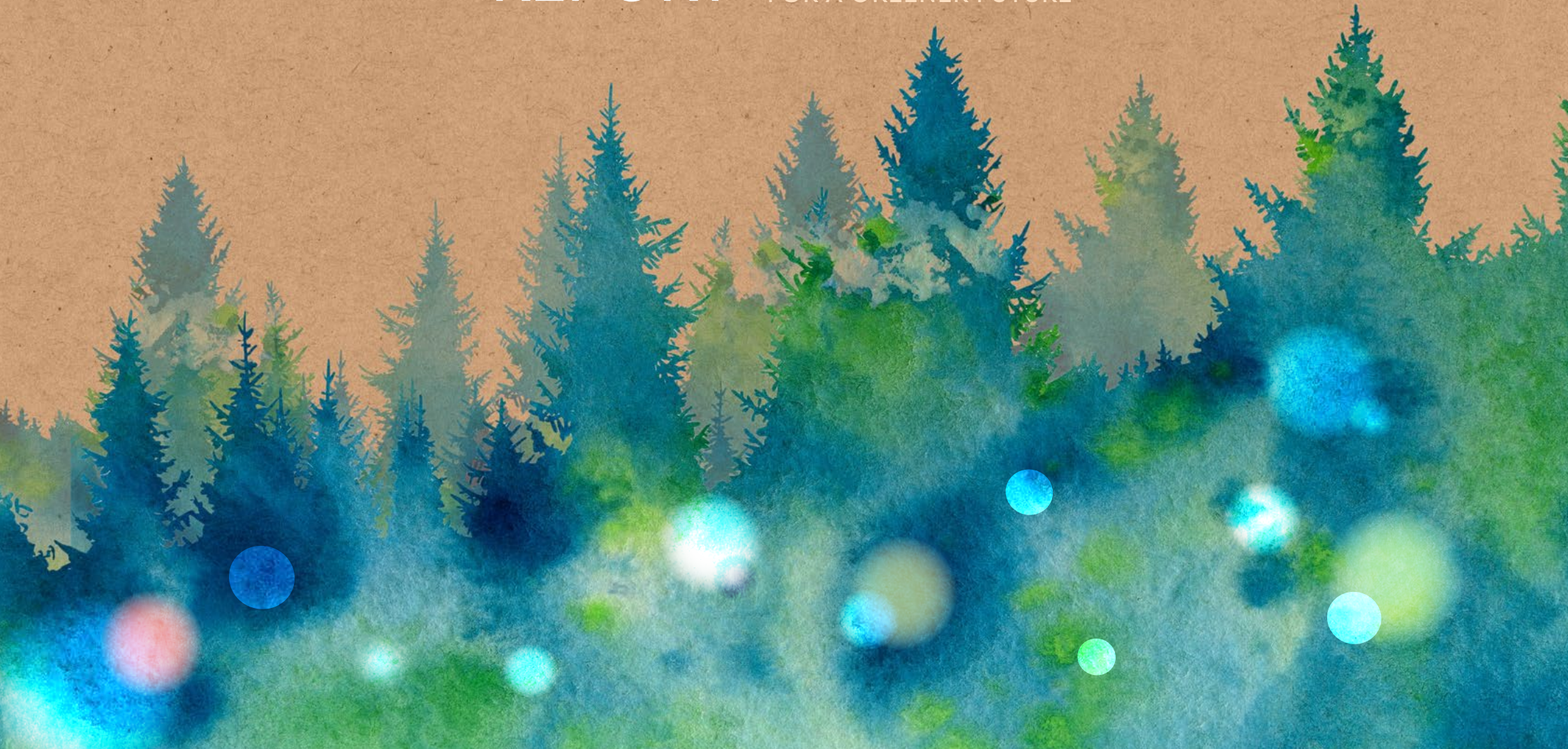


—
INNOVATION /
CIRCULATION /
GREEN ENERGY /

2023

SUSTAINABILITY REPORT

TOGETHER
FOR A GREENER FUTURE



CONTENTS

About This Report	3	01 Governance	20	03 Supply Chain	53	05 Employees	91
Message from Top Management	4						
ESG Goals & Results	5	1.1 Operational Performance	21	3.1 Supply Chain Management	54	5.1 Diversity and Equal Opportunity	92
		1.2 Governance Organization	27	3.2 Green Procurement	59	5.2 Talent Cultivation and Development	99
Sustainability Practice	9	1.3 Risk Management	31			5.3 Healthy Workplace	104
Sustainable Management	13	1.4 Information Safety Management	34				
Sustainable Strategy and Objectives	13	1.5 Ethical Management	35				
Corporate Sustainability Committee	14						
Identification of Stakeholders and Material Issues	15	02 Products & Service	37	04 Environment	62	06 Society	108
		2.1 Sustainable Products and Development	38	4.1 Action for Climate Change	65		
		2.2 Product Responsibility and Customer Service	46	4.2 Energy Management	75	Appendix	116
		2.3 Digital Transformation	51	4.3 Water Management	80		
				4.4 Air Quality Management	84	GRI Standards Index	116
				4.5 Waste to Resource	86	SASB Index	120
				4.6 TNFD & Biodiversity	88	IFRS Index	121
						Assurance Statement	125



About this Report

Contact Us

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Report Download Link:

http://www.clc.com.tw/_upload/files/2023ESG_EN.pdf

Design Concept of the Sustainability Report 2023



Valuing the natural environment and ecological conservation, CLC focuses on sustainable and intelligent papermaking, dedicating efforts to developing nature-based, responsible, and diverse low-carbon products and services. Through a single sheet of paper, we continue to move forward for a better world.

The CLC published its first environmental report in 2011 and began to publish it annually since 2013. We completely disclose the ESG-oriented goals and achievements of the economy, environment, society and corporate governance, share CLC's sustainable strategies, practices and performance with all stakeholders, and pursue a sustainable cycle of goodness.

Reporting Scope and Period

The scope of this report mainly covers all CLC's operation locations in Taiwan (including 4 paper mills, 7 box plants, and Headquarters) and some overseas bases in China and Vietnam, with a combined disclosure ratio reaching 99.5% of the 2023 consolidated revenue. The information disclosed in this report mainly covers data in the fiscal year 2023 (January 1, 2023 to December 31, 2023) 1. Part of the contents and performance data of fiscal years 2021 and 2022 are also included, and the short-, medium-, and long-term goals are stated.

Note 1: Consolidated statement includes Taiwan parent company and subsidiary ([2023 annual report P.99](#))

Principles of Report Writing and Guidelines

To provide the related information for all stakeholders to understand the CLC's sustainable development, this report has been prepared in accordance with the framework and contents of the GRI Standards (2021) published by the Global Reporting Initiative (GRI). Meanwhile, it is compiled with reference to the framework of the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB) "Standards for the Pulp and Paper Products Industry", the United Nations' Sustainable Development Goals (SDGs), the United Nations Global Compact, and the Sustainability Classification Criteria which is being planned by the Financial Supervisory Committee. Additionally, this report follows the framework of the Taskforce on Nature-related Financial Disclosures (TNFD) and adheres to the International Financial Reporting Standards (IFRS) S1 on sustainability-related financial disclosures and S2 on climate-related disclosures, both issued by the International Sustainability Standards Board (ISSB).

Report Management

Internal Management	1 Draft preparation by the taskforce of the Corporate Sustainability Committee	2 Content accuracy and integrity review by unit heads	3 Report data consolidation and report writing by the executive director of the Corporate Sustainability Committee	4 Review by the chair of Corporate Sustainability Committee	5 Submission to the board of directors for approval and issuance
External Assurance	Quality: This report was verified and assured by the third-party French Standards Institution, bellCERT, AFNOR Asia Ltd. in accordance with the Moderate Assurance in Type 1, AA1000AS (v3) in April 2024. Financial data: All financial data has been audited and certified by the KPMG and expressed in New Taiwan Dollars (NTD), consistent with the data disclosed in the annual report. Management systems: All international management systems adopted by CLC, including ISO 9001, ISO 14001, ISO 14064-1, ISO 22000, ISO 45001, ISO 50001, and ISO 27001, and some of our products received ISO 14067, which have been certified by world-leading certification bodies, including the BSI, SGS, and DNV GL.				

Reporting Cycle and Report Publication

The CLC publishes the Sustainability Report (ESG Report) annually.

Current Issue: July 2024 (Chinese version) / October 2024 (English version)

Previous Issue: June 2023 (Chinese version) / June 2023 (English version)

Next Issue: June 2025 (Chinese version) / October 2025 (English version)



Message from Top Management



“
Together by following our
North Star, we have found that
new Path.”

Layout for total circular economy, deepening the paper-based Net-Zero solutions

Since the production of our 1st sheet of paper, CLC has adhered to the credo of "cherishing resource and promoting circulation and recycling". Through one sheet of paper, we aim to engage our positive influence. Since 2019, by implementing the S.M.A.R.T. Low Carbon Strategies, we have promoted smart production and sales, scaled up 3R PLUS Total Resource Circular Economy, to actively establish domestic and overseas manufacturing locations, and focus on the natural solution of "paper", resulting in developing a variety of green products to society decarbonization. In 2023, with the launch of major projects domestically and abroad, including the Chupei Mill the largest and most efficient biomass CFB boiler system, the Tayuan Mill's recovered bleached pulp line, and the 1st paper container plant in northern Vietnam, the Bac Giang Box Plant, we continue moving towards the new low-carbon & green energy paper benchmark in Asia.

Engaging with industry chain to carbon abatement to accelerate transformation

Facing the global trend of low-carbon supply chains, as the industry leader, we have shown our influence by sharing our experience in low-carbon transformation and teaming up the "CLC 1+N Carbon Neutrality Alliance". The alliance aims to build a domestic carbon database and implement a CLC low-carbon industrial ecosystem. Meanwhile, through leading initiatives in smart production and sales, we continue to strengthen our advantages in green energy and smart paper manufacturing, to transform ourselves from a traditional factory into eco-friendly & smarter manufacturer. Moreover, by investing in biogas and biomass green power generation, we aim to pave the way to a carbon-neutrality which is more applicable for the domestic environment. In addition, by introducing the Eco Anti-grass Paperboard (receive organic certification from the Agriculture and Food Agency) and the household paper packing with a special waterproof coating (awarded the new national patent), we make efforts to provide a diversified "Paper" Nature-based Solutions in response to the global trend of achieving Net-Zero transformation by 2050.

Localization of key talents globally, supporting TNFD toward the Natural Positive Growth

Following the S.M.A.R.T. innovation in operations and manufacturing, CLC has formulated the 10-Year Talents Empowerment Plan, dedicated to constructing a diverse, equal, inclusive and happy workplace. Internally, we set the goal to facility 48 training hours per employee, 300 internal mentors, and young management teams by 2030, to systematically implement ESG competency education. In responds to rapid overseas expansion, we more emphasize on the localization of key talents, aiming to build the capability for sustainable and rapid transformation. Externally, we continue to foster alliances with partners to promote Secondary Forest project, awakening social awareness of sustainability. Valuing Nature Positive, CLC is a pioneer to become an Early Adopter of the Taskforce on Nature-related Financial Disclosures (TNFD), and will collaborate with various stakeholders to promote biodiversity investigation, conservation, and sustainable utilization.

Deepening corporate sustainable development and resilient management, CLC has elevated the oversight level of the Corporate Sustainability Committee and the Risk Management Committee to the board of directors, to continually outline and promote CLC's sustainable transformation and operational resilience. Looking ahead to 2024, a critical year as Taiwan formally entering the "Carbon Pricing Era", we will continue to focus on innovation in production and sales, as well as digital transformation, through diverse channels to practice zero waste and green energy governance. Turning the climate risks into business transformation opportunities, we are committed to collaborating with various stakeholders to lead the way, open up new prospects, and move towards a new era in business model.

Chairperson Frank Cheng



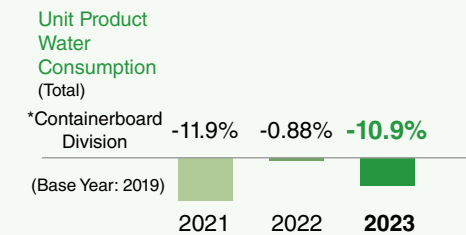
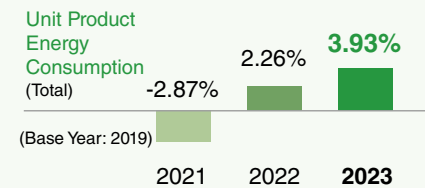
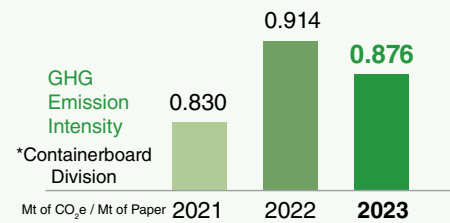
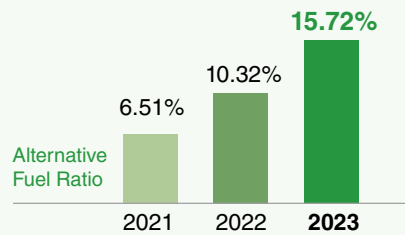
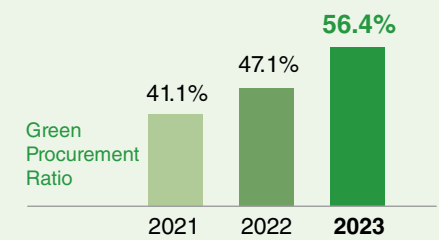
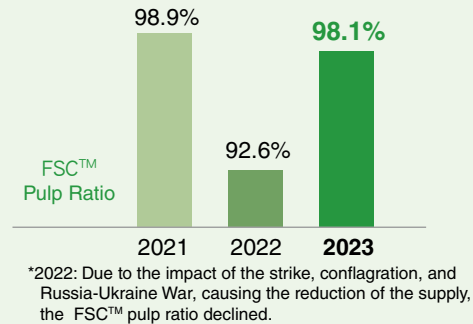
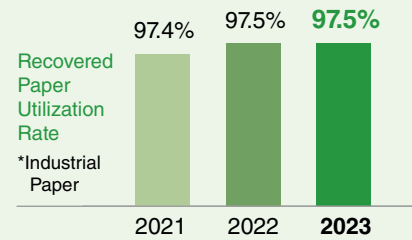
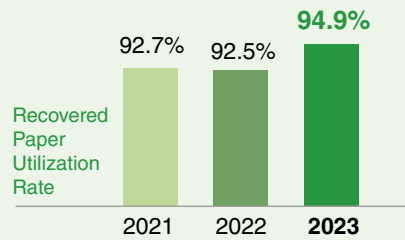
ESG Goals & Results

ESG / SDGs	Material Issues	Index	2023	2025	2030
Environment  SDG 6 CLEAN WATER AND SANITAION  SDG 7 AFFORDABLE AND CLEAN ENERGY  SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION  SDG 13 CLIMATE ACTION  SDG 15 LIFE ON LAND	Sustainable Products and Development	Recovered Paper Utilization Rate *Industrial Paper	97.5%	> 97%	> 97%
	Biodiversity	FSC™ Pulp Ratio	98.1%	> 98%	100%
	Climate Change Action	GHG Emission (Base Year: 2018)	-5.06%	-5%	-20%
	Energy Management	Alternative Fuel Ratio	15.72%	15%	20%
	Energy Management	Unit Product Energy Consumption (Base Year: 2019)	3.93% (Total)	-5% (Total)	-10% (Total)
	Water Resources Management	Unit Product Water Consumption *Containerboard Division (Base Year: 2019)	-10.9% (Total)	-5% (Total)	-10% (Total)
	Green Procurement	Green Procurement Ratio	56.4%	50%	50%
	Air Quality Management	Air Quality Management SO _x	-30%	-30%	-42%
		NO _x	-42%	-33%	-45%
		TSP	-61%	-57%	-65%
	Waste to Resources	Waste-to-Resources Ratio	95.9%	> 97%	> 97%
Social  SDG 1 NO POVERTY  SDG 8 DECENT WORK AND ECONOMIC GROWTH  SDG 4 QUALITY EDUCAYION  SDG 10 REDUCED INEQUALITIES	Social Inclusion	Social Welfare Investment	NT\$17.26 million	> NT\$10 million	> NT\$10 million
	Social Inclusion	Paper Library	28 (Total)	>32 (Total)	>40 (Total)
	Talent Cultivation and Development	Training Hour per Staff (yearly)	67.7 hrs	> 45 hrs	> 48 hrs
	Supply Chain Management	Local Procurement Ratio	69.7%	> 73%	> 75%
	Healthy Workplace	Health Promotion Participation (yearly)	1,942	2,000	+5% / year (from 2025)
Governance  SDG 8 DECENT WORK AND ECONOMIC GROWTH  SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION  SDG 17 PARTANERSHIPS FOR THE GOALS	Supply Chain Management	On-site Supplier Audit	55 suppliers completed	85% complete	100% complete
	Product Responsibility and Customer Service	Customer Satisfaction Score	86.9	87	88
	Risk Management	Material Violation Incidents	0	0	0

Note: Taiwan

ESG Key Results

Environment

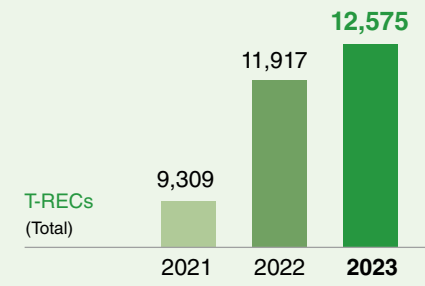
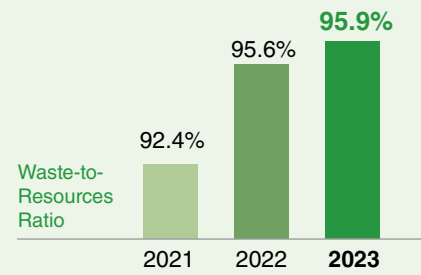
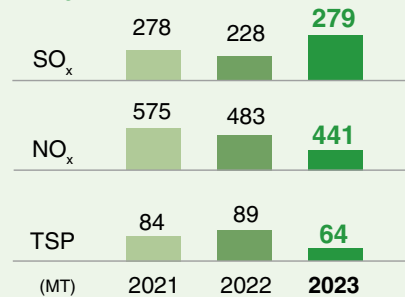


*2021: the reduction of SRF use in the boiler at Tayuan Mill

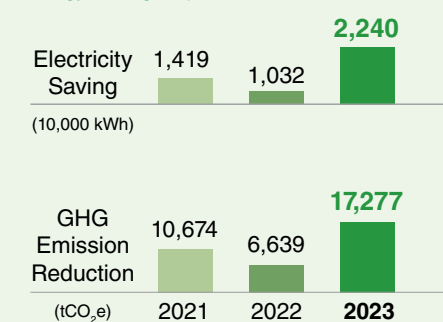
*Note 1: In 2023, production volume was impacted by declined market demand, additionally, the new CFB boiler underwent energy consumption optimization.

*Note 2: The positive ratio of unit product energy consumption indicated a decline. The negative ratio indicated progress.

Air Quality Management

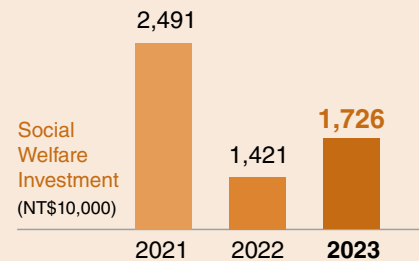
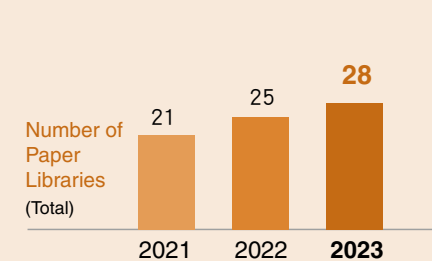
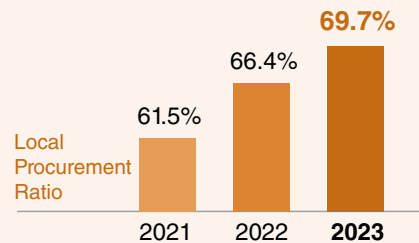
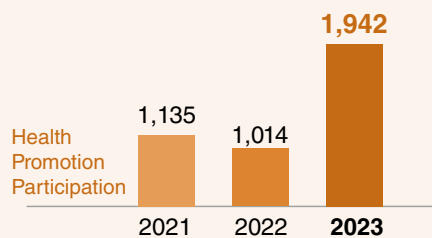
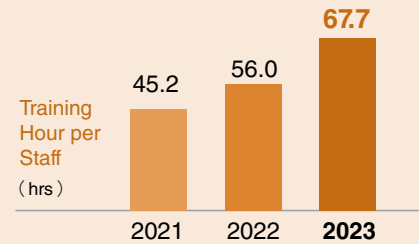
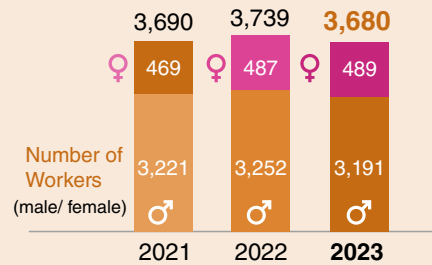


Energy Saving Projects



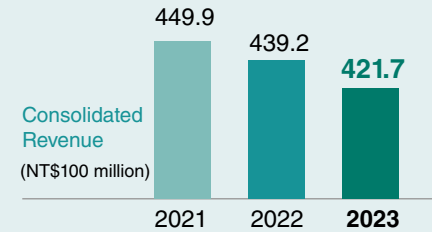
Note: Taiwan

Social

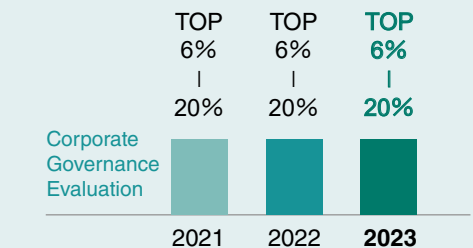
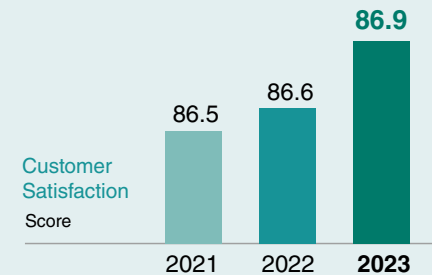
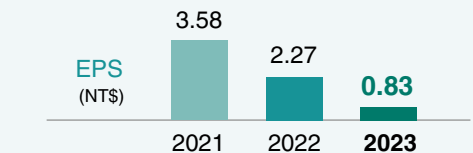
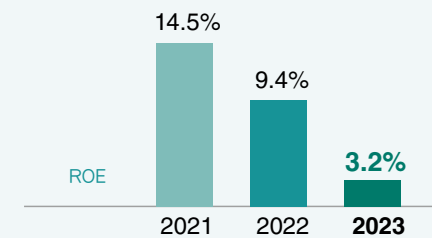
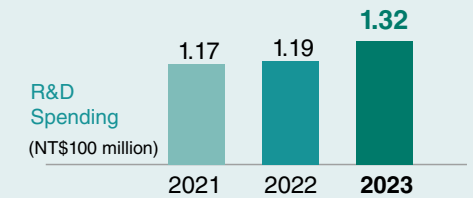


Note: Taiwan

Governance



* In 2023, influenced by geopolitical tensions, the China-US trade confrontation, interest rate hikes, and inflation, both domestic and international economic growth stagnated. Global market consumption tended to be conservative, impacting overall operational performance.



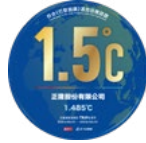
Note: Taiwan

Honors & Recognition

Corporate Knights

《Corporate Knights》
2023 CLEAN 200
Selected as the global TOP 200
clean company for 3 consecutive
years (2022~2024)

The only company in Taiwan's
papermaking industry



《CommonWealth Magazine》
Listed at Corporate Carbon
Reduction Thermometer
which in line with the Paris
Agreement's 1.5°C temperature
control target for 2 consecutive years

Leading the industry



《Global Views Monthly》
ESG Corporate Sustainability Awards –
Overall Performance, Low-Carbon
Operations, and Talent Development

The only company in Taiwan's
papermaking industry



《CommonWealth Magazine》
The "Excellence in CSR (No.33)"
Award for the 10th time

The only company in Taiwan's
papermaking industry



《Vietnam Chamber of Commerce
and Industry (VCCI)》
TOP 100 Sustainable Businesses
(CSI)
for 2 consecutive years

1st Rewarded Taiwan
Corporation (2022~2023)



《2023 Vietnam
National Outstanding
Enterprises Awards》
TOP 20



《2023 Vietnam National
TOP 20》– Corporate
Sustainability and Golden
Quality Awards

Environment	
《Corporate Knights》	2023 CLEAN 200 Selected as the global TOP 200 clean company for 3 consecutive years
《Environmental Protection Administration (EPA) - Resource Recycling Agency》	《Resource Circulation Excellence Award》- Golden Award - Houli Mill
《Environmental Protection Administration & County and City Environmental Protection Bureaus (EPB)》	《Green Procurement Excellent Performance Unit》– All Factories
《Taoyuan City》	《Corporate River Adoption Commendation》and 《Environmental Sustainability Award》- Tayuan Paper Mill
《Taichung City - Environmental Protection Bureau (EPB)》	《Public and Private Places Air Pollution Reduction Incentive Program》– the 2 nd Place - Houli Mill 《Excellent Performance Circular Economy for Pollution Reduction and Coal Reduction》Excellent Award - Houli Mill
《Taichung City - Economic Development Department》	《Sunshine A+ Competition : Net Zero Excellence Award》for the 2 nd time - Houli Mill
《Vietnam Environmental Organization》	3 Awards for 《TOP 100 Green and Sustainability Development Enterprises Awards》and 《TOP 100 Eco-friendly Green Factory Awards》
Social	
《1111 Job Bank》	《Happy Enterprise Award》- Gold for the 4 th time
《Ministry of Health and Welfare (MOHW)》	《Healthy Workplace Certification》- 8 factories awarded
《Ministry of Labor's Occupational Safety and Health Administration (OSHA)》	Outstanding Enterprise in the annual 《Corporate Sustainability Report Proactive Evaluation for Occupational Health and Safety Indicators》
《Commonwealth Magazine》	Become "Corporate Health Responsibility" for 5 consecutive years
《Taiwan Index Plus Corporation》	Selected as 《EMP 99 Index》for 13 consecutive years
《Shopping Design》	Taiwan Design BEST 100 "Annual Social Care and Environmental Friendliness"

Governance	
《Global environmental NPO - CDP》	Dual Management Level ratings for Climate Change Evaluation and Supplier Chain Engagement Rating (SER)
《CommonWealth Magazine》	The "Excellence in CSR (No.33)" Award for the 10 th time
《Global Views Monthly》	ESG Corporate Sustainability Awards - 3 Model Awards for Overall Performance, Low-Carbon Operations, and Talent Development
《Taiwan Institute for Sustainable Energy (TAISE)》	TCSA: Taiwan's TOP 100 Sustainable Enterprises, the Corporate Sustainability Reporting Award : Platinum, the Award for Climate Leadership (TOP 7) and the Award for Talent Development Leadership (TOP 5)
《Vietnam Chamber of Commerce and Industry (VCCI)》	TOP 100 Sustainable Businesses for 2 consecutive years - CLC Binh Duong Paper Mill TOP 20 Vietnam National Outstanding Enterprise Award - CLC Binh Duong Paper Mill TOP 20 Vietnam National Enterprise for Sustainability and Gold Quality Awards - CLC Vietnam Mill
《Chung-Hua Institution for Economic Research》	Taiwan Circular Economy Awards (TCEA) - corporate category - Outstanding Awards for the 3 rd time
《TWSE》	Rated the TOP 6%~20% at 《TWSE》10 th Corporate Governance Evaluation for 4 consecutive years

※Please refer to the [CLC corporate website](#) and related sections & chapters for complete recognition information.

CLC Sustainability Practice

ESG: Climate Change Action



“ CLC Leads Intelligent Papermaking Revolution in Production and Distribution ”

CLC is dedicated to sustainable smart papermaking, reinforcing green energy and intelligent papermaking through the low-carbon S.M.A.R.T. strategy. Transforming traditional factories into eco-friendly smart recycling facilities aligns with the global 2050 net-zero transition trend.

Taiwan's Pioneer: AI in Paper Industry for Operation Improvement and Carbon Reduction

Since 2004, CLC has completed the group-wide ERP system and continued to advance digital management. In 2019, it initiated projects like smart factories and digital patrols. Taking the "BM10 Smart Paper 4.0 Visualization Warfare Management System" at Houli Mill as an example, through 6 core intelligent modeling such as performance management, energy consumption management, and process optimization, it integrates IoT and AI big data, establishes key data upper and lower limits, and uses machine learning and data accumulation to analyze equipment operating status and trends, significantly improving OEE and carbon reduction.

Intelligentization of Offline Patrol, Establishing the Sustainable Paradigm of Smart Paper 4.0

Through the proactive establishment of a smart factory, CLC has achieved efficient real-time monitoring of production processes. CLC has introduced digital patrols. Front-line personnel now only need a mobile device to conduct inspections, temperature and vibration measurements. Using a mobile device for card swiping ensures thorough inspections and reduces risks like manual errors. Pre-arranged inspection routes and dispatching help avoid high-risk or non-essential areas, ensuring patrol personnel safety. After inspections, data can be directly uploaded to the database. Backend access enables management to easily view records and equipment trends, aiding optimal decision-making and proactive response to equipment issues, reducing unplanned downtime losses.

Big Data Enhances Decision-Making toward New Era

The digital inspection system not only saves paper but also streamlines processes, reevaluating the importance of inspection items and optimizing them for increased production efficiency. Through accurate data collection and a big data database, CLC achieves precise prediction and risk prevention, enhancing production capacity and energy conservation. Employees can integrate data with practical experience for optimal analysis. Expanding operations globally, CLC extends Smart Paper 4.0 and the digital patrol system to overseas factories, speeding up the replication of optimized processes and effective data collection, propelling the company toward a future of smart manufacturing.



Note: CLC S.M.A.R.T. "Low Carbon Smart Paper" refers to Subtraction (Resource Reduction), Material (Conversion of Waste to Energy), AI (Production and Sales Intelligence), Recycling (Recycling and Regeneration), and Technologies (Advanced Processes).



ESG: Sustainable Products and Development

“ Paper Nature-based Solutions: Taiwan's Organic Rice Farming Material Certified for Eco Anti-grass Paperboard ”

Adhering to the 3R principles (Reduce, Reuse, Recycle) of a circular economy, CLC is dedicated to developing eco-friendly and responsible, diverse low-carbon products and services.

Revolutionizing Organic Farming: CLC's Eco Anti-grass Paperboard

CLC tackles herbicide misuse and plastic pollution in agriculture with rice-specific eco anti-grass paperboard made from 100% local recovered paper with low basis weight (g/m^2), the eco anti-grass paperboard earned Taiwan's organic farming material certification (Certification No. 112016 from the Agricultural and Food Agency). This innovation addresses plastic coverings and pesticide residue issues, aligning with the 2024 UN Global Plastics Treaty Draft. It positions Taiwan for an agricultural net-zero transition, enhancing climate resilience and soil carbon sink, while fulfilling corporate responsibility for local environmental and food security. Through a single sheet of paper, CLC contributes to the return of modern agriculture to more natural production methods.



Developing Unique Functional Paper Materials for Sustainable Agriculture Advancement in Taiwan

CLC utilizes the papermaking machinery at the Houli Mill to create low basis weight eco anti-grass paperboard for rice cultivation. This paperboard significantly reduces weed growth by 23 times, avoiding nutrient competition with rice seedlings. Its low basis weight improves soil permeability and decomposes completely before rice flowering, aligning with farmers' schedules for field drying and topdressing, resulting in a substantial increase in crop yield. The fiber decomposition also combats herbicide and plastic pollution, nurturing carbon-rich soil. After crop maturity, direct plowing without recovery eases challenges tied to the aging agricultural workforce. Widespread application in Taiwanese rice fields and dry crops promotes sustainable agriculture, fortifying farmers against climate change and ensuring environmental and social security.





ESG: Supply Chain Management

“Pioneering the Industry Carbon Neutrality Alliance and Collaborating with 300 Key Suppliers to Build a Net-Zero Ecosystem”

In response to the global low-carbon supply chain trend, CLC leverages its industry leadership to influence stakeholders of all sizes. CLC is dedicated to sharing long-term low-carbon transformation experiences, helping partners proactively prepare for the 2050 net-zero transition.

CLC's 1+N Carbon Management Demonstration Team: Building a Carbon Database for the Paper Industry

In 2018, CLC launched the "Recycling Supply Chain Transformation Plan," guiding 167 local recyclers in source sorting and supporting 12 businesses for recycled material quality. Pioneering supply chain assessment, CLC introduced the Supplier ESG Conference and green management in 2020, influencing 300 key partners to accelerate sustainable transformation. Foreseeing global carbon tariffs in 2023, we established the "CLC's 1+N Carbon Management Team," forming the industry's 1st carbon neutrality alliance. CLC built an industry carbon database, conducted Taiwan's inaugural industrial paper carbon footprint investigation, and cultivated 40 Seedling Fellows on carbon management. Contributions include an annual emission abatement of 11,969 tCO₂e, energy cost savings exceeding NT\$55.09 million, and driving over NT\$250 million in industry carbon reduction investments.

3 Dimensions, 7 Guidelines: Accelerating the Paper Industry towards the 2050 Net-Zero Goal

CLC presented 3 dimensions and 7 guidelines at 2023 Supplier ESG Conference, pledging to collaborate with 300 key partners worldwide. The objective is to accelerate the successful transformation of the paper industry.

- Guideline 1: Promote low-carbon smart papermaking, develop efficient and scalable recycling technologies, and offer diverse market choices.
- Guideline 2: Adopt green innovation to maximize resource recycling efficiency.

- Guideline 3: Establish a high-quality domestic recovered paper sustainable supply chain.
- Guideline 4: Reduce unit product carbon emissions by choosing lower-carbon and lighter materials, enhancing energy management, and promoting ISO 14067 carbon footprint management.

- Guideline 5: Implement a renewal strategy by combining low-carbon and smart technologies to enhance resource management efficiency and service advantages.
- Guideline 6: Promote a circular economy in the paper industry through advocacy, supporting government regulations, consumer education, and social mechanisms.
- Guideline 7: Construct an industry sustainable talent ecosystem

1. Deepening Low-Carbon Sustainable Smart Manufacturing

2. Constructing an ESG Sustainable Ecosystem

3. Accelerating Industry Low-Carbon Transformation





ESG: Social Inclusion

“ Beyond Paper Library: CLC and MUJI Taiwan Redesign Senior Inter-Generational Classroom ”

Since 2014, CLC has championed sustainability education by utilizing 100% recovered paper for paper libraries in Taiwan's elementary schools, fostering awareness of second forest principles. In 2023, as the paper library project completes its 1st decade, CLC acknowledges Taiwan's swift shift into a super-aged society. Through public-private collaboration, CLC is initiating a redesign of learning spaces to cultivate sustainable awareness across all age groups.

Taiwan's 1st Inter-generational Classroom Redesigned for Seniors

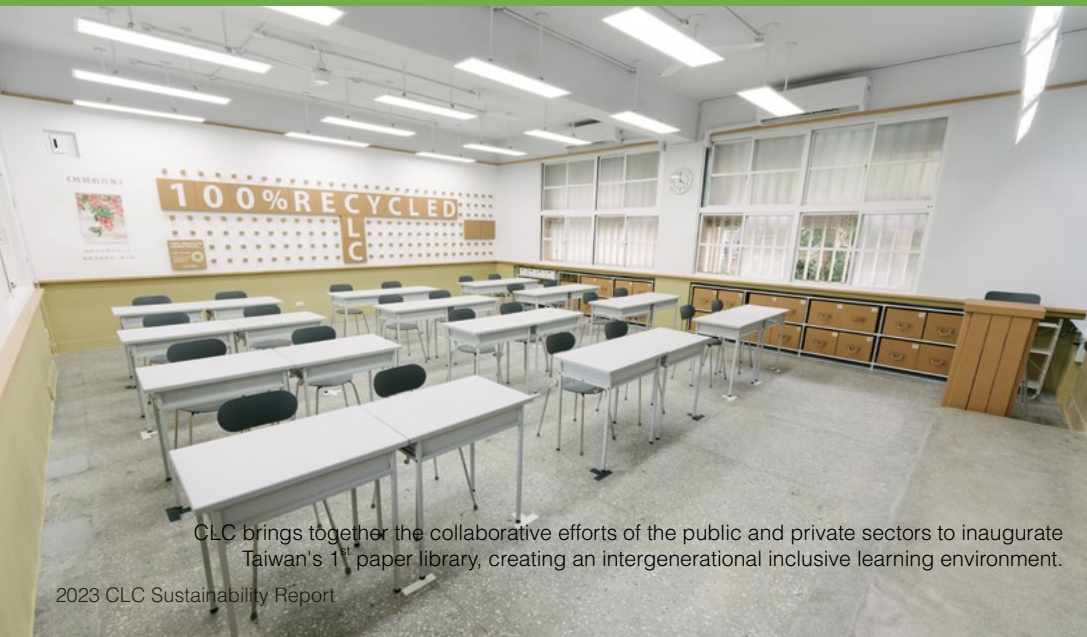
Prioritizing the learning needs of the elderly, CLC collaborates with the "MUJI RENOVATION" from MUJI Taiwan. Through the reconfiguration of modular spaces and leveraging the lightweight and modular characteristics of paper materials, CLC has revamped classrooms at the New Taipei City Xin-Pu Junior High Supplementary School. This initiative ensures that senior students at the supplementary school no longer have to make do with the junior high school desks, chairs, and equipment, allowing them to have their own dedicated learning space. The design of desks, chairs, and storage aligns with the needs of the elderly, making learning more accessible and enjoyable.



Utilizing 100% Recovered Paper Materials to Create an Inclusive and Friendly Educational Environment

CLC and MUJI RENOVATION, after extensive observation and discussions, have addressed the learning needs of the elderly. They designed stable, lightweight desks and chairs through iterative communication and expert input, alongside creating a well-lit and comfortable learning environment. Utilizing the warm and lightweight characteristics of paper materials, they collaborated to develop 100% recovered paper educational tools, including movable lecture desks, space-efficient storage, flexible bulletin boards, and personalized cabinets. A comprehensive back-to-school kit is also provided with name tags, storage baskets, and eyeglass cases.

This design process goes beyond a single classroom, employing modular elements to swiftly replicate inclusive and friendly educational environments. This ensures a comfortable experience for sustainable lifelong learning. The use of paper furniture not only optimizes educational spaces but also sparks creative possibilities for future paper-based products. CLC is actively collaborating with MUJI Taiwan to establish a green paper supply chain, focusing on locally produced, sustainable paper-based lifestyle products for daily use.

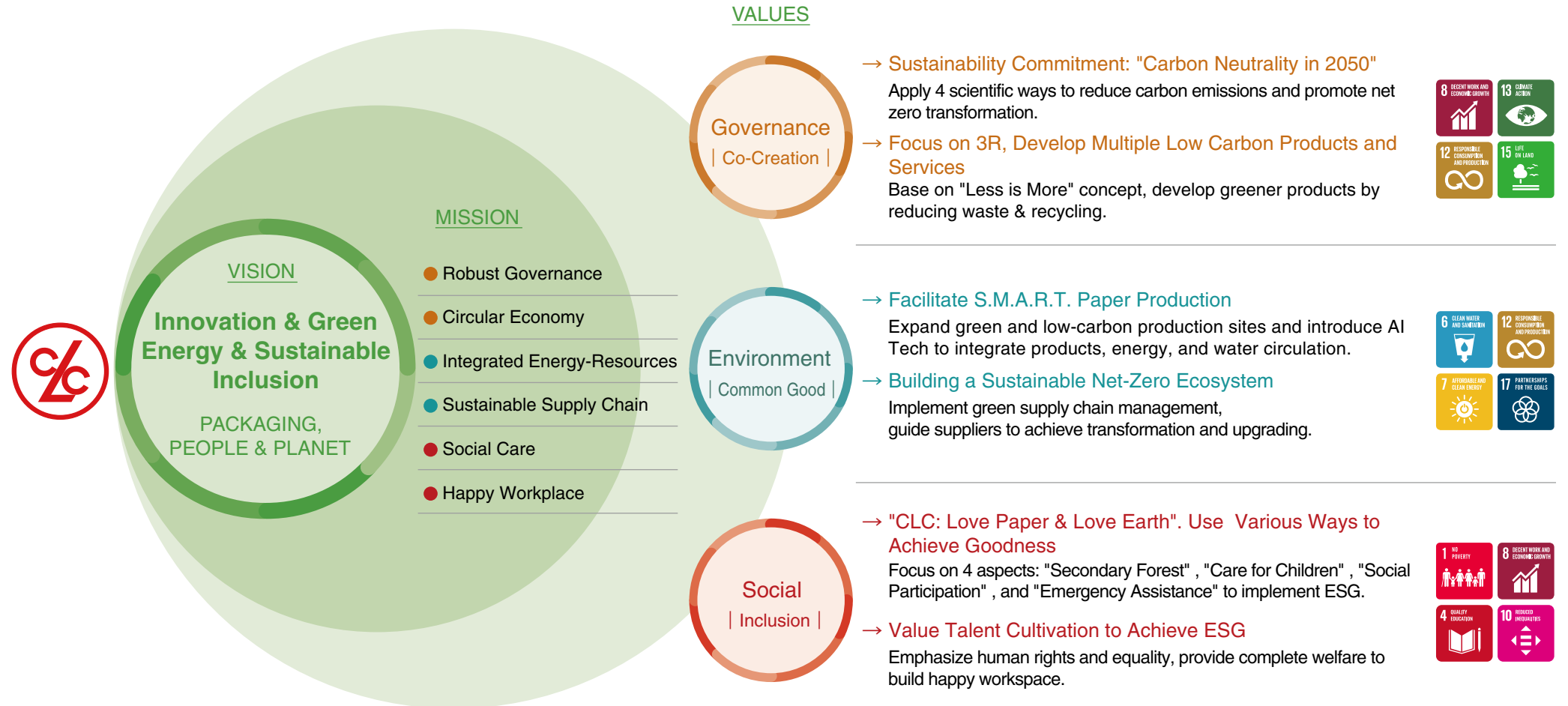


CLC brings together the collaborative efforts of the public and private sectors to inaugurate Taiwan's 1st paper library, creating an intergenerational inclusive learning environment.

Strategy and Objectives

ESG Policy

With "Green Energy & Innovation, and Sustainable Inclusion" as the main axis of our sustainable development, CLC proactively links our value chain with the United Nations' Sustainable Development Goals (SDGs). We incorporate SDGs into the core of our corporate operations, reviewing the relevance of SDGs to our business activities, operational processes, and the upstream and downstream sectors in the value chain. By doing so, we aim to expand our positive impact and work hand in hand with stakeholders to achieve sustainable development goals.



*For the complete content of the UN SDGs and CLC's sustainability goals, please refer to [the CLC website - CSR Strategy and Committee](#).

Corporate Sustainability Committee

Valuing corporate sustainability, CLC led the industry to set up the CSR Committee in 2013, and in 2021, it was renamed the "Corporate Sustainability Committee," referred to as the ESG Committee. The Chairperson serves as an advisory committee member, and the President chairs the committee. Senior executives from relevant departments serve as ESG task force members to discuss and implement major issues. Addressing climate change and adaptation topics, the committee also established the "Climate Change and Circular Economy Office," with the President as the convener and the head of the R&D Division as the vice convener. The office actively consults external professional organizations, including the Taiwan Green Productivity Foundation, to continuously plan and promote our sustainable transformation.

Key Tasks

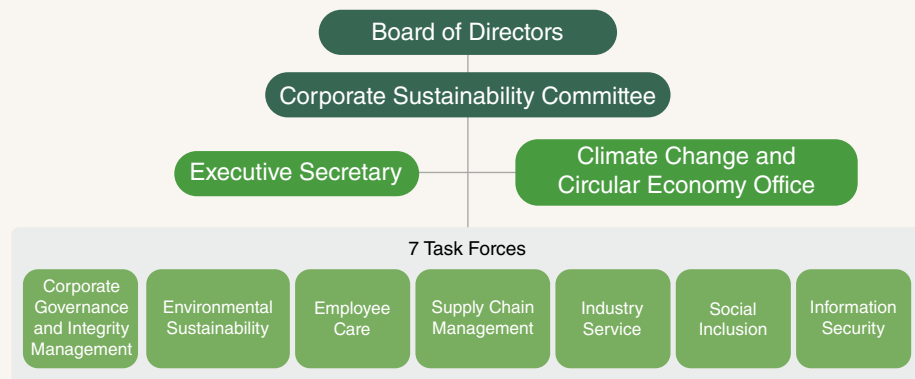
1. Identify major sustainability issues and formulate corresponding action plans.
2. Track the performance and implementation of sustainability issues across various aspects and coordinate resource integration.
3. Address stakeholder communication and engagement.
4. Hold at least 2 meetings annually and have the Chairperson report quarterly to the Board of Directors on implementation results and work plans.

*Please refer to [annual report p.28-29](#) for related training courses.

In December 2023, the BoD approved elevating the Corporate Sustainability Committee's oversight level to the Board, making it a functional committee. CLC's President serves as the chairperson, with the heads of the Pulp & Paper and the Containerboard Business Unit, and three independent directors serving as committee members. The Sustainability Department acts as the executive secretary. In addition, Corporate Sustainability Committee are held at least twice annually. In addition to the original task forces, the "Information Security Task Force" was added to strengthen information security management. The task forces hold monthly meetings to track progress and results, reporting to the BoD quarterly. To enhance the directors' expertise in sustainable management and continually enrich new knowledge, the BoD arranges for directors to take the training courses on corporate sustainability development annually.



CLC's Corporate Sustainability Committee



* The highest-ranking officials of relevant ESG departments serve as members of the 7 task forces.

2023 Board of Directors Report Highlights

1. Conducted greenhouse gas inventory for all subsidiaries within the group.
2. To elevate the management level of the Corporate Sustainability Committee and enhance risk management operations, established 2 additional functional committees under the BoD: Corporate Sustainability Committee and Risk Management Committee, and simultaneously revised the Code of Practice for Sustainable Development.
3. Initiated the 2023 TCFD climate change financial impact and strategy response assessment, and completed the CDP climate change questionnaire to evaluate the level of climate governance.
4. Reviewed the results of ESG initiatives and revised medium- and long-term ESG goals.
5. Assessed stakeholder engagement and communication.

Identification of Stakeholders and Material Issues

We believe that well communication with internal and external stakeholders is the prime mission of corporate accountability. Therefore, the Corporate Sustainability Committee holds the consensus meeting for sustainable development strategy and identifies stakeholders and material issues to provide important references disclosed in the sustainability report to meet all types of stakeholders' responses. In addition, we identified stakeholders and material issues from our senior management and Corporate Sustainability Committee. We collected responses from internal and external feedback on topics of concern to our ESG questionnaire every 3 years. The next one will be held in 2024.

Flowchart of Stakeholder and Material Issues Analysis



Identification of Stakeholders

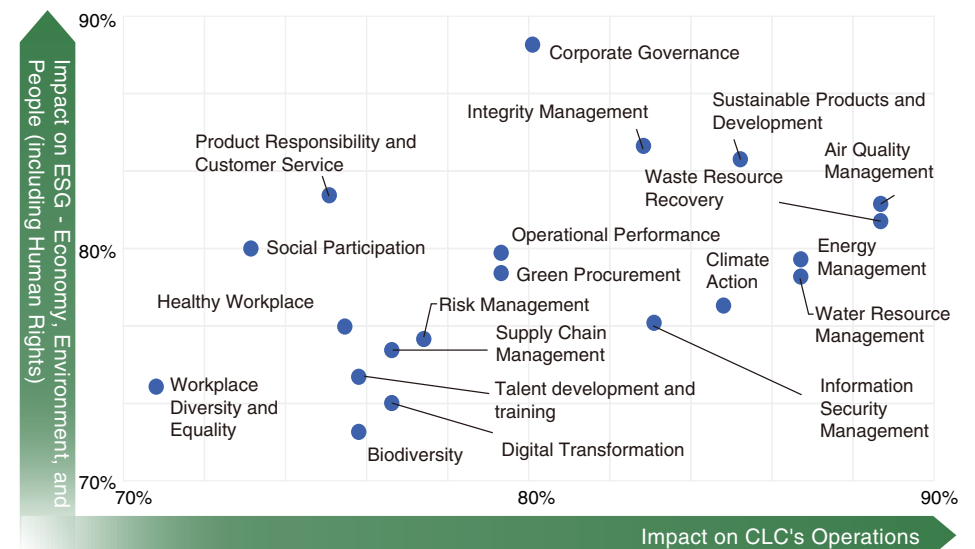
CLC references the AA1000SES Stakeholder Engagement Standard 2015, which includes 5 key principles. Based on these, we evaluate stakeholders and interviews several senior Corporate Sustainability Committee executives, including the Chairman, President, and senior management. Task force members also participate in identifying stakeholders by completing a questionnaire. Through this process, CLC identifies 6 key stakeholders affected by or interacting with its business operations: (1) employees, (2) customers, (3) shareholders/investors/financial institutions, (4) suppliers/contractors, (5) government/industry associations, and (6) society (media, local communities, non-profit organizations, academic institutions).

