewater/sewage plant	■ Identification results and implementation measures of projects that may have negative impacts on society	Table 1-2 No.5 Operations with significant actual and potential negative impacts on local communities. Taiwan Stock Exchange Corporation Rules Table 1-2 No.6 Concrete valid mechanisms and actions implemented by the company itself and its suppliers to mitigate negative environmental or social impact

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			– Wastewater/sewage/rainwater discharge is carried out in accordance with applicable management regulations • Waste: – Due reporting of waste generation, storage, and disposal – Autonomous in-plant patrols, inspections, and management • Soil and groundwater: – 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 • Dust pollution: – Installation of properly functioning dust control equipment • Noise: – Regular in-plant and perimeter noise testing • Overall environmental monitoring: – Daily routine patrols and inspections of environmental safety, manufacturing, storage, and transportation are conducted - Preventive measures • Toxic and concerned chemical substances: – Placement of emergency response equipment – Detection and warning equipment – Disaster prevention and response training, drills, and education – Establishment of specialized emergency response personnel • Waste gas: – Installation of continuous monitoring and recording facilities whose proper		

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No.	Corresponding Section	Page	Selected Information	Reporting Criteria	The Regulation
			functioning can be effectively ensured – VOC testing conducted on a quarterly basis by commissioned third-party accreditation bodies – Random inspections conducted at irregular intervals • Wastewater: – Installation of continuous monitoring facilities whose proper functioning can be effectively ensured – Designation of dedicated personnel to ensure effective management of wastewater treatment • Soil and groundwater: – Autonomous sampling and testing of groundwater for two years after lifting of remediation program • Dust pollution: – Preventive maintenance and regular environmental monitoring • Noise: – Preventive maintenance and regular environmental monitoring -Hazard reporting method (this only refers to external reporting) • Toxic and concerned chemical substances: – 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. • Waste gas: – 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.		

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