Identification of Major Issues and Analysis of Positive and Negative Impacts

Every 3 years, we collect feedback from stakeholders and internal and external experts on topics of concern. We review the classification of stakeholders and the appropriateness of their concerns to make adjustments.

Given the increasing importance of information security risk control, we added a highly significant topic, "Information Security Management," in 2023. This new topic, combined with other highly significant topics such as Integrity Management, Sustainable Products and Development, Climate Action, and Waste Resource Recovery, is used to create a materiality matrix and responses. After identifying material issues, senior internal executives and Corporate Sustainability committee members further conduct a positive and negative impact analysis on 20 major topics, performing due diligence to evaluate the scope of impact across the CLC value chain. These findings are reported to the BoD through the Corporate Sustainability Committee, and upon approval, the material issues are confirmed. Positive impacts are assessed based on our current strategies and management policies, evaluating the positive benefits and likelihood of occurrence across ESG dimensions. Conversely, negative impacts are evaluated assuming no action is taken by the organization and causing being not able to prevent from or mitigate the negative impacts, assessing the severity and likelihood of occurrence across the 3 dimensions.

The results indicate that Sustainable Products and Development, and Waste Resource Recovery have the highest levels of positive impact, with further refinement expected to enhance their positive influence. Given that climate change has become significant, the results of the impact analysis also show that proactive greenhouse gas management and aiming for carbon neutrality can bring substantial positive impacts. Conversely, inaction would result in negative impacts second only to Integrity Management.



Note: 70% is the threshold for determining material issues.

2023 CLC Materials Issues

● : Direct impact ▲ : Indirect impact (facilitation and business relationships)

Meaning	Materials Issues	Corresponding to SDGs	Corresponding to GRI	Corresponding to SASB	Significance to CLC	Related Chapter/ Management Policy	CLC	Shareholders /Banks	Suppliers/ Contractors	Customers	Government/ Industry Association	Society
 Governance Commit to combining sustainable development with business operations to turn into a "New Low-Carbon & Green Energy Paper Company."	Corporate governance	-	Customize Issue		Compliance with the company principle of employees is the key to CLC's sustainability.	1.2	●	●	▲	●	●	●
	Risk management	SDG 13.3	Customize Issue		Reducing potential operational risks and enhancing corporate resilience.	1.3	●	●	●	●	▲	●
	Information security management	-	GRI 418		Strengthening information security risk control to ensure data safety.	1.4	●	▲	●	●	▲	▲
	Integrity management	-	GRI 419		Integrity is the root for social progress.	1.5	●	●	●	●	●	▲
	Operational performance	SDG 8.2, 8.4	GRI 201		Innovation and research to help maintain industry leadership.	1.1	●	●	●	●	▲	▲
	Supply chain management	SDG 17.16, 17.17	GRI 204 GRI 308 GRI 414	Supply Chain Management RR-PP-430a.1 RR-PP-430a.2	Practice the sustainable supply chain to create common good and win-win.	3.1	●	▲	●	●	▲	▲
	Green procurement	SDG 12.7, 15.2	GRI 204		Valuing sustainable procurement to build a resilient value chain.	3.2	●	▲	●	▲	▲	▲
	Product responsibility and customer service	-	GRI 301 GRI 416	Paper production RR-PP-000.B Total wood fiber sourced RR-PP-000.C	Provide various good customer service, ensure product safety & health are CLC's responsibility.	2.2	●	▲	▲	●	▲	▲
 Environment Actively integrating energy and resources to pursue zero emissions and build a circular production system.	Sustainable products and development	SDG 12.2, SDG 12.5	GRI 305		Effectively utilizing digital technology to improve recycling efficiency.	2.1	●	●	●	●	▲	▲
	Climate action	SDG 13.2	GRI 305 GRI 307	GHG Emissions RR-PP-110a.1 RR-PP-110a.2	Focusing on climate issues and actively pursuing net-zero transformation.	4.1	●	▲	▲	▲	●	●
	Energy management	SDG 7.1, 7.2 SDG 13.2	GRI 302	Energy Management RR-PP-130a.1	Improving energy efficiency and effectiveness to achieve Total Resource Recycling.	4.2	●	▲	▲	▲	●	▲
	Water resource management	SDG 6.3, 6.4, 6.b	GRI 303	Water Management RR-PP-140a.1 RR-PP-140a.2	Prioritize water resource management as CLC important policy.	4.3	●	▲	▲	▲	●	●
	Air quality management	SDG 12.4	GRI 305	Air Quality RR-PP-120a.1	Make active improvements to air pollution.	4.4	●	▲	▲	▲	●	●
	Waste resource recovery	SDG 7.a SDG 12.4, 12.5	GRI 306		Put production waste-to-resources as prime concern.	4.5	●	▲	▲	▲	●	●
	Biodiversity	SDG 15.2	GRI 304		Increase recovered paper usage, maintain biodiversity.	4.6	●	▲	▲	▲	●	●
	Digital transformation	SDG 8.2	Customize Issue		Utilizing AI in production and sales services to enhance operational efficiency.	2.3	●	▲	●	●	▲	▲
 Social Creating a happy workplace environment, fostering a diverse and inclusive society, and establishing a positive cycle.	Healthy workplace	SDG 8.8	GRI 403		Responsible for building a safe and healthy workplace.	5.3	●	▲	●	●	▲	▲
	Workplace diversity and equality	SDG 8.5, SDG 10.2	GRI 202 GRI 401		Maintain fair treatment and dignity for employees.	5.1	●	▲	▲	▲	▲	▲
	Talent development and training	SDG 4.4	GRI 404		Building a competitive compensation and benefits system and a learning-oriented organization.	5.2	●	▲	▲	▲	▲	▲
	Social participation	SDG 1.5, SDG 4.7, SDG 17.17	Customize Issue		Leverage CLC's strengths to promote social inclusion.	6	●	▲	▲	▲	▲	●

Communication Channels, Frequency and Important Interaction

By addressing the issues that concern the 6 major stakeholder groups with this report and disclosing related information over the corporate website and multiple platforms, the CLC aims to promote positive opinion exchange with stakeholders.

“ Emphasizing all channels' interaction and communication can help the CLC understand the reasonable expectation of stakeholders more clearly and allow us to address social needs and maintain optimization and growth. ”

Stakeholders	Significance to CLC	Communication Channels / Frequency	CLC's Response	Communications in 2023	
 Employees	Putting people first, the CLC treats employees as its important asset and the creator of profit. Therefore, it expects the value of each employee to increase as the company grows.	• Department meeting / Weekly • Factory meeting / Monthly • Enterprise union / Annually • Labor conference / Quarterly • Welfare committee / Semiannually • Year-end meeting / Annually • CLC bimonthly journal • EIP, Grievance mailbox, etc./ Aperiodically • Proposal system / Aperiodically • Employee Opinion Survey / Annually • Education and training / Aperiodically • HSE talks & health promotion activities / Aperiodically	Operational performance Healthy workplace Sustainable products and development	→ Offered Competitive Salary. → Built Company healthy and safety culture, and held OH&S speech and health activities. → Developed the "Excellent Case Improvement and Management Mechanisms", and encouraged the employees to enhance the energy of innovative services. → Continue to invest in R&D, develop low-carbon packaged goods and services, and obtain a number of patents. → The Andante and Dandelion Household Products series successfully extended to personal and household lotions, grasping the post-epidemic business opportunities.	→ Raised salary for 17 years, with an annual rate of 1.5~3%. → employee satisfaction scored 4.35 out of 5. → OH&S training hours reached 28.1 hours per staff and participants of health activities were 1,942 persons (Excluded online). → The Binh Duong Paper Mill, Binh Duong Plant, Viet Long Plant, Long An Plant, and Bac Giang Plant in Vietnam have completed the ISO 45001. → The excellent cases generated around NT\$230 million in profit. → Invested \$132 million in innovative R&D to deepen the application of sustainable paper materials and develop niche products. → The only one in the industry, with 6 household paper products having obtained "Carbon Footprint" certification, and planning to add 3 more items by 2025.
 Customers	Creating value for customers based on the market and customer needs is the competitive strength of the CLC.	• Instant customer service hotline • Instant customer compliant E-Management system • Customer satisfaction survey / Annually, Aperiodically • Innovative technical description / Aperiodically • Business description / Aperiodically • Customer meeting / Aperiodically	Integrity management Product responsibility and customer service Operational performance	→ Committed to maintaining customer privacy, and conducting anti-corruption education and training for sales staff. → Set a long-term of 88 scores in customer satisfaction in 2030, actively introduce intelligent tools to promote the customer management and service. → With the strategy of "improving Taiwan, leaning China, and expanding Vietnam", continue to expand the scale of recovered paper recycling at home and abroad, and deploy circular economy transportation capacity.	→ Conducted annual satisfaction surveys with 287 customers, achieving an overall satisfaction score of 86.9, an increase of 0.3 points from the previous year, and continuously improving based on feedback analysis. → Arranged for 44 customers to visit the plant, learn about CLC's technology and equipment, low-carbon transformation, environmental R&D, and service capabilities, and shared CLC's ESG and climate management practices with clients. → Linked the promotion mechanism for new employees in Taiwan to the "Integrity Management" online training course (required for employee rank promotion), and added a China version to the "Integrity Management and Anti-Corruption Education Training" E-Learning online series, with a total of 571 participants. → The Taoyuan Mill's recycled white pulp line, the second phase of the Binh Duong Paper Mill's industrial paper production line in Vietnam, the Ben Cat Plan, and the Bac Giang Plant successfully commenced commercial operations.

Stakeholders	Significance to CLC	Communication Channels / Frequency	CLC's Response	Communications in 2023
 Shareholders/ Investors/ Financial Institutions	The CLC management team must be responsible for any person who has invested in or will invest in the CLC. This is also the core of our corporate governance.	- Spokesperson and stock affairs - Shareholders' meeting / Semiannually - Institutional Investor Conference / Semiannually - Investor Related meetings/ Aperiodically - Reply the phone & email / Aperiodically - Financial Statements / Quarterly - Annual report / Annually - MOPS / Aperiodically - Company website / Aperiodically	Integrity management → Emphasize stable operations and law-abiding governance, continuously refining and formulating various regulations, and conducting training, and awareness programs. Information security management → Establish a computer protection framework to strengthen information security risk management and cultivate a corporate culture of information security. Risk management → Enhance various risk management systems by introducing the TCFD framework to identify and manage related risks, thereby reducing operational impacts. Operational performance → Maintain good operational performance and provide investors with positive investment returns.	→ Held joint investor conference calls and 2 online investor meetings (March 17 and August 18) to explain operational overview, investment plans, business outlook, and ESG action results. → Established a dedicated Information Security Center and appointed a Chief Information Security Officer, pioneering the implementation of the ISO 27001 information security management to strengthen information security. The Corporate Sustainability committee expanded to include an "Information Security Task Force." → Established a Risk Management Committee under the BoD, and enhanced TCFD identification (covering all mills/ plants in Taiwan). → The operating results were EPS \$0.83 and ROE reached 3.2%.
 Suppliers/ Contractors	As partners of CLC, suppliers/contractors support and growth with CLC to develop a stable and sustainable supply chain and ecosystem.	- Real-time supplier management system - Supplier audit and evaluation meeting / Annually - Suppliers' visits / Aperiodically - Supplier self-assessment questionnaire / Annually - Supplier ethics advocacy / Aperiodically - Supplier ESH education and training activities / Periodically - Supplier guidance / Aperiodically - Supplier ESG conference / Periodically	Supply chain management → Initiated a guidance mechanism for the recovered paper supply chain, supporting the upgrade and transformation of 2 recovered paper suppliers annually. → Regularly held ESG supplier conferences to strengthen supply chain collaboration. → Set a goal of 100% on-site evaluation for major suppliers by 2030. Waste resource recovery → Developed circular low-carbon fuel from waste, aiming for a resource recycling rate of over 97% by 2030. → Ensured all waste is legally and properly disposed of or reused. Sustainable products and development → Committed to Total Resource Recycling, with annual industrial paper recycling rates exceeding 97% and a goal of 100% FSC™ pulp content by 2030. → Assisted local recyclers sorting recovered paper, targeting a 50% reduction in non-fiber impurities.	→ Accumulated support for the upgrade and transformation of 12 recycling supply chain partners. → Held the 4th ESG Supplier Conference, commending a total of 39 outstanding supplier partners. → Conducted on-site evaluations of 55 major suppliers. → Initiated the "CLC's 1+N Carbon Management Demonstration Team," collaborating with 20 industry chain partners to establish a carbon data database for the paper industry.

Stakeholders	Significance to CLC	Communication Channels / Frequency	CLC's Response	Communications in 2023
 Government/ Industry Associations	Complying with the government's laws and regulations and competent authorities, the initiatives of industry associations, and making recommendations for industrial policies.	- Official document exchanges and visits / Aperiodically - Face-to-face interviews, phone calls to provide industry experience and suggestions / Aperiodically - Meetings / Aperiodically - Public association communication platform / Aperiodically	Corporate governance → Continue to improve corporate governance and information transparency to enhance corporate governance evaluation results. Risk management → Enhance environmental and safety and health management in accordance with ISO standards. Climate action → Collaborate with municipal EPA to support disadvantaged recovered households and expand the impact of social care. → Partner with industry, government, academia, and research institutions to actively promote recovered paper classification education. → Actively participate in government and industry association meetings to promote regulations related to net zero carbon emissions, renewable energy, and the circular economy, collaboratively building a net-zero island. → Engage in international initiatives by establishing the "Climate Change and Circular Economy Office" to manage climate change and biodiversity issues.	→ The corporate governance evaluation results ranked within the TOP 6% to 20% for 4 years. → The mill / plant was visited 137 times by environmental and safety stakeholders, including the Ministry of Environment, Occupational Safety and Health Administration, Ministry of Environment, and Fire Brigade. → Established two functional committees under the BoD: the "Corporate Sustainability Committee" and the "Risk Management Committee." → Reassessed TCFD by expanding the scope of identification; publicly supported and became an "Early Adopter of TNFD." → Listed management level certifications from CDP for Climate Change Evaluation and Supply Chain Engagement Rating (SER).
 Society (media, local communities, NPOs, academic institutions)	There are different aspects of society. The media transmit information for the CLC, local communities are the major recipient of our social contributions, and NPOs and academic institutions bring the CLC diverse perspectives.	- Local community activities / Aperiodically - Cheng Huotien Charity Foundation - CLC Children's Care Foundation - Face-to-face, email, telephone interviews / Aperiodically - Press conferences, advertisements, press releases / Aperiodically - Symposium / Aperiodically - Factory visits / Aperiodically - e-Newsletter / Quarterly - ESG area of CLC Website / Aperiodically	Social participation → With the vision of "Love paper, Love Earth", we promote the 4 main public welfare themes: "Secondary Forest," "Care for Children," "Social Participation," and "Emergency Assistance," pursuing collective well-being. Sustainable products and development → Actively open the factory for tours to promote the circular economy, with over 2,000 visitors annually. Air quality management → Committed to improving air emission quality by introducing innovative technology and equipment, and promoting air pollution reduction.	→ Annual environmental and social care volunteer services reached 862 participants and 3,289 hours. → Continued to improve the quality of information disclosure, including 32 press releases on the website, 11 media releases, 15 media interviews, and 3 editions of the CLC e-Newsletter. → NOx and TSP level have been continuously reduced.

※ Refer to more information for stakeholders communication on press release of [CLC website](#).

01

Governance

Adhering to sincerity and trustworthiness, we are committed to realizing a virtuous circle in our overall value chain, upholding the code of ethics, establishing a steady management mechanism, and implementing a dual-track development strategy at home and abroad to pursue sustainable growth.

- 1.1 Operational Performance
- 1.2 Governance Organization
- 1.3 Risk Management
- 1.4 Information Safety Management
- 1.5 Ethical Management

- Secured a **NT\$13.2** billion sustainable loan for low-carbon smart papermaking transformation (2022~2023)
- Continue to expand the capacity, which increased **6.7%~20%**
 - Paper & Paperboard: about **2.502** million MT
 - Corrugated Container: **2,051** million M²
 - Recovered Bleached Pulp **6.6** K MT
- Stable increase in product market share (Taiwan area)
 - Industrial Paper **> 40%** Corrugated Container **> 30%**
 - Household Product **> 20%**
- Corporate governance evaluation ranked in the TOP **6%~20%** for 4 consecutive years

1.1 Operational Performance

Material
Issues

Operational
Performance

Strategy

Become a new low-carbon & green energy paper company and pursue sustainable growth based on the dual-track strategy: Taiwan cultivation and overseas development.



2030

2024

2023

Goals

Goals

Goals / Action Results

- Expand green & low-carbon production bases to become "Asia's Benchmark Paper Company for Circular Economy"
- Engage in value-added transformation through technology R&D, focus on energy and resource recycling and reuse toward a "New Low-Carbon & Green Energy Paper Company"

- Deploy circular economy bases at home and abroad
 - ➔ Preparing for the construction of the BM23 industrial paper project in the phase III at the Binh Duong paper mill in Vietnam
- Continue to promote green energy transformation
 - ➔ Planning a NT\$5 billion sustainable syndicated loan
 - ➔ The biogas green energy system is being installed at the Houli Mill in Taiwan, with plans to add a 120-ton biomass boiler

- Deploy circular economy bases at home and abroad
 - ➔ Tayuan Mill in Taiwan has an annual production capacity of 66,000 MT of recycled pulp, H2 commercial operation
 - ➔ Phase II of the BM22 containerboard at Binh Duong paper mill in Vietnam, Binh Giang box plant, and Bac Giang box plant in Northern Vietnam have successfully commenced operations
 - ➔ Consolidated Revenue reached at NT\$42.17 billion, EPS NT\$0.83
- Continue to promote green energy transformation
 - ➔ Secured NT\$6 billion in sustainable loans, with a total of NT\$13.2 billion in 2022-2023 (including NT\$12.6 billion in syndicated loans in 2022)
 - ➔ The Chupei Mill largest high-efficiency biomass power generation system in Taiwan has been put into operation, with a maximum annual power output of 126 million kWh

About CLC

CLC: New Low-Carbon & Green Energy Paper Company

Established for more than 60 years, we take "Innovation, Circulation, Green Energy" as our sustainable vision. We engage in value-added transformation through technology R&D to focus on energy and resource recycling and reuse. Through the operational mode with papermaking and paper converting as the core, we provide a variety of products and comprehensive solutions for paper packaging to serve clients around the world.

Focus on circular economy, energy saving and emission reduction, the CLC has considered the recycling of paper fibers, energy, and water at the same time of production. Through cross-industry collaboration, R&D and upgrading, and quality leap, we advance the energy and resource integration for optimal use. In addition, we are committed to the waste-to-resources of residual materials from production, an extension of alternative fuels, and development of renewable energy, and reduction of GHG emissions, to transform into a new low-carbon and green energy paper company.

Establishing a Net-Zero Smart Paper Sustainability Model to Become Asia's Benchmark for Low-Carbon New Paper Industry

As one of the world's TOP100 paper companies, CLC operates globally with 5 paper mills and 21 box plants located in Taiwan, China, and Vietnam. To expand its sustainable packaging production lines and capitalize on packaging opportunities, we have adopted a strategy focused on recycling and regeneration. We continue to strengthen our advantages in green energy and smart paper production, comprehensively laying out our domestic and international operational blueprint and expanding our recovered paper regeneration capacity. In Vietnam, the phase II of the Binh Duong Paper Mill, with an annual capacity of 400,000 tons of industrial paper (BM22), the Binh Giang Box Plant, and the group's 1st box plant in Northern Vietnam—the Bac Giang Box Plant—successfully commenced commercial operations in 2023. This expansion has increased the group's total annual paper and board production capacity to 2.502 million tons and its total box capacity to 2.051 billion m². Additionally, the phase III of the Binh Duong Paper Mill (BM23) is under planning and construction, as we continue to advance toward its goal of establishing a low-carbon, green-energy integrated paper industry with a capacity of 1 million tons in Vietnam. In Taiwan, Tayuan Paper Mill's recycled white pulp line, with an annual capacity of 66,000 tons, and the largest high-efficiency biomass cogeneration system at the Chupei Mill, with an annual power generation of 126 million kWh, both began operations in 2023, enhancing our sustainable image in green energy, low-carbon, and emissions reduction. To further strengthen its green energy competitive advantage, the Houli Mill is constructing a biogas green power system and planning to install a 120-ton biomass boiler.

Organization

The Organization of CLC contains 4 parts: Headquarters, Containerboard Division, Container Box Division and Household Products and Paperboard Division. Besides, CLC extends its business (includes reinvestment corporations) across the world. With Administration Division, Management Information Division, Financial Division, Accounting Division, R&D Division, Information Department, China business group and Information Security Center, headquarters is the management center of quality control, production & sales, administration, tech, global operation and affiliates governance.

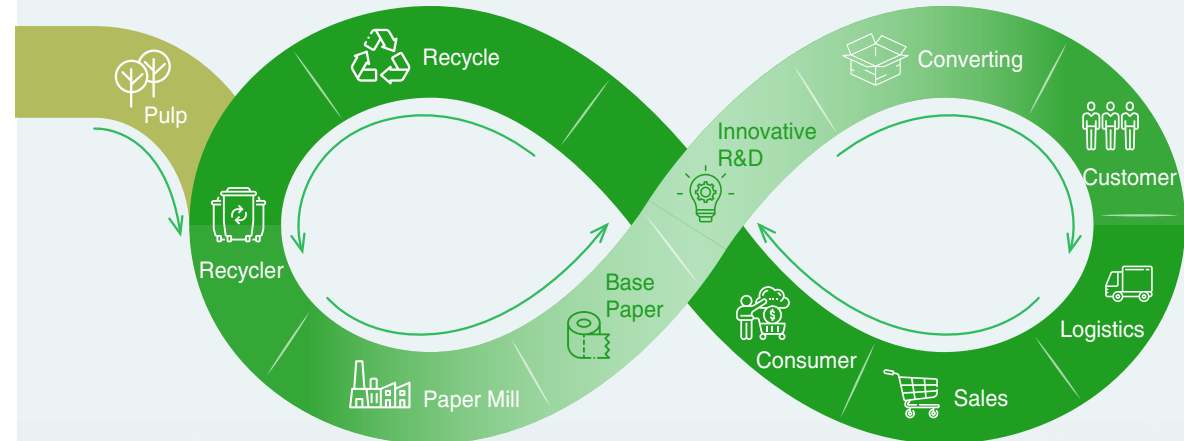
*Please refer to [the 2023 Annual Report-Organization Chart \(P.9\)](#).

CLC : Cycling Loyalty Circulation

Secondary Forest • Circular Economy ([Products & Services P.37](#))

Throughout the product life-cycle: raw material selection, product design, green production, logistics and delivery, and end-use, we develop comprehensive green products and services through innovation based on the circular economy featuring "resource recycling-papermaking-packaging" to create the circular effectiveness of secondary forest.

▶ Recovered paper utilization rate up to **94.9%**



Green Production • Energy Conservation and Carbon Reduction ([Environment P.62](#))

Develop cross-mill/plant and cross-industry energy resource integration, as well as promote waste-to-energy, sustainable development of renewable energy. By deepening the benefits of energy resource integration, we aim to mitigate climate change and environmental impacts.

- ▶ Waste-to-resources up to **95.9%**
- ▶ Unit product water consumption decrease by **-10.9%** (Accumulated)

Promoting Supply Chain Sustainability ([Supply Chain P.53](#))

By including sustainable development in the supplier management mechanism, we improve sustainable management, quality, and HSE in collaboration with suppliers to foster local suppliers to achieve local procurement and pursue the common good of the industry.

All major suppliers signed the sustainability undertaking

- ▶ Local procurement **69.7%**
- ▶ Green procurement **56.4%**

CLC Integrity & Prosperity



Business Philosophy

Sincerity and Trustworthiness (Loyalty to Shareholders, Honesty in Business, Pursuit of Improvement, Dedication to Excellence)



Vision

Caring for Life, Utilizing Resources Wisely, and Contributing to Society



Mission

New Low-Carbon & Green Energy Paper Company in Asia

Subtraction is Addition

Waste to **M**aterial

AI leads in Digital Transformation

Recycling drives Circulation

Technologies innovate Manufacture

Name	Cheng Loong Corporation (CLC)
Number of Employee	Global: 6,751 Taiwan: 3,680
Date Founded	1959 - 02 - 04
Main Products and Services	Industrial Paper / Corrugated Container / Household Product / Form & Packaging Materials
Chairperson	Frank Cheng
President	Ching-Biao Chang
HQs	No.1, Sec. 1, Min Sheng Rd., Panchiao Dist., New Taipei City, Taiwan (R.O.C.)
Operating Area	Taiwan, China and Vietnam



Laying Foundation

- 1959 ● Establishment of the CLC.
- 1961 ● Integrating manufacturing and product marketing.
- 1971 ● Listed on the TWSE. (Stock code 1904TW)
- 1990~1993 ● Entering the fine paper and household tissue markets.
- 1995 ● Completion of CLC Headquarters: CLC Plaza Building.



Overseas Expansion

- 2002~2010 ● Establishing Sales Points in Vietnam and China.
- 2005 ● Obtaining the 1st BSI ISO 14064-1 GHG certification.
- 2008 ● Establishment of "Chung Loong Paper Holdings Limited" to administer all companies invested in China.
- 2008 ● Taiwan's 1st international carbon credit certification company.



Innovation and Value Addition

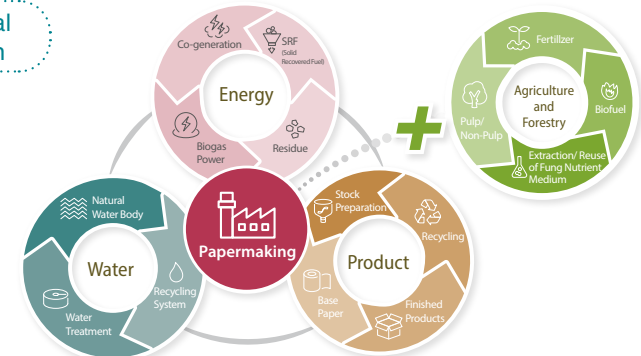
- 2011 ● Introducing low-carbon paper manufacturing machinery in Houli Mill. (BM10)
- 2015 ● Expanding household tissue operations in Chupei Mill. (TM16)
- 2016 ● Mass production of Taiwan's 1st dustproof clean container box plant.
- 2018 ● Completion of Binh Duong Paper Co., Ltd. in Vietnam.
- 2019 ● 60th anniversary. Deepening the circular economy and transfer into a low-carbon company.
- 2020 ● Start 60+ plan, Focus on Innovation, Circulation, Green Energy.
- 2021 ● Promote S.M.A.R.T. paper and layout circular economy completely.
- 2022 ● Build 3R PLUS Resource Circulation.



2023

Deepen Zero-carbon solutions based on "paper," collaborate with industry chain partners to form a national carbon reduction team, and create a new landscape for "Zero-carbon Smart Paper."

CLC's 3R PLUS Total Resource Circulation



Low-carbon S.M.A.R.T. Paper for 3R PLUS Sustainable Total Resource Circulation

In recent years we have activated low-carbon transformation through 5 S.M.A.R.T. strategies. Every year we invest nearly NT\$10 billion in energy conservation, carbon reduction, and waste reduction to transform traditional papermills into eco-friendlier smart recycling mills/plants so as to scale up green influence through smart production and sales. In response to the net-zero transformation trend, we are committed to building the 3R PLUS Sustainable Total Resource Circulation. Apart from integrating the 3R circulation of "product, energy, and water" of the paper industry, we also include agricultural and forestry circulation in the recycling system, expand the scope of biomass fuel application, develop the 3R PLUS Total Circulation Roadmap by deepening mill/plant fiber recycling and biomass value-added application to foster sustainable competitiveness in the global market for Taiwanese industries.

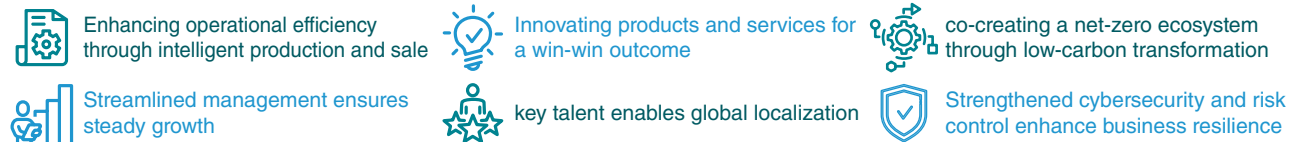
To expand green operations and advance zero-carbon strategies, we secured NT\$9 billion and NT\$3.6 billion in low-carbon smart paper syndicated loans from First Bank and Hua Nan Bank in 2022. In 2023, it obtained NT\$600 million in sustainable loans, totaling NT\$13.2 billion in ESG sustainable loans for 2022~2023 (including NT\$12.6 billion in syndicated loans in 2022). For 2024, a NT\$5 billion ESG syndicated loan project is planned to capitalize on low-carbon smart paper transformation.

Membership of Associations

As a leading paper company in Taiwan, CLC actively participates in relevant industry associations and contributes to the industry's sustainable future by serving as board members and participating in professional committees.

* Note: For complete information, please refer to [CLC - List of Participating Organizations](#).

Business Plan and Execution Strategy



Sustainability Economic Activities

Focusing on a circular economy business model, CLC provides the market with green consumer choices that are close to nature and diverse through a single sheet of paper. According to the Sustainable Economic Activities Reference Guidelines issued by Taiwan's Financial Supervisory Commission, CLC's production of paper and paperboard under a circular economy aligns with the sustainability economic activity recognition for the "General Sustainability Economic Activities" category.

Sustainable Economic Activities Reference Guidelines - CLC's Compliance in 2023

Item	Parent Company (Unit: NT 1,000)	Application Ratio	Compliance Ratio	
Revenue	29,125,870	56.8%	56.8%	
Application Category	General Economic Activities - Manufacturing of Industrial Paper and Household Paper			
Evaluation Results:				
① Economic Activity Compliance Status				
② Environmental Purpose	TSC (Technology Selection Criteria)	Product Classification		Compliance Status
		Industrial Paper	Household Paper (Virgin Pulp)	
③ Greenhouse Gas Reduction and Energy Efficiency Improvement	Greenhouse Gas Emissions per Unit	0.88 CO ₂ e/Adt	0.98 CO ₂ e/Adt	
	Energy Consumption per Product Unit	Cardboard: 1,860 MCal/Adt Corrugated Paper: 1,682 MCal/Adt	3,744 Mcal/Adt	
④ Promoting Circular Economy	Recycling and Reuse Rate of Waste by Product Unit	Cardboard: 0.89 Adt/MT Corrugated Paper: 0.88 Adt/MT	0.94 Adt/ton	
	Waste Generation per Product Unit	95.9%	98.5%	
⑤ Pollution Prevention and Control	COD Generation per Product Unit	0.21 ton/Adt	0.11 ton/Adt	
	Specific Unit COD Emission	0.92 ton/Adt	0.15 ton/Adt	
⑥ No Significant Impact on Environmental Protection				
⑦ Compliance with Other Requirements by Competent Authority				

Note: Calculation boundary is within Taiwan area.

Products and Services

As Taiwan's paper industry leader, our product range covers industrial paper, corrugated containers, household products, and form & packaging materials with "Total Paper & Packaging Solutions Provide". By offering a wide range of paper packaging and manufacturing services, we fulfill the diverse needs of customers.



Industrial Paper

linerboard, duplex board, corrugating medium, coated duplex board, core board, etc.



Corrugated Container

corrugated sheetboard, corrugated container, display corrugated container, waterproof container, paper pallet.



Household Product

toilet tissues, facial tissues, kitchen towels, hand towels, diapers, cleaning supplies.



Form & Packaging Materials

securities, continuous form papers, roll products, bags and envelopes, invoice, stationery and consumables, labels and stickers, flexible packaging, paper forms, big data integration service.

2023 Production Volume and Market Share

Taiwan Area

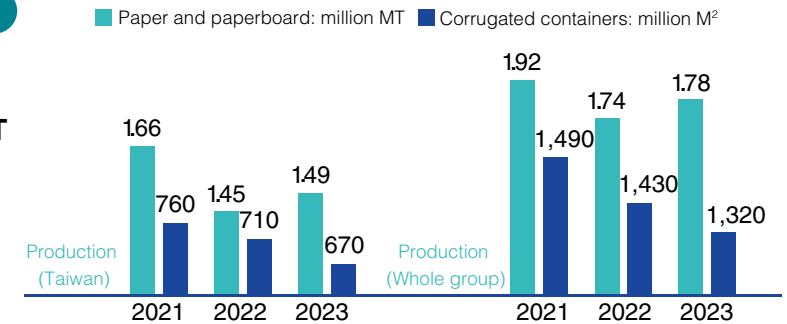
Paper & Paperboard: about **1.49 million MT**

Market share ⇨ Industrial Paper > 40%

Household Product > 20%

Corrugated Container: **670 million M²**

Market share ⇨ > 30%



The leading integrated industrial paper and box manufacturer in Taiwan and Asia.
The 64th largest paper company across the globe.

Operational Sites

Paper Mills **5**

Taiwan 4 Tayuan, Hsinchu, Chupei, Houli

Vietnam 1 Binh Duong

Box Plants **21**

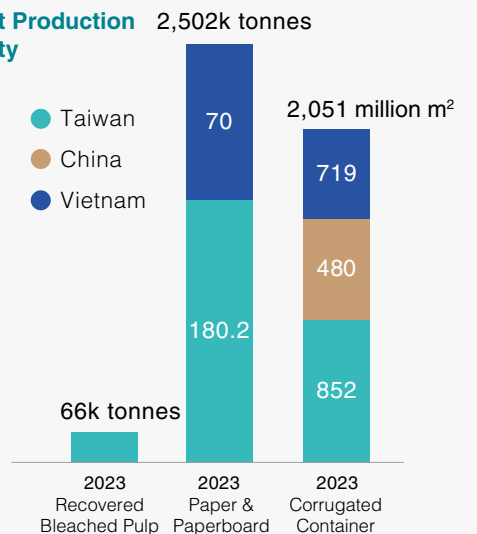
Taiwan 7 Panchiao, Tayuan (2)¹, Miaoli, Taichung, Talin, Yenchao

China 9 Shanghai, Kunshan, Suzhou, Kaifeng, Dong Guan (2)¹, Zhangzhou, Qingdao, Chengdu

Vietnam 5 Binh Duong, Ben Cat, Dong Nai, Long An, Bac Giang

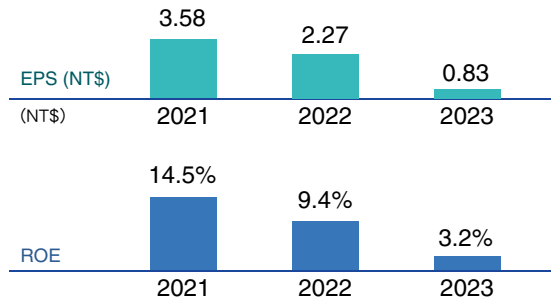
Note 1: Tayuan includes Tayuan Mill I and II; Dong Guan includes Cheng Loong (Gwang Tung) Paper Co., Ltd and Dongguan Ming Long Paper Co., Ltd.

Current Production Capacity

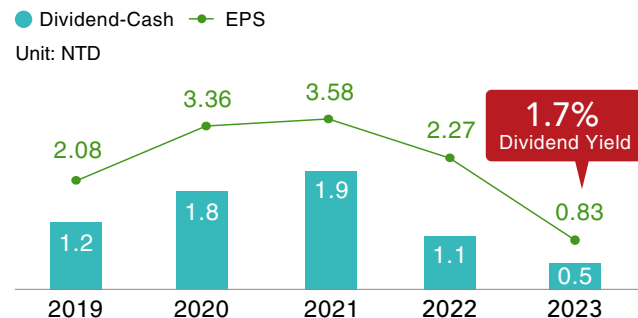


Operational Performance

Due to the impact of geopolitical factors, the US-China economic and trade confrontation, interest rate hikes, and inflation, both domestic and international economic growth have stagnated. Global market consumption has become more conservative, affecting overall operational performance. For 2023, our consolidated revenue was NT\$42.17 billion. Of this, the revenue for our operations in Taiwan was NT\$29.13 billion. The net profit after tax for the year was NT\$933 million, with earnings per share of NT\$0.83, maintaining a robust operational performance.



Valuing shareholders' rights and interests, we distribute profits through dividends to reward all shareholders. In 2024, we will issue a cash dividend of NT\$0.50 per share, resulting in a dividend yield of approximately 1.7%.



* The dividend yield is calculated based on the average closing price of NT\$30.04 in 2023; the information is consistent with the disclosures in the annual report.

Operational Performance

Unit: NT\$1,000

	2021	2022	2023
Total Assets	54,990,007	56,833,090	56,265,139
Debt Ratio	50.4%	50.1%	48.7%
Equity Ratio	49.6%	49.9%	51.3%
Economic Value Generated			
Operating Revenue	34,294,239	32,631,563	29,125,870
Economic Value Allocated			
Operating Cost	26,144,648	26,723,272	23,267,891
Employee Salary and Benefits	4,374,689	4,040,522	3,757,943
Payment to Funders	2,141,477	2,324,942	1,477,376
Payment to the Government	1,070,794	323,141	377,335
Social Expenditures	15,477	4,709	7,996
Economic Value Residual	547,154	(785,023)	237,329

Note: Taiwan; the information is consistent with the disclosures in the annual report.

Unit: NT\$1,000

	2021	2022	2023
Total Assets	66,440,325	70,010,480	70,626,797
Debt Ratio	57.3%	58.2%	57.9%
Equity Ratio	42.7%	41.8%	42.1%
Economic Value Generated			
Operating Revenue	44,986,090	43,921,728	42,165,465
Economic Value Allocated			
Operating Cost	34,783,398	36,588,956	34,505,351
Employee Salary and Benefits	5,483,904	5,258,520	5,069,533
Payment to Funders	2,294,521	2,572,321	2,148,281
Payment to the Government	1,362,951	729,231	1,252,501
Social Expenditures	22,067	5,071	8,717
Economic Value Residual	1,039,249	(1,232,371)	(818,918)

Note: Whole group; the information is consistent with the disclosures in the annual report.

Tax Policy and Management

In response to the international trend of tax governance, CLC implements the compliance of tax policy, and pursues sustainable development, upholds the business philosophy of sincerity and trustworthiness, and formulates [tax policy](#) and related management methods to ensure the effective operation of the tax management mechanism. We have appointed the Accounting Division as the responsible unit of tax governance. When declaring taxes according to the relevant tax laws and regulations, the division must report and acquire for approval according to the regulations. We also support the government's policies to encourage enterprise innovation, R&D, and tax preferences to achieve tax information transparency.

To deal with the tax risk in business operations, we spare no effort in improving the tax expertise of personnel and engaging in constant personnel training to ensure that tax personnel are capable of handling relevant tax affairs. Whenever there are unfamiliar tax affairs, tax personnel will voluntarily communicate with the tax authority and consult with external professionals to ensure absolute legal compliance and flawless tax declaration and thereby reduce the risk of probable legal sanctions, financial losses, or reputation damage arising from tax legal incompliance. The CLC has maintained steady operations and ethical management over the years.

Income Tax Information

Unit: NT\$1,000

	2021	2022	2023
Taiwan	804,152	213,705	187,069
China	138,748	202,696	151,359
Southeast Asia	33,187	71,070	69,360
Income Tax Expenses (A)	976,087	487,471	407,788
Pre-Tax Income (B)	4,987,575	3,196,960	1,340,751
Effective Tax Rate (C=A/B)	19.57%	15.25%	30.41%

Note: The information is consistent with the disclosures in the annual report.

1.2 Governance Organization

Material
Issues

Corporate
Governance

Strategy

Build a management system upon integrity and the code of ethical conduct and practice business ethics and integrity in a top-down manner to promote ethical management and ensure reasonable operational effectiveness and efficiency.



2030

Goals

- Enhance the competence of the board of directors and raise our sustainable value.
- Deepen the governance and operational outcomes.
- Improve the quality of information disclosure.
- Constantly optimize the performance in corporate governance evaluation.

2024

Goals

- Implement board performance evaluation.
- Optimize governance-related regulations.
- Strengthen corporate governance and establish ethical management mechanism.
- Strengthen anti-corruption education and training, and information disclosure.
- Improve the quality of information disclosure
- Committed to improving the performance of corporate governance evaluation

2023

Goals / Action Results

- Implement board performance evaluation
 - ➔ The improvement plan for in the external evaluation of the board's performance in 2022 was submitted to the board (March 2023) and disclosed on the official website
 - ➔ Completed the 2023 self-evaluation of the board's performance (to be reported to the board in Q1 2024)
- Optimize governance-related regulations
 - ➔ Established the "Corporate Sustainability Committee" and the "Risk Management Committee"
 - ➔ Formulated the "Financial and Business Operations Guidelines for Related Parties" and revised the "Code of Ethical Conduct", "Risk Management Policies and Procedures", "Sustainable Development Practices Code", and "Procedures and Guidelines for Ethical Business Operations"
- Strengthen corporate governance and establish ethical management mechanism
 - ➔ Conducted the "Integrity and Anti-Corruption Education and Training" E-Learning online series (added China version), with a total of 571 participants
- No reported cases of corruption were received in 2023
- Improve the quality of information disclosure
 - ➔ Organized 2 online investor conferences (Mar 17th and Aug 18th) and 3 joint conference calls
- Committed to improving the performance of corporate governance evaluation
 - ➔ The corporate governance evaluation ranked the TOP 6%~20% for 4 consecutive years
 - ➔ Improved to 3.2 points (out of 5 points) in the FTSE Taiwan ESG Index ratings, up by 0.1 points
 - ➔ 2022 Sustainalytics ESG Risk Assessment at 19.64 marks (Leading the industry)

Business Philosophy: Sincerity and Trustworthiness

"Emphasizing steady and ethical operations, legal compliance and governance, CLC not only establishes a robust organizational structure but also sets up an Auditing Division, Audit Committee, Compensation Committee, integrity operation promotion team and integrity management promotion team under the BoD. Adhering to a fair, just, and transparent management approach, we aims to enhance operational transparency and safeguard the rights of stakeholders. Valuing corporate sustainability and risk management, CLC's BoD approved the establishment of 2 additional functional committees by the end of 2023: the Corporate Sustainability Committee and the Risk Management Committee. These committees will continue to plan and promote our sustainable transformation and operational resilience.

We actively improve the competencies of the BoD through board performance evaluation, director diversification, and designating a Chief Governance Officer. For directors to dedicatedly demonstrate their competence, we have bought the director liability insurance for directors to rationalize the responsibility and authority of directors to maximize profit for shareholders. In addition, to ensure the independence of board supervision, for proposals involving the related parties of directors, the corresponding directors are requested to avoid the conflict of interest by recusing themselves, including their proxies, from the discussion and voting of such proposals at a board meeting. As for the status of cross-shareholding with other interested parties or the disclosure of controlling shareholders or related parties, this information are disclosed in MOPS, CLC website or 2023 Annual Report [P. 56,58](#).

To enhance corporate governance and comply with regulatory trends, we established the "[Financial and Business Operations Guidelines for Related Parties](#)" in 2023 and revised the "[Risk Management Policies and Procedures](#)," "[Sustainable Development Practices Code](#)," "[Procedures for Ethical Business Operations and Conduct Guidelines](#)," and the "[Code of Ethical Conduct](#)." The BoD holds at least 1 board meeting each quarter. In 2022, the board held a total of 5 board meetings with 100% director attendance. The term of the current board of directors is between June 10, 2022 and June 9, 2025.

CLC's Major Regulations



Focus on ESG issues

As a CLC management team member, CLC's chairperson hosts the monthly management meeting in person. Besides discussing and planning the business strategies with management team, the chairperson also involves in social, environmental, and economic issues and assesses the efficiency of individual projects periodically.

Board Performance Evaluation

To establish performance targets and enhance the efficiency of the BoD, we regularly conduct board performance evaluation in accordance with the "[Board Performance Evaluation Regulations](#)." The evaluation results serve as a reference for selecting or nominating directors.

Internal Evaluation (annually)

Since 2021, CLC has conducted annual board performance evaluations. The evaluation scope includes the overall board, individual directors, the Audit Committee, and the remuneration Compensation Committee, with results reported to the board as required.

External Evaluation (triennially)

CLC outsourced Taiwan Institute of Ethical Business to conduct the 2022 performance evaluation of the BoD. The scope of assessment covers the whole board of directors, the Audit Committee, and the Compensation Committee. The assessment results of External Evaluation were disclosed on the board meeting on December 22, 2022 and reported the improvement plan to BoD on March 14, 2023, and were disclosed on the [CLC website](#).

Organizational Structure

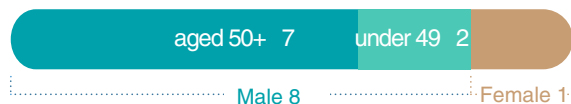


- Experience of board members: Please refer to [P.10~13](#) of the CLC's 2023 Annual Report (AR 2023) or the CLC website at <http://www.clc.com.tw/>.
- Further education of directors: In 2023, all directors completed further education with respect to the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies." Please refer to [P.29](#) of the AR 2023 for details.

BoD Diversity and Implementation

The BoD consists of 9 Directors, including 3 Independent Directors. We adopt the candidate nomination system, which is selected by the shareholders' meeting from the list of director candidates for a term of 3 years. We held an election for the 18th BoD on June 10, 2022, including 1 female Director (accounting for 11%), 2 Directors with professional background in financial accounting (accounting for 22%), 6 Directors with relevant management experience in the papermaking and circular economy (accounting for 67%) and 3 Independent Directors (accounting for 33%). The seniority of one of the Independent Directors is 1~3 years, one of the Independent Directors is 7~9 years, and the other one of the Independent Directors is over 9 years; two of the Directors are under 49 years old, and the other 7 Directors are over 50 years old.

CLC's BoD



In order to implement the diversification of the BoD, we have formulated appropriate guidelines with reference to the business operation and development needs:

Basic conditions and values: gender, age, nationality, and culture.

Professional knowledge and skills: professional backgrounds (such as law, accounting, industry, finance, marketing, or technology), professional skills, and industrial experience.



To achieve the ideal goal of corporate governance, the Board shall have the following overall capabilities: (1) operational judgment (2) accounting and financial analysis capabilities (3) management capabilities (4) crisis management capabilities (5) industry knowledge (6) international market vision (7) leadership (8) decision-making ability.

* The diversity of 18th BoD' implementation situation: Please refer to the [CLC website](#) for details.

Operation of Corporate Governance

To assist Directors in performing their duties, protect shareholder rights, and enhance the functions of the BoD, CLC has appointed a "Corporate Governance Officer." This appointment was approved by the Board on June 24, 2022, with Financial Director Kun-Ying Yang concurrently serving in this role. In 2023, the Corporate Governance Officer completed the required 15-hour governance training course to strengthen governance capabilities. For details on our 2023 corporate governance activities, please refer to the [CLC website](#).

Emphasizing the importance of corporate governance and the quality of information disclosure, we conduct cross-departmental discussions on the results of the corporate governance evaluation each year, set goals, and continuously track progress to improve evaluation outcomes. Regarding the improvement items from the 9th Corporate Governance Evaluation in 2022, we have been ranked in the TOP 6%~20% for 4 consecutive years (2020~2023).

- Enhancing Information Transparency: The interim financial report will be disclosed in English within 2 months after the deadline for the Chinese version of the report.
- Managing Cybersecurity Risks: CLC has established the "[Information Security Policy](#)." In 2022, a dedicated cybersecurity unit was set up, with the Chief Information Security Officer (CISO) Concurrently serving as the head of the IT department, and a Cybersecurity Center was established. In 2023, a budget was allocated to further enhance cybersecurity efforts, and the ISO 27001 Information Security Management System was introduced. The CISO, who independently oversees the center, now more actively coordinates policies to ensure the security of information assets and the continuity of information services.

In addition, to improve the quality of information disclosure and communicate with important stakeholders, we held 2 online investor conferences (Mar 17 and Aug 18) and 3 joint conference calls in 2023 to report the status of operations to investors and the media. We also participated in various major ESG ratings review our information disclosure quality.



Protect Shareholders' Rights

Protecting the rights and interests of shareholders is the ultimate goal of our corporate governance. We also maintain fair treatment of all shareholders and ensure their rights to know, participate in, and determine our material matters by the law. Relevant measures are stipulated in the [Corporate Governance Best-Practice Principles](#) to encourage shareholders to actively participate in corporate governance.

Corporate Sustainability Committee

To implement and facilitate corporate sustainability, the BoD of CLC established the "Corporate Sustainability Committee" with 6 committee members on December 21, 2023, with the President as the chair. Committee members include Chairperson Qing-Biao Chang, and members Mr. Mu-Xiang Peng and Mr. Zeng-Fu Hou, who possess expertise in management, financial analysis, risk management, and circular economy, and are well-versed in corporate sustainability, meeting the committee's required professional competencies.

The Corporate Sustainability Committee holds at least 2 committee meetings each year and executes the following responsibilities:

- 1 Establish sustainable development policies, goals, and implementation plans
- 2 Promote and develop ESG-related matters
- 3 Supervise other sustainable development-related tasks as resolved by the BoD

Risk Management Committee

To enhance the risk assessment and strengthen the management mechanism, the BoD of CLC established "Risk Management Committee" with 6 committee members on December 21, 2023, with President as the chair. Committee members include Chairperson Qing-Biao Chang, and members Mr. Mu-Xiang Peng and Mr. Zeng-Fu Hou, who possess expertise in management, financial analysis, risk management, and circular economy, and are well-versed in corporate sustainability, meeting the committee's required professional competencies.

The committee holds at least 1 meeting each year to execute the following responsibilities, with the Audit Department formulating and implementing related audit plans. In 2023, the committee held 1 meeting with a 100% attendance rate.

- 1 Review the risk management policies, procedures, and frameworks
- 2 Strengthen risk management and urge the implementation status of various risk management measures
- 3 Supervise other risk management-related tasks as resolved by the BoD

* Note: For relevant information, please refer to the CLC website - [Functional Committees](#).

Audit Committee

The Audit Committee assists the board in carrying out the supervision duty and the duties to be performed by the supervisors as stated in the Securities and Exchange Act, Company Act, and other laws. Besides communicating with our certified public accountants (CPAs) periodically, the Audit Committee also audits the appointment, independence, and performance of CPAs. The chief auditor presents audit reports to the Audit Committee periodically. The Audit Committee holds at least 1 meeting quarterly. In 2023, the Audit Committee held a total of 6 meetings, with 100% member attendances.

The 3rd Audit Committee is formed with the 3 independent directors, including Mr. Yung-Chi Wang, Mr. Fuh-Sing Chang, and Mr. Feng-Chih Huang. The 3 independent directors all have relevant industry experience.

Compensation Committee:

The Committee periodically reviews the policies, systems, standards, and structures of director and officer performance evaluations, makes recommendations for board discussion, and holds at least 2 meetings annually. In response to the board's re-election, the board appointed 3 independent directors to be members of the 5th Committee on June 24, 2022, with Mr. Yung-Chi Wang as the chair. In 2023, the Committee held 3 committee meetings, with 100% member attendances.

Director Remuneration:

Following our Articles of Association and the BoD directors' performance evaluation methods, while taking into account the overall industry environment and the participation and contributions of individual directors, the reasonable remuneration is determined. This remuneration is then submitted to the Committee for review before being presented to the BoD for approval.

Executive Remuneration:

Based on our salary management guidelines, including its structure and adjustment mechanism, annual performance evaluations are conducted regularly. The 'Executive Performance Evaluation Guidelines' set various indicators and evaluation systems. Salary adjustments, bonuses, and other compensation for the General Manager, Deputy General Manager, and other senior executives (including fixed remuneration such as monthly salary, performance bonuses, year-end bonuses, and incentive bonuses) are determined according to our operational performance, individual performance, and contributions. These also include sustainable development governance indicators, covering contributions and performance in ESG aspects (including Robust Governance, Circular Economy, Integrated Energy-resources, Sustainable Supply Chain, Social Care, and Happy Workplace, accounting for 15% of all performance evaluation indicators). The proposed adjustments, considering industry salary levels, are drafted by the HR department and reported to the Committee. After the committee's review and approval, the proposal is submitted to the BoD for final approval and implementation.

Highlight

- ★ Ranked **64th** among the world's TOP 75 paper industries by The Paper 360° magazine in 2022
- ★ The 10th Corporate Governance Evaluation in 2023 ranked the TOP **6%~20%**
- ★ The FTSE4Good TIP Taiwan ESG Index ratings improved to **3.2 points** (out of 5 points, increased by 0.1 points)
- ★ **The only Taiwan Papermaker**, Excellence in CSR Award (No.33) for the 10th time by CommonWealth Magazine, advancing 4 places
- ★ Selected as a constituent stock of the TWSE Corporate Governance 100 Index **for 2 consecutive years**



1.3 Risk Management

Material
Issues

Risk
Management

Strategy

Establish business strategy and foster corporate culture that emphasizes risk management, enhances risk management to improve operational transparency, and protects employees' and shareholders' rights and interests.



2030

Goals

- Establish a sound and comprehensive risk management culture and environment, develop complete risk control procedures and related risk mitigation strategies to identify, measure, monitor, transfer, and mitigate overall risks
- Establish business strategies and management policies based on the quantified results of risk management

2024

Goals

- Implement loss control inspection of mills/plants periodically
- Increase the proportion of fire insurance coverage provided by property insurers
- Conduct risk and opportunity identification assessments, and establish risk rating criteria as a basis for risk evaluation processes

2023

Goals / Action Results

- Strengthen risk assessment and enhance management functions
 - ➔ The BoD established a "Risk Management Committee"
 - ➔ Revised the "Risk Management Policy and Procedures" to serve as guidelines for risk management operations
- Implement loss control inspection of mills/plants periodically
 - ➔ Completed 9 onsite inspections
 - ➔ Audit conducted total of 2,965 items at home and abroad
- Conduct risk assessment, implement risk control and action, and make the internal control statement
 - ➔ Completed the internal control statement and reported to BoD

Risk Management

Implementing risk management systems and operations is a crucial foundation for ensuring CLC's stable operations. The BoD is responsible for overseeing risk governance. At the end of 2023, the Board approved the establishment of a Risk Management Committee to assist in supervising the risk management system, including reviewing our risk management structure and processes to facilitate risk identification and management, and reporting major issues, findings, and recommendations related to risk management to the Board. In 2023, we also revised the ["Risk Management Policy and Procedures"](#), emphasizing our commitment to a sound and effective risk management system and culture. This includes

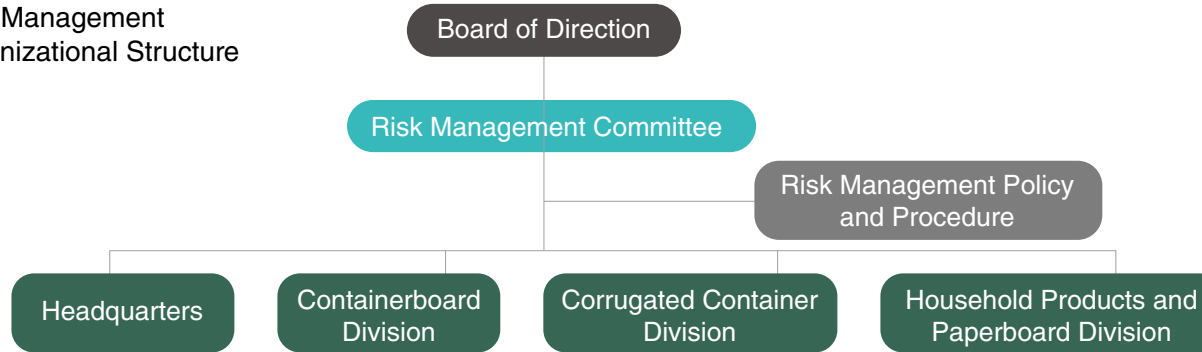
integrating and managing all potential risks, authorizing the General Manager to make risk management decisions, and ensuring that departments follow risk management procedures to properly identify and manage internal and external risks, and assess the impact of operational, financial, and climate change risks on the company.

Regarding climate change risk management, we adopted the "Task Force on Climate-related Financial Disclosures" (TCFD) initiative in 2021, becoming the 1st paper industry company in Taiwan to pass the TCFD audit and receive the highest rating certification, demonstrating its adaptability to climate risks. Recognizing the importance of nature-positive benefits and the

impact of operations on biodiversity, we signed on to support the "Taskforce on Nature-related Financial Disclosures" (TNFD) in 2023, becoming one of the 14 TNFD pioneer companies in Taiwan. We will follow the TNFD framework to strengthen the disclosure of nature-related risks and responses across 4 key areas: governance, strategy, risk management, and metrics and targets.

* For complete details, please refer to the report sections: [ch4.1 Climate Change Actions-TCFD Report](#) and [ch4.6 TNFD Biodiversity](#).

Risk Management Organizational Structure



Operation Mechanisms

Board of Directors

The Highest Command of Risk Management

- Based on the overall operational strategy and business environment, the goal is to comply with regulations, promote, and implement comprehensive risk management, while identifying and effectively controlling risks across all aspects of operations.
- Establish a Risk Management Committee to assist the BoD in overseeing the risk management system.

Auditing Division

An Independent Department under the Board

- Conduct internal audits regularly according to internal control and audit plans, consolidate audit results, report to the BoD, and follow up to ensure sound company operations.

President & Management

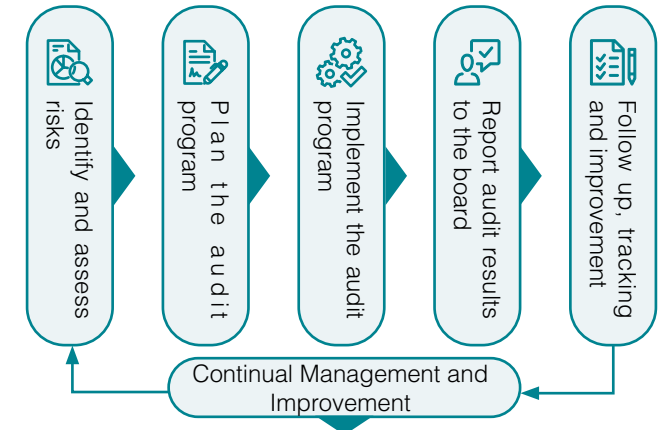
- Make decisions for risk management and coordinate cross-department risk management interaction and communication.
- Being responsible for risk management and analyzes and monitors related risks within the unit to ensure the effective implementation of the risk control mechanism and procedures.

- Monthly: Hold meetings.
- Annually:
 - Before the management review of each management system, the Containerboard Division, Corrugated Container Division, and Household Products and Paperboard Division shall complete assessing the risks and opportunities in quality, HSE, energy, information security and Climate-related to assess the risk level and likelihood of occurrence of each mill/plant and calculate the investment cost and return on investment.
 - In response to the risk assessment results, each unit of the HQs formulates countermeasures and required investment resources for risk values or potential development and higher opportunities, and regularly responds and discusses.

Loss Control Inspection of Mills/Plants

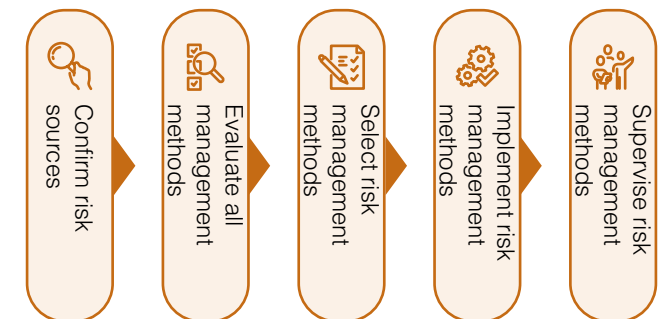
- In 2023, CLC conducted 9 loss control inspections on all mills/plants in Taiwan and HQs to ensure that all assets are under suitable protection. (Loss control: Protect the buildings, equipment, and materials against fires and explosions with insurance to minimize resultant losses.)

Risk Identification and Audit Processes



In 2023, the Group (including Taiwan, China, and Vietnam) completed a total of 4,059 internal control self-assessment items across various units. The Audit Department also conducted 2,965 audit tasks throughout the Group, including 68 audit items required to be reported to regulatory authorities as part of the annual audit execution plan. 12 audit deficiencies were identified, covering areas such as storage and transportation operations, inspection and acceptance processes, procurement and payment operations, sales and collections, material requisition, and product design. All deficiencies were corrected before the Annual Report was submitted.

Risk Warning Management Process



Key Risks and Countermeasures

Major Risk	Risk Item	Control Strategy and Opportunity Development
Finance	• Financial Transaction	- Covering financing, investment, liquidity, dividend, and exchange rate & interest rate hedging, besides periodically acquiring external evidence, the financial and accounting divisions created transaction records of individual suppliers and customers to assure the account stability and security of all transactions. - Carefully evaluate major capital expenditures and benefits, and formulate countermeasures to deal with possible risks.
Talents	• Labor Shortage • Talent Gap	- Checked talent pool, and deployed interdisciplinary talents covering climate change management, digital transformation, and international management based on CLC future development. - Collaborated with universities to understand more about CLC and the industry to cultivate talents development.
Raw Materials	• Supply Disruption	- Monitor raw material market trends, establish a collaborative procurement platform, and optimize and flexibly manage key materials to prevent supply disruption risks. - Develop and expand multiple sources for raw materials, and adapt shipping methods flexibly to reduce supply chain disruptions caused by climate change, pandemics, and container shortages.
Operation	• Operation • Information Security	- Complied with no breach of trust, fraud, insider trading, or unconventional transfer of benefits that is detrimental to shareholders' interests. - Utilize digital tools to monitor operations (including production, sales, and procurement) in real-time and manage anomalies. - Enhance the development of diverse products and deepen customer relationships through CRM (Customer Relationship Management). - Prevented the risk of customer or sales centralization by providing services to all industries. - In response to information security management, we aim to strictly control the risk elements, develop awareness of information security, and strengthen the enterprise anomaly monitoring mechanism.
HSE	• Environment • Occupational Safety • Employee Health	- Established an environmental management system, regularly audit compliance, monitor key performance data, and introduce Best Available Techniques (BAT) to improve air quality and water conservation, while practicing a circular economy. - Built occupational safety and health management, and fostered risk control culture, constantly sharing related cases to enhance employee's risk awareness. - Adopted preventive and comprehensive employee health management and promoted the Employee Health Advancement Program to reduce risk management.
Climate Change and Energy	• GHG Emission • Climate Hazards and Adaptation	- Promote carbon inventory and energy management systems with regular audits; enhance energy efficiency, increase the use of alternative fuels, implement energy-saving and carbon-reduction projects, and develop low-energy products. - Created the "Emergency Response Management SOP" to prevent production reduction or disruption caused by typhoons, floods, and droughts and enhance the adaptability of organization. - Establish a Climate Change and Circular Economy Office and adopt the TCFD (Task Force on Climate-related Financial Disclosures) framework to improve climate sustainability governance. - Become an early adopter of the TNFD (Taskforce on Nature-related Financial Disclosures) to strengthen nature-related governance.

Intelligent Property Management

To enhance and continuously improve the intellectual property management system, CLC has established a dedicated unit to assist in advancing intellectual property management affairs. This unit is responsible for protecting research and development outcomes, reducing operational risks, and encouraging employee innovation and development. It serves as a guideline for decision-making and execution in various departments.

The results of our intellectual property management risk response and implementation for the year 2023 are as follows:



Patent Protection

The IP management strategies include: protecting our own IP while respecting the IP of others; integrating resources across units to plan patent strategies and strengthen patent positioning to safeguard our interests; emphasizing patent quality and encouraging product and technology innovation, and establishing an inventor reward system to enhance innovation momentum.

In continuing to drive product innovation, we obtained an invention patent in 2023 for the method of preparing a preservative-coated carton (Patent No: I795242), which can extend the freshness period of fruits and vegetables. As of 2023, we holds a total of 14 patents in Taiwan. Additionally, there are 1 patent in Taiwan, 2 patents in China, and 3 patents in Vietnam currently under review. In terms of trademarks, we have 128 in Taiwan, 27 in China, and 8 in Vietnam, with several more trademark applications pending.

Trademark Protection

For our overseas brand expansion, trademark applications are conducted and trademark monitoring is carried out to maintain the uniqueness and distinctiveness of our trademarks.

Confidentiality Protection Measures

- Confidential Information Management:** A cybersecurity center has been established, which not only classifies and grades confidential information and implements reasonable protection measures but also strengthens various information security controls and sets appropriate employee access permissions.
- Employee Management:** Employment contracts and confidentiality confirmation statements for departing employees have been established.
- Education and Training:** Courses and seminars on trade secret law are conducted.

1.4 Information Safety Management

Material Issues

Information Safety Management

Strategy

Enhance the information security awareness of all employees, optimize risk warnings, and ensure our normal operation of the company.



2030

Goals

- Continuously implement information security education and company' information security measures to reduce the risk of human-related information leaks
- Utilize AI tools for more accurate attack detection and incident investigation
- Establish a zero-trust framework for company' information security
- Aim to achieve no major information security incidents

2024

Goals

- Implement dual-factor authentication mechanisms to prevent information security risks
- Build comprehensive information security integrity, including protection for operational technology (OT) in the production area
- Establish an information security monitoring center to integrate rapid detection, protection, and recovery capabilities for critical IT and OT endpoints
- Develop information security policies related to the use of AI tools
- Aim to achieve no major information security incidents to protect the safety of our information assets

2023

Goals / Action Results

- Implement the ISO 27001 Information Security Management System
 - ➔ Obtain ISO 27001 Information Security Management System certification
- Introduce data leakage protection systems for critical confidential information
 - ➔ Completed
- Establish a dedicated unit to address significant information security risks
 - ➔ Information Security Management (established an independent "Information Security Center" and "Chief Information Security Officer")
- No major information security incidents
 - ➔ In 2023, CLC did not experience any major information security incidents

CLC places a strong emphasis on information security management, with a dedicated information security unit and Chief Information Security Officer in place. Following the "Information and Communication Security Operational Standards Management Method," we advance various information security management tasks. This includes establishing cross-departmental and site-wide firewall mechanisms to monitor risk vulnerabilities in real time and prevent attack damage, ensuring the security of company operations.

To enhance information security capabilities, resources are continuously invested each year in acquiring information security hardware and software and conducting related education and training. A comprehensive network and computer protection framework has been established. In 2023, we took a leading position in the industry by implementing the ISO 27001 Information Security Management System (ISMS). Specific management plans have been developed for access control, data backup, system development, and vendor management to ensure the security, availability, integrity, and continuity of information assets and services, minimizing the impact on daily operations. In 2023, we did not experience any major information security incidents.



Enhancing Information Security Management

- The information security management system has been improved, with we passing the BSI ISO 27001:2013 certification in August 2023. Moving forward, we will continue to make improvements based on audit recommendations and plans to transition to ISO 27001:2022 in 2024.
- A digital asset inventory and risk assessment are conducted based on the PDCA cycle to review the operation of information and communication security goals and measures, with improvements made as necessary. The General Manager chairs the ISO Implementation Committee each quarter to review information security execution.



Enhancing Information Security Protection

- Strengthen protection measures for network connections, data centers, firewalls, email, and servers. Continuously review information security policies and procedures, and hold regular security project meetings for necessary audits and revisions.
- To improve protection for operational technology (OT) systems, USB antivirus sticks are used to detect potential malware infections. Access control and records are maintained for key infrastructure areas (such as data centers) to ensure physical security.



Building a Collaborative Information Security Defense

- Establish an information security monitoring center to observe abnormal security behavior. Core systems have integrated MDR (Managed Detection and Response) endpoint protection services, combining rapid detection, protection, and recovery capabilities for IT and OT endpoints. External professional security assistance is used for comprehensive and round-the-clock monitoring and analysis to effectively prevent and respond to viruses and malicious attacks.
- Actively participate in external information security alliance activities and initiatives to stay informed about security trends.



Cultivating a Corporate Information Security Culture

- Create a dedicated information security section on the EIP intranet for promotions and announcements, offering online courses to help employees prevent email scams, malicious website links, and other attack methods. This aims to improve understanding and protection of confidential information.
- In 2023, 2 social engineering drills were conducted, utilizing AI technology to design test emails simulating external attack methods. The average click rate of test emails by employees was below the target value.



1.5 Ethical Management

Material
Issues

Ethical
Management

Strategy

Based on the business philosophy of "Sincerity and Trustworthiness," we emphasize steady and ethical operations, legal compliance, and governance to eliminate unethical and unlawful behavior. We also establish regulations, arrange education, training, and awareness education; and provide reporting channels and protection to engrain business ethics in our corporate culture.



2030

Goals

- Actively strengthen regulatory compliance management and establish a strong compliance culture
- Arrange anti-corruption publicity, education, and training activities for suppliers, with a completion rate of 100%
- Pursue 0 non-conformity

2024

Goals

- Continuously notify and ensure that all directors and senior management adhere to the trading blackout periods to avoid any legal violations
- 3 legal compliance articles
- Continue to arrange anti-corruption publicity, education, and training activities for suppliers
- 0 material violation event

2023

Goals / Action Results

- In Taiwan, make the promotion system for connected with online course related to integrity management
➔ Revised the "Job Promotion and Managerial Position Adjustment Review Procedures" to include "Code of Ethics and Anti-Corruption Awareness" courses as mandatory for employee job promotions
- Refer to local regulations in China, plan to make an online course related to integrity management
➔ Completed
- 3 legal compliance articles were published
➔ Complete 3 articles
- All suppliers have signed the "Supplier Code of Conduct," achieving a 100% signing rate
➔ Complete the signing rate of 100%
- Organize anti-corruption publicity, education, and training activities for suppliers
➔ Conducted the awareness campaign at the Supplier ESG Conference in October
- Material violation event (a single event with administrative fines accumulated up to NT\$1 million)
➔ None

“Emphasizing sound management, legal governance, and anti-corruption, we have established the "Integrity Management Procedures and Code of Conduct." Under the BoD "Corporate Sustainability Committee," there is a "Corporate Governance and Integrity Management Task Force" (refer to the [Organizational Structure Diagram on P.14](#)) responsible for promoting corporate integrity management.

Wen-Zhan Wu, Associate Manager, shared CLC's journey from legal compliance to realizing a low-carbon vision at the Ministry of Economic Affairs' "Consultation on Distinguishing between Profiting and Facilitation and Anti-Corruption Governance Seminar".



"Integrity and Trustworthiness" are core values of CLC and important guidelines for employee conduct. CLC expects all employees to adhere to relevant regulations, including training for new hires and regular education on integrity, fairness, and anti-corruption. Measures are taken to avoid conflicts of interest, protect company assets and customer confidentiality, and provide channels for reporting illegal or unethical behavior. These practices are integrated into daily operations to ensure effective integrity management.

In 2023, CLC revised certain provisions of the ["Integrity Management Procedures and Code of Conduct"](#) and the ["Code of Ethics,"](#) and regularly reported the implementation status to the BoD.

Supplier Business Ethics

We request all suppliers to sign the "Supplier's Code of Conduct" while undertaking CLC's construction contracts and procurement contracts. In addition, we make communication with suppliers at the Supplier ESG Conference and supplier visit to promote CLC's code of business ethics and legal compliance.

Handling of
Employees'
Unethical Behavior:

Report Channels



Performance in Ethical Management Promotion in 2023

1. Implement the regulations in the "Insider Trading Prevention Management Measures," specifically the prohibition against directors buying or selling stocks before financial reports are announced. In addition to notifying all directors, senior management is also informed, clearly specifying the blackout periods for stock trading to prevent any inadvertent violations by directors and senior management.
2. For the "Handling of Unethical Behavior by Company Personnel" anti-corruption reporting channels, no corruption-related reports were received in 2023.
3. The "Integrity Management and Anti-Corruption Training" online series was conducted on the internal "E-Learning" platform, with a total of 571 participants.

Regulatory Compliance and Emphasis on Equal Education

Adhering to regulations and ethical behavior standards in all business activities is a fundamental operating principle of CLC. We have established relevant work rules and methods, requiring all employees to comply and implement them. Additionally, we enhance advocacy through online and in-person training, the company website, internal publications, meetings, and other channels. Besides understanding and monitoring regulatory compliance across all units, the legal department authored three regulatory columns in 2023: "Power vs. Rights," "Criminal Gangs Turning Back," and "Special Report on Workplace Unlawful Infringement." These columns aim to strengthen employees' legal concepts and use case studies to help address issues encountered in daily business activities or life. Moreover, in accordance with local Chinese regulations, we planned and produced an online course on "Integrity Management" to implement integrity management in our overseas units.

In legal compliance, no material fine in 2023 (single event with administrative fines accumulated up to NT\$1 million) was reported. Please refer to [P. 74~75](#) of the 2023 Annual Report for details regarding other fines for violation (Labor Standards Act, Occupational Safety and Health Act, and environmental protection laws and regulations) and improvement action.



02

Product & Service

Promoting a circular economy, focusing on natural solutions centered around "paper," accelerating digital transformation, strengthening low-carbon green energy production and sales, enhancing product quality and customer satisfaction, and becoming a benchmark for low-carbon smart paper in Asia.

2.1 Sustainable Products and Development

2.2 Product Responsibility and Customer Service

2.3 Digital Transformation

- Invested NT\$ **132** million in R&D, **+10.9%** YoY
Eco Anti-grass Paperboard earned **Organic Material Certification** from the Ministry of Agriculture
- The only company in the industry with **6** carbon footprint labels for household products
Completed the **1st product carbon footprint inventory for industrial paper**
- Resource recycling, the scale is the **1st** in Taiwan
1.628 million MT of recovered paper
164,000 MT waste food paper containers (Certified Processing Volume)
- Creating value up to NT\$ **1,000** million through ESG excellent performance projects accumulated over 3 years

2.1 Sustainable Products and Development

Material Issues

Sustainable Products and Development

Strategy

Adhering to the 3Rs: Reduce, Reuse, Recycle, and develop a variety of green and low-carbon products and services with a recycling business model of resource regeneration, and expand the total circular economy.



2030

Goals

- Recovered paper utilization rate > 97%
*Industrial paper
- Exert creativity capability to develop niche products, which is expected to be promoted on a trial basis in H2

2024

Goals

- Recovered paper utilization rate > 97% *Industrial paper
- Engage in innovation and R&D, increase recovered paper application, and develop niche products
 - In response to international plastic reduction policies, we have developed plastic-free paper single packaging for household paper products, which is expected to be promoted on a trial basis in H2. We have obtained patents for plastic-free paper wrapping and plastic-free paper wrapping containers (Invention No. M651104)
 - Developed the "Paper Studio" chair products; the packaging design is moving towards a fully eco-friendly direction, reducing printing areas and processing steps to lower the product's carbon footprint
- Implement the Carbon Footprint Management of the main household paper products and apply for the certifications of Carbon Reduction Label
 - Planning to add 3 new carbon footprint inventories
- Continue to expand the full circular economy application
 - Partnering with various industries to improve the correct classification and recovered rates of paper containers

2023

Goals / Action Results

- Recovered paper utilization rate (industrial paper) : 97%
 - Industrial paper: 97.5% Overall: 94.9%
- R&D investment: NT\$132 million, cultivated the application of recyclable packaging materials
 - High waterproofing and preservation functional paper boxes and coated dyeing technology (Invention No. I795242)
 - Eco Anti-grass Paperboard has obtained certification from the Agriculture and Food Agency of the Ministry of Agriculture for use in organic rice farming materials (Organic Material Certification No. 112016)
 - Developed 3 types of RE lifestyle paper products (a collaboration between CLC and Qimu Design)
- Apply for carbon footprint inspection for household paper product line expansion
 - A total of 6 carbon footprint inventory items have been accumulated. Collaborating with Yuan Ben Mountain Seaweed carbon footprint products to expand influence
- Household cleaning products reinforce brand philosophy through source plastic reduction and local care
 - Dandelion Eco Laundry Detergent has a biodegradability rate of up to 95%, and the bottle is made of 100% recycled plastic
 - Andante Shampoo and Body Wash series products by Breeze contain extracts from local Taiwanese agricultural products
- Innovative Circular Economy
 - Certified processing volume of waste paper containers is 13,700 MT per month, nearly 7 times increase annually
 - Selected 46 excellent ESG cases, generating a profit of 230 million NTD, with a cumulative total of nearly 1 billion NTD over 3 years

Sustainable Products and Development

Indispensable to food, clothing, housing, and transportation, paper is part of the daily life. We make paper with recovered paper or FSC fibers to facilitate recycling and natural decomposition after use in order to lower environmental impact. Due to the characteristic of recycling and circulation, paper have been widely used by all industries, and the customers and the clients of the packaging emphasized more on the environmental sustainability. And the paper products become the preferred selection of the packaging and transportation materials.

As a leading paper company, we are committed to developing a sustainable business model for the circular economy and focus on developing eco-friendly, sustainable products and services at each stage, covering materials purchase; product design, production, and consumption; and disposal after use to reduce resource consumption. We also maintain continual process improvement and use intelligent equipment, increase recovered paper uses, improve product quality, and enhance carbon reduction efficiency. In 2023, CLC Taiwan recycled a total of 1.628 million MT of waste paper, an increase of 56,000 MT from the previous year. The utilization rate of recovered paper increased by 2.4%, reaching 94.9%. The utilization rate of recovered paper for industrial paper remained at 97.5%. The recycling rates for all types of paper and industrial paper met the established targets.

Less is More! CLC Maximized Value at The Least Resources with Low-Carbon Products

In response to the global consumption trends of zero carbon and plastic reduction, the global demand for paper packages rose steadily in recent years, particularly in paper package sector driven by the thriving e-commerce in the post-pandemic period. According to the International Corrugated Case Association (ICCA), the global consumption of corrugated cases increased from 127.657 billion m² in 2000 to 273.889 billion m² in 2023, with an average annual growth rate (AAGR) of 3.2%.

In terms of consumer products, people are willing to pay more for eco-products, pushing the annual popularity growth of eco-friendly household tissue. In addition, in response to the increasing business opportunities for household cleaning products as a result of the pandemic that has urged people to pay greater attention to epidemic control and personal hygiene (sanitation).

Focusing on Paper-based Natural Solutions

We develop low-carbon and plastic-free based on the principle of 3Rs to help the market realize green consumption and reduce waste. In addition to reducing the carbon footprint without lowering their protection performance through technology development, we enhance the efficiency of logistics and carbon reduction. In 2023, CLC also completed the 1st product carbon footprint inventory for industrial paper, ensuring that the low-carbon industrial paper manufactured by CLC's supply chain continues to be the preferred choice of major global companies.

Leveraging the e-commerce boom and high demand for online shopping packaging, CLC collaborates with e-commerce customers to reduce packaging. CLC increases recovered paper use, improves structure and design for lighter, single-material packaging, uses water-based inks, and minimizes printing. Innovations include tape-free boxes, Design-in 3D platform, and sales forecasting system. AI data helps CLC meet market needs and reduce carbon footprints.

In response to the UN's 2024 global plastic treaty draft, CLC uses Houli Mill paper machines to develop low-weight, Eco Anti-grass Paperboard for organic rice farming. This paper improves farmland permeability and air circulation, reduces grass by 23 times, eases labor, and retains soil moisture. It helps Taiwanese farmers adapt to climate change, ensuring sustainability and food security. CLC will continue innovating natural, sustainable paper solutions for climate change adaptation.

CLC's Sustainable Packaging Solution

Features



Using fewer resources but still deliver the same efficiency.



Offering multi-use function and prolong product service life.



Using recycled material and designing packaging to be recyclable to improve recycling efficiency.

Benefits



Plastic Reduction, Carbon Reduction, Waste Reduction.

Leading Circular Economy and Low-Carbon Resilience for Sustainable Paper Industry Development

As a leading paper industry company, CLC actively participates in industry visits and sustainability seminars, sharing achievements in circular economy, low-carbon resilience, and technological R&D. CLC also enhances communication with governments, global industries, and cross-industry partners to address net-zero transition challenges.

At the end of 2023, CLC's chairman led 15 senior executives to the "7th Asia Pulp and Paper Industry Sustainable Development Conference" hosted by the Taiwan Paper Industry Association. CLC shared experiences on "CLC S.M.A.R.T. Papermaking, Building Sustainable Resilience" with nearly 60 companies and 162 representatives from various countries, focusing on ESG, climate change, and technological innovation.



R&D and Innovation, Develop Various Sustainable Products and Service

Out of the emphasis on innovation and R&D, CLC invests over 100 million NTD in the development of green and sustainable products, and also implement the smart digitalization every year to enhance production efficiency and reduce carbon emissions, in order to keep up with the global trends and customer demands, furthermore, to enhance corporate competitiveness.

In 2023, the total R&D expenditure (excluding capital expenditure and equipment fee) was NT\$132 million, and the major R&D outcomes are as follows:

- 1** Promoting domestic and international expansions, process modifications, low-carbon energy-saving equipment introductions, and technological R&D. Key projects include the development of Plant C at Tayuan Paper Mill (UBC recycled pulp board), the high-efficiency TURBO BLOWER project, the biomass cogeneration system at Chupei Mill, and the planning of Phase III of the paper machine and packaging production line in Vietnam.
- 2** Introduced new raw materials to enhance the efficiency and process capability: Saved > NT\$32.80 million annual.
- 3** Process optimization and quality improvement: Saved costs > NT\$27.70 million every year.
- 4** New product development:
 - (1) Household products: Andante facial cleaning mousse, plastic-free paper packaging for household paper, high-absorbency kitchen paper towels, pet products, Cinnamomum osmophloeum antibacterial dry hand wash, and so on.
 - (2) Industrial packages: Development of paper for shopping bags, Eco Anti-grass Paperboard, low-temperature preservation cartons, and so on.
 - (3) RE life paper series: 2-in-1 A4 file box, flip storage rack, and multifunctional mobile lamp.
- 5** Cooperated with NCHU to found the "Circular Economy Research Institute": Input the development of the activated biological materials and fresh-keeping and antibacterial duplex.
- 6** Patent achievements:

Eco Anti-grass Paperboard certified as organic material by the Agriculture and Food Agency (Organic Material Certificate No. 112016), coated and dyeing technology patented by the Intellectual Property Office (Patent No. I795242, with patents pending in China and Vietnam), extraction of essential oil from local Cinnamomum osmophloeum (INCI certification pending in the US), and plastic-free single-package paper bag for household paper (Utility Model Patent No. M651104).

Natural Sustainability Series Products

CASE 1

RE Life Paper Series



100%
Made from
recovered paper



RE-02 Flip Storage Rack



RE-01 2-in-1 A4 File Box



RE-03 Multifunctional Mobile Lamp

CASE 2

Plastic-Free E-Commerce Logistics Paper Bags



CASE 3

Paper Beverage Handle Design



Green and Innovative Products Helps Consumers Reduce Carbon Footprint

Paper studio Play the eco way



A clean and beautiful environment for future generations. With professional, esthetic structure design expertise, we introduced the "Paper Studio" brand in 2013 to develop edutaining, zero-pollution paper furniture and educational toys for children, pet toys, and cultural and creative products with recovered corrugated paper. In 2023, continued to launch low-carbon, sustainable products such as creative lighting fixtures and pet mats.

In view of the non-recyclability of most materials used in trade fairs and exhibitions, we develop green exhibition sites using corrugated boards with the structural features and recyclability. At the same time, we introduced digital technology to accurately calculate the consumption of paper materials, reduce the error rate of application, save a lot of paper and manual assembly time, and successfully develop recovered paper exhibition venues and exhibits such as: "CLC paper library", and the office space or corporate showroom, which can be decorated with festivals or important events. We demonstrated the best circular economy model with the least resources to create the greatest value. In 2023, I participated in the "City Industry Innovation (New Taipei City) Project," driven by the Ministry of Economic Affairs Industrial Development Bureau and the Taiwan Design Research Institute. This project integrated design-driven cross-domain innovation by introducing modular recovered paper products into classroom space renovation. The results were also showcased at the 2023 Taiwan Design Expo.



Paper Creative Jewelry - Underwater World

CLC Household Product: Pamper Your Loved Ones with Love and Tenderness

In 1993 CLC entered Taiwan's household paper market and launched the "Andante" brand in 1995. With soft quality, delicate texture, and the "pamper your loved ones with love and tenderness" image, Andante has won consumer preference. After acquiring Tien Loong Paper Mill in 2004, CLC continued to launch 2 quality brands, Lover, Dandelion, and Snow Soft, to complete the household product range with toilet paper, facial tissue, kitchen paper, and paper towel, making CLC the leader of household paper supplier in Taiwan.

Through constant process optimization, introduction of new technology and advanced equipment, including Taiwan's 1st automated household tissue warehouse, Asia's 1st millions MT wind turbine, and enhance the R&D center to develop high-value and low carbon products to meet increasing consumer demand. In line with the global trend towards low-carbon and plastic reduction solutions rooted in nature, we developed the "SILLACE Andante Paper Packaged Facial Tissue" in 2023. Additionally, we launched products such as the "Dandelion Eco Convenient Pack Tissue" and the "Andante Local Extract Facial Cleansing Series," offering diverse ways to help consumers easily practice environmental protection in their daily lives.

Domestic 1st! SILLACE Andante Paper Packaged Facial Tissue!

CLC's exclusive development of a special waterproof coated paper packaging is plastic-free and more eco-friendly.



Single packaging uses special waterproof coated paper instead of PP plastic, achieving a national utility model patent.



Exclusive bulk sales for online shopping reduce the use of plastic outer packaging, making it plastic-free and more eco-friendly.



5-star quality with 3 layers of fluffy and thick tissue, consistently praised by Key Opinion Consumers (KOCs).



FSC™ certified pulp protects the Earth's forests.



Produced using clean wind energy.



Andante Local Extract Cleansing Series

Carefully selected local agricultural extracts for environmental friendliness.



2 new products: Moisturizing & Soothing Bubble Cleansing Mousse and Moisturizing & Oil-Control Bubble Cleansing Mousse.



The new Andante Cleansing Series debuts with a minimalist new packaging.



All products in the series incorporate extracts from local Taiwanese agricultural products, reducing the carbon footprint of the products.



Absorbs 95% More Oil! Spring Breeze 3-Layer Thick Hand-Pulled Kitchen Towels!

Thicker sheets for more efficient and eco-friendly use.



3-layer thickness with new dual-channel embossing technology significantly enhances absorbency.



HACCP food-grade manufacturing ensures safe contact with both raw and cooked foods.



Unlike traditional roll kitchen paper, the compact size reduces logistics costs and lowers the product's carbon footprint.



FSC™ certified pulp protects the Earth's forests.



2.1 Sustainable Products and Development

2.2 Product Responsibility and Customer Service

2.3 Digital Transformation

Use Recovered Paper for a Virtuous Cycle Dandelion Household Tissue

Toilet paper is the most widely used household product in Taiwan. However, as a single-use item that cannot be recycled, it significantly depletes the Earth's resources. To promote a circular economy and green consumption, CLC uses FSC™ certified pulp for household paper and invests in eco toilet paper made from recycled materials. These products prioritize resource utilization and environmental benefits.

In 2009, CLC launched the "Dandelion" eco-friendly series, made from 100% recovered paper, and the 1st in the industry to use wind power for production. This series received the environmental label, carbon footprint certification, and FSC™ Recycled triple green certification, establishing it as Taiwan's leading eco household paper brand. To meet market demand, CLC extended its product line to the sub-brand "Pure Generation," with sales exceeding 70 million packs in 2023.

CLC also introduced the "Dandelion" eco multi-purpose bag, reducing plastic usage by combining packaging with garbage bags. Since its launch, 1.13 million sets have been sold, cutting plastic use by 38,000 kilograms. In 2022, CLC expanded the "Dandelion" line to include eco household detergents and, in 2023, laundry detergents with 100% recycled plastic bottles, offering consumers a wider range of green products and contributing to Earth's sustainability.



[Dandelion Facebook](#)



[Dandelion Eco-Household
Official Website](#)

Dandelion Laundry Detergents Series: Biodegradability of All Series Reach 97%, Using 100% Recycled Plastic Bottle Body



Continuing the brand philosophy of "environmental regeneration and circular sustainability," the Dandelion series has launched a full range of household cleaning products that have received the environmental label and are 97% biodegradable. The bottles are made from 100% recycled plastic, reducing the production of new plastic from the source. In 2023, the laundry detergent also transitioned to using

100% recycled plastic, actively responding to international trends in reducing plastic and carbon emissions.

	Dandelion Eco-Friendly Household Cleaning Series	General Household Cleaning Products
Biodegradability	Up to 97% biodegradable, with both environmental label and SGS certification.	No relevant regulations.
Surfactants	Plant-based surfactants.	Mostly petrochemical.
Bottle Material	100% PCR plastic bottles, for circular plastic reduction (except for dishwashing liquid).	General plastic.
Fragrance/Extracts	Natural herbal antibacterial formulas using selected thymol, dandelion extracts, and other plant-based ingredients.	Primarily synthetic fragrances and antibacterial agents.
Carbon Footprint Reduction	Made in Taiwan, reducing transportation carbon emissions.	Available both locally and imported.
Price-Performance Ratio	Affordable pricing, making sustainability accessible to everyone.	Significant price differences.

Note: The environmental label's biodegradability standard is above 95%.

Exclusive Eco-Friendly Household Paper Products Launched at Major Retail Channels Nationwide, Boosting Recovered Toilet Paper Adoption

To further expand the market share of eco household paper, in 2023, an exclusive "Dandelion" convenient pack of eco facial tissue was launched at PX Mart, Taiwan's largest supermarket chain. This product targets eco-conscious and cost-saving consumers with its more economical size. Additionally, responding to the trend for large-pack facial tissues, an exclusive "Dandelion" 3-layer large pack (24 units) was developed for Carrefour, with a 20% increase in the number of tissues per pack, offering consumers a more cost-effective option. In 2023, sales of the Dandelion series exceeded 34 million packs, with increasing market penetration.

Exclusive at PX Mart! Dandelion Eco-Friendly Convenient Pack Facial Tissue



Compact size to avoid waste, with 3 layers for greater versatility.



Made from 100% recovered paper pulp, committed to no deforestation.



Dual green certifications: Environmental label and FSC™ Recycled.



Exclusive 3-layer specification for a thick and durable feel.



The Winning Leader of Low-carbon Products from EPA: Chupei Mill

- 2019: The 1st National Enterprise Environmental Protection Awards-Silver, Low-carbon Product Award-Excellent
- 2020: Low-carbon Product Award-Premium, Carbon Footprint Coefficient Contribution Award
- 2021: Green Purchasing Excellent Unit from EPA and Hsinchu County Environmental Protection Bureau
- 2022: Resource Circulation Prospective Certification, Green Purchasing Excellent Unit
- 2023: Green Purchasing Excellent Unit



The Only Industry Player with 6 Household Paper Products Featuring Carbon Footprint Labels

Goal to Expand to 9 Products by 2025, Including 5 Items in the 100% Recycled Eco-Friendly Series

CLC leads the industry in implementing product carbon footprint management. Currently, its brands include 8 household paper brands, with "Andante" and "Dandelion" receiving carbon footprint certification, covering 25% of their products. To help consumers identify responsible green products, CLC plans to expand carbon footprint verification for products in the short term. This will include 3 additional eco large and small roll toilet paper items, increasing the certified products from 6 to 9, a 50% annual growth, including 5 items in the 100% recycled eco series. To amplify the impact of the carbon footprint label, in 2023, CLC collaborated with the well-known brand Yuan Ben Mountain Seaweed on carbon footprint products.

Diverse Brand Marketing to Raise Public Awareness of Environmental Sustainability

With the brand mission "Let the Good Cycle Happen," Dandelion actively promotes green consumption and sustainability through online and offline marketing channels. In 2023, to foster public recognition of the circular economy and sustainable products, Dandelion partnered with Bounty Hunter, Taiwan's largest competition platform, to launch a marketing competition with a prize pool of NT\$100,000. This initiative aimed to increase brand awareness among younger generations. The competition attracted 154 teams and 721 participants, with 4 teams winning, resulting in a 2.5% win rate and generating 9 million online impressions.

Offline, Dandelion supported various sustainability-related events, including the Rakuten Monkeys Sustainability Party, Global Views Family Picnic Day, NCHU Forest Week, Huisun Forest Station Wood Culture Festival, and the Ecological Expo, reaching over 16,000 people who learned about and experienced eco toilet paper. Additionally, Dandelion held 34 in-person sales events to directly communicate with consumers, encouraging the choice of eco toilet paper and contributing to the regeneration of Earth's forests.



Innovative Practices in Circular Economy - Implementing Regeneration

Inspired by the concept of a beautiful cycle, CLC is committed to sustainable co-prosperity with local communities. The company continues to leverage its industry innovation capabilities to drive a green transition centered around the corporation, connecting government, the paper industry, business partners, and consumers. This includes document destruction services and the recycling of paper containers.

CLC's Document Destruction Technology Implements Circular Regeneration, Accumulating Carbon Reduction of 72,071 t and Preserving 249,000 Trees

Since 2013, CLC has creatively applied its existing pulp equipment to offer free confidential document destruction services, demonstrating the possibility of reducing environmental impact while achieving economic benefits. Over the past 11 years, CLC has helped nearly 400 partners, including government agencies, listed companies, financial and insurance companies, and defense units, to recycle 12,426 tons of confidential documents into over 53.68 million packs of eco toilet paper, achieving a win-win situation for all.

3 Key Features

► Making Full Use of Resources for a Beautiful Cycle, Comprehensive Confidentiality and Security, Free Service

► Environmental Benefits | Recycling 12,426 MT of Paper



Accumulated Carbon Reduction **72,071** tCO₂



Preserving **249,000** Trees



Equivalent to the Annual Carbon Absorption of **185** Daan Forest Parks

* Recycling 1 MT of paper can reduce CO₂ emissions by 5.8 t and preserve 20 trees. The annual carbon absorption of Daan Forest Park is 389 t.

1st Paper Maker Completely Recycling Food Paper Containers

Realizing Carbon and Plastic Reduction and Developing Green Business Opportunities

Food paper containers require professional processing plants to separate the plastic surface lamination in the interior from the paper pulp before recycling. However, people often throw waste food paper containers as general waste that is treated by incineration or mixed with general waste paper for use by papermakers, eventually increasing the waste treatment cost.



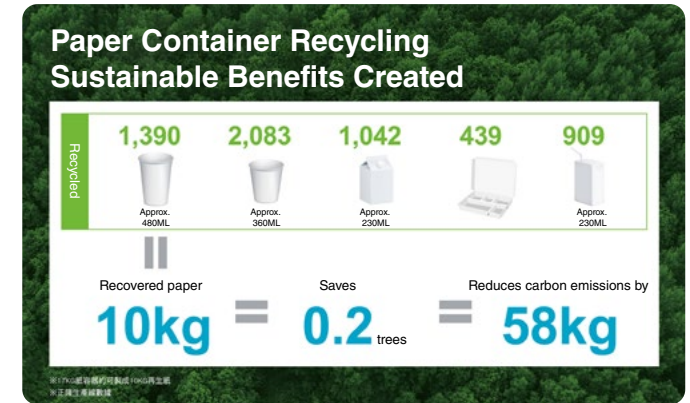
Tuyuan Mill Recycled Bleached White Pulp Line

CLC Implements Complete Resource Recycling, Innovatively Recycles Waste Paper Containers in Response to Global Plastic Reduction Trends

To tackle the problem of waste food paper container disposal, we also believe that it's papermakers' responsibility to engage in recycling waste food paper containers. Therefore, we made advanced deployment by investing a "efficient film laminated paper treatment system" in 2018 to become the 1st company completely recycling food paper containers. In same year, started the "upgrading of recovered paper supply chain plan" and deepen the benefits of the circular economy. We supported over 167 recovered paper suppliers in Taiwan to upgrade. Reduced paper sludge by 50% and decreased the energy consumption by 10% by implementing source identification, and enhanced the profit and competitiveness of recovered paper supply chain. The plastic laminate is recycled into green fuel and eco building

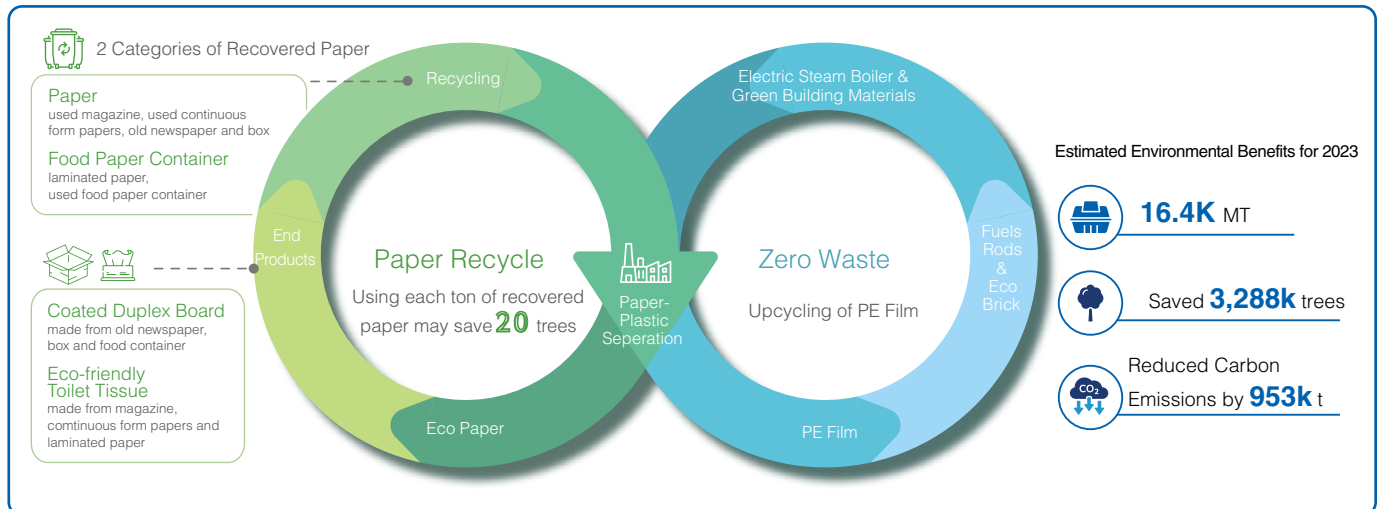
materials products. Pre-planned to help solve the growth of the take-out catering culture was driven by the epidemic and respond to the stop using plastic bottles policy in Taipei in 2022 to realize benefits with a creative multi-win sustainability business model. With the goal of continuously deepening the recycling efficiency, the recycled bleached pulp line of Tayuan Mill, which will operate in 2023 H1.

In response to the Environmental Protection Administration's vision for scaling up resource recycling, CLC has invested an additional NT\$1.5 billion to add a 66,000-ton capacity recycled white pulp line at the Tayuan Mill. This advancement will increase the group's certified waste paper container processing volume to 13,700 MT per month in 2023, nearly a sevenfold increase. It is estimated that this will help address 50% of Taiwan's paper container waste annually, maximizing resource recycling. Additionally, through the recycling merchant support program, CLC promotes the separation of paper containers. By 2023, there are 54 paper container recyclers, an increase of 3 from the previous year. CLC also rallies local sustainability partners (associations, schools, government, enterprises) to innovate and expand carbon reduction impact through diversified external collaborations. Factory tours are also open to raise awareness of sustainability responsibilities in Taiwanese society.



CLC Tayuan Mill Exhibition Room

Creating a Second Forest: Transforming Waste Paper Containers into Low-Carbon Products for Maximum Environmental Benefits



* Note: 1 MT of food paper containers can produce 0.6 MT recovered paper, save 20 trees and reduce 5.8 t of carbon emission.

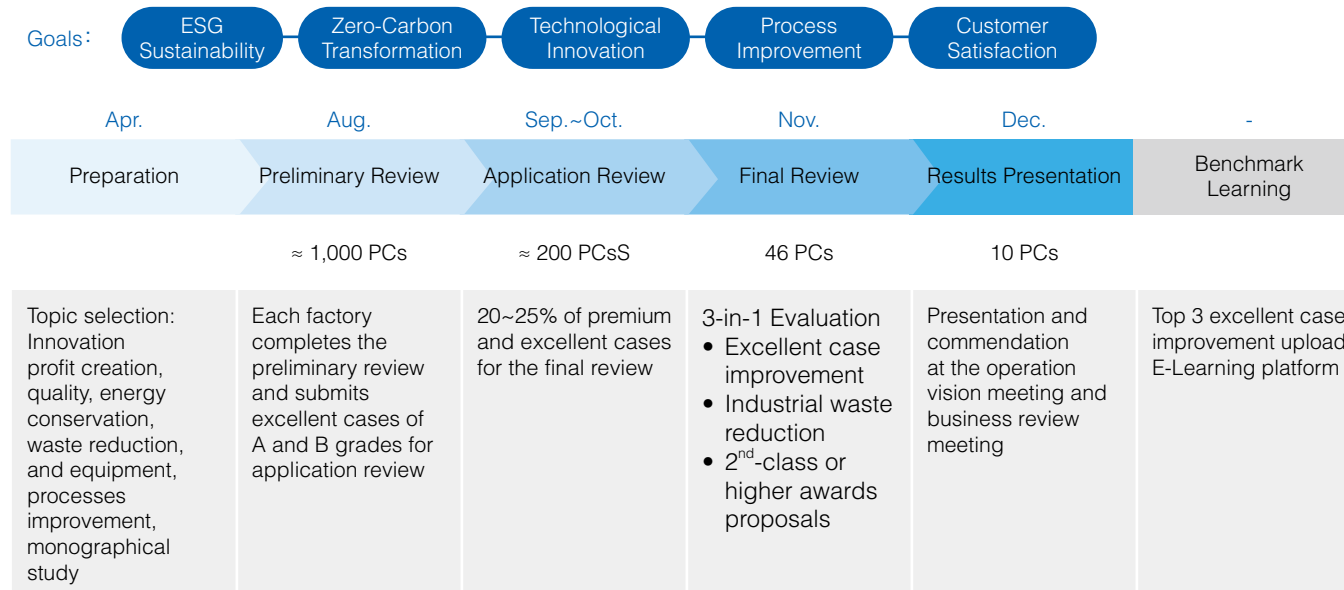
Driving ESG Innovation and Value Addition

“ Research and development are the driving forces behind the continuous growth of CLC. Focusing on advanced technologies and enhancing R&D capabilities, the company also promotes proposal-based improvements and shares successful case studies to facilitate organizational benchmarking and learning. ”

Encouraging the employees to figure out the problems with the excellent cases management system, Brain-storming the ESG innovative cases

Since 1980, CLC has introduced proposal improvement systems, QCC, and TPM. In 2008, we launched an activity integrating evaluation and rewards, focusing on process enhancement, technology development, green energy innovation, and customer service. This initiative channels carbon reduction suggestions from frontline manufacturing to senior management. Recently, in response to ESG transformation, CLC has used competitions to motivate employees to identify issues, fostering healthy competition and enhancing problem-solving and innovation. Since 2021, ESG improvement activities have extended to overseas locations, encouraging continuous innovation and optimization.

Selected Process of ESG Excellent Case



Nearly 1,000 Benchmark Cases Creating Profit over NT\$230 million

In 2023, over 1,000 proposals were submitted, with 46 excellent cases reaching the finals: 10 administrative, 21 papermaking, and 15 paper products. These proposals are expected to generate nearly NT\$230 million in profits, enhancing production efficiency, sales quality, energy saving, carbon reduction, innovation, and work efficiency.

Presenting the ESG Excellent Cases in Public, Creating the Organizational Culture Learning and Sharing

We conduct excellent case sharing for the excellent cases through annual plant operation vision meeting every year. Through the CLC E-Learning platform and internal publications, we enhance the internal knowledge sharing and promotes benchmarking within the organization.

Feature Case

BM10 Papermaking Long and Short Fiber Process Optimization Reduces Carbon Emissions by 20,000 t Annually

Problem	Long fibers contain more wax, causing wax spots to appear on the paper surface when used as middle pulp, leading to poor surface cleanliness. This necessitates using a thermal dispersion system to micro-refine the wax spots, increasing energy consumption and carbon emissions.
Objective and Approach	When producing with all recovered paper, use cleaner short fibers as middle pulp and unprocessed long fibers as base pulp. This aims to maintain quality and paper surface cleanliness while reducing energy consumption.
Benefits	→ Annual carbon reduction of 20,340 t → Annual economic benefit of NT\$ 53.393 million



2.2 Product Responsibility and Customer Service

Material Issues

Product Responsibility and Customer Service

Strategy

Based on the recyclability of paper products, implement green design and green production at different stages of product life-cycle to reduce environmental impact; maintain customer privacy; fulfill product and supplier responsibility.



2030

Goals

- All products comply with international environmental protection regulation
- Introduce and develop new eco-materials to replace cardboard coating to reduce wax paper consumption, enhance paper surface cleanliness, and reduce pollution
- Promote risk control of hazardous substances to overseas companies
- Promote e-preventive measures of recurrence to overseas companies
- Customer Satisfaction: 88 marks
- Maintain sound partnership with customers for co-prosperity and mutual growth.
- Adjusting the prepress and plate-making processes to reduce material waste.
- Collaborating with the supply chain to promote waste reduction.

2024

Goals

- Product test results comply with regulatory requirements
- Optimize the production-marketing monitoring chain every year
- The overseas companies implement the e-Customer Complaint Recurrence Prevention Form
- Customer satisfaction survey: 87 marks
- Adjusting the prepress and plate-making processes to reduce material waste
- Planning to promote the film inkjet printer
- Continue to keep simplify the positioning marks in the prepress and plate-making processes
- Promoting plastic container for waste reduction with the supply chain

2023

Goals / Action Results

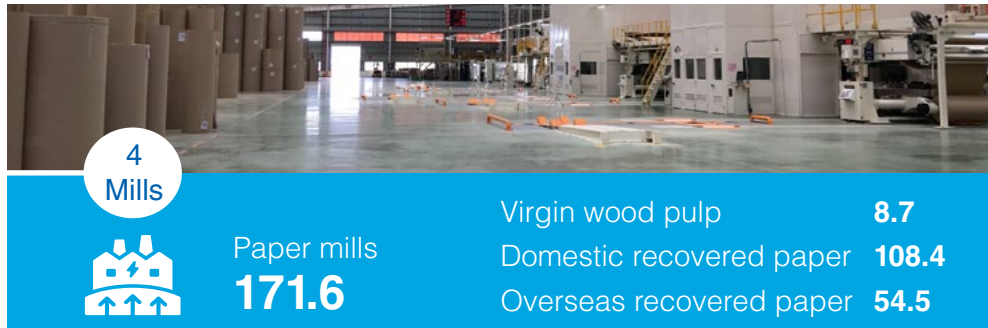
- Product test results comply with regulatory requirements
 - ➔ Acquired hazardous substance test reports and complied with the laws
 - ➔ Driving suppliers to implement hazardous substance testing reports, with 28 suppliers having already submitted
- Production-marketing monitoring chain every year
 - ➔ Completed ISO 9001 and FSC™ Third-Party Verification
- The Containerboard Division and Household Products and Paperboard Division completed the impregnation of the e-Customer Complaint Recurrence Prevention Form
 - ➔ Completed and added the anomaly handling form additional function
- The overseas companies in Vietnam implement the e-Customer Complaint Recurrence Prevention Form
 - ➔ The quality abnormality form process at the Long An paper container plant in Vietnam has been confirmed
- Customer satisfaction survey: 87 marks
 - ➔ 86.9 marks, up by 0.3 marks. Falling short of the annual target was mainly due to quality issues in some products, which have been reviewed and practically improved
- Adjusting prepress and plate-making processes to reduce material waste
 - ➔ Adjusting the spacing between marks and plates can reduce material loss by up to 3.6% annually
- Simplification of positioning marks in the prepress and plate-mounting processes
 - ➔ Reduces energy and labor consumption by 1.5% to 3%
- Promoting plastic container for waste reduction with the supply chain
 - ➔ Suppliers continue to cooperate in the recycling and reuse of plastic containers

Quality Policy:

"Total Participation, Quality Maintenance, Customer Satisfaction"

Quality is key to sustainable operations, and providing customers with the required products and services is our mission. We implemented the ISO 9001 quality management system (QMS) at all CLC plants and mills across the globe to maintain and make continual improvement to product quality and enhance customer satisfaction through total participation and the PDCA management cycle. In addition, we publicized the quality policy about the hazardous substances and raw material quality management in ESG Supplier Meeting.

Facing the challenges of the changing global economy and market, CLC accelerates the upgrading and transformation of product development and production management, integrates industry chain partners, and strives to recycle used products into the manufacturing process to form a complete product cycle. We have 4 paper mills, 7 box plants in Taiwan. Recovered paper and virgin pulp are the major materials for product at paper mills, while the corrugating base paper made by the paper mills is what box plants use to make corrugated box products.



Note: Taiwan, Unit: 10,000 MT

In response to the sustainability trend, we have been using recycled paper as the main raw material for a long time to preserve forest resources and reduce carbon emissions. We also procure sustainably managed forest pulp, demonstrating our commitment to forest conservation. In 2023, FSC™ certified pulp accounted for 98.1% of the total virgin wood pulp procurement, a 5.4% increase from the previous year. Other results are as follows:

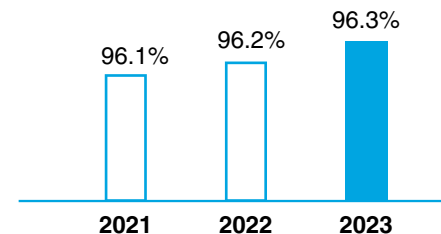
94.9% of Recovered Paper Utilization Rate

- We used about 1.628 million MT of recovered paper. Two-thirds of recovered paper was purchased locally from Taiwan to effectively promote paper recovery and recycling in Taiwan.

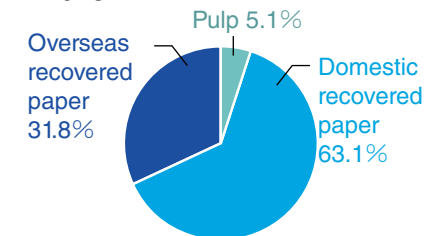
96.3% of Recycled Materials

- We used raw materials consumption totaled 1.718 million MT including domestic recovered paper of about 1.084 million MT, overseas recovered paper of about 0.545 million MT, virgin pulp of about 0.087 million MT, and other plant materials, such as starch and tapioca; and about 0.065 million MT of non-recycled materials, such as chemicals for papermaking.

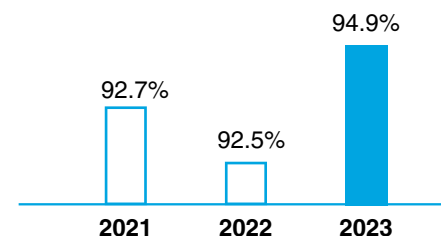
Proportion of Recycled Materials Consumption in 2021~2023



Proportion of Materials Consumption in 2023



Recycling rate of Paper from 2021 to 2023

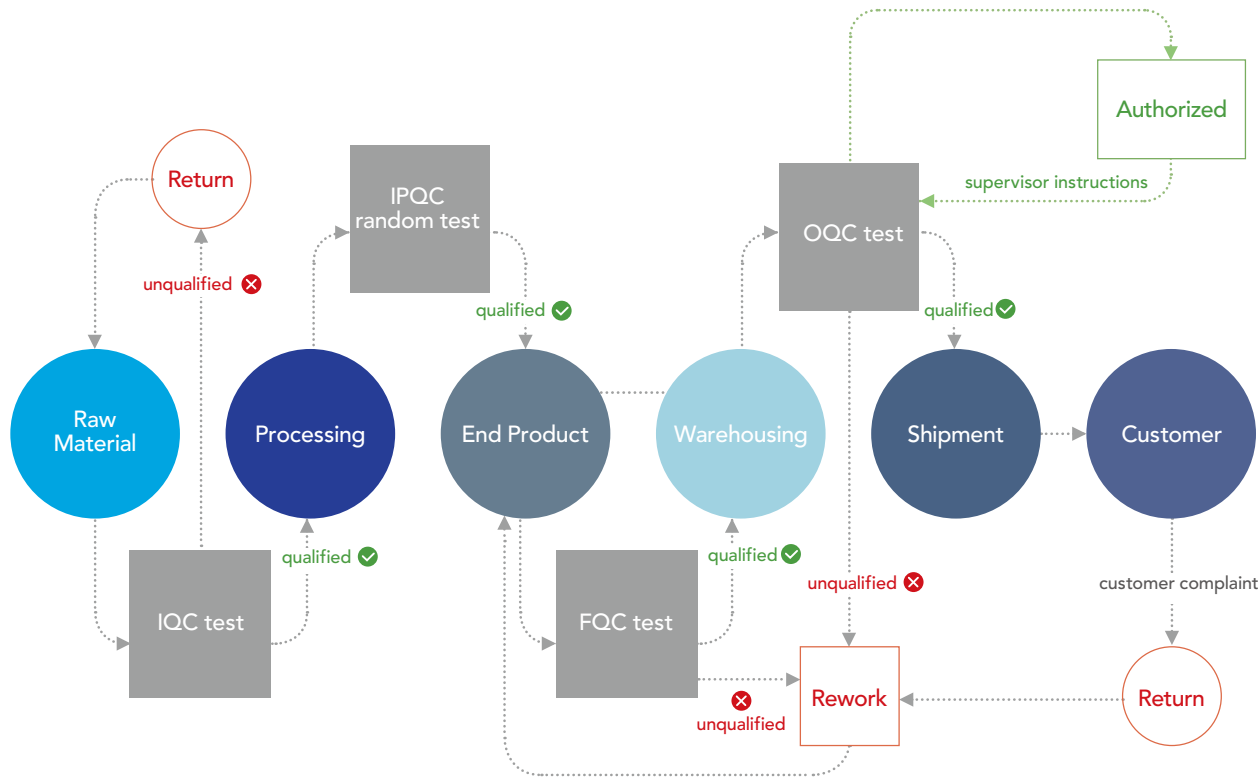


Our Panchiao Plant upholds the quality philosophy of "Quality-Centered, Customer-Oriented," and has been awarded the Best Supplier Service Award by Kao Corporation.

Product Health and Safety

Industrial paper is CLC's major product, and we take product safety seriously. From raw materials procurement to production into finished product delivery, we have established well-planned management regulations. In raw materials managements, incoming quality control (IQC) personnels perform quantitative sampling inspection and adjust the sampling counts based on the conformity frequency. However, we still perform sampling inspection on inspection-exempted quality materials once a month. If nonconformities are found, the inspection frequency will be changed into inspection by lot. Self-quality management by production and shipping personnel is performed during production and shipping for real-time capture of the quality status at each stage. Full-time QC personnels inspect the quality of finished products shipping in and out of the warehouse according to the required frequency. Through the double control of on-site and QC personnel, we assure that qualified products in good quality are well delivered to customers.

Product Processing Quality Control Workflow



Inspection Specifications of Industrial Paper

Every year we send products to the SGS laboratory to test for the content of hazardous substances according to the EU testing items and specifications, such as the EU's REACH, SVHC, and RoHS of the EU; Sony's Environment-related Substances to be Controlled (SS-00259); halogen content specifications; and the EU Standard EN 71-3 heavy metal safety requirements for toys. In 2023, CLC products passed all regulatory requirements and conformed to customer requirements.

As the REACH (SVHC) testing items have increased from 16 to 235 items over the years (Added 11 items in 2023), in consideration of the inspection efficiency and customer demands, we adopted the Full Material Declaration (FMD) management-at-the-source model in 2021 to replace finished product inspection reports. Besides reducing resource wastage, the FMD better fits the internal control of hazardous substances. In 2022, the Quality Department established a Supplier Management Team to manage suppliers from the source of raw materials. They implemented guidelines for suppliers to regularly provide hazardous substance testing reports for raw materials, to ensure that the materials used in production prevented from harmful substances. In 2023, a total of 28 companies submitted reports.

Annual Inspection of Hazardous Substances

TSCA	RoHS	Heavy Metal (EN71-3)
Halogen	SONY (SS-00259)	

*For the testing reports, please refer to the [CLC website](#).

Inspection Specifications of Household Paper

Chupei Mill producing household papers implements the ISO 22000/HACCP management system to provide consumers with safe products. Products are also sent to impartial inspection agencies to test the total plate count, E. coli count, and migration of fluorescent whitening agents to ensure compliance with all legal requirements. Eco toilet tissue, paper towel from Chupei Mill is tested for the content of the BPA to ensure consumer safety and worry-free, and the test result in 2023 is not detected.

Package Design and Certification

The compressive strength and drop tests must be performed on package structure design to prevent products from damage during transportation. In addition, packaging is one of the items inspected by the Commodity Labeling Act, the graphic design drawings must be sent to the SGS for package label content review to meet the international product record standards, and the location and size of the FSC™ Mark on the package must also be validated by law.

Printing and Plate Making: Waste Reduction and Energy Savings - Annual Material Waste Reduction of 3.6%, Energy Savings up to 3%

In recent years, our box plant's plate-making services have prioritized environmental protection and waste reduction. In 2023, by transitioning all prepress designs to digital formats, we reduced the use of 14,000 to 15,000 A4 color printing sheets, cutting paper and ink consumption. We implemented measures such as simplifying alignment marks and adjusting plate spacing, leading to an estimated 3.6% annual reduction in material waste and a 1.5% to 3% saving in energy and labor costs.

Looking ahead, we will continue optimizing efficiency. In 2024, with the installation of a film inkjet printer, we expect to cut traditional chemical-developed film usage by 4% to 6%, enhancing production efficiency and reducing chemical reliance. Additionally, we offer "Water-based Ink Printing Suitability Courses" to improve printing quality through expert insights.



Promoting Plastic Container Reduction for Zero Waste with the Supply Chain

The main resin suppliers have traditionally used plastic barrels for packaging. Since 2021, some have switched to recyclable metal barrels to reduce plastic waste. In 2023, the reduction remained consistent with the previous year, reducing approximately 320 plastic barrels of 200 kg each. Nevertheless, metal barrels need to be lined with plastic bags, which raises concerns about generating additional plastic waste due to the difficulty of cleaning. To address this, suppliers are encouraged to clean and reuse plastic barrels. We will continue to work with suppliers on waste reduction measures.



Product and Service Labeling

All household products produced and sold by our company have obtained the certification mark, and undergo annual inspections and approvals from the Bureau of Standards, Metrology and Inspection (BSMI). The quality and labeling of our products comply with the CNS standards. To enhance customer trust and confidence, some of our products provide QR codes for consumers to scan and view SGS testing reports. In 2023, there were no incidents of non-compliance with product specifications and labeling in our production and sales.

Insisting on safety and quality, all children's board games and toys, such as the "Animal Adventure Memory Game," "Pinball Game," "Paper Studio DIY" by Paper Studio have been certified to pass the toy safety standards by the BSMI.



**Safer with SGS
Inspection**

Industry-1st
QR code for direct
access to SGS
inspection reports

Protection of Customer Privacy

To ensure the security of customer data, we have established related mechanisms to protect and manage customer data, including strengthening and education on "customer data" and "information security" and request employee to uphold the non-disclosure agreement in business activities. There is no incident relating to information security has been reported, and no complaint about customer privacy infringement or customer data loss was reported in 2023.

Valuing product quality and implementing environmental sustainability, the CLC mills/plants at home and abroad regularly complete the ISO 9001 quality management system and FSC™ sustainable forestry verification, and also make improvements through the implementation of customer satisfaction surveys every year, and accelerate the introduction of digital management, committed to improving customer service. The Household Products Division has a nationwide customer service network where consumers can inquire about relevant questions through the official website, social media pages, and the AeSHOP online shopping platform. We also have a toll-free hotline (0800) dedicated to serving consumers, providing prompt responses to their needs.

To effectively settle customer complaints and handle product returns, we have established a well-planned management mechanism and customer complaint handling procedure for QC personnel and related staff to communicate with customers and determine and analyze the anomalies complained by customers. The production and related units will analyze and investigate the causes of anomalies, make feedback, and propose corrective and preventive action to prevent the recurrence of the same mistake. We have digitized the customer settlement process. Besides enhancing the handling efficiency of customer complaints, data and records are retained and managed electronically to enhance service quality.

Customer Relationship

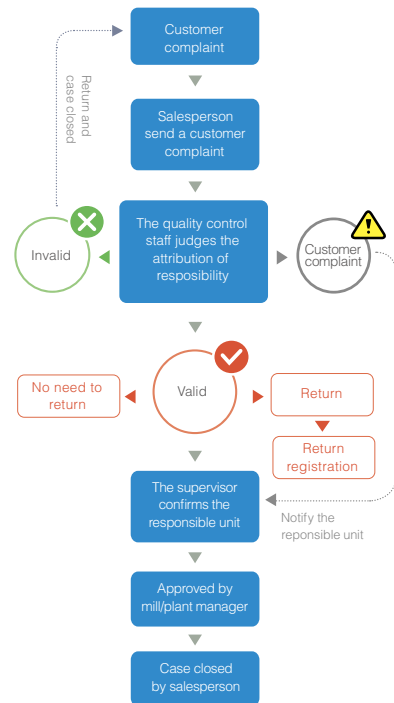
Taiwan's operating sites of we have fully implemented the electronic Quality Abnormality Report system. The Household Products Division has further established the Salesforce CRM customer relationship management platform in 2021, enabling real-time understanding of customer needs and relationship management to enhance customer satisfaction. The Vietnam paper mill was the 1st to launch the electronic implementation of paper quality abnormality reports by the end of 2022, and the rest sites in Vietnam will continue to implement it in 2023. To strengthen and stabilize the quality of paper products, the Paper Products Division, including Taiwan, China, and Vietnam, implemented a standardization project in 2022, focusing on machine standardization management to enhance the service and efficiency for customer.

CLC conducts annual customer satisfaction surveys and has set a long-term goal of achieving a satisfaction score of 88 by 2030. We improve areas with lower satisfaction scores. In 2023, the score was 86.9, an increase of 0.3 points, but it did not meet the annual target for issues such as paper jam adhesive problems and poor sealing of household paper. We have assigned a task force to address these issues and has made practical improvements, ensuring that customer rights were not affected. In the future, we will continue to implement training, and introduce digitalization to enhance quality management.

Regarding complaint rates, in comparison to the 2023 targets, the achievement rates of complaint rates for various products were 88% for industrial paper, 86% for household paper, and 24% for paper products, with an average achievement rate of 51%.

As CLC products have never been banned in any specific markets, no quality doubts or sale of controversial products have been reported. Promotional campaigns are implemented according to related domestic laws and regulations. In 2023, no violation of related laws and regulations and voluntary rules is found in product campaigns.

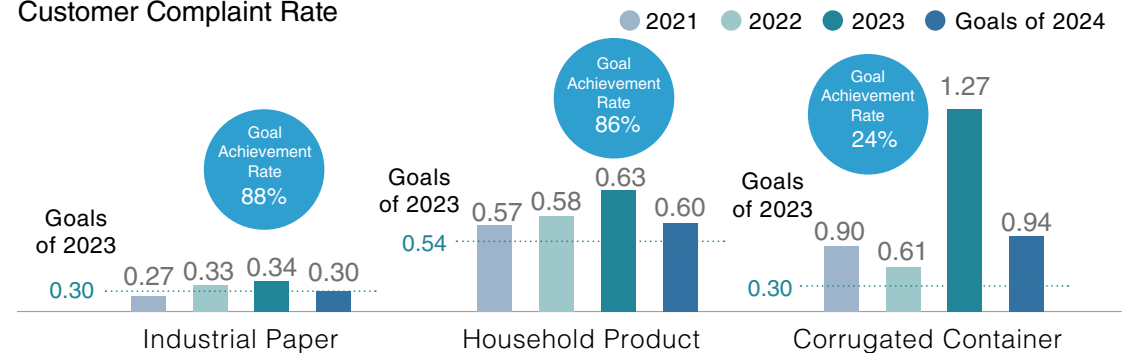
Customer Complaints Handling Procedure



2023 Major Quality Issues:

Product Category	Complaint Reasons and Number of Cases	Improvement Measures
Industrial Paper	Paper Jam Adhesive Spots (72 cases)	Adjust the base pulp ratio and regularly release the white water system to reduce the production of sticky substances.
Household Product	Poor Sealing (9 cases)	Check the package thickness before loading, pull the package film to the air outlet to remove static electricity, and strengthen inspection after packaging is completed.
Corrugated Container	Improper Adhesion (15 cases)	Adjust the adhesive formula, reduce the vehicle speed, increase the hot plate temperature to fully gelatinize the adhesive and improve adhesion.

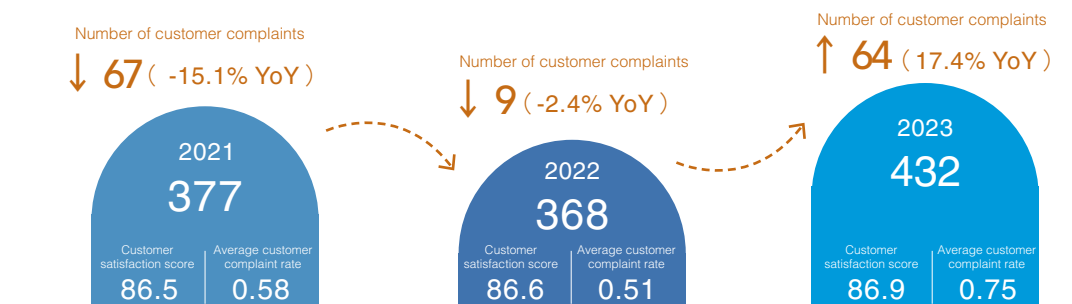
Customer Complaint Rate



*Note 1: Taiwan area

*Note 2: Principles for Setting Annual Targets: (1) Annual performance - 1 standard deviation (over the past 3 years), (2) For highly volatile performance, maintain previous target

*Note 3: Complaint rate (number of customer complaints / sales volume (10,000 MT or million m²))



*Note: Taiwan area

2.3 Digital Transformation

Material
Issues

Digital
Transformation

Strategy

Fully promote digital transformation to enhance sales and production efficiency, improve customer service, and maximize energy efficiency.



2030

Goals

- Enhance production efficiency through the best use of smart manufacturing.
- Realize green production with smart management.
- Support smart enterprise decision-making with digital tools.

2024

Goals

- Continue to construct phase III of Industry 4.0
- Plan 5 smart paper projects
 - ➔ Digital Management of Printing and Box-Making Equipment
 - ➔ License Plate Recognition and RFID Pallet Management System in Mills/Plants
 - ➔ Self-Built Small-Scale GPT Model for Enterprise Use
 - ➔ Green Data Center Monitoring System
 - ➔ Implementation of PI System for Smart Manufacturing in Vietnam Paper Mill

2023

Goals / Action Results

- Continue to optimize the project outcomes in 2022
- Continue to construct phase III of Industry 4.0
- Plan 8 smart paper projects and continue to promote intelligent production and sales
 - ➔ Completed the implementation of 8 smart projects, including intelligent detection for corrugator flatboard creasing, intelligent counting of flatboard stacking quantities, license plate recognition and control at Panchiao Plant, mobile office for paper products, intelligent interactive customer service robot for household products, consumer behavior data analysis for household products, continuous construction of Industry 4.0 Phase III, and continuous addition of Power BI reports
- Upgrade information security management
 - ➔ Leading the industry in obtaining ISO 27001 Information Security Management System, ensuring the security of big data and enhancing digital resilience

CLC: The 1st paper company in Taiwan to introduce intelligent production and sales and AI digital to win the competitiveness

To enhance operational competitiveness in the drastically changing global environment, besides constantly upgrading and reengineering hardware equipment and completing the ERP system as early as 2004 to enhance operational management efficiency. Starting from smart manufacturing, we independently completed the development of the e-cogeneration system in Houli Mill, the enterprise-wide e-procurement platform, and household product CRM management system during 2012~2017.

Subverting the tradition and moving towards intelligent innovation, CLC is the 1st paper company in Taiwan to introduce intelligent production and sales. By transforming the production management model, we have transformed from the reactive management in the past to the predictive management. Since 2019, we promoted "Smart Paper 4.0", and have invested more than billions of dollars in paper mills and box plants in Taiwan. Through S.M.A.R.T. low-carbon smart paper,

we developed high-efficient scale recycling technology to make CLC change into the eco-smart factory from traditional factory. By 2023, CLC has completed the promotion of 25 projects, including smart factories, smart steam and electricity, digital IPQC, Smart warehousing, CRM customer management system, etc., comprehensively improve quality and production and sales efficiency, and improve energy-saving and carbon-reduction benefits through digital transformation. Moreover, by promoting the Power BI interactive business intelligence visual analysis system, we can improve the decision-making efficiency and efficiency of executives, and grasp the business opportunities.

In response to digitalization, CLC has led the way by implementing ISO 27001 ISMS to secure information assets and ensure the availability, integrity, and continuity of information services, minimizing the impact on daily operations. We will continue to enhance protections for industrial control system security.

Project Highlights of 2023

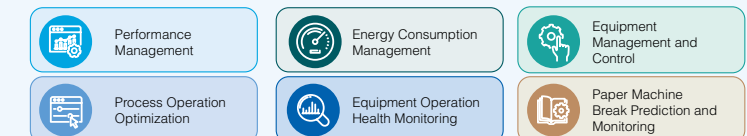
Panchiao Plant "Corrugated Board Creasing Image Intelligent Detection Project"

Digitalization Requirements	The corrugator is a high-speed production machine that processes over 8,000 "small orders of various sizes" monthly. Previously, manual sampling inspections ensured creasing accuracy, but they were slow and inefficient, impacting the production efficiency of other orders.	
Project Approach	- Replaced manual tape measurements with AI image recognition algorithms for "real-time intelligent detection" on the production line. - Integrated equipment with an internal web-based system for real-time product inspection and equipment adjustment, reducing undetected dimension errors and lowering customer complaints and remanufacturing costs.	
Benefits	- Inspection efficiency time: saved 91% - Quality control self-inspection ratio: increased to 98%	- Labor Efficiency: Achieve benefits worth 2.6 million yuan. - Reduce Rework Losses: by 90%.
Future Goals	The hardware and software infrastructure has been completed, and functionality optimization verification is in progress, with the goal of improving the online sampling rate to 100%.	

Project Highlights of 2023

Houli Mill BM10 "Smart Papermaking 4.0 Visualized Management System"

Project Approach	By leveraging 6 core intelligent modeling systems to integrate IoT and AI big data, establish key data upper and lower limit standards, and continuously track and analyze equipment operation status and trends through machine learning and data accumulation, the goal is to improve Overall Equipment Effectiveness (OEE) and carbon reduction performance.
Benefits	- Pulping Process and Energy Consumption Management Optimization: Enhance OEE by 1.44% and achieve an annual carbon reduction benefit of 20,000 t. - Automatic Control and Smart Manufacturing Monitoring Optimization: Save 2.54 million kWh annually.
Future Goals	The hardware and software infrastructure has been completed, and functionality optimization verification is in progress, with the goal of improving the online sampling rate to 100%, continuously refining and optimizing the system, and accelerating the horizontal expansion of Smartmaking Paper 4.0 and digital inspection systems to overseas plants.



Smart Papermaking 4.0 Enhance Production Efficiency; Reduce Energy Consumption; Realize Low-Carbon, Energy-Efficient, Green Production

All digital technologies (AI, big data, cloud, IoT, 5G) are combined to assist with production (knowledge inheritance), implement monitoring and management (preventive warning), and engage in process optimization and performance enhancement, achieving a win-win for service delivery and carbon reduction benefits.

CLC's Digital Transformation Progress: Optimization of Production and Sales Systems (OT) Combined with Digital System Upgrades



Smart Manufacturing

Through smart equipment modeling, integrating IoT and AI big data, we can monitor machine conditions in real time, ensure product quality, and optimize resource utilization. This enhances OEE (Overall Equipment Effectiveness) and improves carbon reduction performance.

→ Smart management platform, digital IPQC, smart steam and electricity, data analysis of parking time of corrugator, and Robotic Process Automation (RPA)



Smart Services

Use real-time analysis technology to predict customer needs and provide customized services.

→ Industrial Paper Sales Demand Prediction
→ CRM system
→ Corrugated container sales APP, industrial paper demand forecast, and instant Inventory check APP

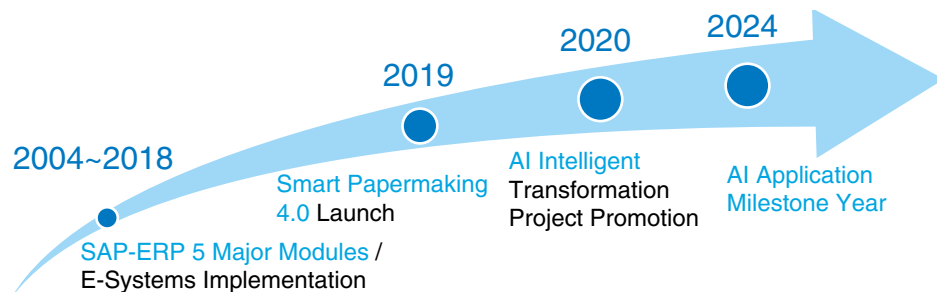


Smart Logistics

Monitor and grasp the status of products from inventory warehousing, production to terminal shipment anytime and anywhere.

→ Smart warehousing and logistics

Note: CLC's SAP 5 Major Modules - (1) SD Sales, Storage and Transportation, (2) PP Production Management, (3) MM Material Procurement, (4) CO Accounting Management, (5) FI Financial Management





03

Supply Chain

Leading the transformation and upgrading of the supply chain with responsibility, enhancing industry value and competitive advantage, and creating a sustainable net-zero ecosystem.

3.1 Supply Chain Management

3.2 Green Procurement

- Formed the paper industry's 1st Carbon Neutrality Alliance
- Took the lead by hold the 4th Supplier ESG Conference to build a net-zero ecosystem
- Recovered Paper Supply Chain Upgrading Program:
 - Supported the transformation and upgrading of **12** suppliers (Accumulated)
 - Launched the 1st low-carbon ecosystem in industrial zones
- Completed on-site evaluations for **68%** of major suppliers (Accumulated: 211 suppliers)
- Achieved a green procurement ratio of **56.4%, +9.3% YoY**

All 10 factories in Taiwan were awarded as Excellent Green Procurement Units at the national and local levels

3.1 Supply Chain Management

Material
Issues

Supply Chain
Management

Strategy

Prioritize suppliers' ESG and risk management by setting short- and mid-term key goals and specific actions to promote sustainable development of the value chain.



2030

Goals

- Disperse supply chain sources, and the proportion of single suppliers does not exceed 50%
- Expand overseas supply chain audits
- Local procurement ratio exceeds 75%
- Higher quantity of local procurement than that of competitors
- Publicly recognize outstanding suppliers through supplier conference platforms, promoting sustainable transformation among supply chain partners
- On-site supplier evaluation: 100%

2024

Goals

- Implement ESG evaluation on major suppliers
- Perform supplier ESG risk assessment and management
- Expand overseas supply chain audits and evaluations
- Local procurement ratio exceeds 70%
- Organize major supplier conferences and 7 supplier HSE education/training activities
- On-site supplier evaluation: 80%

2023

Goals / Action Results

- Implement ESG evaluation on major suppliers
→ All completed (Total of 269 companies)
- Perform supplier ESG risk assessment and management
→ Advanced supplier evaluation system and enlarge ESG check point
- Local procurement ratio up to 68%
→ Ratio at 69.7%, +3.3% YoY
- Organize major supplier conferences and 2 supplier HSE education/training activities, keep promoting and advocating the sustainable and OH&S concept
→ Held for 4 consecutive years, commended a total of 39 outstanding sustainable supply partners, with a participant satisfaction rating of up to 4.9 out of 5
→ Organized 8 education and training activities for 104 suppliers
→ First established "CLC 1+N Carbon Neutrality Alliance" and established a carbon data database for the paper industry
- On-site supplier evaluation: another 55 suppliers
→ Completed supplier evaluation and accumulated to 211 suppliers (Achievement rate = 68%)

3.1 Supply Chain Management

3.2 Green Procurement

Leading the industry chain's low-carbon transformation, creating a sustainable supply ecosystem

Suppliers are the important partners to CLC's growth and burgeoning. Through management approaches, the evaluation mechanism, and guidance, we guide the up- and down-stream industrial chain to make continual improvement. Through the CLC e-procurement platform, we establish a stable supply chain ecosystem and team up with Taiwanese and global suppliers to create job opportunities and promote economic growth. Simultaneously, CLC continues to enhance sustainability management through supplier conferences and related evaluations, strengthening the sustainability of the supply chain to enhance the value-added of the paper industry.

Since initiating the Paper Industry Supplier ESG Conference in 2020, in 2023, the company collaborated with 300 key partners again at the 4th CLC ESG Supply Chain Conference to discuss strategies for industry-wide low-carbon transformation, recognizing outstanding sustainable partners. In 2023, CLC also established the industry's only Carbon Neutrality Alliance, robustly accelerating the low-carbon transformation of the industry chain led by CLC, thereby enhancing Taiwan's paper industry competitiveness in the international market. Emphasizing risk management in the supply chain, the company will progressively expand audits and evaluations of major overseas suppliers to promote sustainable development along the value chain.

Procurement Policy and Risk Management

We uphold a rigid, fair, and open transaction principle; abide by the laws and social norms; actively cultivate excellent suppliers, contractors, and alternative sources; conduct investigations and evaluations according to the related evaluation regulations, and establish the supplier graded management system to ensure the quality, delivery time, price, and after-sales service of supply sources. However, investigation will be conducted when suppliers have made significant changes. All CLC suppliers are requested to sign the "Supplier Code of Conduct", to enhance supply risk management. From 2022, all new suppliers will also be required to sign the agreement. In 2023, we maintained cooperation with 269 major suppliers (annual purchase amount over NT\$10 million).

Raw materials	Manufacturing	Others
- Pulp: 10 - Imported recovered paper: 26 - Domestic recovered paper: 121 - Chemicals: 24	- Energy and fuel: 14 - Equipment and accessories: 7 - Contractors: 33	- Materials: 11 - Transportations: 5 - Others: 18
181 Suppliers	54 Suppliers	34 Suppliers



Mr. Zeng, the owner of 2023 CLC Outstanding Supplier – Yong-Jin Waste Paper Company, expressed his gratitude to CLC for its assistance in guiding paper container classification. He stated that the company would work with CLC in the future to promote the circular economy and transform higher-quality recycled paper resources into low-carbon sustainable products and services.



CLC Supply Chain Conference Outlines Three-pronged Carbon Neutrality Strategy

Enhancing supply chain collaboration and communication, CLC, as a leading paper manufacturer, actively guides supply chain partners in advancing low-carbon products, innovative applications, employee development, and social integration aspects of ESG. Through pragmatic supply chain management, CLC establishes a sustainable supply chain ecosystem.

During the pandemic, CLC has continuously used digital resources to share industry trends, energy-saving and carbon reduction strategies, and ESG compliance. They have recognized and supported over 300 supply chain partners, commending 39 outstanding suppliers to date (7 in 2023), fostering a mutually beneficial supply chain ecosystem.

In 2023, CLC hosted its first physical conference, attracting over 200 domestic and international manufacturers in attendance, with over 100 participating online. Beyond focusing on climate change, supply chain low-carbon transformation, and green business opportunities, they delved deeply into ESG compliance trends during the meeting, while also proposing a carbon-neutral industry chain strategy towards 2050. Enhancing 3 dimensions and 7 guidelines, they accelerate the establishment of a low-carbon supply chain in the paper industry. A post-conference survey revealed a supplier satisfaction rating of 4.9 out of 5.

"CLC's 1+N Carbon Management Demonstration Team" completed the 1st industrial paper carbon footprint assessment

Facing global trends towards net-zero and carbon neutrality in supply chains, sustainable practices cannot be achieved alone. CLC has been sharing long-term experiences in low-carbon transformation externally, committed to assisting small and medium-sized enterprises in navigating the overwhelming demands of sustainable compliance and trends, preemptively preparing for the 2050 net-zero ecosystem.

In 2023, CLC initiated the development of an industry carbon data repository, collaborating with 20 industry chain partners to establish the 1st carbon-neutral alliance in the paper industry and completed the inaugural industrial paper carbon footprint assessment. Through the launch of conferences and three large-scale carbon reduction workshops, they guided 20 factories in building carbon management expertise and nurtured 40 seed talents certified in carbon management. Led by CLC, the industrial paper carbon-neutral alliance conducted carbon assessments and energy diagnostics for 21 enterprises, carbon assessments for 3 organizations, and carbon footprint assessments for 4 products, robustly enhancing industrial climate sustainability resilience.

Energy-saving and carbon reduction benefits	Total carbon reduction amount	Energy-saving savings
	11,969 tCO ₂ e /year	5,509 million /year

Supply Chain Management Policy

Fulfillment of corporate social responsibility, Creation of a friendly workplace, Enhancement of ESH management

- ✓ Improve friendly workplaces with the CSR benchmark enterprise as the goal and make progress together with the sustainable supply chain.
- ✓ Uphold "Caring for Life, Utilizing Resources Wisely, and Contributing to Society" with the sustainable corporate development as the core philosophy of the Company.
- ✓ Encourage suppliers to fulfill their corporate social responsibility, promote CSR internally and externally, and compile CSR reports.
- ✓ Enhance the ESH requirements of the contractors and adhere to industrial safety and discipline properly.

Create green recycled economy, Emphasize sorting and recycling, Grasp ecofriendly business opportunities

- ✓ Work with quality and chemical research departments to develop and procure environment-friendly raw material substitutes.
- ✓ Procure quality recovered paper that contains less waste to lower the operating and environmental costs at every link of the supply chain.
- ✓ Implement sorting and management of recovered paper and make good use of recycled resources.

Optimize green procurement, Reduce impact on the environment, Fulfill the responsibility as a citizen of the Earth

- ✓ Assist recyclers in smoothing the application for recycled resources through guidance or provision of "economic incentives" to create a win-win situation.
- ✓ Work with associations, governments, public welfare organizations, and supply chains of recyclers to promote correct sorting and recycling approaches to lower social and corporate disposal costs.
- ✓ Procure the products with the Green Mark in priority to reduce the impact on the environment.

Pay attention to market development, Implement supply chain management, Take more flexible procurement strategies

- ✓ Pay heed to international trends and take actions to address the impact of the geographical relation, change of tariff duties, war, natural disaster, and epidemic as early as possible.
- ✓ Exchange information on a regular basis, adapt to the global deployment of the Group, and share and understand the market development of important material sources.
- ✓ Investigate all potential material sources transparently and openly and strive for stable sources of reasonably priced raw materials.
- ✓ Perform joint procurement of important domestic and overseas raw materials for the Group to upgrade its competitiveness.

Building the Supplier Evaluation Mechanism



New Suppliers Development

CLC developed "Supplier evaluation regulations" to ensure the equipment, service and product quality, delivery time, flexibility and price could meet the procurement and price policy of company. 100% of new suppliers in 2023 completed the environment and social evaluation.

Annual Suppliers Evaluation in 9 dimensions (including Climate Action)

To realize the sustainable supply chain ecosystem with partners together, we evaluate suppliers periodically according to the ISO procurement SOPs. Each year the procurement, technology, and requisition units will form a task force to comprehensively evaluate all suppliers having business with CLC to rate suppliers in four grades: Excellent, A, B, and C in terms of materials quality, service and coordination, environmental safety performance, delivery time cooperation, price, green supply, and ESG information disclosure. We also draw up management strategies for each grade to ensure the basic quality and supply capacity of suppliers.



Grades	Score Standard	Management Ways
Excellent	TTL $\geq$ 85	Priority procurement.
A	84~75	Encouragement and guidance to reach excellence.
B	74~65	Enhanced supervision of evaluation items.
C	below 64	Disqualification, cessation of procurement.

The coverage rate of On-site Evaluation will reach 100% in 2030

Since 2020, we have begun to perform "on-site evaluation" on suppliers of important materials highly connected to our products and processes ahead of the industry to optimize their risk management in the following four major aspects: R&D and process, environmental safety, procurement, and quality assurance, hoping to keep up with the industrial trends and meet our specifications. We also include 10% more suppliers for evaluation coverage ratio each year to **achieve evaluation on all important suppliers by 2030**.

In 2023, we completed on-site evaluations for a total of 55 suppliers, achieving a cumulative total of 211 over the past 4 years, meeting 68% of our target set for 2030. The evaluation results for 2023 were as follows: 45 suppliers rated as excellent, 10 rated as grade A, 0 rated as grade B, and 0 rated as grade C.

To continuously enhance the sustainability capabilities of our supply chain, our company plans and executes on-site evaluations and audits annually. We also optimize and refine evaluation criteria based on industry trends and the actual conditions of suppliers. For suppliers with lower evaluation scores, the company assigns specialists or engages experts to provide guidance, thereby collectively promoting the sustainable management of the industry chain.

Target

311 major suppliers of important materials highly connected to our products and processes

Goal

Achieve On-Site evaluation on all important suppliers by 2030

	2023	2024 Goal	2025 Goal	2030 Goal
Number of evaluated suppliers	55	40	31	31
Accumulated evaluated suppliers	211	251	264	311
Evaluation coverage ratio of major suppliers	68%	80%	85%	100%

Suppliers On-site Evaluation-Annual Evaluation Results

	Number of evaluated suppliers	Excellent	A	B	C
2021	42	30	11	1	0
2022	68	59	9	0	0
2023	55	45	10	0	0

The 1st "Sustainable Excellence Supplier Award" Recognizes 39 Outstanding Partners

To encourage supply partners to continue promoting corporate sustainable transformation, CLC screens suppliers with outstanding performance through annual regular evaluations. After initial selection, re-selection, and final selection, the best-performing sustainable supply chain partners in 4 key areas—"Responsible Production," "Green Procurement," "Energy Conservation and Carbon Reduction," and "Employee Care"—are chosen. These awards are publicly presented at the annual Supplier ESG Conference. From 2021 to 2023, a total of 39 outstanding supply chain partners have been recognized. CLC expresses gratitude to these partners by presenting art pieces made from 100% recovered paper. This also symbolizes CLC's commitment to driving the industry's green and low-carbon transformation through innovative research and development.



2023 Outstanding Suppliers

Raw Materials	中曼貿易 (股) 公司、永進廢紙行
General Material	鑫通塑膠 (股) 公司
Constructions	展英工程有限公司
Contractors Service	財團法人台灣綠色生產力基金會、建新國際 (股) 公司
Contractors Service	台灣耐力 (股) 公司

Suppliers Orientation

To promote green procurement and reach the HSE consensus in supply chain partners, we actively arrange related education and training for suppliers. In 2023, we organized 8 sessions with the participation of 104 suppliers.

CLC's Suppliers/Contractors ESH Management Guidance:



To ensure the safety of contractors and employees, we request contractors to follow the instructions given in the Contractor Work Safety Meeting Minutes, Work HSE Management Commitment, and Safety Work Permit. In addition, we arrange education and training on ESH hazard communication and inform them of the entry notices before their entry to a CLC facility. We also requested contractors to buy accident insurance with a coverage of NT\$5 million.



To ensure products comply with the customer and international legal requirements, raw material suppliers are requested to submit the related inspection and test reports to ensure that their materials do not contain RoHS materials. We also conduct random audits and request them to make immediate corrections for defects.



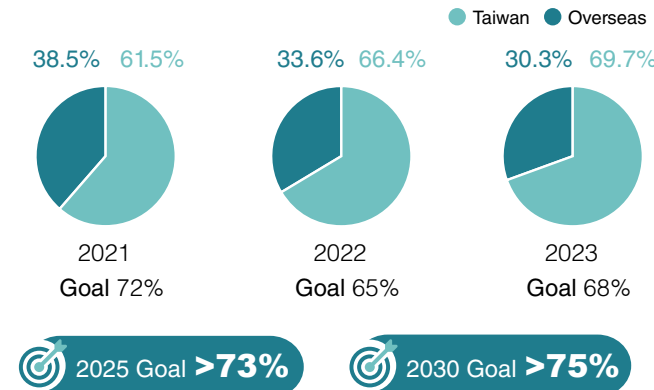
When purchasing energy services, products, and designs that may impact energy uses, we explicitly inform suppliers of our major energy-using equipment, and prioritize energy efficiency as one of our major considerations.

Support for Local Procurement Local Supplier Ratio was 82.9%

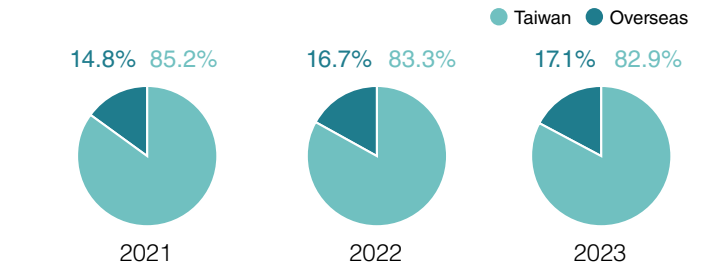
To pursue the stability and localization of the supply chain, we prioritize the use of local suppliers in Taiwan and have set a mid- and long-term goal of achieving a local procurement ratio of >75% by 2030. In addition to shortening delivery times and reducing transportation risks, this strategy helps diversify local sources of recycled materials, supports local businesses, and promotes regional prosperity.

To adapt to the company's operational needs, we make rolling adjustments to the number of local suppliers and the amount of local procurement annually. In 2023, the proportion of local suppliers was 82.9%, a decrease from the previous year due to the addition of advanced overseas eco equipment suppliers for equipment upgrades. Nonetheless, the local procurement amount in 2023 accounted for 69.7% of total procurement, an increase of 3.3% from the previous year.

The Ratio of Local Procurement Amount



The Ratio of Domestic and Overseas Suppliers



Note: Overseas Suppliers Ratio Calculation: (Number of purchasers/ number of major suppliers) * 100%



3.2 Green Procurement

Material
Issues

Green
Procurement

Strategy

We emphasize low-carbon and green procurement, integrating low-carbon initiatives and smart technologies to enhance energy and resource efficiency and services.



2030

Goals

2024

Goals

2023

Goals / Action Results

- Implement procurement projects relating to green procurement and purchase products and equipment certified by the Energy Label and the Green Mark. Green procurement ratio at 50%
- All mills/plants pass the Excellence in Green Procurement of local governments
- Recovered paper utilization rate of industrial paper > 97%
- Establish an industrial ecosystem chain to achieve "zero waste" through full-scale recovery at up- and down-stream
- Implement sustainable forest stewardship and practice ecological conservation. FSC™ pulp ratio at 100%
- Full use of FSC™ products
- Recovered paper supplier transformation, increasing multiple recycled material

- Green procurement ratio at 50%
- Recovered paper utilization rate of industrial paper > 97%
- Strengthen recovered paper sorting and quality and reduce impurity rate
- FSC™ pulp ratio > 98%
- Complete the guidance of 2 recovered paper suppliers to upgrade

- Green procurement ratio at 43%
 - ➔ Ratio at 56.4%, +9.3% YoY
 - ➔ 10 factories won Excellence in Green Procurement by the EPA
- Recovered paper utilization rate of industrial paper > 97%
 - ➔ Recovered paper utilization up to 1.628 million MT, recovered paper utilization rate of industrial paper at 97.5%
- Strengthen recovered paper sorting and quality.
 - ➔ Add 3 waste food paper container suppliers, with a total of 54 so far
- FSC™ pulp ratio > 98%
 - ➔ Ratio at 98.1 %, +5.4% YoY
- Complete the guidance of 2 recovered paper suppliers to upgrade
 - ➔ Guided 2 suppliers in 2023 and accumulated to 12 suppliers so far. Recycling quality and volume both raised up
 - ➔ We launched a paper container and paper recycling and reuse program in the Tayuan Industrial Park, creating a precedent for a low-carbon ecosystem within the industrial zone

Committed to Low-Carbon Procurement with a Goal of Achieving 50% Green Procurement by 2030

To support national policies, align with international trends, and achieve the UN SDGs 12: "Promote the green economy, ensure sustainable consumption and production patterns," CLC actively implements green procurement according to our green procurement standards. We prioritize purchasing raw materials, plant facilities, and office supplies that are certified by the Green Mark, Energy Label, and FSC™ to reduce environmental impact.

In 2023, we used 1.628 million metric tons of recovered paper, with the utilization rate reaching 94.9% for all paper types (+2.4% YoY) and 97.5% for industrial paper, meeting our targets. FSC™-certified pulp accounted for 98.1% of our total virgin pulp procurement, achieving the set goal. To further align with SDGs 15 and demonstrate our commitment to biodiversity, we have set a goal to achieve 100% FSC™-certified pulp by 2030.

We continue to increase our green procurement expenditures, aiming for a 50% green procurement ratio by 2030. In 2023, our green procurement expenditures reached NT\$8.99 billion, accounting for 56.4% of total procurement and achieving a 9.3% year-on-year increase. This surpasses our mid- and long-term goal of 50%, solidifying our leadership position among domestic companies.

CLC's green procurement amount ranks 1st in the manufacturing industry (accounting for 16% of the national total), earning them the National Green Procurement Award. Additionally, all 10 of our facilities across Taiwan have been recognized for excellence in green procurement by the Environmental Protection Bureaus of various county and city governments.



Responsible Sustainability Procurement Policy

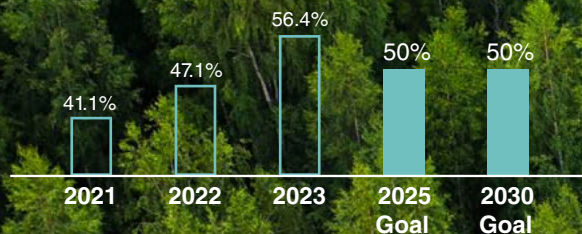
No Conflict Minerals

To avoid using conflict minerals acquired from illegal means is what the CLC does to realize the ESG in human rights protection and environment protection for a sustainable supply chain. We hereby guarantee that all CLC industrial paper and corrugated boxes do not use conflict minerals including tin, tantalum, tungsten, and gold from the Congo Republic and nearby countries and regions in the production process. Additionally, CLC let the suppliers understand the serious social and environmental issues such as human rights violations, armed conflicts, and international disputes caused by the mining and trade of metal minerals, and the duty they need to fulfill in the supply chain. We commit to non-conflict procurement, and continue to pay attention to the mineral management requirements of international organizations, and communicate with the supply chain in real time.

Substance restriction

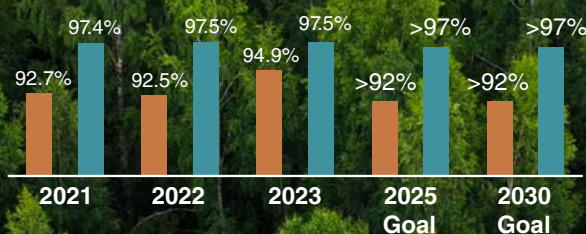
To ensure sustainable procurement of the supply chain and conformity to the international restrictions on hazardous substances of products, besides establishing the *Hazardous Substances Inspection Instructions*, we began to implement the full material disclosure (FMD) in 2021 to periodically request suppliers to provide the inspection reports and declarations of hazardous substances and strictly request business units to comply with the substance restrictions for materials, finished products, and new materials.

Green Procurement Ratio



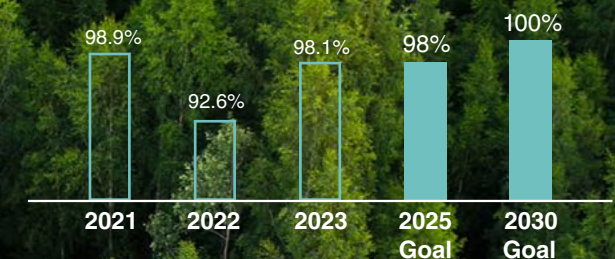
*Note: After 2020: CLC's total amount of green procurement declared to the EPA / total amount of procurement *100%

Recovered Paper and Industrial Paper Utilization Rate



Recovered Paper Utilization Rate
Industrial Paper Utilization Rate

FSC™ Pulp Ratio



Fostering the upgrading and transformation of recovered paper supply chain, checking the source of recycled materials from the source, and optimizing the recycling effect in one continuous line.



Prospecting the Social Source Classification Problem, Implementing Corporate Recycling Capacity to Expand the Positive Influence

CLC recycled domestic recovered paper with the largest scale in Taiwan. However, recovered paper in Taiwan usually mixes with 10~13% household waste due to improper recycling practices, affecting recycling effects and increasing the energy consumption. Since 2018, CLC has guided 167 recycling companies, we enhance the local recovered paper quality in line with the international standard and the competitiveness of supply chain from the sound source recycling system. In addition, the amount of waste food paper container suppliers which increase to a total of 54 from the local purchase and recovery supply chain ecosystem.

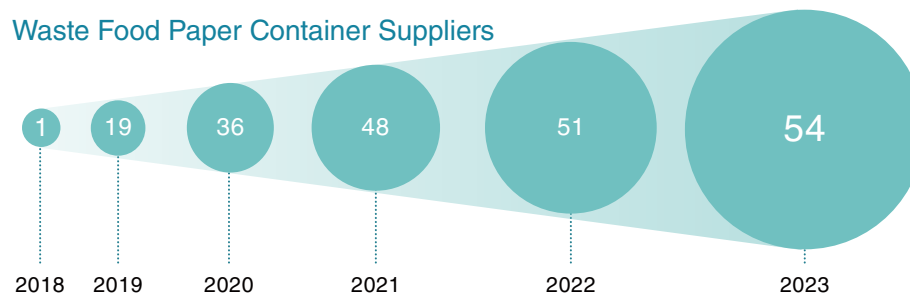


Upgrading and Transformation of Recovered Paper Supply Chain Plan : Reducing Paper Sludge by 50%, Decreasing the Energy Consumption by 10%

Since 2018, CLC has targeted to support over 2 supplies to upgrade to reduce impurities and waste from the source, and made the revision of procurement guidance for recovered paper, introduced the 1st "Recycled Paper Moisture Analyzer" in Taiwan and e-platform assistant. We planned 3 stages of "counseling period", "observation period" and "replacement period" for 167 recovered paper suppliers in Taiwan to implement source identification.

In 2023, we successfully guided 12 focused recovered paper suppliers to implement transformation to reduce paper sludge by 50%. Meanwhile, it improved the energy saving during the process reached 10%. More importantly, it enhanced the profit and competitiveness of recovered paper suppliers.

Waste Food Paper Container Suppliers



Planning Paper Container Recycling Demonstration Sites, Connecting Government and Local Communities to Enhance Recycling Scale

In collaboration with the "Taipei City Environmental Protection Bureau," the "Taiwan Paper Container Promotion Association," and "Tetra Pak," we have selected 10 large communities (with over 300 residents) to encourage recyclers and consumers to improve the quality of paper container recycling. This initiative aims to reduce the misrouting of waste paper containers into non-recycling channels, thus avoiding resource waste and reducing waste treatment. "Taipei City" serves as the pilot site for this project.

Complete Paper Container Recycling: Addressing 50% of Taiwan's Paper Container Waste and Reducing Carbon Emissions by 950,000 Tons

In response to the Ministry of Environment's vision for enhancing resource recycling, we invested NT\$1.5 billion in the Tayuan Plant to add a 66,000-ton capacity recycled pulp production line, which commenced operations in 2023. This initiative promotes certified processing of waste paper containers. Each year, it helps recycle 50% of Taiwan's paper container waste into paper products, achieving a carbon reduction of up to 950,000 tons annually.

We launched the "Tayuan Industrial Park Paper Container and Paper Recycling and Reuse Implementation Plan." In 2023, we held 2 briefings, mobilizing nearly 25% of enterprises to join, reaching 50 companies. After launching in January~February 2024, the annual recycling volume is expected to reach 500 kg. We will continue to enhance the recycling benefits of waste paper containers, setting a precedent for a low-carbon ecosystem.



113年1月1日正式開始囉! 紙容器回收再利用方案

執行方式：

- 委託清運公司定期進廠收受已清洗乾淨之紙容器，並進行分類運送，清運公司有權拒收。
- 清運週期依員工數區分，固定週三到廠收受：
 - 員工人數達50人以上者，採一週一次。
 - 員工人數未達50人者，採兩週一次。
- 依量體自行選擇裝袋方式：垃圾袋、紙箱、太空包（需有清運空間）。

尚未參與者，如有意參加，請掃描QR-code報名：



有任何問題請洽經濟部大園產業園區服務中心
曾冠如 組員
電話：(03)385-4968分機6784

主辦單位：經濟部大園產業園區服務中心 敬上
正隆股份有限公司

04

Environment

Total participation, valuing resource, and environmental protection, toward a cleaner, sustainable circular business model, maximizing energy and resource efficiency, and mitigating environmental impact.

4.1 Action for Climate Change

4.2 Energy Management

4.3 Water Management

4.4 Air Quality Management

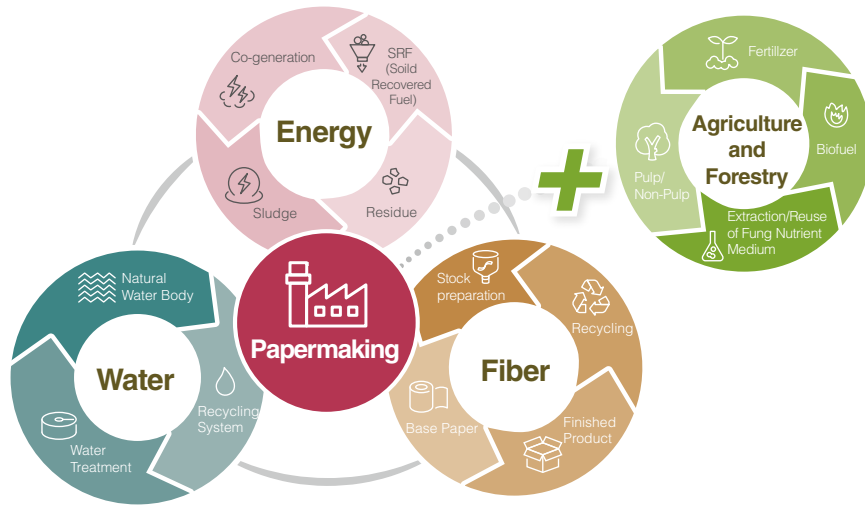
4.5 Waste to Resource

4.6 TNFD & Biodiversity

- Recycled **162.8** million MT of recovered paper.
94.9% recovered paper utilization rate, **+2.4%** YoY
- **480** energy conservation projects to save electricity by **105.90** GWh (2013~2023)
- **95.9%** Waste-to-resource ratio
15.72% Alternative fuel ratio, **+5.4%** YoY Replacing **91,000** MT coal
- Establishment of the "CLC 1+N Carbon Management Demonstration Team," Completing the 1st "Industrial Paper Carbon Footprint Inventory"
- Committed to Natural Ecology, Recognized as a Leading Company by TNFD
- Surpassing FSC Regulations, 80% of Consolidated Subsidiaries Completed GHG Inventory

CLC Resource for Total Circulation

Enhance the High Value Biofuel and the Application of Carbon Sink



Implementing sustainable business operations and abiding by environmental protection laws and regulations, we continue to increase investments and expenditures in environmental protection. Through process improvement and promoting the integrated application of energy and resources, the productivity and efficiency of resources are improved while reducing the impact of the production process on the environment.

CLC actively promotes low-carbon smart paper. Since its establishment, CLC has enhanced the overall efficiency of products, energy, and water with large-scale recycling technology, setting short-, medium-, and long-term goals for continuous improvement. In 2023, we achieved a 94.9% recovered paper utilization rate (97.5% for industrial paper), a 95.9% waste-to-resource ratio, and a 96.3% water recycling rate, contributing to a carbon reduction of nearly 9.44 million Mt. With the largest scale of waste recycling in Taiwan, we provide green products and low-carbon packaging, helping to reduce the carbon footprint.

Focusing on the sustainable recycling of agricultural and forestry materials, CLC has partnered with industry, government, academia, and research institutions since 2022 to develop natural carbon sinks. By advancing the regeneration of plant fibers, high-value applications of bio-materials, and expanding the use of biofuels, we integrate the 3 major resources of products, energy, and water to construct a comprehensive 3R PLUS recycling blueprint.



Product Recycling

Goals of 2030

Recovered Paper Utilization Rate (Industrial Paper) > 97%

First, the industrial paper mill utilizes recovered paper to produce industrial paper which is manufactured into a carton by a container box plant. After that, the carton is used for packaging and shipping purposes. It is then recycled via the recycling system and used by the paper mill again. This is the process forming the cradle-to-cradle cycle.



Energy Recycling

Goals of 2030

Waste-to-Resource Ratio 97%

Committed to energy integration and application in order to improve energy efficiency, continue to invest in cogeneration of steam-electricity, develop wind, solar power, biogas and biomass power generation, promote the recycling of process residual materials and increase the ratio of alternative fuels. Through cross-industry cooperation, the fly/bottom ash will be reused as the admixture of CLSM and cement material.



Water Recycling

Goals of 2030

Unit Product Water Consumption -1% Yearly (Containerboard Division)

With PDCA management, cross-factory communication, implementation of process water saving and water use classification management, we improve production water reuse efficiency. The safe and compliant effluent provides stable water sources such as streams and wetlands, nurtures biodiversity, and sequesters carbon to delay the greenhouse impact.



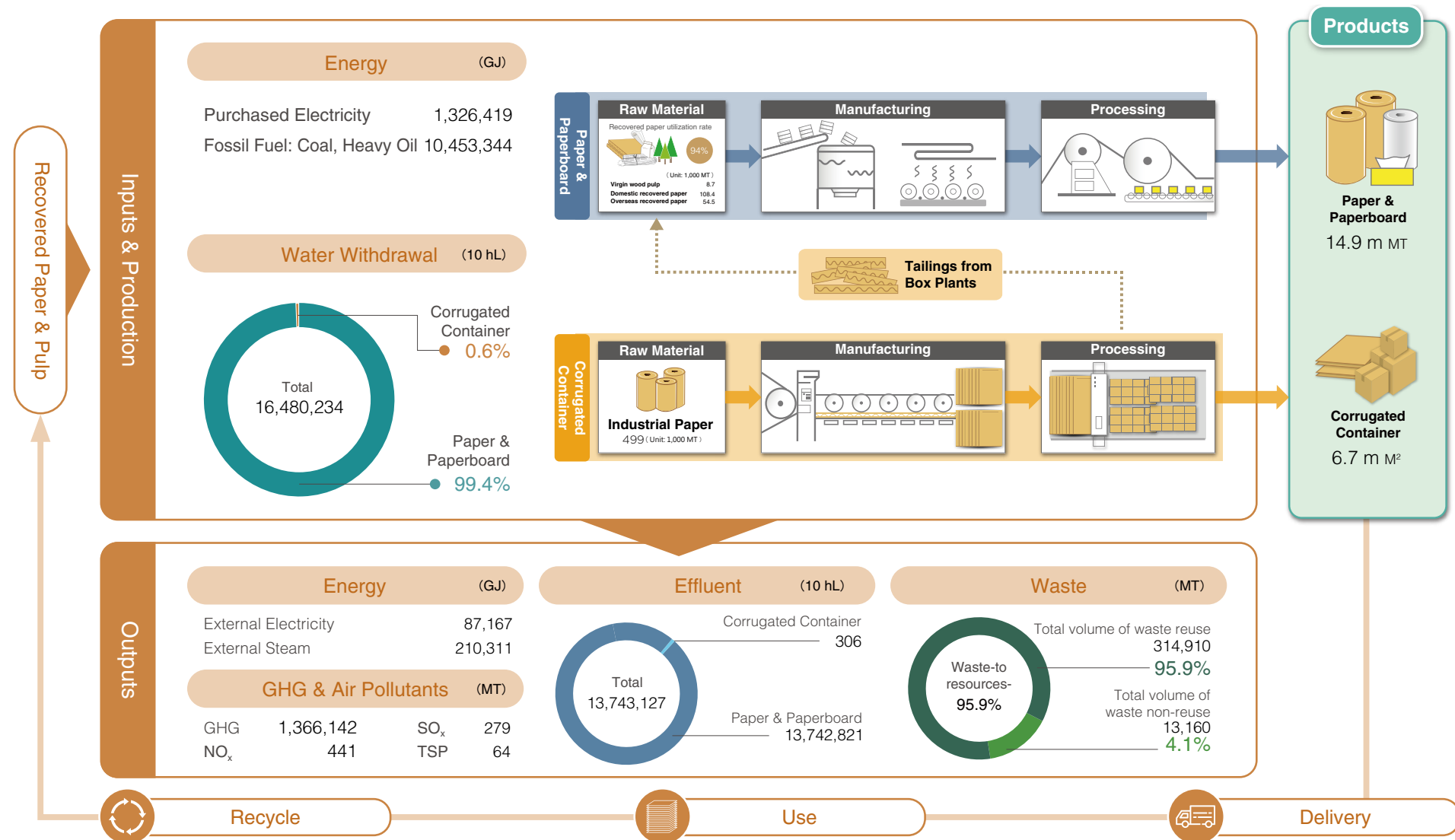
Agricultural and Forestry Recycling

Goals of 2030

Alternative Fuel Ratio 20%

Actively investing in the recycling and reuse of agricultural and forestry residual materials, deepening the regeneration of plant fibers, high-value applications of bio-materials, and expanding the use of biofuels. Collaborating with industry, government, academia, and research institutions, we aim to develop the influence of natural carbon sinks.

2023 Material Flow Chart



Note: Taiwan Area

4.1 Action for Climate Change

**Material
Issues**

**Action for Climate
Change**

Strategy

Plan 4 scientific carbon reduction pathways: enhancement of energy efficiency, development of renewable energy, intensification of circular, low-carbon fuels, and innovation and application of negative carbon emission technologies



2030

Goals

- GHG -20% (base year: 2018)
- Establish short-, medium-, and long-term carbon reduction pathways towards a carbon neutrality in 2050

2024

Goals

- GHG -4% (base year: 2018)
- Consolidated subsidiaries to establish ISO 14064-1 GHG inventory management systems
- Introducing internal carbon pricing to continuously improve CDP Climate Change Questionnaire results

2023

Goals / Action Results

- GHG -3% (base year: 2018)
➔ GHG decreased by 5.06%
- Consolidated subsidiaries to establish ISO 14064-1 GHG inventory management systems
➔ Surpassing FSC Paper Mill regulations, the overseas facilities including Binh Duong Mill and Viva Tawana Plant in Vietnam, Chung Hao Plant in Shanghai, China, and 8 other plants, as well as Getech Optoelectronics, have all completed GHG inventories Corp.
➔ Chung Hao Plant in Shanghai, China, and 8 other plants have obtained certification
- Application for GHG offset to EPA passed
➔ Carbon credits for 79,000 t from Tayuan Mill are undergoing third-party verification and application for offsetting
- Continuously improve CDP Climate Change Questionnaire results
➔ Achieved management level evaluation in 2023
➔ Restarted TCFD in 2023, expanding the scope of inventory to all operating bases in Taiwan (identifying 6 transformation risks, 2 physical risks, and 4 climate-related opportunities)

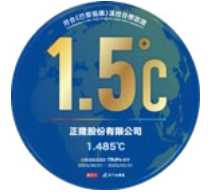
Expanding TCFD Scope, Implementing Internal Carbon Pricing (ICP), and Enhancing Climate Resilience

Circular economy practices are pragmatic steps towards global low-carbon and net-zero goals. We view climate change risks as opportunities and focuses on the core concept of "S.M.A.R.T. Low-Carbon Intelligent Paper," actively establishing circular economy bases domestically and internationally. We are committed to recycling paper for regeneration, focusing on "paper" as a NbS, and leading the industry in emphasizing sustainable climate governance to enhance operational resilience to climate change. Since obtaining the world's 1st ISO 14064-1 GHG inventory certificate in 2005, CLC has initiated emission reduction management on production lines, spearheading the promotion of low-carbon transformation. In 2008, we obtained Taiwan's 1st carbon credit trading certificate, in 2010, the 1st carbon footprint label for household paper products, and in 2023, we formed a national decarbonization team with the industrial chain, achieving the 1st industrial paper product carbon footprint inventory in Taiwan to accelerate grasping zero-carbon transformation business opportunities.

Exceeding the Financial Supervisory Commission's Corporate Governance 3.0 goals, CLC became the 1st Taiwanese paper company to pass TCFD verification and receive the highest certification rating in 2021. In 2022, we initiated GHG inventories for our subsidiaries, with our Vietnam Binh Duong paper mill achieving the local industry's 1st ISO 14064-1 GHG inventory certificate. Enhancing our group's carbon management, by 2023, in addition to the Vietnam Binh Duong paper mill, the Vietnam Viva Tawana Plant, China Shanghai Chung Hao Plant, and 7 other Plants, as well as Getech Optoelectronics Corp., have completed GHG inventories, with 80% completion for consolidated subsidiaries. We aim to achieve 95% completion by 2024. Committed to enhancing climate sustainability resilience, since 2022, we have been completing the CDP Climate Change Questionnaire, receiving a management-level rating in 2023. We will continue to strengthen carbon management to accelerate low-carbon development and climate adaptation strategies. Emphasizing natural growth, in 2024, we will also respond to the "Taskforce on Nature-related Financial Disclosures (TNFD)," becoming the 1st Taiwanese paper company invited as a TNFD Early Adopter.

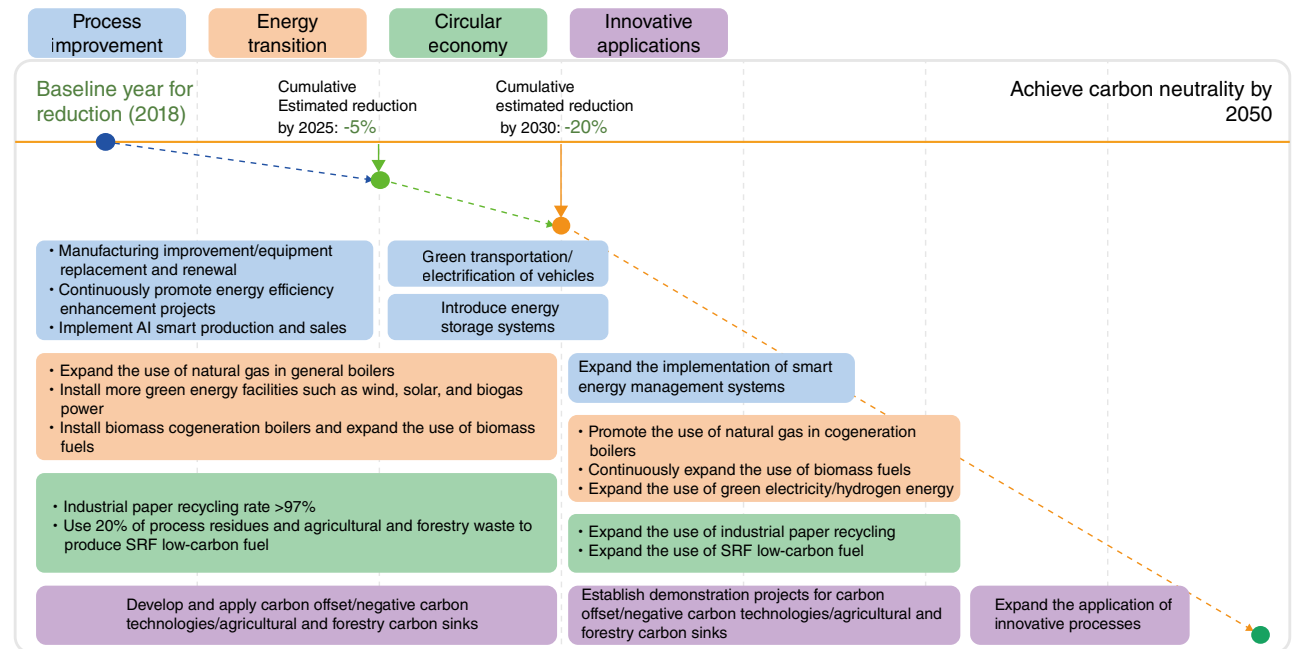
CLC Listed for 2 Consecutive Years in CommonWealth's "Corporate Carbon Reduction Thermometer," Meeting the Paris Agreement's 1.5°C Temperature Control Goal

CommonWealth Magazine established the "Corporate Carbon Reduction Thermometer Platform" in 2022, aiming to inventory Taiwanese companies' carbon reduction commitments using international standards (meeting the Paris Agreement's goal of limiting global temperature rise to within 1.5°C by the end of this century). In 2023, data from 725 companies, and through model verification, including CLC, only 92 companies (12.6%) met the Paris Agreement's 1.5°C temperature control goal. According to the latest report in June 2024, CLC's temperature rating was 1.485°C, 0.003°C lower than 1.488°C in 2023.



In response to global carbon tariff trends (EU CBAM implementation, U.S. Clean Competition Act 2 MT reading, etc.) and Taiwan's Climate Change Response Act incorporating the net-zero target into law with carbon fees to be imposed from 2025, CLC initiated TCFD reevaluation in 2023, expanding the inventory scope to include all operating sites in Taiwan, identifying 6 transition risks, 2 physical risks, and 4 climate-related opportunities, and taking corresponding measures to mitigate operational impacts. We will regularly monitor significant changes in international climate and carbon-related policies and continuously update TCFD evaluations. In 2024 Q1, we will formally launch the ICP internal carbon pricing introduction plan to accelerate our response to international decarbonization trends.

CLC's 2050 Net-Zero Transformation Path



CLC Important Milestones on Climate Governance

Long-term focus on climate change adaptation and mitigation strategies, ahead of the Financial Supervisory Commission's corporate governance blueprint, in 2021, CLC became the only company in Taiwan's paper industry to receive the highest TCFD third-party verification rating. In 2023, in response to significant domestic and international climate policy trends, CLC conducted a TCFD reevaluation and expanded the scope to include all operational sites in Taiwan.

At the same time, the original ESG committee was elevated to the BoD's oversight level to deepen the group's ESG management. Emphasizing Nature Positive growth, in 2024, CLC responded to the "Taskforce on Nature-related Financial Disclosures (TNFD)," becoming a global TNFD early adopter, continuously expanding its focus on natural ecological issues. Additionally, CLC pioneered the introduction of Internal Carbon Pricing (ICP) within the company, steadily progressing towards the vision of achieving carbon neutrality by 2050.

Domestic and Global
Climate Trends

- 1997** Execution of the COP 3
- 2005** Kyoto Protocol took effect

Green transformation 2010

- 2003** Asia's largest wind turbine demonstration unit
- 2005** The world's 1st ISO 14064-1 certificate

- 2006** Establishment of ISO 14064-1 for the entire company
- 2008** 1st international VCS carbon credit certificate in Taiwan
- 2010** 1st carbon footprint label for household paper products in Taiwan

CLC's Responses

- 2015**
 - COP 20 Paris Agreement set the target of limiting global warming to 2°C
 - Taiwan: Passage of 《GHG Reduction and Management Act》
- 2020** FSC initiated the "Corporate Governance 3.0 - Sustainable Development Blueprint (2021-2023)"

Deepen ESG 2020

- 2013** Establishment of CSR Committee and publication of the 1st CSR report
- 2015** Company-wide adoption of ISO 50001
- 2019** 60th anniversary
Focusing on innovation, circularity, and green energy, initiating the "Smart Paper 4.0" digital transformation
- 2020**
 - Aligning with SDGs, setting long-term 2030 ESG goals
 - Establishment of the "Ethics and Integrity Team"
 - Linking ESG performance to the BoD and senior executive compensation
 - Registration with the Environmental Protection Agency for GHG offset projects

- 2021**
 - COP 26 declared global commitment to carbon neutrality
 - Taiwan introduces provisions for major electricity consumers, Amendment to the GHG Reduction and Management Act
- 2023~**
 - EU CBAM Carbon Border Adjustment Mechanism (trial run in October 2023)
 - Taiwan passed the "Climate Change Response Act," carbon fees to be collected starting in 2025, and the stock exchange to initiate ESG evaluations; all listed companies must complete and certify their carbon inventories by 2029
 - Taiwan aims to reduce carbon emissions by 24% (±1%) by 2030, with international corporations targeting carbon neutrality
 - Taiwan to achieve net-zero emissions by 2050

Net zero smart paper 2050

- 2021**
 - Renamed as "ESG Committee" and planned to establish the "Climate Change and Circular Economy Office"
 - Committed to "Achieving Carbon Neutrality by 2050," pioneering Scope 3 inventory
 - The 1st and only Taiwanese paper company to receive the highest TCFD verification rating, surpassing Corporate Governance 3.0 goals
- 2022**
 - Established the "Agricultural and Forestry Materials Resource Utilization Team" to deepen carbon-neutral biomass fuels
 - The only domestic paper industry company in Taiwan to acquire an "A-" Management Level in CDP Climate Change questionnaire
 - The Binh Duong Mill in Vietnam obtained the 1st ISO 14064-1 certificate in the local paper industry
 - Completed a NT\$12.6 billion ESG transformation syndicated loan for low-carbon smart papermaking
- 2023**
 - Pioneered the introduction of ISO 27001 information security management system, expanded TCFD inventory scope
 - Officially established ESG and Risk Management Committee under the BoD
- 2024**
 - The only Taiwanese paper company listed among global TNFD Early Adopters
 - Leading the industry in implementing Internal Carbon Pricing (ICP)

I. Climate Change Management

Based on the core elements of TCFDs, CLC introduces the management framework and review the orientation and progress to climate change quarterly.

II. Climate Change Strategy

Engaging in green production over time, CLC annually reviews the overall effectiveness of our carbon reduction efforts through the third-party verification of our GHG inventory results, with the goal of becoming a new low-carbon and green-energy paper company. We continuously align with international initiatives to mitigate and adapt to climate change.

Given that our major sources of GHG emissions are from Scope 1 (direct emissions from production processes) and Scope 2 (indirect emissions from electricity use), CLC focuses on energy management, aiming to enhance energy conservation and carbon reduction in our processes. From 2013 to 2023, we executed 480 energy conservation projects with an investment of nearly NT\$700 million, achieving a substantial carbon reduction of 77,337 tCO₂e. We are the only company in the industry to have obtained renewable energy certificates for both wind and solar power. Leading the industry, we have also introduced AI smart management, integrating offline digital inspection systems to expand the scale and efficiency of green production and sales through digitization, making us the 1st paper company in Taiwan to implement intelligent production and sales.

To accelerate the group's net-zero transformation, CLC has established 4 major scientific pathways for carbon reduction: improving energy efficiency, developing renewable energy, deepening the use of circular low-carbon fuels, and innovating the application of carbon-negative technologies. We have collaborated with National Chung Hsing University to establish Asia's 1st "Circular Economy Research Institute," actively investing in the recycling and reuse of agricultural and forestry residual materials. This initiative has pioneered the 3R PLUS total resource circulation carbon reduction manufacturing chain, laying out a circular low-carbon biomass material ecosystem. In 2023 Q1, we also partnered with National Central University to promote the potential assessment and future business model research of the Tayuan Carbon Sequestration Demonstration Site, establishing the 1st Carbon Capture, Utilization, and Storage (CCUS) model in Taiwan, steadily progressing towards the 2050 carbon neutrality goal.

Core Element	Management Strategies and Actions
Governance	- The BoD has established the "Corporate Sustainability Committee," which integrates climate action resources and progress across departments. Under this committee, the "Climate Change and Circular Economy Office" has been established, with the General Manager serving as the convener. This office actively manages climate change issues and takes action, reporting to the BoD quarterly. - The BoD and the management team are responsible for approving climate and nature-related strategies, goals, and specific actions.
Strategy	- Continue to implement climate change mitigation and adaptation projects. - Promote smart production and sales and a green energy circulation, and transform CLC into a low-carbon and green energy paper company.
Risk Management	- The BoD has established the "Risk Management Committee," which collaborates across departments to identify climate-related risks and opportunities. - Quantify financial impacts, devise countermeasures. - Incorporate into corporate ISO management processes.
Metrics and Targets	- The ESG Committee sets climate-related performance indicators and quantitative targets, regularly tracks the achievement rates, and discloses the information to the public. - Establish the medium- and long-term targets of taking action toward reducing carbon emissions by 20% by 2030 and achieving carbon neutrality by 2050, respectively.



Leading the Industry in Implementing Internal Carbon Pricing (ICP) to Accelerate Carbon Reduction Transformation

In 2015, CLC fully implemented the ISO 50001 energy management system, promoting process, equipment, and energy improvement projects. In recent years, facing international carbon border adjustment mechanisms, CLC has ensured that carbon pricing reflects the true cost of carbon to achieve low-carbon investment and improve energy efficiency. By referencing the cost of past energy-saving and carbon reduction projects, we have estimated the implicit price of internal carbon pricing, serving as a reference for carbon reduction strategies and major capital decisions.

To accelerate the carbon reduction transformation, we officially launched the internal carbon pricing implementation plan in January 2024, with the Tayuan Paper Mill in Taiwan as the 1st demonstration site. We will gradually optimize the system and extend it to other plants within the group, enhancing our carbon management capabilities.



About climate-related information for listed companies – the risks and opportunities caused by climate change to the company and the corresponding measures taken by the company, please refer to [2023 Annual Report P.41-42](#).

III. Management of Climate Risks and Opportunities

To enhance the BoD's oversight of major management issues such as climate governance, strategies, and goals, CLC has established 2 functional committees under the BoD: ESG Committee and Risk Management Committee. Given the increasing severity and frequency of climate change risks, we have set up the "Climate Change and Circular Economy Office" under ESG Committee, with the General Manager serving as the convener. This office flexibly integrates cross-departmental working groups to promote the execution of climate governance projects such as TCFD, TNFD, and internal carbon pricing.

In anticipation of climate laws and carbon tariffs being implemented by advanced countries in Europe and the US, as well as Taiwan's upcoming carbon fee, CLC launched the TCFD reevaluation plan in 2023. The scope has been expanded to include all business locations in Taiwan to fully grasp the risks, opportunities, and financial impacts brought by climate changes in the short, medium, and long term. We have identified 6 major transition risks, 2 physical risks, along with their financial impacts. CLC will continue to take various measures to strengthen risk management and operational resilience, accelerate the deployment of low-carbon development and climate adaptation strategies, and seize low-carbon business opportunities.



6

Transition Risks



2

Physical Risks



4

Climate-Related Opportunities

Significant Climate Change Risk and Opportunity Matrix



*Note: short term (1~3 years), medium term (3~5 years), and long-term (5~10 years)

Transition Risks

- T1 Domestic and International GHG Emission Pricing
- T2 Regulations and requirements for the development of renewable energy
- T3 Energy efficiency and energy structure transformation response
- T4 Tightened and total quantity control of air pollution and quality
- T5 Waste-related regulations and requirements
- T6 Water resource-related regulations and requirements

Physical Risks

- P1 Increased severity of flooding due to extreme weather
- P2 Increased frequency of extreme heat due to climate change

Opportunities

- O1 Promote low-carbon production and low-carbon energy transition
- O2 Layout circular economy green operations
- O3 Enter new and emerging markets to increase revenue
- O4 Obtain relevant environmental labels for products to drive green business opportunities

Material Climate Risks

Financial Impact and Corresponding Metrics and Targets

Transition/ Physical Risk	Key Strategy	Financial Impact	Correspondent Metrics	Results in 2023	2025	2030
Domestic and International GHG Emission Pricing	- Short-term: Strive for autonomous carbon reduction preferential carbon fees - Mid-term: Actively manage carbon reduction and disclose relevant group data - Long-term: Strengthen low-carbon technology and energy transition, aiming for science-based reduction targets	Operating Costs, Revenue / Output Value	GHG Reduction (Base year: 2018)	-5.06%	-5%	-20%
Regulations and requirements for the development of renewable energy	- Short-term: Assess the installation of renewable energy equipment and apply for renewable energy certificates for existing power generation equipment - Mid-term: Install renewable energy equipment and apply for renewable energy certificates - Long-term: Follow the group's strategy, and certificates can be used for carbon neutrality or trading purposes	Capital Expenditure	Unit Product Energy Consumption (Base year: 2019) Installed Capacity of Renewable Energy	3.93% (cumulative) -	-5% (cumulative) -	-10% (cumulative) -
Energy efficiency and energy structure transformation response	- Short-term: Increase the proportion of circular low-carbon fuel substitution - Mid- to Long-term: Invest in low-carbon biomass fuel boilers	Operating Costs, Capital Expenditure	Alternative Fuel Ratio	15.72%	15%	20%
Tightened and total quantity control of air pollution and quality	- Short-term: Add pollution control facility regulations - Mid- to Long-term: Assess the transition to clean fuels	Operating Costs, Revenue / Output Value	Air Quality Management (Base year: 2019) SO _x NO _x TSP	-30% -42% -61%	-30% -33% -57%	-42% -45% -65%
Waste-related regulations and requirements	- Short-term: Guide recyclers to improve at the source and implement the classification and reuse of waste paper containers - Mid-term: Introduce technological testing to improve the quality of recovered paper	Operating Costs	Recovered Industrial Paper Utilization Rate	97.5%	> 97%	> 97%
Water resource-related regulations and requirements	- Short-term: Apply for the use of recycled water - Mid-term: Improve the recovery of discharge water and increase the use of reclaimed water	Operating Costs	Water Consumption per Unit of Industrial Paper	-10.9% (cumulative)	-5% (cumulative)	-10% (cumulative)
Increased severity of flooding due to extreme weather	- Short-term: Strengthen flood disaster response measures - Mid-term: Make good use of digital tools to flexibly manage raw material demand and procurement - Long-term: Find alternative sources of pulp during the rainy season to diversify raw material procurement risks	Operating Costs, Capital Expenditure	Recovered Industrial Paper Utilization Rate	97.5%	> 97%	> 97%
Increased frequency of extreme heat due to climate change	- Short-term: Improve equipment handling efficiency to reduce high-temperature losses. Make good use of digital platforms to simulate and accurately grasp procurement needs - Mid-term: Find alternative sources of pulp during the snow season to diversify raw material procurement risks	Operating Costs, Revenue / Output Value	Recovered Industrial Paper Utilization Rate	97.5%	> 97%	> 97%

Note: The increase in unit product energy consumption in 2023 is due to the testing of the biomass boiler at the Chupei Mill, which resulted in higher energy consumption during the testing period.

Material Climate Opportunities

Financial Impact and Corresponding Metrics and Targets

Opportunity	Key Strategy	Financial Impact	Correspondent Metrics	Results in 2023	2025	2030
Promote low-carbon production and low-carbon energy transition	- Short-term: Invest in low-carbon technologies and equipment to reduce operating costs and carbon fee expenses - Mid-term: Expand the use of low-carbon fuels	Operating Costs, Asset Value	GHG Reduction (Base year: 2018)	-5.06%	-5%	-20%
Layout circular economy green operations	Deepen domestic and international circular economy bases, expand the capacity for recycling paper; capitalize on circular economy opportunities	Operating Costs, Revenue	Waste to Resource	95.9%	>97%	>97%
Enter new and emerging markets to increase revenue	Enhance the capacity for recovered paper containers, seize opportunities in low-carbon transformation	Revenue	Recovered Paper Utilization Rate Recovered Industrial Paper Utilization Rate	94.9% 97.5%	> 92% > 97%	> 92% > 97%
Obtain relevant environmental labels for products to drive green business opportunities	Provide low-carbon products and services, expand the eco household paper product line, and increase the number of green product certifications	Revenue	Recovered Paper Utilization Rate Recovered Industrial Paper Utilization Rate	94.9% 97.5%	> 92% > 97%	> 92% > 97%

GHG Management

Goal of 2050	Carbon neutral
Goal of 2030	GHG emission -20% (base year 2018)

GHG Emissions Decreased by 5.06% from the Baseline Year, Advancing toward Net-Zero with Scientific Carbon Reduction

In response to global climate change and in line with the national long-term GHG reduction goals, CLC has been at the forefront of its industry. As early as 2004, our Tayuan Mill participated in an Industrial Bureau pilot project. After obtaining the world's 1st ISO 14064-1 GHG emissions certificate in 2005, we began to extend the successful experience of ISO 14064-1 GHG inventory of Tayuan Mill to all mills/plants in Taiwan in 2006, activating the emission reduction management policy on all production lines across Taiwan ahead of competitors.

CLC's GHG Emissions (Scope 1)

Unit: tCO ₂ e			
GHG Type	2021	2022	2023
CO ₂	1,150,174	1,071,331	1,108,693
CH ₄	18,866	12,123	10,800
N ₂ O	5,308	4,812	4,744
HFCS	234	309	306
PFCS	0	0	0
SF ₆	0	0	0
NF ₃	0	0	0
Total	1,174,581	1,088,575	1,124,543

Note: Taiwan Area

In alignment with the national net-zero emissions target, CLC has set long-term goals to take action toward achieving a 20% carbon reduction by 2030 and carbon neutrality by 2050. We have pragmatically proposed 4 scientific pathways to reduce carbon emissions: enhancing energy efficiency, developing renewable energy, deepening the use of circular economy and low-carbon fuels, and innovating the application of carbon-negative technologies. We are actively responding to global decarbonization trends and the green energy transformation goals. In 2023 our GHG emissions in Taiwan were 1,366,142.0487 tCO₂e (Scope 1 and Scope 2), 15,071.7980 tCO₂e less than 2022 and 5.06% less than the base year 2018. CLC's 2023 GHG inventory is based on the requirements of the ISO 14064-1:2018 standard and has been verified by a third-party verification body according to the ISO 14064-3:2006 standard. The verification is expected to be completed by the end of August 2024, and the fully assured information will be disclosed on the [CLC website - Download Center](#) by December 2024.

CLC is actively engaged in carbon reduction actions. The steam system energy conservation project of the paper machine at Tayuan Mill was successfully registered to EPA's GHG offset program in 2020 (79,000 tCO₂e). We also completed the monitoring reports and collected related data in 2021. Then, in 2022, we conducted third-party verification and applied for the offset. In the future, we will continue to strive for the GHG offset quota from the EPA as the substantial reward for our efforts in carbon reduction.

For overseas operations in 2023, the GHG emissions from the Binh Duong Paper Mill in Vietnam were 579,240.9157 tCO₂e. The Scope 1 and Scope 2 emissions were 549,907.2640 tCO₂e and 29,333.6517 tCO₂e, respectively. The GHG emissions from the Vina Tawana Plant in Vietnam were 9,676.4600 tCO₂e, with Scope 1 and Scope 2 emissions at 5,443.0900 tCO₂e and 4,233.3700 tCO₂e, respectively. For the 8 paper mills in Shanghai Chung Hao Plant, China, the Scope 1 and Scope 2 emissions were 5,979.7500 tCO₂e and 7,872.3300 tCO₂e, totaling 13,852.0800 tCO₂e. The emissions for Getech Optoelectronics Corp. were 106.3835 tCO₂e for Scope 1 and 1,916.9315 tCO₂e for Scope 2, with total GHG emissions amounting to 2,023.3150 tCO₂e.

Leading the Industry Alliance in Low-Carbon Transformation and Establishing a Local Carbon Data Database

Facing the global trends of net-zero and carbon-neutral supply chains, sustainable practices cannot be achieved in isolation. Internally, we are actively and steadily accelerating the low-carbon transformation of the industry chain, led by CLC. Externally, we share practical experience in low-carbon transformation over the long term, striving to assist small and medium-sized enterprises in adapting to the overwhelming sustainability regulations and trends. In response to the government's policy of "big enterprises supporting small ones," in 2023, we joined forces with 20 industry chain partners to establish Taiwan's 1st "Industrial Carbon Neutral Alliance" in the paper industry, building a local industry carbon data database and completing the 1st carbon footprint inventory for industrial paper. By leveraging corporate influence, we have driven over 250 million NTD in carbon reduction investments within the industry chain, contributing to an annual emission reduction of 11,959 t and saving over 55 million NTD annually in energy costs, thereby enhancing the overall international competitiveness of the paper industry.



CLC's General Manager, Qing-Biao Chang, shared insights on "Large Enterprises Supporting Small Ones: Joining Hands to Achieve Net-Zero Emissions by 2050" at the "2023 Industry GHG Reduction and Green Technology Guidance Results and Practices Seminar" held by the Industrial Development Bureau of the MEA.

GHG Inventory of CLC and its Subsidiaries

Taiwan (Headquarters, 4 paper mills, 7 paper container plants, and 1 paper packaging materials plant)

	2021	2022	2023
Scope 1	1,187,286.0727 (79.9%)	1,088,574.8375 (73.3%)	1,124,541.8928
Scope 2-TYC	169,208.6310 (11.4%)	159,228.5051 (10.7%)	125,925.9590
Scope 2-TPC	128,648.7522 (8.7%)	133,410.5041 (9.0%)	115,674.1968
Total (Scope 1 ~ 2)	1,485,143.4559	1,381,213.8467	1,366,142.0487
Scope 3	281,128.0845	402,944.1414	404,481.7242
Total (Scope 1 ~ 3)	1,766,271.5404	1,784,157.9881	1,770,623.7729
ISO 14064-1 third-party assurance	Passed (Scope 1~Scope 3)	Passed (Scope 1~Scope 3)	Expected to complete by August 2024 (Scope 1~Scope 3)
Biomass GHG	38,575.4826	49,850.7173	46,096.1601

Note: In 2023, we have identified Type 3-6 indirect GHG emissions in 2022 (including upstream logistics, purchased products, solid and liquid waste treatment, and leased assets) according to the new version of ISO 14064-1:2018 GHG inventory standard. The estimated total GHG Scope 3 emissions in 2021 was 402,944.1414 tCO₂e and got the third-party verification. The Scope 3 GHG emissions in 2023 are estimated at 404,481.7242 tCO₂e.

GHG Emissions Statistics of Group Subsidiaries

Binh Duong Paper Mill in Vietnam

	2021	2022	2023
Scope 1	260,113.3693	287,601.5572	549,907.2640
Scope 2-VPC	18,398.5317	25,216.0931	29,333.6517
Total (Scope1 ~ 2)	278,511.9010	312,817.6502	579,240.9157
Scope 3	0	4,067.6168	8,704.7001
Total (Scope 1 ~ 3)	278,511.9010	316,885.2671	587,945.6158
Biomass GHG	2,999.9748	17,354.3407	30,986.8018

Viva Tawana Plant in Vietnam

	2022	2023
Scope 1	6,506.8000	5,443.0900
Scope 2-VPC	4,192.2900	4,233.3700
Total (Scope1 ~ 2)	10,699.0900	9,676.4600
Biomass GHG	0	0

8 Paper Container Plants Including Shanghai Chung Plant in China

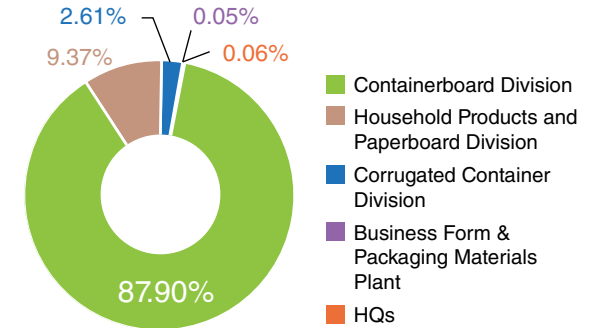
	2022	2023
Scope 1	6,137.7700	5,979.7500
Scope 2-SGCC	8,977.1600	7,872.3300
Total (Scope1 ~ 2)	15,114.9300	13,852.0800
Scope 3	13,655.7400	11,540.1700
Total (Scope 1 ~ 3)	28,770.6700	25,392.2500
Biomass GHG	0	0

Note: 8 paperboard factories in Shanghai, Kunshan, Suzhou, Kaifeng, Dongguan, Zhangzhou, Qingdao, and Chengdu.

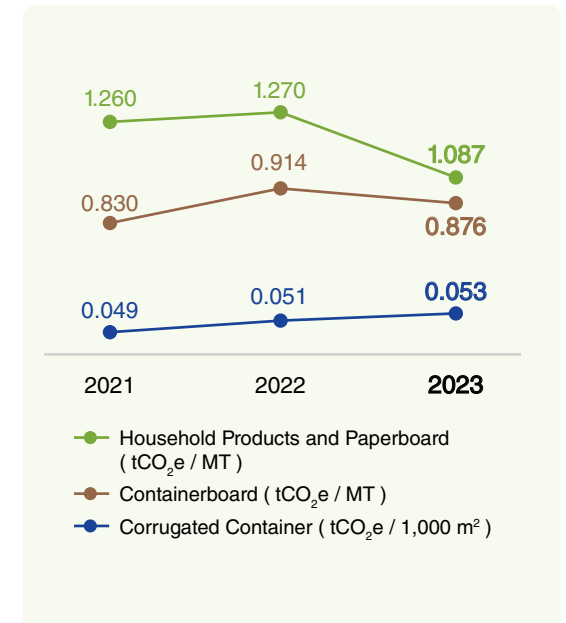
Getech Optoelectronics Corp.

	2022	2023
Scope 1	104.5309	106.3835
Scope 2-TPC	1,985.8769	1,916.9315
Total (Scope1 ~ 2)	2,090.4078	2,023.3150
Scope 3	360.7300	384.7013
Total (Scope 1 ~ 3)	2,451.1378	2,408.0163
Biomass GHG	0	0

Distribution of Divisional GHG Emissions (Taiwan Area)



Intensity of Divisional GHG Emissions (Taiwan Area)



We have received numerous awards for low-carbon and sustainable transformation at both domestic and international facilities. We actively participate in over 10 low-carbon and sustainability forums through collaborations with industry, government, and academia, and we open our factories for tours, engaging in positive communication with various sectors.



Binh Duong Paper Mill in Vietnam utilizes low-carbon circular fuel, reducing 28,000 MT of coal and 23,000 t of carbon emissions annually. The proportion of alternative fuel used reached 18.93%, an annual increase of 8.18%, saving 140 million VND, an annual increase of 44%. In 2023, the mill received dual honors: the "TOP 100 Green and Sustainable Development Enterprises Award" and the "TOP 100 Environmentally Friendly Green Factories Award" from the Vietnam Environment Association. Additionally, it was again honored with the CSI TOP 100 Sustainable Enterprises Award.



A youth visit to the CLC headquarters and Panchiao plant at 3rd "New Taipei Youth Climate Forum - Net Zero Era: Positive Actions by the Young". (2023.9.22)

Value Product Carbon Management to Help Society Reduce Carbon Emissions Easily

6 Household Paper Products Obtained the Carbon Footprint Label, Unique in the Industry

Over 90% of CLC products using the recycled raw materials, including the recovered paper / paper containers and scrap, and for the rest 10% using the pulp. In addition, a couple of products were awarded Low-carbon Products by EPA. In 2023, 6 household paper products obtained carbon footprint labels. By 2025, it is planned to add 3 more products to this list, continuing the management of carbon reduction. At the same time, in response to the "Net Zero Green Life" strategy, one of the 12 key strategies for the country's net zero transformation, products with carbon footprint labels are being provided for consumers to choose from, helping society to decarbonize.



- 2017: Dandelion Hand Towel — Excellence Award
- 2019: Dandelion Toilet Tissue — Excellence Award
- 2020: Andante Toilet Tissue — Highest Honor Award, Carbon Footprint Contribution Awards
- 2021: Hsinchu County Environmental Protection Bureau - Outstanding Unit in Green Procurement
- 2022: Forward-looking Resource Recycling Label, Outstanding Unit in Green Procurement
- 2023: Hsinchu County Environmental Protection Bureau - Outstanding Unit in Green Procurement

Inventory year/ Product	 Dandelion Hand Towel 200-sheet	 Dandelion Toilet Tissue 100-sheet	 Andante Toilet Tissue 110-sheet (200mm*195mm)	 Andante Toilet Tissue 130-sheet (200mm*195mm)	 Andante Toilet Tissue 100-sheet (200mm*180mm)	 Andante Toilet Tissue 110-sheet (200mm*180mm)
2012	750	260	340	-	-	-
2015	750 (Carbon label)	320	380	-	-	-
2018	750 (Carbon label)	280 (Carbon label)	400 (Carbon label)	-	-	-
2022	750 (Carbon label)	300 (Carbon label)	400 (Carbon label)	500 (Carbon label)	360 (Carbon label)	380 (Carbon label)

Carbon Footprint Classroom:

* Carbon footprint unit: g CO₂e / package

* Carbon Reduction Label emissions: the inventory coefficient of the previous year

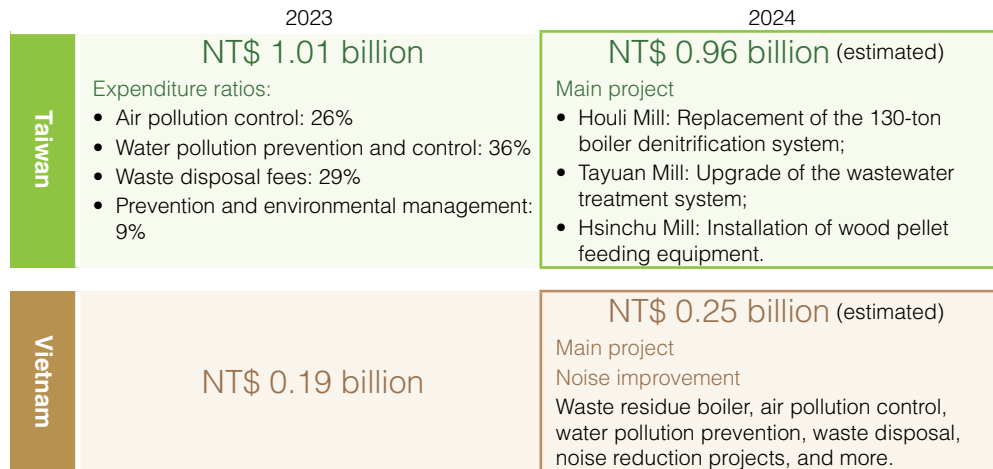
Note 1: We have implemented regular carbon footprint assessments, and the latest one was conducted in 2022.

Note 2: For more information, please refer to CLC website - [Download Center](#).

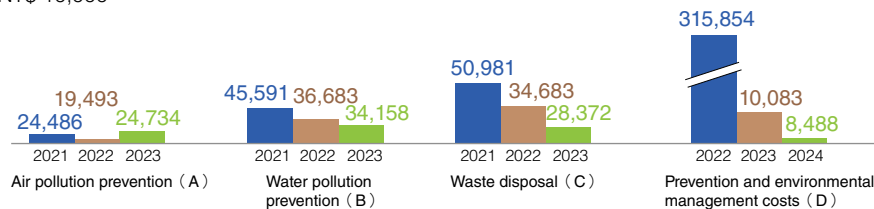
Environmental Management and Environmental Protection Expenditure

Follow the trend of regulations at home and abroad, we explicitly concluded the expenditure and investment in environmental protection and implemented the environmental accounting system in 2001. In 2023, we invested a total of 1.206 billion TWD both domestically and internationally, and we will continue to allocate funds to enhance environmental performance in the future.

Environmental Investment and Expenditure:



Unit: NT\$ 10,000



Note 1: Taiwan Area

Note 2: The amount of environmental investment and expenditure is "previous year (A+B+C) + current year D"

Environmental Management Verification

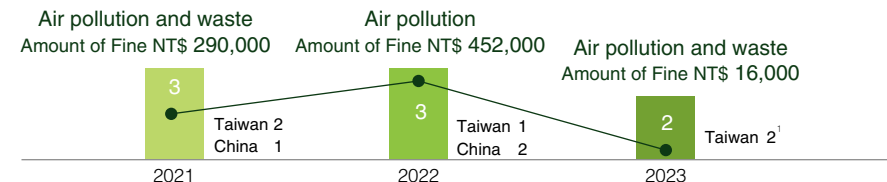
We have implemented and applied for certification of international management systems at all mills/plants, including the ISO 14001 environmental management system, ISO 14064-1 GHG inventory, and ISO 50001 energy management system. All operational sites in mainland China and Vietnam have implemented the ISO 14001 Environmental Management System. In 2022, the group's subsidiaries also began greenhouse gas inventories and energy management. 8 sites, including the Binh Duong Paper Mill and Viva Tawana Plant in Vietnam, and the Chung-Hao Plant in Shanghai, China, have received ISO 14064-1 and ISO 50001 certifications.

Verification Standard	Certified Factory		
	Taiwan	China	Vietnam
ISO 14001 environmental management system	All factories (4 paper mills and 7 box plants)	All factories (8 box plants)	All factories (1 paper mills and 4 box plants)
ISO 50001 energy management system		All factories (8 box plants)	1 paper mills and 1 box plant Executed in 2023
ISO 14064-1 GHG inventory	Note: *ISO 50001 covers the headquarters. *ISO 14064-1 covers the boundaries including the headquarters and packaging materials plants.	All factories (8 box plants)	1 paper mills and 1 box plants Executed in 2023
ISO 9001 Quality management certification		All factories (8 box plants)	(1 paper mills and 3 box plants)
ISO 45001 Occupational health and safety management systems		5 box plants	All factories (1 paper mills and 4 box plants)
FSC™		All factories (8 box plants)	All factories (1 paper mills and 3 box plants)

※ For the complete international management system, please refer to [CLC's website-Major Regulations](#)

Environmental Fines

In 2023, there were no significant records of fines, but there were a total of 2 cases of missing environmental regulations both domestically and internationally. This includes one case each of water pollution and waste. Measures have been taken to address these deficiencies and prevent recurrence. We have actively addressed deficiencies, prevented recurrence, and continue to carefully manage through digital tools, education and training, improved SOPs, and R&D investments.



Note: CLC immediately removes any pipelines not listed in the management measures, and regularly inspect the wastewater treatment mill/plant's pipeline layout and labeling to ensure compliance with relevant regulations, preventing similar incidents from recurring. Additionally, we contact licensed waste disposal vendors and ensure that future waste removal equipment complies with GPS-related regulations to avoid similar incidents.

Actions to Reduce Noncompliance with Environmental Protection in 2023

- ✓ Immediately remove pipelines not listed in water resource management measures.
- ✓ Contact licensed disposal vendors to completely remove temporarily stored waste, with dedicated personnel overseeing and regularly recording the status of Category C waste to ensure removal before regulatory deadlines and prevent recurrence.
- ✓ Implement new digital reminders and warning mechanisms for real-time management, and conduct regular education and training to reduce the risk of recurrence.

4.2 Energy Management

Material
Issues

Energy
Management

Strategy

Total participation, energy conservation, carbon reduction, green production, energy efficiency enhancement, support for renewable energy development with real actions, enhancement of alternative fuel use, and reduction of fossil fuel dependency.



2030

Goals

- Reduce accumulated unit product energy consumption by 10% (base year: 2019)
- Alternative fuel ratio at 20%
- Build renewal energy equipment in appropriate sites, and develop green energy

2024

Goals

- Reduce unit product energy consumption by 5% (base year: 2019)
- Alternative fuel ratio at 13%
- Build renewal energy equipment in appropriate sites, and develop green energy
- A 2,000kW biogas green electricity system is under construction at the Houli Mill
- The biogas generation at Houli Mill is expected to be officially start up in 2026
- Overseas companies established ISO 50001 energy management system

2023

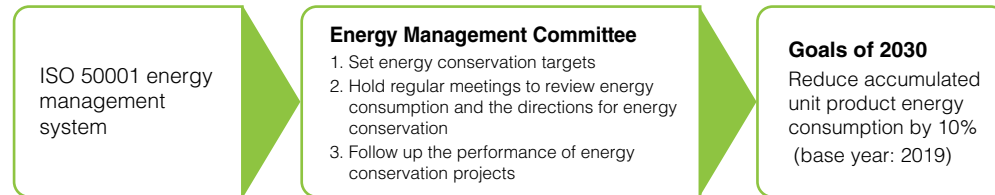
Goals / Action Results

- Reduce unit product energy consumption by 4%. (base year: 2019)
 - ➔ 3.93% (accumulated). The annual target was not met mainly due to poor market conditions reducing production. The Chupei Mill installed a new biomass boiler to optimize energy consumption
- Implement 44 energy conservation and carbon reduction projects, saved electricity by 13.89 GWh
- Alternative fuel ratio at 11%
 - ➔ 15.72% · +5.4% YoY
 - ➔ 6 household paper products received "Carbon Footprint" labels
 - ➔ 1st "Industrial Paper Carbon Footprint Inventory" obtained
 - ➔ Wood pellet fuel use expanded to 32,000 MT/year, replacing 14,259 MT of coal and reducing carbon emissions by 32,795 t
- The renewal energy equipment in operational sites in Taiwan qualified the capacity of renewable energy equipment to 10% of the contract capacity
- Chupei Mill-High-Performance Biomass CFB Boiler System in Taiwan start up
 - ➔ Commenced power generation in 2023
- Complete the solar panels at Houli Mill
 - ➔ Commenced in 2022, with a maximum installed capacity of 1,289.6 kW; successfully applied for renewable energy certificates
- Accumulated 12,575 RECs (2017–2022)
- Overseas companies established ISO 50001 Energy management system
 - ➔ 8 paper container plants, including Chung-Hao Plant in Shanghai, China, as well as the Binh Duong paper mill and Viva Tawana Plant in Vietnam, have obtained certification

Implemented Digital ISO 50001 Intelligent Management to Enhance Green Energy Efficiency

Upholding the energy policy: total participation, energy conservation, carbon reduction, and green production, by implementing the ISO 50001 energy management system, we achieve energy management and verify energy efficiency and the achievement of energy conservation targets of all sites. To achieve the 1% annual energy conservation target, we propose energy conservation programs every year, use high-performance cogeneration, build renewal energy equipment, optimize existing equipment, and combine smart systems to make constant innovation to optimize the performance in energy conservation and carbon reduction. We also set emerging environmental protection benchmarks to actively transform into a "new low-carbon & green energy paper company".

Energy Management



We applied the ISO 50001 energy management system to the Paper Division in 2013 and then introduce it to all the Operational Sites in Taiwan in 2015. The headquarters established a cross-department Energy Management Committee to ensure energy management to be developed towards the goals of continual improvement. We awarded in public and got the related awards from the government to encourage the employees to figure out the opportunities to energy-saving improvements and increase the benefits of the energy. To systematically manage energy performance, we initiated the ISO 50001 energy management system in our overseas companies in 2022. After the Binh Duong paper Mill in Vietnam received certification in 2022, 8 paper box plants, including Chung-Hao in Shanghai, China, obtained certification in 2023. We will continue expanding this system to our overseas operations and conduct regular annual verifications to ensure effective smart energy management.

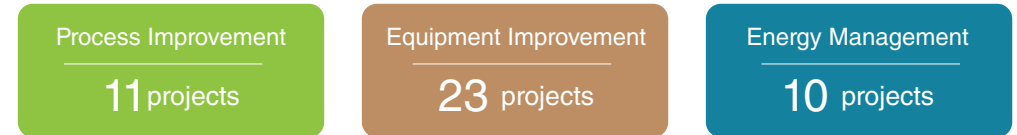
Save Energy and Reduce Carbon Emission

Goals of 2030 Reduce accumulated unit product energy consumption by 10% (base year: 2019)

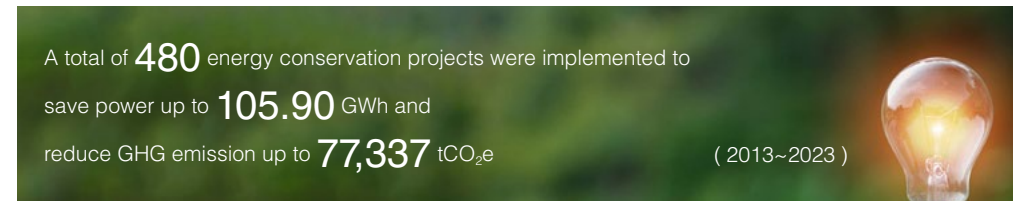
The electricity and steam at CLC are primarily used for production equipment and utility systems. Utilizing ISO 50001 management tools, intelligent management, and cross-plant energy efficiency benchmarking, we strive to optimize the operational efficiency of each paper machine. In 2023, the energy emission intensity of the parent company's paper container division remained steady at 0.61 (GJ/1,000 sqm) compared to the previous year. However, due to overall market downturns and the optimization of the new biomass boiler at the Chupei Mill, the energy emission intensity for the industrial paper, household products, and paperboard divisions slightly increased to 8.86 (GJ/MT paper) and 16.59 (GJ/MT paper), respectively. The cumulative energy consumption per unit product increased by 3.93%* compared to the base year of 2019. Despite this, we continued to invest NT\$91.43 million in 44 energy-saving projects across 3 categories: process improvement, equipment improvement, and energy management. These efforts resulted in an annual electricity saving of 13,889,310 kWh, a reduction of 8,343 tCO₂e emissions, and approximately NT\$72.04 million in energy cost savings.

* After calculating the energy improvement rate of each mill/plant (= annual reduction rate), we convert it into the proportion of each mill/plant according to the calorific value of the energy used by each plant, then add up the improvement rate of each mill/plant* the proportion of each mill/plant = the improvement rate of the whole company (The value is also the unit product energy consumption of whole company).

Performance of 2023 Energy Consumption Projects



Categories	Energy savings (kWh/yr)	Carbon reduction (tCO ₂ e)	Cost savings (NT\$ 10,000)	Investment amount (NT\$ 10,000)
Process improvement	1,178,624	583	402	24
Equipment improvement	8,244,179	5,549	5,127	9,074
Energy management	4,466,507	2,211	1,676	45
Total	13,889,310	8,343	7,204	9,143



Performance Table of Energy Saving and Carbon Reduction Project

	2021	2022	2023	Total
Cases	42	49	44	135
Energy savings (kWh/year)	14,186,891	10,319,775	13,889,310	38,395,975
Carbon reduction (tCO₂e)	10,674	6,639	8,343	25,657
Cost savings (NT\$ 10,000)	4,067	3,388	7,204	14,659
Investment amount (NT\$ 10,000)	17,107	2,767	9,143	29,017

Note: Taiwan Area



Tayuan Paper Mill's Paper Pressing Optimization Technology Achieves Carbon Reduction of over 10,000 t per Year

By participating in the Industrial Development Bureau's "Industry Innovation Low-Carbon Guidance Platform Project," the company replaced old energy-consuming equipment. The Taiwan Tayuan Mill installed advanced energy-saving Turbo blowers (turbo vacuum pumps) early on, significantly improving the water removal efficiency of paper machines. Mechanical efficiency increased by nearly 50% compared to older machines. Additionally, innovative and highly efficient operating parameters were developed to enhance the vacuum suction efficiency in the paper pressing section. Through a series of energy-saving technologies and measures, annual carbon reduction exceeded 10,000 MT, further enhancing the overall low-carbon competitiveness of the paper industry.

CLC's Energy Usage in 2023

Unit: GJ	Containerboard Division			Container Box Division			Household Products and Paperboard Division			Binh Duong Paper Mill		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Self-produced renewable energy	1,004	1,106	5,681	0	0	0	0	9,513	0	0	0	0
Coal	10,860,138	9,264,564	9,825,822	0	0	0	630,307	641,943	605,779	2,317,200	2,212,211	5,835,481
Heavy oil	37,814	24,509	21,743	0	0	0	0	0	0	3,142	2,436	4,393
Natural gas	0	0	0	344,341	312,382	296,968	95,675	95,894	93,955	0	26,297	90,857
Sludge	57,596	32,548	33,365	0	0	0	36,268	26,958	21,608	5,857	11,648	14,734
SRF (RDF 5)	322,144	451,185	564,171	0	0	0	0	0	96,152	0	10,334	10,049
SRF (RDF 3)	463,222	438,698	452,912	0	0	0	0	0	420,235	118	144,308	242,335
Scrap tires	42,563	95,574	83,163	0	0	0	0	0	0	0	0	0
Sawdust	8,157	313,126	592,950	0	0	0	0	0	0	0	198,767	374,825
Purchased electricity	844,133	866,107	846,328	123,685	120,453	116,716	455,159	445,804	363,375	82,331	125,652	146,708
Purchased steam	219,115	258,656	254,646	0	0	0	0	0	0	0	0	0
External electricity	63,185	34,097	87,167	0	0	0	0	0	0	0	0	0
External steam	198,583	211,253	210,311	0	0	0	0	0	0	0	0	0
Total energy consumption	12,594,117	11,500,724	12,383,301	468,027	432,835	413,684	1,217,409	1,220,112	1,601,105	2,408,649	2,731,652	6,719,381

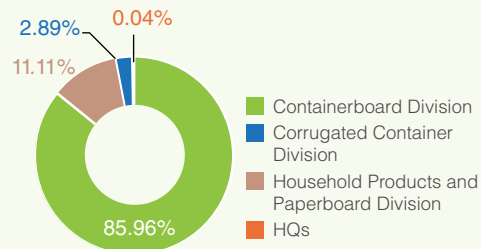
1. The power heating value is subject to 860 kcal/kWh announced by the Bureau of Energy. The power heating value is calculated at the average of each production base.

2. SRF is the abbreviation of solid recovered fuel. RDF is the abbreviation of refuse derived fuel.

RDF 3 is solid refuse with non-flammable contents (metal, glass, and other organic substances) removed by breaking. RDF 5 is flammable refuse compressed in cylindrical form (spherical or ingot).

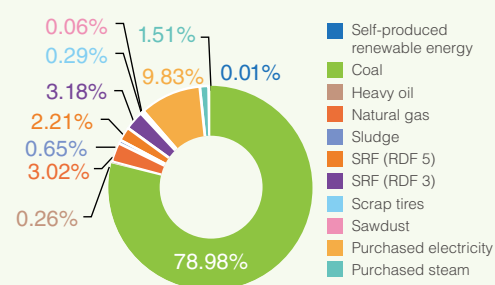
3. Taiwan, Vietnam area

Energy Consumption- by Department

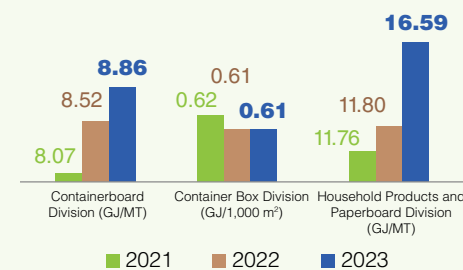


Note: Taiwan Area

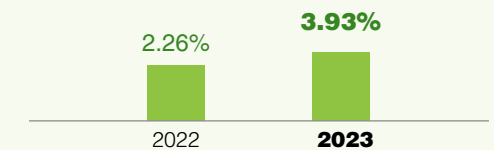
Energy Consumption- by Fuel



Note: Taiwan Area



Unit Product Energy Consumption- Whole Company (base year: 2019)



Note 1: Taiwan area

Note 2: Due to poor market conditions, production decreased. The new biomass boiler at the Chupei Mill optimized energy consumption, resulting in not meeting the target.

Note 3: The ratio of unit product energy consumption was positive, which indicated decline. And the ratio was negative, which indicated progress.

Actively Developing Renewable Energy to Seize Green Energy Opportunities

Increasing Renewable Energy Capacity: Surpassing Major Electricity User Regulations, the Only Industry Player to Obtain Wind and Solar Renewable Energy Certificates

CLC has utilized the geographical and production line characteristics of its various plants/mills locations to establish wind, solar, and biogas renewable energy sources. In 2022, the total installed capacity of renewable energy across Taiwan nearly doubled compared to 2020, reaching an overall renewable energy generation capacity of 12,056 kW. In 2023, the Houli plant added solar photovoltaic and biogas green electricity installations, further increasing capacity by 2,000 kW. Currently, the renewable energy installed capacities at the Chupei and Houli Mills have both met the 2025 goal of 10% renewable energy capacity for major electricity users ahead of schedule.

1st Paper Company to Invest in Wind Energy and Obtain Renewable Energy Certificates (Accumulated 12,575 Certificates)

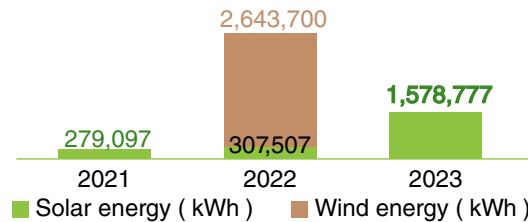
Since introducing Taiwan's 1st and then-largest wind turbine in Asia in 2003, CLC became the 1st and only paper company in the country to obtain wind renewable energy certificates in 2017. CLC continues to install solar and wind renewable energy systems based on the geographical characteristics of its plant locations. In 2023, it became the only paper company to simultaneously obtain wind and solar renewable energy certificates, with a cumulative total of 12,575 certificates, equivalent to the annual electricity consumption of 3,493 households (based on Taiwan Power Company's published average monthly household electricity usage of 300 kWh over the past 10 years).

Waste-to-Energy: Biogas Power Generation at Tayuan and Houli Mills

In 2022, CLC's Tayuan Paper Mill officially began commercial operation of two 1,200 kW gas-fired engine generators, with an annual electricity output of 13 million kWh. The Mill also installed waste heat recovery boilers to convert the waste heat from the generator exhaust into steam for use in the paper-making process within the Mill. By utilizing biogas for power generation and steam production, the Mill reduces greenhouse gas emissions by up to 14,000 tCO₂ equivalent annually. To further enhance green energy and achieve net-zero emissions, the flagship Houli Mill in Taiwan is currently constructing a biogas green electricity system (2,000 kW, estimated annual electricity output of 10.56 million kWh, reducing carbon emissions by 7,660 t).

Year	Mills/Plants	Renewable energy equipment	Installed capacity (kW)
2003	Chupei Mill	✓ The 1 st wind turbine in the paper industry, the largest wind turbine in Asia at the time.	1,750
2011	Houli Mill	✓ Rooftop solar panels installed on the roof of the automated warehouse of Paper Machine No. 10, reducing temperature and air conditioning energy consumption.	493.5
2019	Taichung Port Transfer Warehouse	✓ Solar panels	1,822.8
2021	Yenchao New Plant	✓ Solar panels	4,300
2022	Tayuan Mill	✓ Biogas power generation (2 units)	2,400
2022	Houli Mill	✓ Rooftop solar panels (expanded area)	1,290
Under construction	Houli Mill	✓ Biogas power generation (2 units)	2,000

Capacity of Renewable Energy Generation



Note 1: Taiwan region

Note 2: The wind power equipment at the Chupei Mill was damaged, and the repair progress was affected due to the inability of foreign technicians to come to Taiwan because of the pandemic.



Turning waste into energy, CLC's Tayuan Mill biogas green electricity system achieved a generation volume of 13 million kWh in 2023, helping Taiwan reduce carbon emissions by 14,000 t annually.

Leading the Industry in Cogeneration Applications and Management, Establishing an Intelligent Energy-Saving Demonstration

Since introducing the 1st large-scale cogeneration equipment in the paper industry in 1984, CLC has once again led the industry by implementing intelligent management for the G3 cogeneration boiler at the Houli Mill in 2019. This technology has been progressively deployed across us, including 4 high-efficiency cogeneration systems at the Houli and Tayuan paper Mills. By optimizing boiler monitoring, extending maintenance intervals, eliminating temporary failures, and improving both cogeneration and power generation efficiency, CLC has set a benchmark in intelligent energy-saving practices, earning widespread recognition.

Houli Mill Awarded Taichung City's Environmental Protection Bureau's "Air Pollutant Reduction Incentive Program"

In 2023, the Houli Mill cogeneration boiler (130 MT/h) actively replaced coal with low-pollution wood pellet fuel, reducing coal usage by a total of 14,259 MT and cutting carbon emissions by approximately 32,795 tCO₂e per year. The Mill received recognition in the 2023 Taichung City Air Pollutant Reduction Incentive Program and was awarded NT\$700,000.

Invest NT\$2 Billion to Install Taiwan's Largest High-Efficiency Biomass Cogeneration System

In 2023, the Chupei Mill launched Taiwan's largest high-efficiency biomass cogeneration system. This system expands the recycling of SRF (Solid Recovered Fuel) from paper-making processes to 14,000 tons per month, with an expected annual electricity generation benefit of 126 million kWh. It enhances environmental performance and greenhouse gas reduction advantages, accelerating the goal of over 97% waste resource utilization by 2030.



Achieving Diverse Fuel Utilization

- ✓ The only facility in the country with **4 fuel input types** (SRF, paper sludge, biomass fuel)
- ✓ Equipped with a high-pressure, medium-temperature biomass thermal power system, achieving optimal energy application with **cogeneration and SRF** combustion



Expanding Alternative Fuel Utilization Capacity

- ✓ Capable of **co-firing SRF at a ratio of 0% to 100%**
- ✓ Maximum design processing capacity of **14,000 MT SRF per month**



Superior Power Generation Capability

- ✓ Power **generation efficiency of 29%** (regulatory standard is only 25%)
- ✓ Generator installed capacity of **6,000 kW**
- ✓ **Annual electricity generation** of 126 million kWh = equivalent to the annual electricity consumption of 35,200 households



Reducing Coal Use and Emissions

- ✓ Effectively **controls dioxins**: furnace gas temperature >850°C, gas retention time >2 seconds
- ✓ Replaces 30,064 MT of coal annually, reducing carbon emissions by **33,595 t**

Deepening the Application of Low-Carbon Circular Alternative Fuels to Accelerate the Transition to Net Zero

2030 Goals Alternative fuel ratio at 20%

2023 Achievements Alternative fuel vrate at 15.72%, + 5.4% YoY

In Taiwan, 98% of energy relies on import. To enhance energy efficiency and reduce the dependency on fossil fuel, we actively develop various types of alternative fuels, such as using process residual materials to increase the quantity and improve the quality of alternative fuels with technology, in order to enhance the utilization rate of alternative fuels.

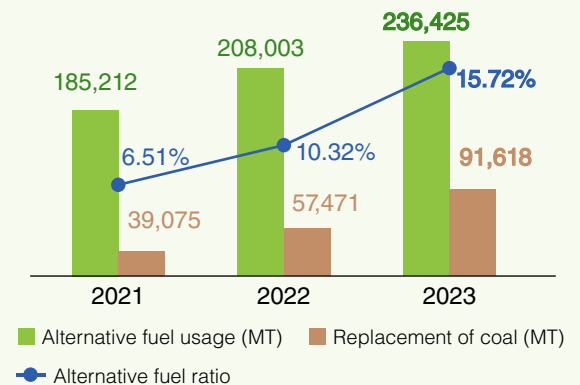
The Establishment of the Agricultural Resource Utilization Team Aims to Deepen the Use of Alternative Fuels

With an alternative energy rate of 20% by 2030, we already established the "Agricultural and Forest Materials to Resources Team" under the Climate Change & Circular Economy Office in 2022. The team mainly takes charge of the R&D of multifaceted fuel reuse technology and circular economy to resource, and captures the supply of domestic and overseas agricultural and forest surplus materials so as to develop more multifaceted possibilities for turning agricultural and forest surplus materials into biomass fuels and actively assist Taiwan in developing the biomass supply ecosystem to ensure materials sustainability and stability to create a win-win situation for all parties.

The achievements in 2023 are as follows:

- Expand the processing of domestic biomass fuels (including street trees and waste wood)
- The alternative fuel rate for the entire company in Taiwan is 15.72%, with an annual increase of 5.4%, replacing 91,618 MT of coal

Carbon Reduction from Alternative Fuels at CLC



Note: Taiwan Area

4.3 Water Management

Material
Issues

Water
Management

Strategy

Enhance water treatment and process water conservation efficiency



2030

2024

2023

Goals

Goals

Goals / Action Results

- Containerboard Division reduces accumulated unit product water consumption by 10%.
*Base year: 2019
- Enhance water conservation potential and increase reclaimed water quantity

- Containerboard Division reduces accumulated unit product water consumption by 5%
- Improve wastewater treatment efficiency
- Enhance water conservation potential and increase reclaimed water quantity

- Reduce the process saving accumulated water rate by 4%
➔ Cumulative Reduction of 10.9%
- Improve wastewater treatment efficiency
➔ Anaerobic Treatment System at Houli Mill Trial Operation in Q4
- Save process water consumption and increase reclaimed water usage
➔ Gravity Screening and Water Filtration System at Houli Mill Activated in Q1
➔ Company-wide recycled water usage accounts for 12% of total water intake, +6% YoY

Cherishing Water Resources

Water is a crucial resource in the papermaking industry. When evaluating and selecting production sites, CLC carefully plans water resource usage. This includes considering policies and regulations, business development, and the water needs of surrounding residents.

Goal for 2030: Cumulative Reduction of Water Usage per Unit of Paper Products by 10%

We are committed to enhancing water resource efficiency through diversified water sources, stringent management, and innovative water-saving solutions. We have also developed a digital PDCA water resource management system to further improve management efficiency:

- Self-Management: The system displays hourly well water and water usage by each unit.

- Water Rights Control: A warning notification system is designed for when water usage exceeds 90% of the well's water rights.
- Anomaly Check: The system proactively alerts and prompts improvements for units with abnormal increases in water usage.

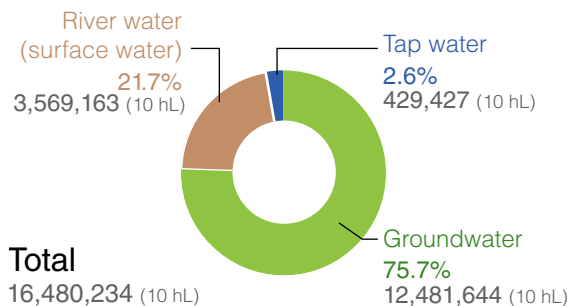
At CLC mills/plants, each drop of water can be reused up to 26 times, with a process water recovery rate reaching up to 96.3%, maximizing water resource benefits. In 2023, the water usage per unit of paper products in the paper business unit decreased by 8.46% compared to the previous year, and by 10.9% compared to the baseline year 2019. We invested a total of NT\$1.01 billion in enhancing water resource management and improving facilities in 2023, including the installation of anaerobic treatment equipment (including a biogas power generation system) and the addition of a tertiary treatment system, thus upgrading water resource management comprehensively. The anaerobic treatment system at the flagship Houli Mill was also successfully trialed in 2023 Q4.

To increase recycled water usage, the tertiary filtration and recycling water system at our Chupei Mill has been successfully activated, and the gravity screening and water filtration system at the Houli Mill was activated in Q1. In 2023, recycled water usage accounted for 12% of the total water intake company-wide, with a 6% annual increase.

All CLC mills/plants are equipped with the wastewater treatment system to continuously monitor the quality of the effluent and ensure that the quality of the effluent meets the legal standards. CLC also continues to improve wastewater treatment operations. In 2023, a total of NT\$25.7 million was invested to enhance the performance of treatment equipment, including pre-treatment and optimization measures for suspended solids (SS) in biological system equipment. We comprehensive control the conditions of process water to improve water treatment efficiency and ensure the compliance of effluent, in order to maintain nature and ecosystems, nourish biodiversity, and fix carbon to mitigate the greenhouse effect.

Groundwater, river water (surface water), and tap water are CLC's major water sources, which are mainly for production. Besides setting up the rainwater harvest system for resource cultivation for the paper mills, we implement graded management of process water with technologies including the white water reclamation system, ultrafiltration white water system, effluent reclamation system for water reclamation, recycling, and reuse to minimize water consumption. To manage water more efficiently, every year we complete the water balance data according to the water consumption plan of the Water Resources Agency. We also install smart meter at some paper mills to keep track on water information through computer connection.

Water Source

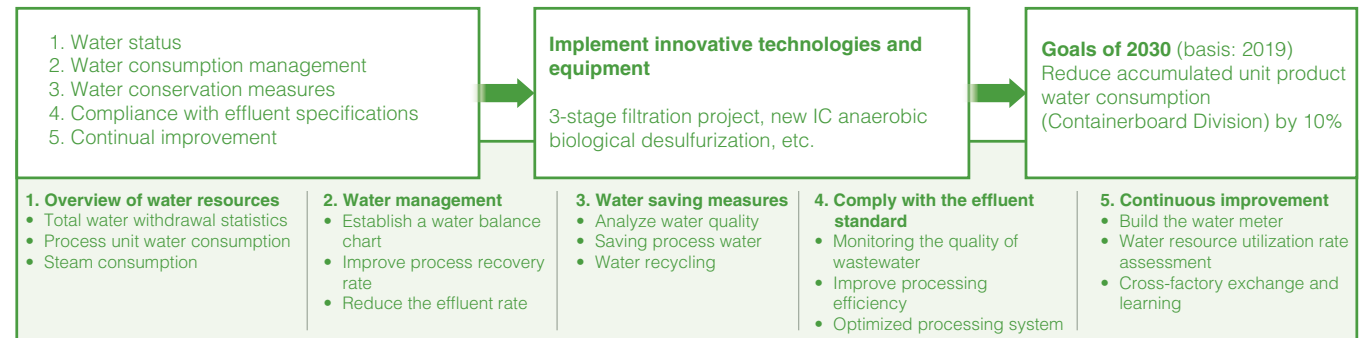


Note: Taiwan area

In 2023, surface water and groundwater made up about 97.4% of total water intake, with tap water at 2.6%. Total water intake was approximately 16,480 million liters, down by 1,172 million liters from 2022. Total water consumption, after accounting for wastewater discharge, was 2,737 million liters.

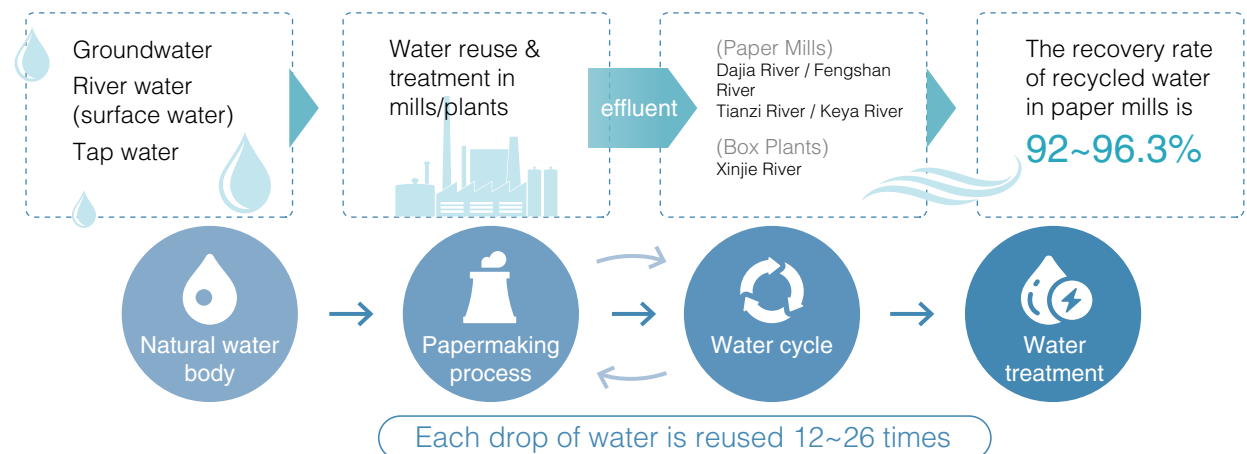
We manage water sources based on indicators from the Water Resources Agency. During reduced supply or regional rationing, it reduces water use according to regulations. Assessments show minimal impact from high-pressure water areas in Taiwan, mainland China, and Vietnam. In response to reduced tap water supply, the company: (1) adjusts tap water use or recycles effluents, (2) replaces some fresh water with recycled effluents, and (3) optimizes processes and implements water-saving models to ease resource pressure.

Water Management Strategy



2023 Water Management Project → Reduced unit product water consumption

- Containerboard Division: secondary IC anaerobic treatment equipment (including biogas power generation system)
- Corrugated Container Division: Centralized the production of same-color ink and reduced machine washing frequency.

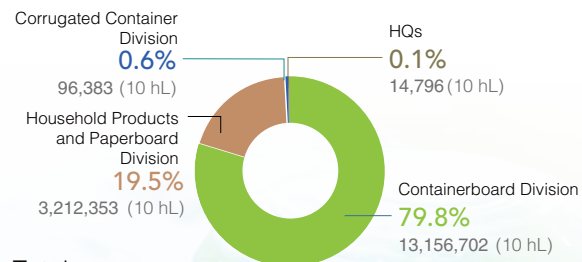


Unit: 10hL

Item	Containerboard Division			Household Products and Paperboard Division			Corrugated Container Division			Others (Business Form & Packaging Materials Division and HQ)			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
River water (surface water)	3,094,472	3,429,431	3,569,163	0	0	0	0	0	0	0	0	0	3,094,472	3,429,431	3,569,163
Groundwater	10,499,981	10,498,625	9,279,604	3,383,218	3,306,386	3,193,920	19,049	12,848	8,120	0	0	0	13,902,248	13,817,859	12,481,644
Tap water	281,128	280,031	307,935	40,819	18,433	18,433	93,968	89,266	88,263	15,412	17,197	14,796	431,327	404,927	429,427
Total waterwithdrawal	13,875,581	14,208,087	13,156,702	3,424,037	3,324,819	3,212,353	113,017	102,114	96,383	15,412	17,197	14,796	17,428,047	17,652,217	16,480,234
Total effluent	13,764,291	13,540,547	10,818,035	3,253,224	3,095,962	2,924,786	0	0	306	0	0	0	17,017,515	16,636,509	13,743,127
Total water consumption	111,290	667,540	2,338,667	170,813	228,857	287,567	113,017	102,114	96,077	15,412	17,197	14,796	410,532	1,015,708	2,737,107

Note 1: Taiwan area; Note 2: The statistical range of water consumption from Business Form & Packaging Materials Plant is from January to the end of August 2021, and it was officially decompiled on September 1.

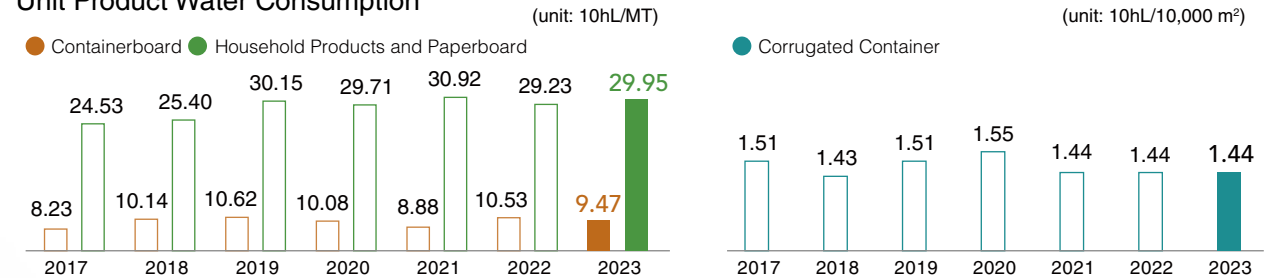
Water Intake of Divisions



Total
16,480,234 (10 hL)

Note: Taiwan Area

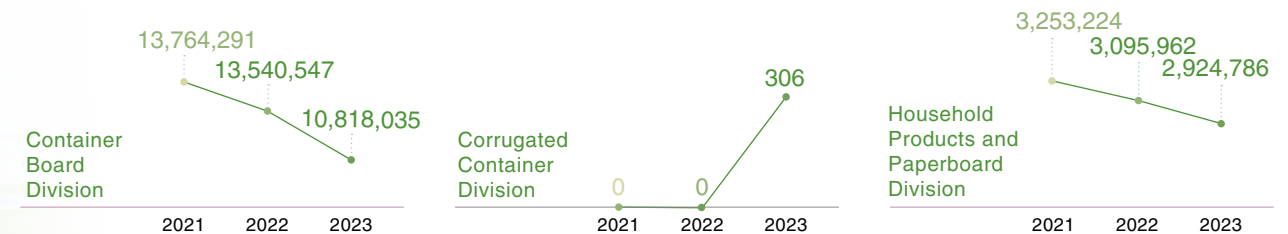
Unit Product Water Consumption



*Note 1: The whole group

*Note 2: From 2021, the calculation was adjusted: Total water consumption/production

Effluent Statistics (unit: 10 hL)



*Note 1: Taiwan area

*Note 2: In 2021 and 2022, all water used in the Corrugated Container Division was reused in the process

Effluent

We equip each plant and mill with an independent wastewater treatment system. The Containerboard Division and Household Products and Paperboard Division properly treat wastewater with biological treatment to ensure the effluent quality meets the relevant standards. Also, we keep implementing QC-recorder at the wastewater treatment plant to control the process water situation, in order to make optimal treatment. The box plants treat wastewater with physicochemical treatment and recover treated wastewater for use in rinsing and glue making to extensively reduce water consumption.



Quality of Effluent in 2023

	Suspended solids (SS) mg / L	Biochemical oxygen demand (BOD) mg / L	Chemical oxygen demand (COD) mg / L	True color chromaticity
Standard value	30.0	30.0	160.0/180.0	400.0
Houli Mill	5.5	7.9	127.0	229.0
Tayuan Mill	10.0	22.7	112.0	181.0
Hsinchu Mill	5.5	2.8	38.5	34.0
Chupei Mill	3.2	3.2	40.7	25.0

Note: According to the effluent standard, when using wastepaper as raw materials over 60%, the COD limit is 180mg/L; when using wastepaper as raw materials below 60%, the COD limit is 160 mg/L (applicable to Chupei Mill).

Implementation of Water Resource Conservation

In response to the United Nations Sustainable Development Goal (SDGs) 6 "Clean Water and Sanitation," CLC has adopted 80 public restrooms across Taiwan and is actively engaged in water resource conservation. The Tayuan and Hsinchu Mill have adopted river basins nearby, conducting monthly patrols of the adopted river sections and regularly monitoring water quality. Every 6 months, they expand their efforts by inviting employees to participate in river cleaning activities. The Hsinchu Mill has also collaborated with community residents to form a "Water Environment Patrol Team," which conducts river patrols during weekends to jointly maintain the Kejia Creek basin. Additionally, they have participated in the Commonwealth Magazine's "Tamsui River Pact - Do One Thing for the Tamsui River" initiative, implementing green procurement, adopting parks to maintain biodiversity, promoting water conservation, and practicing water environment conservation.



Emphasizing water resource conservation, CLC's Tayuan Mill was honored with the "Corporate River Adoption Commendation" and the "Environmental Sustainability Award" by the Taoyuan City Government in 2023.

Terms and Definitions

Reclaimed Water

In accordance with the Reclaimed Water Resources Development Act, it refers to systemic reclaimed water and non-systemic reclaimed water. Systemic reclaimed water refers to water that can be reused through treatment of wastewater (sewage) or effluent water collected from the sewer systems. Non-systemic reclaimed water refers to water that can be reused through treatment of wastewater (sewage) or effluent water not collected from the sewer systems.

Recycled Water

In accordance with the Water Pollution Control Measures and Test Reporting Management Regulations, recycled water refers to the industrial wastewater not discharged but reused in the manufacturing process after treatment, and physical contact with recycled wastewater should be avoided so as not to affect human health.

4.4 Air Quality Management

Material
Issues

Air Quality
Management

Strategy

Reduce the environmental impact of air pollutant emissions to improve the air quality



2030

Goals

- SO_x : -42%
 - NO_x : -45%
 - TSP : -65%
- * Base year: 2019

2024

Goals

- SO_x : -32%
 - NO_x : -36%
 - TSP : -50%
- * Base year: 2019
- Zero odor effusion from the process
 - Keep purchasing high-quality coals
 - No fine for odors from air pollution

2023

Goals / Action Results

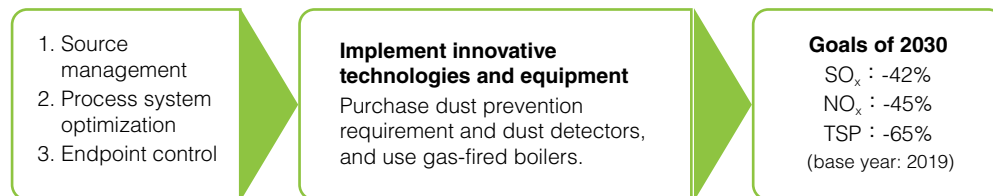
- SO_x : -36%
➔ -30%, main reason for not meeting the target was last year's limited market supply, which led to the purchase of coal with higher sulfur content compared to the previous year. We have since made significant improvements
 - NO_x : -36%
➔ -42%
 - TSP : -50%
➔ -61%
- * Base year: 2019
- Zero odor effusion from the process
 - Keep purchasing high-quality coals
➔ Tighten coal receiving standards; sulfur content in coal must be below 1%
 - No fine for odors from air pollution
➔ Zero penalty

To promote air pollution reduction, in addition to the regular testing of the boiler equipment and exhaust pipe, major Mills set up automated and continuous air quality monitoring facilities and connected them to the equipment of the competent authority to ensure compliance of the emissions with laws and regulations. Improvement measures are taken for the pollutants on an ongoing basis and the following 3 phases are designed for the improvement: source management, process system optimization, and end control. The source management includes reducing the consumption of coal, heavy oil, and other fossil fuels by integrating energy resources. We have also set long-term reduction targets to reduce air continuously.

Following the construction of an indoor coal yard at the Houli Mill in 2019 to reduce particulate matter dispersion at the coal storage site, we continued in 2020 to enhance dust control by adding dust suppression equipment at the top entrances and exits of coal silos, installing water mist dust suppression equipment, and adding baghouse dust collectors for fly ash pneumatic conveying systems. CLC also installed multiple sets of SCR prevention equipment*. Additionally, to improve air quality, the Tayuan Mill installed biogas desulfurization equipment at the wastewater treatment Mill, the Houli Mill reduced load on the G2, and high-quality coal was continuously procured, significantly reducing SO_x emissions. Compared to 2019, the sulfur content of coal purchased in 2023 has been reduced to 0.62%, a decrease of 23%. The Paper Products Division also completed the conversion of all oil-fired boilers to natural gas in 2020, not only saving on fuel costs but also greatly improving air quality, achieving a win-win effect for environmental sustainability and corporate growth.

* SCR (Selective Non-Catalytic Reduction) is the technology to remove NO_x from flue gas

Air Pollution Management Strategy



Taiwan's 1st Mill with an Indoor Coal Yard

Houli Mill initiated the construction of the new indoor coal yard in 2017 and was completed in March 2019, the Chupei Mill also established a similar facility. The coal bunker consists of 3 sections and care store 3 different types of coals for use by boilers from different burning characteristics to enhance bunker control efficiency and prevent spontaneous combustion of coal through turning prevention.

Taiwan's 1st Papermaker Using Gas Boilers in all Container Box Plants

Since 2013, CLC has initiated the replacement of oil-fired boilers with natural gas boilers in all paper product plants across Taiwan, completing the transition in 2020. With the adoption of natural gas boilers, combustion efficiency has increased by more than 5%, greenhouse gas emissions have decreased by 27%, nitrogen oxide emissions have been reduced by 63%, and total suspended particulate emissions have decreased by 93%*.



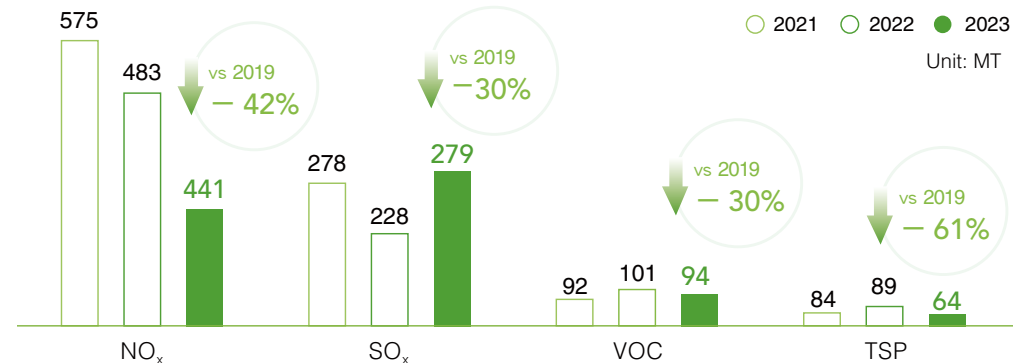
* Calculated according to the "Regulations Governing the Emission Coefficients, Control Efficiency, and Other Quantification Rules for the Declaration of the Air Pollution Control Fees for Particulates, Lead, Cadmium, Mercury, Arsenic, Hexavalent Chromium, and Dioxin at Public and Private Stationary Pollution Sources."

To resolve the odor problems in paper mills/plants, our efforts in process improvement and system optimization have borne fruit. All units also inventory the odor sources and make the odor maps to focus on the improvement countermeasures. In endpoint control, we build high-efficiency air pollution control equipment to effectively control air pollution emissions. In 2023, we receive no fine for odors from air pollution.

Mills/Plants Odor Management Practices

- ➔ Reduce fermentation in wastepaper storage and enhance pulp chemical retention rate to reduce organic substances from entering the process and wastewater treatment plant.
- ➔ Modify flue-gas desulfurization (FGD) equipment.
- ➔ Add covers to the wastewater treatment mills/plants and perform confined negative pressure suction in biomass energy processing.
- ➔ Establish perimeter monitoring and odor management, real-time reporting, and self-check.

Air Pollution Emissions



Note: Taiwan Area

4.5 Waste to Resource

Material Issues

Waste to Resource

Strategy

Increase waste-to-resource channels and increase waste-to-resource ratio annually toward zero waste.



2030

2024

2023

Goals

Goals

Goals / Action Results

- Waste-to-resource ratio >97%
- Implement the circular economy in waste management

- Waste-to-resource ratio up to 97%
- Implement the circular economy in waste management

- Waste-to-resource ratio up to 93%
 - ➔ Amount of waste-to-resource reached 314,910 MT at 95.9%, + 0.3% YoY
- Implement waste-to-resource revitalization and regeneration
 - ➔ Evaluation of Taiwan Steel United Incinerator Fly Ash (D-1001) Reuse Plan
 - ➔ Optimization of SRF Process to Increase Treatment Capacity
 - ➔ Continuation of Asia Cement Co-Combustion Ash (R-1108) Announced Reuse Plan
 - ➔ Tayuan Mill Regenerated Pulp Line Officially Commences Operation (Annual Capacity of 66,000 Tons), Increasing the Group's Certified Paper Container Treatment Capacity to 13,700 Tons/Month, a 7-fold Annual Increase
 - ➔ Promoted right uses for proper materials to reduce residual waste from 10~13% to below 6%

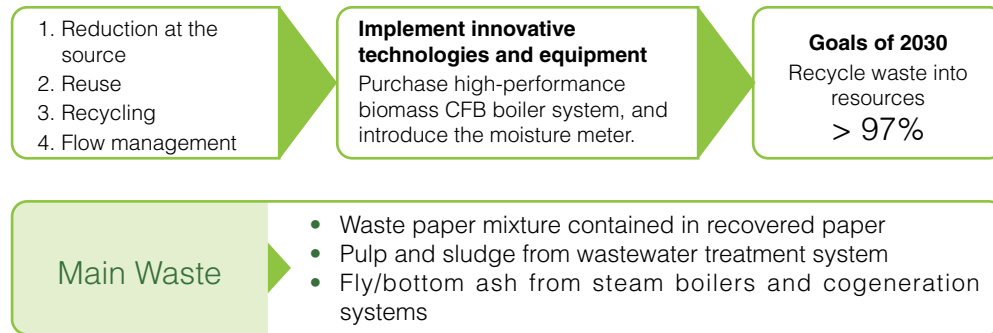
Believing that there is no waste by misplaced resources, to achieve sustainable resource use, we adopt waste management in terms of following 4 approaches: reduction at the source, reuse, recycling, and flow management. The waste that CLC produces is general industrial waste without any hazard.

In 2023, the Rate of Waste Resource Utilization of 95.9%, Surpassing the Annual Target.

Every year, we recycle a large quantity of recovered paper and implement waste-to-resource on the impurities contained in wastepaper based on the circular economy model and achieve the zero waste vision. In 2023, we recycled 314,910 MT of waste to achieve waste-to-resource up ratio to 95.9%, with an annual growth by 0.3%. Significantly surpassing the annual target of 93%. We will start the operation of the high-performance biomass CFB boiler system at Chupei Mill in 2023 H1 to reuse process residual of all CLC mills/plants in Taiwan to significantly increase waste recycling.

To accurately capture the flow of waste and ensure all waste is legally and properly disposed of or recycled, besides carefully selecting waste disposal and recycling contractors, and periodically retrieving and comparing the actual quantity shipping to the mill/plant and the recycling quality at the mill/plant, we also enhance contractor audits to trace and management the flow of waste.

Resource Recycling and Management Strategy



Source reduction

- ➔ Promote the correct paper classification, and improve the quality and quantity of recovered paper.
- ➔ Announce the stricter inspection standards, and further guide suppliers to transform and upgrade to reduce source non-paper materials.
- ➔ Improve process resource efficiency to reduce waste output.



Reuse

- ➔ Set up a heat recovery boiler to use the mixed materials and sludge as fuel to generate steam for process reuse.
- ➔ Establish SRF pelletizing equipment to make SRF fuel rods from the mixed materials in the recovered paper to replace the coal fuel in the steam boiler.



Resource recycling

- ➔ Properly classify wastes, treat them by own factories and outsourcing. Recycle them into the industrial chain of papermaking and other industries.



Implement flow management

- ➔ Establish a sound management of the business waste flow, and fulfill the responsibility of the source of production.

Waste Disposal Innovation Project

Waste-to-Energy! We produced solid recovered fuel (SRF) with residual process material from papermaking to prevent the environmental load from landfill and reduce burning coal, electricity dependency, and GHG emissions. In 2023 H1, we introduced Taiwan's largest high-performance biomass CFB boiler system to Chupei Mill, with a monthly processing capacity of 14,000 MT toward the 96% waste-to-fuel target in 2030 to enhance the waste-to-energy for development renewable energy.

1. Introduce the 1st moisture meter in Taiwan to strictly inspect with residue moisture content, and use intelligent identification of recovered paper quality and to improve energy saving and carbon reduction & cost effectiveness.
2. Guide recycling contractors to engage in transformation and upgrading, promote correct waste sorting and the right use for proper materials to reduce residual waste from 10~13% to below 6%.
3. Using innovative technology to completely implement recycling food paper containers: To support the government's waste food paper container recycling policy, we established the 1st paper mill in Taiwan that completely recycles waste food paper containers at the Chupei Mill. Complemented by the Tayuan Mill's regenerated pulp line, which began operation in 2023 with an annual capacity of 66,000 tons, the total certified treatment capacity of paper containers across the entire group has increased to 13,700 tons per month. This enhancement enables us to address up to 50% of Taiwan's paper container waste annually.

Waste Reuse (Taiwan Area)

Unit: MT

Type	2021	2022	2023	Reuse method/ Types of non-recyclable waste
Recyclable waste (A)				
Waste paper mixture	132,185	124,414	118,637	Reused to SRF
Sludge	98,101	98,543	98,966	Steam boiler fuel
Fly ash/bottom ash	32,038	85,743	77,535	Cement plant/concrete plant reuse
Other waste	51,769	12,469	32,932	Reutilization of waste wood and lubricating oil
Non-recyclable waste (B)	25,822	14,817	13,160	Incinerator fly ash, waste paper mixture, mixed burning ash, etc.
Total waste (A+B)	339,915	335,986	328,070	
Waste-to-resource ratio (A/ (A+B))	92.4%	95.6%	95.9%	



Encourage the implementation of innovative energy-saving measures. At the annual year-end seminar, the Chairman awards the "Outstanding Energy-Saving Plant" and the "Special Award for Energy Substitution Efficiency."

4.6 TNFD & Biodiversity

Paper comes from forest fibers, and the paper industry is closely tied to nature. Upholding the concept of secondary forests and sustainable forest regeneration, CLC is dedicated to using recovered paper. Over 90% of the group's products are made from recycled materials, and we actively purchase 100% FSC™ sustainably managed forest pulp. Through creativity and research capabilities, we offer the market eco and diverse green consumer choices with our paper products.

CLC Joins Global TNFD Nature-related Financial Disclosures Pioneers, Protecting Biodiversity

Valuing Nature Positive growth, CLC actively responds to international organizations, ESG climate initiatives, and biodiversity issues. Anticipating potential nature-related risks in company operations, CLC became the 1st Taiwanese paper company to join the TNFD (Taskforce on Nature-related Financial Disclosures) Early Adopters in early 2024. Following the TNFD Version 1.0 framework released in 2023, CLC has initiated an internal LEAP process analysis to assess the dependency and impact of business activities on natural resources. We connect resources from industry, government, academia, and research to launch research projects related to factory areas, natural issues, and biodiversity. Simultaneously, we reflect on and discuss current strategies and future development directions to gradually build disclosure integrity.



We invited Distinguished Lifetime Professor Wan-Yu from the Department of Forestry at National Chung Hsing University, to deliver a keynote speech titled "You Can't Miss Out on Carbon Sinks and Nature Strategies" to CLC's senior executives and colleagues at home and abroad. She shared key topics on Nature Positive growth and biodiversity. The event was attended by 4board members, numerous senior executives, and over 200 colleagues (Benchmark Speech Conference on November 20, 2023).



Natural Risks and Opportunities Assessment Process: L.E.A.P.



LOCATE

Identify Key Business Activity Locations

Based on CLC's core paper business activity locations and referring to [the publicly available information from the Forestry and Nature Conservation Agency's National Ecological Green Network of the Ministry of Agriculture](#), evaluate the importance of nature conservation in these areas and the extent of CLC's interaction with the local natural environment to identify priority business activity locations for pilot implementation.

Identification Principles

1. Identify whether key business locations are situated in or near areas of high biodiversity importance.
2. Confirm the interaction between key business activities and nature, such as being located in water-scarce areas.



EVALUATE

Evaluation of Key Business Activities' Dependence and Impact

Based on the content of key business activities, evaluate their dependence on environmental assets and ecosystem services, as well as the impact of business activities on the natural environment or local residents.



ASSESS

Analysis of Natural Risks and Opportunities

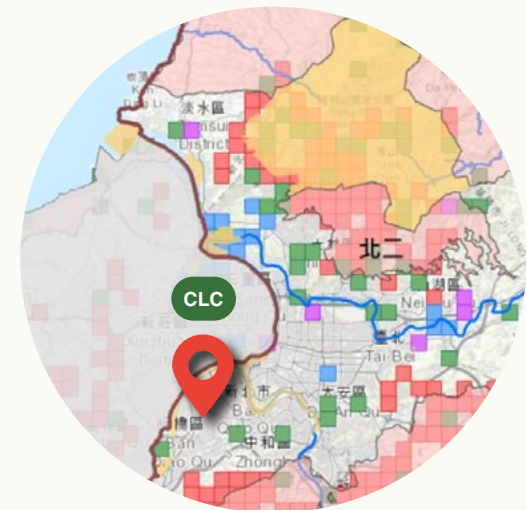
Analyze the potential natural risks and development opportunities CLC may face based on its dependence and impact on nature.



PREPARE

Natural Strategy Consideration and Disclosure

Reflect on CLC's current practices and future strategic directions based on the analysis of natural risks and opportunities, and disclose the results of the pilot implementation.



Potential Impacts of CLC on Nature

Drivers of Natural Change	Potential Impacts and Affected Parties	Response Strategies
 Climate Change	Organization's Core Business: Business activities emit greenhouse gases, potentially increasing carbon costs or carbon taxes. Climate change-induced extreme weather events such as floods and heat waves could damage or halt production equipment, impacting operational performance. Additionally, since over 90% of CLC's products are made from recovered paper, climate events could disrupt the supply and cause price fluctuations of recovered paper both domestically and internationally. Local Communities and Related Stateholder Groups: Long-term GHG emissions can contribute to the warming effect, triggering extreme weather that affects local residents and stakeholders, making them susceptible to climate disasters. Local Ecosystem: Long-term GHG emissions may lead to extreme weather phenomena like forest fires, floods, and droughts, affecting ecosystem health and the survival of local flora and fauna.	- Invest in advanced smart low-carbon technologies and equipment to reduce operating costs and enhance carbon reduction benefits. - Reduce the use of natural energy resources, develop low-carbon circular fuels, and build low-carbon biomass material ecosystems through public-private partnerships.
 Resource Use/ Replenishment (Forest Resources)	Organization's Core Business: Limited by Taiwan's island topography and forest resources, the "cut and replant" method for carbon reduction in the paper industry is not fully applicable. To reduce dependence on forest resources, CLC uses a large amount of recovered paper to produce low-carbon green products, which account for over 90% of the group's products, with only a small portion of virgin wood pulp being imported. Local Communities and Related Stateholder Groups: Unregulated exploitation or destruction of Taiwan's natural forest resources would result in the loss of water and soil conservation functions. Erosion caused by rainfall could adversely affect local indigenous peoples and stakeholders. Local Ecosystem: Damage to natural forest resources or poorly managed artificial forests in Taiwan could impact the ecological diversity, including soil, water sources, and endangered species.	- Continue to deepen circular economy bases domestically and internationally, expand the capacity for recycling and reusing paper, and reduce the use of natural tree resources. - Focus on researching and developing paper-based solutions, extensively using recovered paper as raw material, reducing the use of virgin wood pulp, and creating secondary forests. - Set green procurement goals, actively purchase FSC™ certified forest pulp, and products and equipment that are energy-efficient and environmentally labeled. - Plan afforestation projects and launch a new afforestation project at Hui-Sun Forest Station in Taichung with National Chung Hsing University. The goal is to deepen local natural carbon sinks, increase ecological conservation and soil and water conservation benefits, and create employment opportunities for local indigenous peoples, achieving environmental, ecological, and social benefits. - Actively plant trees at all facilities in Taiwan, accumulating nearly 100,000 trees, creating oxygen-rich facilities and green landscape belts.
 Resource Use/ Replenishment (Water Resources) Pollution/ Pollution Removal (Wastewater Discharge) State of Nature	Organization's Core Business: CLC's main business activities, paper and paperboard manufacturing, are highly dependent on water resources. Therefore, the mill/plant' locations are chosen near water sources to facilitate development and wastewater treatment to prevent water pollution. Water scarcity or droughts would significantly impact operations. Local Communities and Related Stateholder Groups: Lack of or polluted water resources would severely affect the quality of life of local residents, even posing risks to their health. Local Ecosystem: Water scarcity or pollution would fundamentally impact local ecosystems, potentially leading to the collapse of aquatic populations.	- Carefully plan water resource utilization in plant development, considering policy regulations, corporate development, and the water resource needs of surrounding residents. - Establish comprehensive water resource management and treatment systems, expand diverse water resources, implement prevention and management practices, and enhance water resource utilization efficiency through recycling and reuse. Continuously introduce innovative water-saving solutions to maximize the benefits of each drop of water. - The Tayuan Paper Mill has adopted a nearby stream for nearly 10 years, established a water environment patrol team, conducted monthly patrols, and regularly monitored water quality. In recent years, the mill has partnered with the National Central University's Department of Life Sciences to carry out long-term ecological monitoring, gaining a deeper understanding of the surrounding species' habits and environmental needs to find ways to coexist with the ecosystem, maintaining biodiversity around the plant's water bodies.

Rivers and Wetlands

All of CLC's domestic and international operating sites have implemented ISO 14001 and actively enforce PDCA management for water resources. This ensures the safety and compliance of effluent, providing stable water sources for nearby streams and wetlands, fostering biodiversity. Through comprehensive water resource management strategies and cross-plant exchanges, CLC conducts process water conservation and graded water management. Special emphasis is placed on ecological conservation near the mills/plants. The Tayuan and Hsinchu paper mills have adopted rivers for many years and have been recognized by the government as "Outstanding River Adoption Enterprises." Additionally, CLC has established "Water Environment Patrol Teams" with employees and local community members, who patrol the streams monthly and on holidays to maintain the environment of the nearby Qiaxi River section and the Keya River basin.

CLC's Tayuan Mill regularly commissions external agencies to conduct ecological monitoring of stream cleanliness and water quality, ensuring the factory complies with sustainability principles. The mill shares data with the Taoyuan City Environmental Protection Bureau to promote transparency. Additionally, every 6 months, employees are invited to participate in stream cleaning activities.



Since 2021, CLC Corporation's Tayuan Mill has collaborated with Associate Professor Fu-Guo's Liu team from National Central University to initiate the "Ecological Monitoring and Sustainable Action" project to nurture biodiversity. The research found that the ecological environment near the Mill is not significantly different from the adjacent Gao Rong Wildlife Protection 731 Pond. The nearby water bodies have not only become winter habitats for water birds but also the latest recorded site for the presence of the East Asian Crab (*Hemigrapsus sanguineus*). The rich diversity in this area can be compared to that of a national-level wildlife sanctuary.

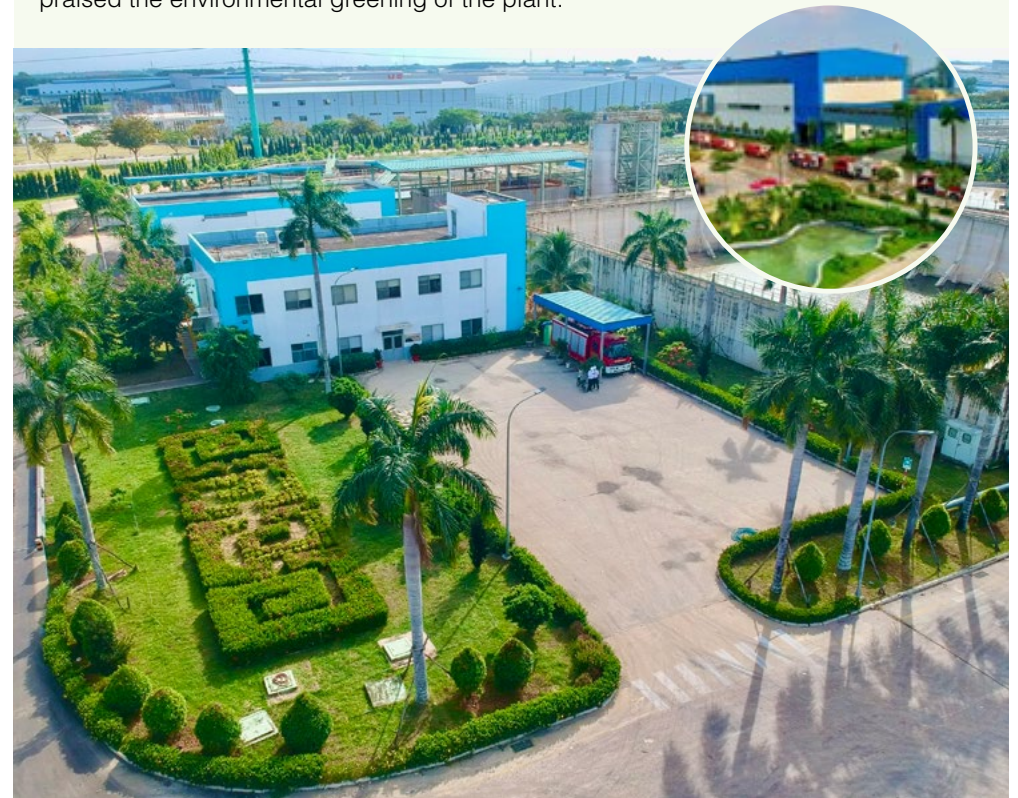
* For more information about the "Biodiversity at CLC" biology handbook planned by Professor Liu's team, please scan the QR code.



Creating a Model of Ecological Coexistence at Overseas Green Factories, the CLC Binh Duong Mill in Vietnam Maintains a Green Area Proportion of 20%

Emphasizing ecological conservation and factory greening, CLC is actively promoting the 2nd and 3rd phases of expansion for its Binh Duong Mill in Vietnam. In addition to this, the company is making significant efforts to green the environment, including the main office and the entire manufacturing area. The green area proportion retained is about 20%, and the mill hosts over 70 species of plants (including more than 10 kinds of fruit trees).

Accompanied by introduction signs in both Chinese and Vietnamese, the green space not only helps beautify, reduce carbon emissions, regulate temperature, and purify the air, but also provides an educational and enjoyable experience. The harmonious green ecological space of the factory creates a park-like effect, making it a great place for employees to relax and walk after work. Visiting vendors and officials have also praised the environmental greening of the plant.





05

Employees

We value our commitment to employees, by building a happy and healthy workplace, and creating a challenging work environment suitable for sustainable learning, to grow together with our people.

5.1 Diversity and Equal Opportunity

5.2 Talent Cultivation and Development

5.3 Healthy Workplace

- Selected as a constituent of the "TWSE RA Taiwan Employment Creation 99 Index" for **13** consecutive years
 - Salary raises for **17** consecutive years
 - ESOT (Employee Stock Ownership Trust) up to **53.8%**, **+2.1%** YoY
 - 《Global Views Monthly》 ESG Corporate Sustainability Award - **Talent Development Model Award**
 - **8** mills/plants certificated the MOHW "Healthy Workplace"
- OH&S promotion activities with **1,942** participants (in-Person)

5.1 Diversity and Equal Opportunity

Material Issues

Diversity and Equal Opportunity

Strategy

Provide competitive salaries and sound benefits to attract outstanding and diversified talents, and realize workplace equality.



2030

2024

2023

Goals

Goals

Goals / Action Results

- Diversify employee benefits
- Strengthen the employee assistance program (EAP)
- Raise the average employee salary by 10% vs 2020.
- Cultivate young management

- Diversify employee benefits
 - ➔ Employee Feedback Survey Tracking and Improvement
- Strengthen the employee assistance program (EAP)
- Provide competitive salaries
- Continually implement cultivation programs for a younger management, for a younger management and optimizing the management organization

- Diversify employee benefits
 - ➔ Emphasized equal workplaces and listening and communication, the 2023 employee feedback survey scored 4.35 out of 5
 - ➔ Expenses on each employee were NT\$ 44,000
- Enhance employee rights and benefits
 - ➔ Maternity leave/ Paternity leave are increased to 8 days; natural disaster leave... etc
- Strengthen the employee assistance program (EAP)
 - ➔ Strengthen the employee assistance program (EAP) from 3 aspects " work, life, health"
- Provide competitive salaries
 - ➔ Raised salaries by 1%
 - ➔ Selected as a constituent of the "TWSE RA Taiwan Employment Creation 99 Index" for 13 consecutive years
- Implement cultivation programs for a younger management
 - ➔ Establish a talent succession database
 - ➔ Promoted 58 employees with < 5 years seniority to the management in 2018~2023 (female: reached 12%)
 - ➔ Continue implementing the elite rotation plan
 - ➔ Industry-Academia Talent Cooperation Project with a retention rate of about 63%
 - ➔ Conducted 2 batches of training courses in Taiwan for Vietnamese cadres (a total of 31 participants)

Human Resources Strategy: Realizing Global Localization of Key Talent



CLC continually attracts outstanding individuals to join its team through a competitive compensation system and comprehensive training programs. Guided by the principle of "loyalty and integrity," the company aims to cultivate partners who identify with its corporate culture, vision, and core values.

Management Approach:

- ✓ Enhance human resource management, implement local key talent appointments
- ✓ Launch a 10-year sustainable talent program, nurturing green-collar talent from start to finish

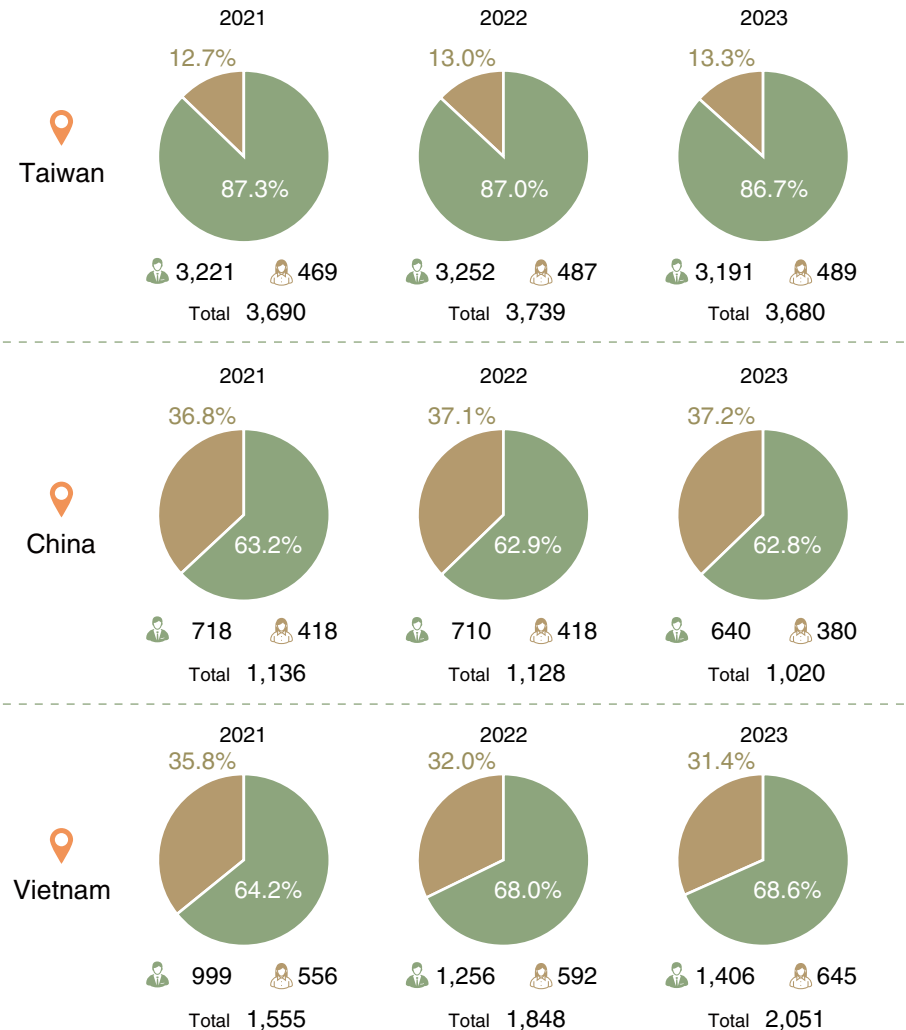
Employees are key to sustainable operations. Focusing on long-term talent development, we keep abreast of salary and labor market trends, comprehensively considering its medium- and long-term development strategies and annual business performance. Employee compensation and benefits are adjusted on a rolling basis. By attentively listening to employees' needs, CLC continuously optimizes its compensation-related systems, hoping that through shared happiness, it can promote sustainable prosperity for both its talent and the company.

Enhance female power, the proportion of female employees increased to 13.3% in Taiwan and 22.4% for Whole group

By the end of 2023, the number of employees across major operation base (Taiwan, China and Vietnam) were 6,751 persons, increasing 36 persons. For Taiwan district, there are 3,680 employees, including 2,859 labor staff, 688 management staff, and 153 senior officers* hired 100% from Taiwan. The overall number of employees decreased 59 persons. Due to the characteristics of the paper industry, male employees are traditionally higher than female employees, however, more female staff are hired in the production, technology, R&D, and marketing departments in recent years. In 2023, the proportion of female employees increased by 0.3% to 13.3% in Taiwan, and 22.4% for Whole group. Despite the significant gap between male and female employees, we always put competence first in talent recruitment, employment, and development and maintain equality and fair treatment of employees regardless of nationality, gender, race, religion, color, age, sexual orientation, marriage, and political affiliation. Therefore, no discrimination was reported in 2023.

* Senior officers are "first-level of supervisor"

CLC Gender Structure of Employees



*Note: For more information about CLC's workforce structure, including job titles, age, years of service, educational background distribution, and employment contracts, please refer to [the Appendix-Employee Information List](#).

Value Human Rights and Development Diversity

“ Through fair and open recruitment channels, all employees are entitled to equal rights and benefits regardless of gender, race, and nationality, in order to protect basic human rights. ”

Human Rights

The Company's business bases in various places strictly abide by local labor regulations, are committed to protecting the basic human rights of all employees, and support and declare to the basic spirit of international conventions while formulating CLC's human rights policy in accordance with their guiding principles, so that all relevant people can be treated fairly and with dignity, including "tolerance of diversity and anti-discrimination, ban on child labor and prohibition of forced labor etc."

To ensure employees have a comprehensive understanding of human rights, CLC promotes relevant information through the EIP internal website, internal publications, and the E-Learning online learning system. Emphasizing workplace equality and communication, we continuously organize related seminars and promotes friendly workplace projects, including revising the "Sexual Harassment Prevention Act." **From 2021 to 2023, 4 courses (13 sessions) were conducted, with a total of 636 participants,** continuously enhancing communication and management skills. CLC also established mechanisms for preventing workplace sexual harassment and corruption. The internal website features an employee opinion mailbox and complaint channels, providing avenues for reporting unethical behavior and corruption.



※For the complete human rights policy, please refer to CLC's website - [Human Rights Policy](#)

Equal Employment

We followed the "People with Disabilities Rights Protection Act" and "Indigenous Peoples Employment Rights Protection Act" and hired 40 persons with disabilities and 27 indigenous people. In order to promote multiple employment, we have set up the "Bonus for Indigenous Long-term Employment". In 2023, a total of 24 eligible colleagues have applied. Not only do we encourage the indigenous peoples to work in CLC, but also hope that employees can serve for a long time. In terms of workforce composition, most CLC employees are Taiwanese, and we prioritize employment for local residents at individual production bases. Besides creating local job opportunities and stimulating domestic economic development, this policy also helps stabilize workforce. To ensure the well function of production line, we only hire a small number of foreign workers for the vacancies that cannot be filled by local citizens.

Equal Employment Table

Category	2021	2022	2023
Disabilities	39	41	40
Indigenous	26	23	27

Note: Taiwan Area

A Younger Workplace, 12 % of Female Employees with Seniority below 5 Years Have Been Promoted

As the paper industry is one of the traditional manufacturing industries dominating by male employees in the past, most members of the junior management are male, resulting in a ratio of about 10.9:1 in terms of male and female. There are 404 team or group leaders in Taiwan in 2023. For employees with seniority below 15 years, it takes about 7 years to become a team or group leader. Due to the transformation into a service industry and valuing innovation, younger people have been promoted to the junior management in recent years. We also actively promote the training plan, and optimize the management organization. Following the rise of equal opportunity in employment, since 2018, 58 employees with less than 5 years of seniority have been promoted to junior management positions, with 12% of them being female. This represents a significant change from the period of 2014 to 2017.

The gender ratio of promoting supervisors in recent years

Year	2014~2017	2018	2019	2020	2021	2022	2023	2018~2023
Ratio	0	3	1	1	0	1	1	7
Ratio	0%							12%
Ratio	48	10	3	7	8	12	11	51
Ratio	100%							88%

Note 1: Taiwan Area Note 2: Young executives are defined as less than 5 years of seniority

Note 3: Proportion calculation method = number of male (female) young executives / total number of young executives

Implement Cultivation Programs for a Younger Management to Optimize the Management Organization

➔ Elite Staff Job Rotation and Training Plan

Every year, CLC selects elite talents based on employees' job performance to undergo rotations and other planning to cultivate diverse skills. Depending on their performance, they may be promoted to managerial positions for further development of their management capabilities.

➔ Talents Recommendation and Training Planning System

We are committed to building a well-established talents cultivation system and planning learning and development courses and training plans by level based on the organizational development and competency diversity. In recent years, we have been implementing key talents training programs. In 2023, we establish the Elite Recommendation and Development System for supervisors to develop potential talents.

➔ Paper Product Overseas Staff OTJ Courses

Trainees are selected through self-nomination and recommendations from unit supervisors, focusing primarily on practical on-the-job learning, supplemented by classroom courses. We have completed the planning of 18 courses (30 sessions) for managerial-level classroom training. The courses are tailored to the educational and experiential backgrounds of the trainees, with training durations ranging from 6 months to 2 years.

Suitability and Retention

We respect personal traits and expertise in employment and salary is according to their academic attainment, past experience, professional knowledge and skills, and professional seniority and experience. To retain excellent talents, through transparent policies including promotion, transfer, external training courses and resources, and the excellent talent pool, we encourage employees to take challenges and training to become management assistants.

Medium- and higher-level supervisors at different management levels can also enjoy additional benefits including supervisor health checkup allowance and vehicle purchase allowance, and so on. In 2023, there were 348 new employees, with an employment rate of 9.4%. The male-to-female ratio of new employees in all employees was 9.2%: 10.8%.

*Note: For more information about the age distribution and regional breakdown of new employees at CLC, please refer to [the Appendix-Employee Information List](#).

People Oriented, Right People in the Right Place

Maintaining a reasonable turnover rate

Suitable personnel turnover is necessary for enterprises to pursue sustainable development. In recent years, apart from maintaining a 10% reasonable turnover rate, we constantly recruit new employees to bring in vitality and diversify. In 2023, a total of 406 employees or 11% resigned, in terms of gender among all employees, 11% were male and 10.6% were female. In view of the increasing trend of aging retirees in recent years and the overall labor shortage in the market, our company will continue to participate in employment fairs across various regions, deepen industry-academia cooperation, and recruit new employees.

To effectively retain employees, we actively interview those filing their resignation and provide them with information about the internal job openings to facilitate the adaptive development of employees, reduce the impact of adaptation to job transfer, and to lower the overall turnover rate.

Online Anonymous Survey

In 2019, we began to conduct the online anonymous survey of the resignation procedure to discover, and review related problems and propose countermeasures, in order to provide a reference for the future amendment and adjustment of related management regulations or the welfare system. We received 223 responses till now.

Re-employment of Senior Employees

In response to macro-environmental changes, such as population aging and talents discontinuation, we are committed to building a workplace culture allowing the

accumulation of professional knowledge and experience and respect for excellent employees to continue their contribution after the retirement age. In 2023, a total of 21 employees reached the retirement age. During 2018~2023, we hired 7 retirees as short-term consultants.

Turnover rate in the past three years

Year	2021	2022	2023
Total turnover	315	345	406
Number of workers	3,690	3,739	3,680
Turnover rate	8.5%	9.2%	11%

*Note 1: Taiwan Area

Note 2: For more information about the age distribution and regional breakdown of departing employees at CLC, please refer to [the Appendix-Employee Information List](#).

Well-Developed Retirement System

To ensure a secure retirement for our employees, CLC follows the Labor Standards Act and the Labor Pension Act, allocating retirement funds to both a specialized trust account with the Bank of Taiwan and individual employee accounts. Additionally, we have established the "Employee Retirement Implementation Plan." Each year, we proactively hire an actuarial firm to assess whether the balance in the annual retirement reserve accounts is sufficient, ensuring the protection of our employees' rights. In gratitude for their long-term dedication and contributions to the company, the supervisors of the respective units personally present a "Merits for CLC" retirement medal to each retiring employee.



Leading the Industry, Employee Profit Sharing and Encouragement for Investment with Participate Rate > 50%

To share our business performance results and encourage employees to develop saving habits, CLC has been a pioneer in the industry by promoting the "Employee Stock Ownership Trust (ESOT)" since 1998. Employees are encouraged to voluntarily allocate a certain amount to a trust account each month, with we contributing an additional 40% of the employees' contributions to the account for the purchase of CLC stock. Over the years, the participation rate in the ESOT has exceeded 40%. In 2023, the voluntary participation rate reached 50%, an increase of 2.1% from the previous year, with the subsidy amount reaching NT\$40.52 M. Over the past 3 years, the total subsidy amount has reached NT\$114.83 M.

Year	2021	2022	2023
Number of employees in ESOT (persons)	1,648	1,795	1,818
Employee participation rate*	47.8%	51.7%	53.8%
Amount of trust funds (NT\$10,000)	3,538	3,893	4,052

Note 1: Taiwan area

Note 2: Employee participation rate: Total number of employees deducting the number of foreign workers/total number of employees

Labor-Management Meeting and Labor Union

We hold the quarterly labor-management coordination meeting at each mill/plant to promote labor-management communication and strengthen a reciprocal relationship. We also have 2 internal labor unions (Chupei Mill and Hsinchu Mill). Besides the annual member meeting, the labor unions also hold the quarterly director and supervisor meeting to properly handle and follow up all suggestions made by the labor representatives at the meeting to respect and properly deal with the challenges and difficulties that employees face at work. **All mills/ plants held Labor-Management 44 Meetings in 2023.**



Listening to Employee Opinions

We value the opinions of employees and provide various channels for employees to express their claims, including the quarterly labor-management meeting, annual employee opinion survey, new and resigned employees' opinion collection, labor union, and the anonymous communication channels on EIP internal website.



► Employee Assistance :

The HR department has dedicated personnel to respond to inquiries and provide relevant information to help employees understand regulations related to their rights, such as the retirement system.



► Employee Opinion Survey :

We actively listen to the feedback from new employees and give the employees related suggestions to supervisors. Additionally, we actively respond to employees' opinions.



► Chairperson's Box, and Audit Hotline :

We openly share personal email addresses to encourage the expression of opinions.

Employee Opinion Survey

➔ Collaboration with 104 Job Bank for Employee Sentiment Survey (Leading the Industry)

To enhance employees' sense of belonging and commitment to the organization, we value employees' feedback and collaborates with 104 Job Bank to conduct employee sentiment surveys. These surveys comprehensively collect employees' opinions and assess the appropriateness of strategic regulations. Based on the survey results, we take improvement measures and will continue to conduct surveys periodically to keep listening to employees' voices.

- ✓ 2019: 1st employee sentiment survey, systematically collecting employee opinions as a reference for decision-making.
- ✓ 2020: Expanded collection to include feedback on "workplace environment," "career development," and "supervisor encouragement."
- ✓ 2021: Added feedback areas such as "colleagues" and "corporate culture"; introduced incentive mechanisms to increase response rates.
- ✓ 2022: Continued to improve "workplace environment," "career development," and "supervisor encouragement" based on the 2021 survey results.
- ✓ 2023: Included "sustainable development" as a new evaluation area.

➔ Employee Sentiment Survey: Maintaining High Satisfaction with an Effective Response Rate over 45%

The headquarters' management office has initiated cross-functional teams to respond to the survey results, address employees' expectations, and set optimization goals and action plans. These efforts are integrated into HR strategies and planning, with the following concrete outcomes:

- ✓ Compensation Optimization: Employee salaries have increased for 17 consecutive years, with annual increases of 1~3%. In 2023, welfare expenditure reached NT\$44,000.
- ✓ Training and Development: Promoted elite rotations to increase job experience and development, cultivating young reserve cadres.
- ✓ Organizational Communication: Implemented communication and leadership training for mid- and senior-level managers to improve organizational harmony and efficiency.
- ✓ Work Environment: Built new dormitories at the Hsinchu Mill, Chupei Mill, Tayuan Plant, and Tayuan Paper Mill; continuously upgraded equipment to provide a comfortable office environment.

Year	2019	2020	2021	2023
Valid Questionnaires	1,306	1,297	1,434	1,364
Response Rate	41.0%	37.0%	41.3%	46.8%
Survey Period	2019.9.23~10.4	2020.9.14~9.27	2021.10.11~10.24	2023.7.24~8.13
Overall Satisfaction	3.63	4.20	4.36	4.35

The Hsinchu Mill's new dormitory combines solar energy and heat pump technology. Its employee satisfaction rate reaches 85 points.



Comfortable Living Space



Short Commute Distance



Excellent Living Amenities



Construction of New Dormitory

To provide Tayuan Mill employees with a more comfortable, smart, and convenient living environment, a new dormitory was purchased in 2020 to replace the old one. Reconstruction began at the end of 2023 and is expected to be completed by 2025.



Salary and Treatment



Providing Competitive Salaries Superior to the Industry

Salary raises for 17 consecutive years, becoming a constituent the "TWSE RA Taiwan Employment Creation 99 Index" for 13 consecutive years

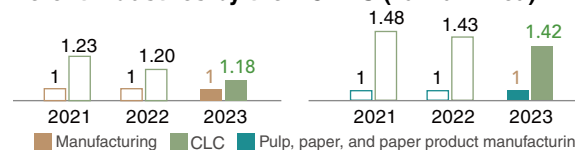
Besides employee salaries are higher than the local minimum wage by 27% for bachelor's degree and 39% for master's degree, we promote gender equality and equal pay for equal work. As male employees are generally more senior than female employees in some grades and have longer overtime work, the pay is different between male and female employees. Every year we review company's business performance and make the salary adjustment based on the commodity price, resulting in the raise of the employee's salary for 17 years at 1~3% each year, and up to 1% in 2023. In addition, wage of the non-management full-time employees is around NT\$844,000, and the mean wage of full-time is around NT\$786,000.

Average and Mean Wage of Full-time Employees (Taiwan Area)

	2021	2022	2023	Growth Rate
Number of non-management full-time employees (persons)	3,566	3,554	3,585	1.00%
Average wage of full-time employees (NT\$)	1,002,595	918,285	844,017	-8.1%
Mean wage of full-time employees (NT\$)	940,805	849,955	785,970	-7.5%

Note: Due to the overall economic downturn, the performance and profits in 2023 did not meet expectations, resulting in a reduction in the bonus payout amount.

Comparison of Regular Earnings of Employees in Different Industries by the DGBAS (Taiwan Area)



Note: For more information regarding CLC's gender pay ratio, the minimum starting salary for new employees, and the comparison with the local minimum wage, please refer to the [Appendix-the Employee Information List](#).

Employee Benefits

Better than the regulations: Expenses on employee benefits up to NT\$44,000

We are committed to establishing employee policies in conformity with the related laws and regulations and welfare better than the regulations including health examination and various leaves for each CLC employee to receive full and proper care and concern. We also take care of the life of employees with various benefits. The employee welfare committee hold committee meetings and review the welfare system regularly, and constantly develop comprehensive and complete employee care solutions. In 2023, we spent about NT\$44,000 on the benefits of each employee. In addition, we awarded 《Happy Enterprise Award》- Gold for the 4th time which held by 1111 Job Bank.



(unit: NT\$10,000)	2021	2022	2023
Employee Benefit Expenses	18,038.9	18,701.6	16,010.7
Average benefit expense per employee	4.9	5.0	4.4

Note: Taiwan Area

Benefits Superior to Regulations

Item	Content	Regulations
General health examination	Provide free health examination for all employees regardless of the age	Different frequency by various age range
Intermediate management health examination allowance	NT\$17,000~23,000/year	None
Engagement paid leave	1 Day paid leave	None
Maternity leave	8 Days	7 Days
Paternity leave	8 Days	7 Days
Natural disaster leave	Paid Leave	None



Benefits

Employee Health Checkup

- Every year, we arrange free health checkup for employees.
- We sign up health checkup special offer programs for employees/dependents with 13 health checkup organizations.
- Provide additional health checkup allowance for intermediate management and increase to NT\$17,000~NT\$23,000/person (total allowance reached NT\$3.214 M in 2023).



Medical Allowance

- Including catastrophic illness (NT\$100,000/year), hospitalization allowance (NT\$30,000/year), family emergency assistance (disbursed from CLC Charity Foundation), accident/disaster allowance. Total allowance amount reached NT\$ 5.438 M in 2023.

(unit: NT\$10,000)	2021	2022	2023	2021~2023
Medical allowance for employees and dependents	439.1	467.0	543.8	1,453.6

Travel Allowance

- Every year we organize group tours with fund for both domestic and foreign employees. Since 2020, each person has received a subsidy of NT\$12,000 to NT\$14,000.

(unit: NT\$10,000)	2021	2022	2023	2021~2023
Employee travel allowance	936.6	1,195.6	2,319.4	4,451.6

Parental Care

- We offered a range of incentives to encourage birth. In 2023, 64 CLC babies were born, with a crude birth rate of 1.74%, higher than Taiwan's crude birth rate at 0.57% in the same period.
- Provide NT\$10,000 birth allowance for each newborn. If both parents are CLC employees, they can apply for the allowance individually. In 2023, we issued a total of NT\$640,000 of birth allowance.
- Tuition fees discount by contracted kindergartens. There are a total of 10 contracted kindergartens in Taiwan.

	2021	2022	2023	
Crude birth rate at CLC	2.55%	1.98%	1.74%	
Crude birth rate in Taiwan	0.65%	0.60%	0.57%	
(unit: NT\$10,000)	2021	2022	2023	2021~2023
Birth allowance	96.0	75.0	64.0	235.0

- Build up parent-friendly workplace: Parents could apply **Paternity Leave individually (superior to regulations)**, Parental Leave, Family Care Leave. We provide breastfeeding (lactation) rooms, and pregnancy parking spaces for female employees. The following is employees' usage of parental leave:

Item		
Total number of employees entitled to parental leave in 2023	207	24
Total number of employees that took parental leave in 2023	7	7
Total number of employees that returned to work in the after parental leave ended in 2023 (A)	5	3
Total number of employees that expected to return to work after parental leave ended in 2023 (B)	5	3
Return to work rate after parental leave in 2023 (B/A)	100%	100%
Total number of employees that returned to work in the after parental leave ended in 2023 (C)	1	2
Total number of employees that returned to work after parental leave ended in 2023 that were still employed 12 months after their return to work (D)	1	2
Return to work rate after parental leave in 2023 (D/C)	100%	100%

Club Allowance

(unit: NT\$10,000)

Item	2021	2022	2023	2021~2023
Number of clubs	23	25	25	-
Total number of club members	827	851	887	-
Club allowance (unit: NT\$10,000)	185.3	264.4	231.7	681.4

- We provide NT\$4,000 club allowance for each employee and hire exercise instructors to assist employees. In 2023, there are 25 clubs in CLC, including sports, foreign language, board games, etc. The number of participants are 887 persons, accounting for 24.1% of all employees.

Grants and Scholarship for Children

- Basic education allowance:

To encourage employees' children (from elementary, junior high school to master degree) to study hard and engage in comprehensive development, we released a total of NT\$6.471 M as scholarships in 2023, and a total of NT\$20.466 M in 2021~2023 (recent 3 years).

- Study and diversified development scholarship:

Following the life-long learning spirit, we encouraged employees' children to study hard and have diversified development. For children with outstanding performance, we provide another NT\$9,000 as incentive. There were 57 persons applied. We released a total of NT\$105,000 as scholarships in 2023, and a total of NT\$293,000 in 2021~2023 (recent 3 years).

(unit: NT\$10,000)	2021	2022	2023	2021~2023
Scholarship for Children	697.3	702.2	647.1	2,046.6
(unit: NT\$10,000)	2021	2022	2023	2021~2023
Number of employees that applied (persons)	16	20	57	93
Scholarship for children with outstanding performance (unit: NT\$10,000)	6.4	12.4	10.5	29.3



For more information regarding CLC's benefits for employees, please refer to the CLC website - [Talent Cultivation and Development](#), [Benefits for Employees](#).



5.2 Talent Cultivation and Development

Material Issues

Talent Cultivation and Development

Strategy

Accumulate talent strengths, optimize the job rotation heritage.



2030

Goals

- Training hour per staff up to 48 hours/year
- Establish a key personnel talent pool and plan the talent development roadmap

2024

Goals

- Training hour per staff up to 42 hours/year
- Empowered 300 Internal instructors, integrating both in-person and digital courses
 - ➔ Continuously strengthening hierarchical training
 - ➔ Continuously adding new digital courses

2023

Goals / Action Results

- Training hour per staff up to 42 hours/year
 - ➔ Training hour per staff up to 67.7 hours/year, + 11.7 hours YoY. For the entire group, training hour per staff up to 54.6 hours/year, +9.6 hours YoY
- Cultivating 300 Internal Instructors
 - ➔ Implementing domestic and international education inheritance, with a cumulative total of over 327 internal instructors trained
 - ➔ Conducted 2 overseas in-person training sessions (66 participants)
 - ➔ Held 18 external instructor-led in-person courses (30 sessions) totaling 223 hours, with a cumulative participation of 1,227 attendees
 - ➔ Enhanced courses on managerial and professional competencies for supervisors, as well as team communication
 - ➔ Continued the policy of recruiting international talent and promoting retention and long-term employment programs
 - ➔ Organized digital course competitions (accumulated 22 digital course materials)
- Continuously optimized the E-Learning system
 - ➔ 54 new online courses were added, bringing the total of 491 courses across 31 categories

“ Looking forward into overseas business deployment and the global trend of sustainable supply chain, we are promoting low-carbon smart paper transformation at full steam. Apart from enhancing the internal carbon reduction synergy through technology and operations, we emphasize the maximization of sustainable influence more. We also focus on developing green leaders that can keep up with the times, building a happy workplace featuring 'sense of honor,' 'sense of responsibility,' and 'sense of achievement' to incentivize and retain talents. ”

Chairperson Frank Cheng



10-Year Sustainability Talents Plan for Transformation towards Low-Carbon Operations, with a Total of 327 Internal Instructors Trained

Upholding the corporate education philosophy of "accumulate talent strengths," we actively transform into a multifaceted and inclusive learning organization to develop sustainability talents. We set **48 hours of education and training per employee, empowerment of 300 internal instructors, and realization of young management by 2030 as the targets** to systematically implement ESG competency education and develop multifaceted international talents through job rotation in response to the increase in overseas business locations. By 2023, we have successfully trained over 327 internal instructors, ensuring the implementation of educational heritage both domestically and internationally.

In 2020 we introduced the 10-Year Talents Empowerment Plan to respond to the group's implementation of the smart low-carbon paper plan in 2019. Based on the position and grade, contents were divided into fundamental competencies and professional competencies, **focusing on technology and engineering, ESG governance, digital technology, crisis management, international languages, and digital talents management and evaluation system** to promote total competence upgrading of employees through top-down implementation. In response to the trend in different fields, apart from dynamically setting targets and developing course contents for internal training and establishing long-term management and talents development plans for key positions, we also actively implement industry-academia collaboration, internship, and interdisciplinary programs, and run an internal academy to develop a steady sustainable talent pool for CLC and traditional industries. In 2023, we also revised the "Promotion and Managerial Position Allowance Adjustment Review Procedures," incorporating related courses such as "ESG Sustainable Management" and "Code of Ethical Conduct and Anti-Corruption Advocacy" as mandatory subjects for employee promotions to strengthen their ESG-related knowledge and adherence to ethical standards.

The per Person Training Hour was 67.7 Hours (+11.7 Hours YoY); for the Entire Group, it Reached 54.6 Hours (+9.6 Hours YoY)

Set the minimum hours of learning for required professional training and training as time off in lieu to encourage employees to enrich professional competencies adaptively. In Taiwan area, the annual employee education/training was 249,036 hours (including E-Learning), and the per person training hour was 67.7 hours (+11.7 hours YoY) in 2023. For the entire group, the annual employee education/training was 335,690 hours, and the per person training hour was 54.6 hours (+9.6 hours YoY).

Additionally, aiming to become "Asia's new low-carbon and green energy paper company," we also joined the "TALENT, in Taiwan in 2022." Utilizing our expertise in paper material design, we created a "Reading Bar" in our office area, hosted book exchange meetings, and launched the "i Reading" project which selects excellent books every quarter and provides a variety of publications for free reading. Additionally, over 80 executives participate in sharing and circulating selected key books.



Establish Own Responsible Units, to Draw up Training Strategies and Targets

Enhance training for key talents in response to the low-carbon operations transformation and group globalization. We developed the CLC organization benchmark learning system, established responsible training units, and built the business and industry key talents pool to continuously enrich multifaceted training resources (including 437 online courses, external speakers containing NGO/ invited speech from among the industry, government, academy).



The HQ administration division planned the business-wide education and training

This includes "basic literacy" and "professional competency" training, responsible for enhancing employees' understanding of the company's operational strategies, corporate culture, sustainable development, and industry awareness, while also strengthening cohesion.



Business units (across Taiwan and overseas mills/plants)

take charge of employee competence education and training; emphasize experience inheritance, innovation, and practice; integrate internal instructors, total production management (TPM), and the excellent cases management system; and provide a systematic and targeted learning environment and continuing education channels.

Employee Education and Training

Item	Region	2021	2022	2023
Total amount of employee training (NT\$)	Taiwan	4,219,386	7,596,276 ^{Note 2}	5,354,582
Total employee training hours (hours)	Taiwan	166,515	206,132	249,036
	the entire group	243,580	305,459	335,690
Training hours per person (hours/year-person)	Taiwan	45.2	56.0	67.7
	the entire group	37.4	45.0	54.6
Training expenses per person (NT\$)	Taiwan	1,146	2,064	1,457
	the entire group	836	1,432	1,117

Note 1: Training hours include internal training, external training hours, digital learning, work guidance and so on.

Note 2: In 2022, as the pandemic eased, the accumulated demand for certifications over more than 2 years led to concentrated training sessions, resulting in a significant increase in training expenses for 2022.



CLC Talent Cultivation System

For more information, please refer to [the CLC website](#).



3 Training Channels: E-Learning, the Outstanding Case Management System, Total Productive Maintenance (TPM)

E-Learning : Ubiquitous lifelong learning with systematized follow-up of training effectiveness

Apart from investing NT\$1.4 million in developing E-Learning modules ahead of competitors since 2003, we have also made advance overseas deployment of sales locations, and built the ubiquitous E-Learning channels when classroom courses were prevented by the pandemic to provide employees with self-learning opportunities. In 2011 we spent NT\$1.23 million on upgrading these modules to include knowledge management and license management and integrate them into the internal promotion system. In 2022 we spent NT\$1.38 million for a 2nd-time upgrading to include the mobile learning function to ensure internal data security and safe and worry-free learning for employees. CLC continuously optimizes the E-Learning system.

- **Continual expansion in line with industry trends: Accumulated 491 E-Learning courses in 31 categories**

Full support for employee lifelong learning and development of green leaders that can keep up with the times.

- **Inheritance of professional experience: digital course material competition, digitalizing internal instructor course and the outstanding case management system**

In 2022 combined the "Internal Seed Instructor Cultivation and Training Program" and digitalized the internal instructor course and the outstanding case management system.

In 2023, we launched the "Digital Course Material Competition Series" and invited influencer instructors to conduct 4 sessions of the "Quick Start Guide to Video Shooting and Production for Beginners" course, training a total of 127 colleagues. We also organized the 1st "Digital Course Material Competition," with 22 videos making it to the finals. This initiative enriched our professional knowledge digital database, enhanced the group's online course materials both domestically and internationally, and reduced carbon emissions from physical travel.

Item	The number of the new online courses
2021	29
2022	33
2023	54

ESG outstanding case management system: over 1,000 cases, creating value up to NT\$1,000 million

- **Establish the Internal Advice Channel: encourage the employees to figure out questions, and brain-storming the ESG innovative implement cases**

In 2008, we promoted the "Excellent Case Improvement Activity". In addition, employees are encouraged to actively explore problems through the competition system. Therefore, it's able to promote the healthy competition and increase the problem-solving ability and innovative capacity. In 2023 over 50 cases were selected and creating value up to NT\$230 million (nearly NT\$1,000 million in 2021~2023).



TPM: Enforced education inheritance at home and abroad, empowered over 327 Internal instructors

- **6 occasional education to enhance the overall productive and equipment effectiveness**

In 1999 we introduced total productive maintenance (TPM) to enhance the overall productive and equipment effectiveness. Each plant and mill established the TPM executive secretary to arrange professional competence courses on productive maintenance for base-level employees and junior, and intermediate supervisors to boost corporate competitiveness. Cross-plant/mill exchange was arranged half-yearly, with a total of 40 sessions so far.



- **Smart manufacturing upgrading and application and 2 training themes for overseas learning**

- ✓ **Smart manufacturing upgrading and application:**

Enhance equipment reliability and operating efficiency through the smart use of digital systems, including process condition optimization, autonomous machine learning, with focus on optimizing personnel management and enhancing competence and knowledge base inheritance to reduce the impact from the retirement of senior employees and experience insufficiency of new employees.

- ✓ **Overseas learning integration:**

Enhance the promotion of overseas ISO and TPM activities and training for Taiwanese staff expatriates to properly ingrain technology and data locally and accelerate the fundamental education of local employees. In 2023, we held our 1st in-person overseas MTP training courses with external instructors, conducting 2 sessions with a total of 66 participants.

- **Empower over 327 Internal instructors, and expand the Cultivation Program to enforce the knowledge inheritance**

In 2001, we introduced the "internal instructor" system to cultivate instructors required by corporate development to strengthen CLC's 5 pillars: TPM, production expertise, quality, environmental safety, and energy. We also constantly organized relevant courses to improve their teaching skills, capability and knowledge. In 2022, we implemented the "Internal Seed Instructor Cultivation and Training Program", and there were 327 instructors till 2023.

Multifaceted Channels for Continuing Education: Allowance for External Training and Continuing Education and "Foreign Language Improvement Program"

Allowance for External Training and Continuing Education

- **Education allowance** – NT\$100,000 for master's programs and NT\$150,000 for PhD programs:

To encourage employees to practice lifelong learning, in 2021, we expanded the scope and increased the amount of allowances to provide NT\$100,000 for master's programs and NT\$150,000 for PhD programs for employees to freely choose the schools and courses for continuing education to optimize the cultivation of all talents.

- **Allowance for continuing education of other professional competencies: Papermaking competence optimization, ESG certificates**

We provide employees with flexible options for self-directed learning, including content such as the GMP Quality Assurance Engineer Certification Course and the Class A Waste (Pollution) Water Treatment Certificate, along with relevant training subsidies.

- ✓ **Foreign Language Improvement Program: Foreign Language Allowance: Across 3 foreign languages, a total of 150 employees have applied**

We established the Foreign Language Allowance in 2006 and expanded the scope from English and Japanese to Vietnamese in 2015. Since its establishment, a total of 150 employees have applied for the allowance to enrich CLC's international talent pools.

Taiwan Green Leaders Empowerment through Industry–Academia Collaboration

- ✓ **Internship and talent development for active graduate students, with the retention rate of the 1st batch of interns exceeding 60%**

To boost industrial transformation and let college students understand more about the paper industry, we cultivate talents for design, marketing, quality, and process management and engage in technological exchange through industry–academia collaboration and internship programs. All CLC sites in Taiwan offer job openings and scholarships for internship during summer and winter vacations. Since 2019, we have engaged in industry–academia collaboration with colleges such as the Department of Forestry at National Chung Hsing University, Ming-Hsin University of Science and Technology, and Lung-Hwa University of Science and Technology, providing 68 internship vacancies. In 2023, we offered up to NT\$72,000 in retention scholarships to students from 6 universities, with the retention rate of the 1st batch of interns exceeding 60%.

- ✓ **Elite Talents Industry–Academia Collaboration Program: Circular economy executive empowerment and low-emission operating technology development**

Looking forward over the net-zero trend, we teamed with National Chung Hsing University and 11 leading businesses in the circular economy to establish Asia's 1st "Circular Economy Institute" to develop circular economy executives and specialists for the country in 2022.

Multifaceted Inclusion, Deploying Key Management Talent Pools at Home and Abroad

We value professional innovation and multifaceted inclusion and emphasize the inventory of the management and technology capabilities of key talents, and intermediate and senior officers. Additionally, we are committed to resolving the traditional labor-intensive and industry aging problems by actively promoting young and potential talents. We value the performance of female employees to build a gender-friendly workplace. With such, we aim to develop young and multifaceted officers.

For employees to keep up with new knowledge and put theory to practice, we perform annual performance evaluation and evaluation for new employees. Those who have been working (including reinstatement) with us for 1 year will receive the performance evaluation. The evaluation maintains absolute objectivity and equity regardless of gender. Employees are rated and ranked by their performance and will be rewarded according to CLC's operational performance in the year.

Moreover, we set building the local green leader pool as our macroscopic goal to enforce ESG talents development. We apply thematic education and training for intermediate and senior officers. In 2023, we focused on enhancing: **team communication, establishment of management guidelines, supervisor job rotation, and digital decision-making applications**. Additionally, we introduced digital management tools and built modularized management guidelines to ensure that supervisors engaging with overseas location expansion can maintain management at the same breadth and depth.

- ✓ To practice the young supervisor policy, during 2018~2023, we promoted 345 employees to supervisors, including 101 of them were below 35 years old, accounting for 29.3%.
- ✓ During 2018 to present, we have promoted 58 excellent employees with seniority below 5 years to supervisors, and 12.0% of them were female employees.
- ✓ In 2023, a total of 3,550 received the performance evaluation, the proportion of male was 87% and female was 88%. In the evaluation results, the proportion of female employees with excellent performance (A grade) is higher than that of male employees.



Note: Taiwan area

* For more information on CLC employee evaluations, please refer to [the Appendix - The Employee Information List](#).

Strengthening the Professional and Management Competencies of Supervisors

- ✓ Leadership training for intermediate and senior officers.
- ✓ In 2023, we conducted 2 sessions of the "MTP Excellence Supervisor Management Competency Training" in China, training 66 mid- to senior-level overseas managers.



- ✓ Establishing management guidelines to enrich and maintain the consistency of management practices for section chiefs and managers.

Promoting "Guidelines and Precautions for Section Chief/Manager-Level Supervisors" to Implement Talent Cultivation and Localization Policies.

- ✓ Upgrading International Management Capabilities through Overseas Operations and Management Training

In 2023, we conducted 18 courses across 30 sessions, totaling 233 hours, with 1,227 participants. The participants included senior executives such as the Chairman, Vice Chairman, and General Manager. Through planned development and rotations, we empowered various levels of leadership necessary for the expansion of overseas operations.

- ✓ Enhancing decision-making power through visualized big data management in the Digital Transformation Seed Program.

Since 2021, we have introduced Power BI (business intelligence software), allowing supervisors to use mobile devices to access integrated functions such as management KPIs, aiding in decision analysis. In 2023, we further deepened the application of AI.



We invited former CEO of the Wowprime Group, to share her insights on systematic management and problem-solving through her talk "How I Manage to Solve 90% of Problems." The event was attended by 1 board member, 26 senior executives, and over 100 colleagues (Benchmark Speech, May 30, 2023).

Recruiting Overseas Industry Talents and Management Assistants

- ✓ Encouraging employee expatriation in response to globalization and new southbound deployment.

In response to the operations globalization and new southbound development strategies, we maintain rolling adjustment of the "Regulations for Management of Overseas Expatriates."

Year	2019	2020	2021	2022	2023
Number of the expatriated employees (persons)	134	132	140	145	192

Note: Taiwan area

- ✓ Hiring and developing over a dozen overseas Chinese and international students into management assistants of overseas locations.

Since 2016, CLC has proactively recruited talent, continuously hiring overseas Chinese and foreign graduates who studied in Taiwan, and arranging for them to return to their home countries at the appropriate time to serve as reserve managers at overseas branches. Over the years, more than 10 local managers have been trained and have taken on roles as section chiefs or team leaders.

- ✓ Implementing the talents retention plan in response to the government's international talents recruitment policy.

CLC values foreign workers with professional skills, compiling and reviewing a list of qualified candidates, and after assessing their professional abilities and willingness to stay, assisting them in securing long-term job opportunities in Taiwan to alleviate labor shortages. For foreign workers whose contracts have ended and returned to their home countries, CLC is committed to facilitating their return to CLC's overseas branches to continue utilizing their expertise in the paper industry. In 2024, 1 Thai worker is expected to return, and the relevant procedures have already been completed.

Developing Future Management Talents by Holding "New Employees Consensus Camp" (3 Days, 2 Nights) Every Year

- ✓ Help the new member improve the understanding of CLC's operational strategies, and industry and cohere the loyalty of new employees.



5.3 Healthy Workplace

Material
Issues

Healthy Workplace

Strategy

OH&S Policy: Total Participation, Zero Accident, Health and Safety



2030

Goals

- Cultivate CLC's OH&S culture (Effective 2025, a 5% yearly growth for participants of OH&S promotion activities and talks)
- Continually help oversea area develop ISO 45001 HSE management system
- Implement zero occupational accident

2024

Goals

- OH&S promotion activities with 1,900 participants
- Employee OH&S training hours: 22 hours/person/year
- Continually help oversea area develop ISO 45001 HSE management system
- Implement zero occupational accident

2023

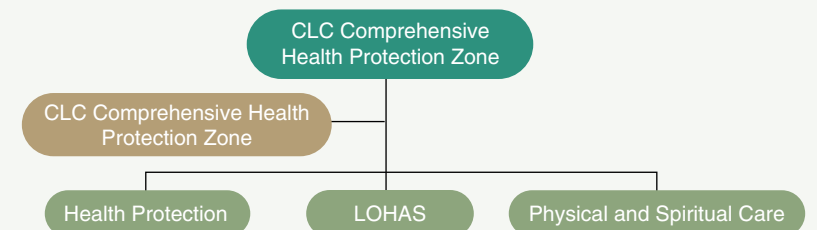
Goals / Action Results

- OH&S promotion activities with 1,800 participants
 - ➔ Physical course reached 1,942 participants (Include online course: total of 7,420 participants)
- Employee OH&S training hours: 22 hours/person-year
 - ➔ 28.1 hours/person-year
- 11 mills/plants certificated the MOHW "Wellness Promotion"
 - ➔ 8 mills/plants certificated the MOHW "Healthy Workplace"
- Help oversea area develop ISO 45001 HSE management system
 - ➔ Binh Duong Paper Mill, Binh Duong Plant, Vina Tawana Plant, Long An Plant, and Bac Giang Plant have been completed
- Implement zero occupational accident
 - ➔ No occupational accidents occurred in 2023

CLC Safety and Health Policy

“We believe that valuing the safety and health of every employee is the only way to realize the vision of sustainable business development.”

Establishing CLC's Comprehensive Health Protection Circle



To care about employee health, we established the HSE Promotion Committee in 2000. In conformity to the management framework of ISO 45001 and through the well-established health management system, we draw up implementation plans each year in terms of employee healthcare and wellness promotion focusing on health protection, LOHAS, and physical and spiritual care by HSE personnel, factory nurses, and occupational specialists of CLC plants and mills to proceed with health management to build a healthy workplace, hoping to build a comprehensive health protection zone through wellness promotion and strengthening sanitation management against the pandemic and the personal health risk management of employees.

Supervise the Plants and Mills to Hold the Wellness Promotion Activities, and Set the Goal of Increasing by 5% Every Year after 2025

Through constantly organizing wellness promotion activities, optimizing healthcare projects, and implementing workplace health, we hope to pass the certification for the Badge of Accredited Healthy Workplace of the Ministry of Health and Welfare for all CLC plants and mills across Taiwan to become health enterprises. We have also set the goals for the number of participants in wellness promotion activities. There are 1,942 participants in 2023 (include online: total 7,420 participants).



Occupational health and safety management strategy/policy/process

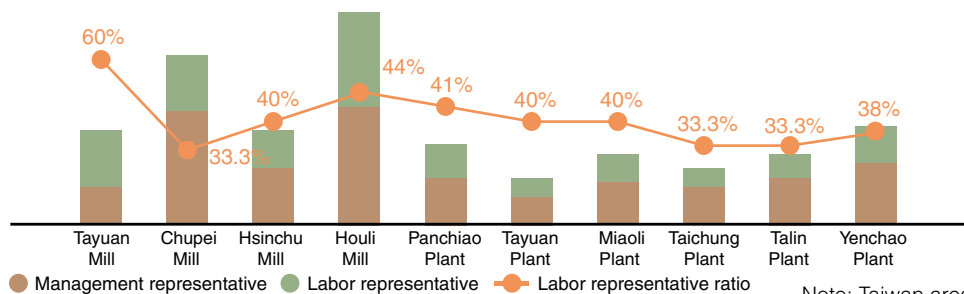
For more information, please refer to [the CLC website](#).



We have established an OH&S Committee at each mill/plant with members including the site supervisor, OH&S personnel, and other related employees. Labor representatives are recommended by employees (proportion of labor representatives of each mill/plant is 33.3%~60%). Personnel include production workers, leaders, section chiefs, TPM executive secretary, and mill/plant nurses. The OH&S Committee holds a committee quarterly to discuss and promote mill/plant OH&S-related decisions and activities.

Continuously assisting with the establishment of overseas ISO 45001 occupational health and safety management systems, the Binh Duong Mill, Binh Duong Plant, Vina Tawana Plant, Long An Plant, and Bac Giang Plant all completed their applications in 2023. The Bac Giang Plant is also in the process of applying.

Labor and Management Representative of the OH&S Committee in 2023



HSE Risk Assessment with a Total of 4,226 OH&S Proposals Were Received

We establish our HSE assessment criteria according to ISO/CNS 45001:2018 management systems and PDCA. Every year, they periodically assess the risks and opportunities to be addressed, propose improvement or control measures, and report them to the management review meeting for resolution, with the follow up by the mill/plant management representatives. Once equipment, SOP change, the corrective actions for an occupational accident or nonconformity are modified or occurred, hazard identification and assessment shall be performed again.

Near misses are important indicators of potential risks. We make the best use of the HSE management system to follow up near miss reports and corrective actions. To urge all mills/plants to improve OH&S performance, we introduce the improvement proposal system to encourage employees to propose improvement for operation safety or the work environment. In 2023, a total of 4,226 OH&S proposals were received, and mills/plants with outstanding HSE performance were rewarded at the year-end.



In 2023, 14 employee disability injuries were reported (Taiwan, China and Vietnam), and pinch hazard and fall was the main type of occupational injury. We also actively implement improvement procedures to move forward zero accidents:



Strengthening safety operation education and training



Reviewing the operating procedures and immediately improve the operating environment and equipment



Reporting the case to factories across the company as the OH&S cases promotion reference

To keep our commitment to valuing the health and safety of all CLC partners, we also included the occupational accidents of non-CLC employee resident at CLC premises in our statistics. In 2023, CLC had a total of 2 cases of non-employee disabling injuries, with no reported cases of occupational diseases.

Note: For more information regarding CLC's occupational accident statistics, please refer to [the Appendix - List of Health Workplace-related Information](#).

OH&S Education and Training Management

For HSE personnel to timely capture the changes and trends in OH&S related laws and regulations, we have setting up our own OH&S education and training program and sending staffs to participate in conferences and talks from time to time. In addition, each mill/plant sends senior staffs familiar with OH&S-related laws and regulations and with practice experience to help other employees understand the spirit and focus of implementation of related laws and regulations together with external experts and scholars by means of seminars or on-site diagnosis to strengthen their awareness of hazards in the work environment and protect the health and safety of workers. Since 2021, we have created a "Health Promotion Column" in CLC Bimonthly, sharing a total of 16 articles on topics such as "Eating for Health and Slimness" and "Healthy Teeth Lead to Overall Health." Additionally, we have organized a total of 6 events focusing on areas like stress management and psychological care, with a total participation of 142 individuals.

We are actively promoting cancer prevention and screening activities, encouraging employees to receive flu vaccinations, and providing timely health checks and preventive measures for our employees. The average OH&S training for each employee in 2023 is about 28.1 hours.

Item	2021	2022	2023
HSE training hours	95,542	78,130	93,342
Training length of each employee	25.9	23.5	28.1
CLC Bimonthly Journal : "Health Promotion Column" (amount)	5	5	6



*2023: Taiwan area ; Include physical, online and written copies

Valuing Plant Operation Safety, 100% No Smoking, and Equipping AEDs, and Enhancing Education and Training

- Continue to retire, replace, and upgrade mill/plant equipment and reduce safety risk with digital management
- Equipping all mill/plants with AED to keep employees away from Taiwan's 2nd top cause of death
- Organizing EHS talks to enhance crisis awareness

Through ongoing safety education and training activities, we aim to enhance the emergency response capabilities of every member within the company, ensuring the effectiveness of overall safety and protection measures. In 2023, CLC conducted regular fire drills both domestically and internationally.



Enhancing the Management and Efficiency of Visits by External Units of HSE

We constantly optimize OH&S management, by enhancing the efficiency of HSE information transmission and the effectiveness of the HSE management system, we have established the HSE mill/plant visit electronic response system to timely capture real-time data and improve the HSE effectiveness. There were 137 times of the HSE mill/plant visits in 2023.

Contractor Management

To enhance contractor HSE management, and maintain in-house operation safety and the safety of the contractor's employees and equipment, we have also established and implemented the Contractor HSE Management Regulations. In 2023, we arranged 4,757 hours of contractor education and training for 7,121 persons.

- Select and verify qualified contractors to undertake contracts.
- Sign the OH&S and environmental management undertaking.
- Hold consultative organization meetings to publicize hazard factors required notification for in-house operation.
- Perform plan entry control and apply for safe work permit.
- Implement in-house construction control and abide by in-house OH&S management regulations.
- Work safety check points: open fire, work at height, lifting/hoisting, risk management, cutting.
- Publicize the electrical equipment management regulations.

Cross-factory Audit/OH&S Rating

Every year, each mill/plant implements the annual HSE system targets and KPIs. Then, the HQs Health, Safety & Environment Department follow up their performance through periodic monitoring and measurement with the cross-factory audit and annual mill/plant assessment. The collected information is submitted to the management for the reference of decision-making and thereby set the targets and KPIs of the next year. In addition, though the HSE rating, we perform cross-factory and cross-division learning and exchange to establish a better OH&S management system.

We also arrange non-regular visits to paper mills and paper product factories in Vietnam to conduct EHS inspections. These inspections cover on-site 5S management, environmental management, and on-site safety and health management, as well as the operation of related management systems. Through cross-plant audits overseas, we aim to deepen and implement occupational safety and health management practices.

In 2023, we performed cross-factory OH&S audits on Corrugated Container Division at 7 mills and conducted annual OH&S rating on Containerboard Division, Household Products at 4 mills/plants.

Health at CLC: CLC Health Management System Platform & LINE Health Group

We developed the "CLC Health Management Platform" to monitor employees in high health-risk groups online. Professional in-house nurses and occupational medical specialists analyze their data and provide health advice.



Health Inspection

We value the mental and physical health of employees. Every new employee must submit a physical examination report, and active employees must take the annual health checkup. For employees working in special work environments, we provide special health checkups (e.g. noise, dust, and ionized radiation examination). Cases requiring management and follow-up as determined by the physician will be followed up according to the protection plan and provided with sufficient information for further medical attention.

- In 2023, a total of 3,597 employees took the general health checkup, with an achievement rate of 98.9%; and 1,187 employees took the special health checkup. For employees with abnormal results, we also actively provided health guidance and related consultations by medical staff.
- Has hired Dr. Guan-Tang Li as medical director since 2021 and provided severe illness, health care and other related issues consultation every week.



Improving Operation Environment

Besides improving the ventilation equipment, we installed cooling equipment at focused work zones to provide employees with a comfortable work environment.



Safeguarding Respiratory Tract through Advance Deployment! Non-Smoking Workplace and Smoking Cessation Class since 2020
Smoking is completely prohibited in all company premises to eliminate secondhand smoke. Since 2020, the company has introduced additional smoking cessation programs and periodically conducts tobacco control education and training to help employees quit smoking.



Health Promotion

We promote various health management and health promotion activities in order to build a happy, healthy workplace.

- In 2023, we organized a total of 82 health promotion activities and talks with 1,942 participants (include online: total 7,420 participants).



Health Protection

In conformity with the overwork, maternal, ergonomic, workplace violence, and respiratory protection issues as stated in the Occupational Safety and Health Act, we arrange stress relief talks, core muscles exercise, and ergonomic hazards prevention talks or on-site instructions to protect the health of employees.

Achievements in Workplace Health Promotion

In 2023, CLC actively promoted various health activities and seminars to help employees with weight control, cancer prevention, and flu vaccinations. CLC also vigorously enforced a no-smoking policy throughout the entire facility. Additionally, special attention was given to situations that might cause physical or mental harm to employees while performing their duties. Appropriate preventive measures were taken, including completing written statements for assessment, to ensure the comprehensive protection of all employees' physical and mental health.

Advocating for work-life balance and encouraging nationwide exercise, CLC created sports spaces in 11 plants/mills across Taiwan. We encouraged employees to form clubs and actively participate in health and leisure activities, fully subsidizing these clubs. Since 2020, CLC has partnered with the Sports Administration's "Sports Calendar Platform" to publicize events and competitions, actively creating a truly happy enterprise and implementing a healthy and enjoyable workplace.

- **CLC Awarded iSports Certification by Sports Administration (2022~2025) for Creating a Healthy Workplace**
- **8 Mills/Plants Awarded MOHW "Healthy Workplace": Developed Unique Projects, Set Performance Indicators for Tracking and Management, Achieved over 70% Coverage, with Remaining Plants Actively Extending Achievement**
 - ➔ Health Promotion Mark : Headquarters, Panchiao Plant, Tayuan Plant, Hsinchu Mill, Chupei Mill
 - ➔ Health Activation Mark : Miaoli Mill, Houli Mill, Taichung Mill
- **5 Consecutive Years of Attending 《Commonhealth Magazine》 "Corporate Health Responsibility" Assessment and Providing Full Employee Protection Based on 4 Aspects**

Knowing: Knowledge Promotion

We use the CLC Bimonthly Journal, EIP internal website, health management APP to share new health knowledge and hold health promotion lectures.

Eating: Healthy Diet

The head office and mills offer free healthy meals which are checked by the professional medical staff in factory.

Exercising: Play Sports in Life

We encourages clubs. In 2023, there were 25 clubs with sports clubs accounted for 80% of the total clubs and the number of participants were 735.

Supporting: Medical Support

We analyze the health examination report and self-assessment questionnaire to screen out colleagues with high health risks, providing health guidance, and assist in arranging interviews with doctors or referral to medical institutions.





06

Society

Develop a society of diversity and inclusion, enhance public wellbeing, and shape a society of a positive circle.

- **3,289** volunteer service hours **+80%** YoY
- Invested **NT\$17.26 million** on social welfare
- Added **3** new paper libraries, making a total of **28** nationwide. Planted **17,916** sustainable seeds
- **The 1st intergenerational inclusive learning classroom in Taiwan's paper library**
Awarded the "Taiwan Design BEST 100" annual social care and eco-friendly prize by 《Shopping Design》
- Held **15** sustainability teacher training camps (Accumulated), trained **850** teachers and affected **13,835** students
- Celebrating the **64th** anniversary, joining hands with **9,000** partners to achieve mutual prosperity and well-being

二次森林

兒童關懷

社會參與

急難救助



Material Issues

Social Participation

Strategy

Based on the vision of "CLC: Love Paper & Love Earth," we integrated internal resources with "Cheng Huo-Tien Charity Foundation" and "Cheng Loong Children's Care Foundation" to engage in social welfare in terms of 4 aspects: "Secondary Forest," "Care for Children," "Social Participation," and "Emergency Assistance."



2030

2024

2023

Goals

Goals

Goals / Action Results

- Invest in social welfare > NT\$10 million
- Expand external cooperation in social welfare
- Establish a platform for social participation
- Constantly promote the Secondary Forest Program, by establishing a demonstration site for the circular economy, and promoting the correct paper recycling
- Complete a total of 40 paper libraries
- Educate seed instructors for paper library docents

- Invest in social welfare > NT\$10 million
- Optimize volunteer system
- Establish social caring system for operation base overseas
- Continue to promote activities relating to Secondary Forest
- Add at least 2 paper libraries
- On-site inspection and maintenance of existed paper libraries

- Invest in social welfare > NT\$10 million
 - ➔ NT\$17.26 million (include 2 foundations)
 - ➔ Caring 105,376 families in winter for 15 consecutive years
 - ➔ 72 assistance cases, with a total of 302 in recent 4 years
- Improve volunteer participation system
 - ➔ 437 environmental volunteers, 425 caring volunteers, with a total of 3,289 volunteer service hours (+80% YoY), commended in public
- Establish social caring system for operation base overseas
 - ➔ Deepen the welfare system in Vietnam
 - ➔ Award the 2nd CLC Scholarships in Vietnam
- Promote activities relating to Secondary Forest
 - ➔ Created 2 animated series, "The Fantastic Adventures of Paperman and Paper Box Soldiers" [Classification] and [Recycling], to enrich recycling paper education resources
 - ➔ Held 15 "elementary school teacher training camps", and accumulatively trained 850 teachers and affected 13,835 students
 - ➔ Recycled 986 MT of recovered paper from community, with a total of 4,314 MT in recent 4 years
 - ➔ Factory Visit >2,000 persons
- Add 2 paper libraries
 - ➔ Established 3 new paper libraries, exceeding the target by 50%, including: Collaborating with Uni-President 7-Eleven Foundation to create the 1st MINI paper libraries (total of 2). Partnering with MUJI Taiwan to create the 1st cross-generational paper library learning classroom in Taiwan
 - ➔ Reopened the Hsinchu Ding-Pu Elementary School paper library (the 9th paper library) and revisited 3 paper libraries

Education of Secondary Forest, CLC Builds the Green Inclusive Future

➔ **Goal: Complete a total of 40 paper libraries by 2030**

Every piece of paper is an extension of trees; recycling paper can create a second forest, allowing resources to be regenerated. Recognizing that basic education as a cornerstone of progress, and in response to the UN SDGs 4 vision for quality education, CLC has been leveraging its core papermaking competencies since 2014 to establish "Paper Libraries" throughout Taiwan. These libraries inject reading and environmental education resources into rural areas, enabling every teacher and student to learn about and protect the environment through reading and exposure to paper resources. In recent years, CLC has been connecting with various stakeholders to hold sustainable workshops and co-create paper libraries through diverse and innovative methods, thereby deeply embedding the sustainable value of second forests into society.

Celebrating the Paper Library Project's 10th anniversary in 2023, CLC observed trends such as an aging population, declining birth rates, and idle campus spaces. Through participation in the "Urban Industry Innovation (New Taipei City) Project" organized by the Industrial Development Bureau of the Ministry of Economic Affairs and the Taiwan Design Research Institute, CLC has integrated resources from industry, government, and academia, introduced external design capabilities, and completed the 1st intergenerational inclusive learning classroom in Taiwan's paper libraries. This innovative design transformation of the next generation of paper libraries lays a solid foundation for Taiwan to become an international model city for sustainability and opens up a green, inclusive future.

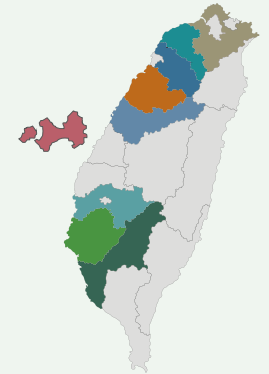
1. 100% Recycled Paper Library

“Using 1 MT of recovered pulp can reduce the felling of 20 trees, just like planting 20 invisible trees. This is the secondary forest”

CLC has built "paper libraries" in Taiwan since 2014 to promote the secondary forest education. CLC has built at least 2 paper libraries every year and has set a goal of building 40 libraries by 2030. Additionally, We revisited the conditions of the paper libraries periodically to maintain and upgrade the facilities. Recently CLC even cooperated with various sustainable partners. A total of 28 libraries were established till 2023 including the cities in Taiwan and off-shore island Kinmen, benefiting 17,916 children. We also revisited 3 paper libraries and tracked the usage of the facilities.

New Taipei	Ji Sui/Pu Qian/Kuang Fu/Sin Han/ He Ping Elementary School*
	Xin Pu Junior High School (1 st Cross-Age Inclusive Learning Classroom)
Taoyuan	Wu Quan/Chao Ing/Si Hai Elementary School
Hsinchu	Feng Kang/Ding Pu/Sin Gang Elementary School
Miaoli	Jung Shing Elementary School
Taichung	Nei Pu/Yue Mei/Fu Chuen/Da Nan Elementary School, Houli Library, Taichung School for the Visually Impaired/ Grace Church Taichung*
Chiayi	San Ho Elementary School, Our Lady of China Foundation*
Tainan	Liu Chia (Hu Dong Branch Campus) Elementary School*
Kaohsiung	An Chao, Hou Hong, Yan Qiao, Chian Feng Elementary School
Kinmen	Jin Ding Elementary School

Note: Schools marked with an asterisk (*) are those where the Paper Library was created in collaboration between CLC and Uni-President Good Neighbor Foundation.



Not just a paper library, but Taiwan's 1st redesigned classroom for the elderly

To provide intergenerational learners with their own learning space, CLC has collaborated with the "Taiwan Design Research Institute," the "MUJI RENOVATION space transformation planning team," and "KIMU Design" in a cross-industry design partnership. With the support of the New Taipei City Education Bureau and Cultural Affairs Bureau, they have redesigned the supplementary school classroom at New Taipei Municipal Xin-Pu Junior High School, creating Taiwan's 1st intergenerational learning classroom tailored to the needs of the elderly.

*For more details, see [NO.4 Sustainability Practice on P.12](#) of this report.



CLC's 1st elderly-friendly learning classroom in Taiwan has won the Social Care Eco-Friendly Award at Shopping Design's 2023 Taiwan Design BEST 100.



Taiwan Design Research Institute
Vice President Ji-Yi Zhang

The Taiwan Design Research Institute is committed to integrating design into various industries to create new value. In 2023, in collaboration with CLC and the New Taipei City Government, it successfully introduced external design elements to complete Taiwan's 1st learning space for the elderly. This innovative strategy of integrating corporate energy into public spaces creates a win-win-win situation for all 3 parties. Design enhances the city and also demonstrates CLC's commitment to sustainable development goals and their implementation.

Concept of Sustainability Education X Corrugated Paper Recycle Circulation



1. 100% Recycled Paper Library
2. Cross-border Cooperating to Build Paper Library
3. Holding Sustainable Teacher Training Camps
4. Sharing Sustainable Education Resource

2. Cross-border Cooperating to Build Paper Library

Expanding influence of secondary forest education in collaboration with green sustainability partners through paper Libraries cross-industry collaboration

For the seed of sustainability to bud, in 2022 we collaborated with Good Neighbor Foundation of President Chain Store Corporation, our long-term supporter for encouraging "reading and study" in remote townships, to select elementary schools in remote townships emphasizing environmental education and the development of schoolchildren to flip the unfriendly libraries into lively and warm "paper" reading space with the 5,000 kg of recovered paper provided by 7-ELEVEN and the resources of affiliates through integration with our low-carbon smart paper and R&D capacity.



Pioneering the MINI Paper Library, Injecting Reading Resources into After-School Tutoring Programs



In 2023, recognizing the stable support provided by Taiwan's after-school tutoring system, we introduced paper library resources into this system for the 1st time. Noting that the spaces in these tutoring programs are often crowded and narrow, and to meet the diverse needs of children for classes, rest, and reading, CLC and the Good Neighbor Foundation of President Chain Store Corporation brainstormed together. After numerous on-site inspections, we pioneered

the "MINI Paper Library." This "corner reading" concept provides a multifunctional space for children to read after school, engage in self-directed learning, and for tutoring classes to conduct their lessons.



Catholic Our Lady of China Foundation
Executive Director Shih-Hong Li

Many children in tutoring classes come from families that lack companionship and motivation for reading and have limited resources. We are grateful to CLC and the Good Neighbor Foundation of President Chain Store Corporation for creating the MINI Good Neighbor Paper Library for our children. With the corner reading design concept, they custom-made themed trees and sustainable paper furniture suitable for children's height and reading needs. This provides a warm and quiet environment for the children. This small paper library is not just a reading space but a place that radiates warmth, accompanying the children in learning and growing together.

3. Holding Sustainable Teacher Training Camps

Launch of the 1st Online Sustainable Teacher Training Camp, Aiming to Train 1,800 Teachers by 2030

With the goal of cultivating future environmental sustainability leaders, CLC partnered with Tetra Pak and the Future Parenting Learning Platform in 2021 to co-create Taiwan's 1st comprehensive teaching materials on "Sustainable Recycling of Paper." These materials include lively picture books, lesson plans, presentations, and card games. Until now, these teaching tools have been brought to Taipei, New Taipei, Taoyuan, Hsinchu, Miaoli, Taichung, Chiayi, Kaohsiung, and Hualien, implementing sustainability education in both urban and rural areas. Teachers have enthusiastically responded to face-to-face training and sharing sessions. In 2023, in response to the trend of digital learning, the 1st online training camp was held, achieving widespread sustainability education. This initiative has trained 850 sustainable teachers, impacting 590 classes and 13,835 students.



[2023 Paper Circulation and Recycling Teacher Training Camps – Registration Site](#)

New Sustainable Recycling of Paper Animation, Spreading Paper Recycling Knowledge in a Lively Manner

In line with the era of online learning, the team launched an animation production project in 2023. The goal is to disseminate paper recycling education through more lively forms, enhancing public impressions and helping increase teaching fun and learning effectiveness. The design continues the colorful style of the picture books. The lively characters, Paper Hero Long Long and Box Soldier Le Le, lead the audience through the classification and recycling process of paper, illustrating how various types of recovered paper are transformed through the recycling process into paper products in daily life. All teaching tools are available on CLC's official cloud platform for the public to freely browse and learn.



[Teaching Tools – Download Link](#)

[Animation – Recycling](#)

[Animation – Classification](#)

4. Sharing Sustainable Education Resource

Using the digital power to share the Industry education resource and messages

As an leading industry leader, CLC continues to share recycling education resources via its online platform, using these for sustainable environmental education to achieve comprehensive resource recycling. A total of 33 videos have been added to the website (5 new ones in 2023) to help viewers quickly understand recycling and regeneration issues. Additionally, through environmental issue influencers (KOLs) and microfilm production, CLC actively engages in dialogue with the younger generation. In 2023, the dedicated recycling education webpage on the corporate website was visited 22,099 times.



- [CLC Recycling Webpage - Love Paper, Love Earth](#)
- [CLC "Paper Circulation and Recycling" Education Performance](#)

CLC Mill/Plant Visit

To pursue the common good and improve the circular economy image of the paper industry, CLC has proactively opened its mills to the public since its establishment in 1959. This initiative allows stakeholders to understand the actual operations of paper manufacturing and share knowledge and trends in the circular economy industry. The mills received over 2,000 visitors annually, including clients, industry peers, government officials, academic units, and environmental groups. Through exchanges, cooperation, and resource sharing, CLC promotes sustainable secondary forest education.



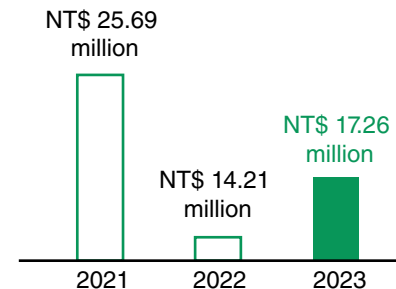
Unending Love for Paper, Giving Back to Society

CLC established the "CLC Children's Care Foundation" and "Cheng Huo-Tien Charity Foundation" in 1993 and 2006 to care for the vulnerable in society and invested over NT\$133.61 million for society. We committed to donate over NT\$10 million every year for charity to establish diverse society and enhance benefit of public. In 2023, 2 foundation and CLC invested NT\$17.26 million and the allocation were as follows:

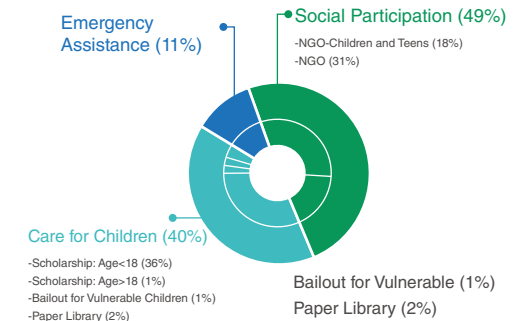
CLC: NT\$8.36 million	totaled NT\$75.24 million
Cheng Loong Children's Care Foundation: NT\$5.04 million	totaled NT\$50.84 million
Cheng Huo-Tien Charity Foundation: NT\$ 3.86 million	totaled NT\$82.77 million

[CLC Foundation Annual Donation Details/Budget/Account](#)

Social Expenditure in Recent 3 Years (CLC and 2 Foundations)



2023 Social Expenditure Ratio (2 Foundations)



By transplanting Taiwan's experience, the Vietnam business group has established the "Vietnam Business Group Charity Promotion System" since 2022 to actively engage with social welfare. Additionally, they founded scholarships for elementary students and provided aid to seniors living in poverty and orphans in local communities. By 2023, they had awarded scholarships to 190 recipients and distributed Lunar New Year red envelopes and gifts to 120 elderly and disabled individuals. These efforts have earned recognition from the local government for their active social participation. Demonstrating industry capacity and local goodwill, CLC Binh Duong Paper Mill stood out among more than 500 enterprises, winning the "CSI TOP 100 Sustainable Companies in Vietnam" award for 2 consecutive years.



Care for Children

Caring for education, welfare and growth of children and teens, we cooperate with NGOs to enrich children's spirits and vision of life.

We care for children over time through the CLC Children's Care Foundation in collaboration with NGOs and social welfare organizations. In addition to the paper library project, we also provide scholarships for disadvantaged, family fragmentation, lunch subsidy and after-school care expenses to assist students near the factory. To enlarge the concern with kids, we cooperate with "Taiwan Fund for Children and Families" and "Seed of Love Education Foundation". In 2023, we continued to support the children with a total of NT\$3.24 million of scholarships, benefiting students from 38 schools, from elementary to college. To date, we have helped over 10,000 children and award over NT\$20 million in scholarships.

CLC Scholarships and Grants

Taiwan (17th)	7,198 students (Total) Eligibility: Students of primary and secondary schools near CLC mills/plants
Vietnam (2nd)	190 students Eligibility: Students of primary schools near CLC mills/plants in Vietnam

"Let Trees Grow High and Let Love Fly" Scholarships and Grants

33th	3,314 students (Total) Eligibility: Fostered children and youth from Taiwan Fund for Children and Families
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We Care! CLC Care Scholarship

CLC established the "CLC Care Scholarship" in 2015 for disadvantaged elementary students near CLC factories, allowing them to study with peace of mind. This scholarship also encourages students with excellent grades or special talents to continue striving in their studies. Starting in 2016, the program was expanded to schools across Taiwan near CLC factories, and in 2018, junior high school scholarships were added. In 2022, the scholarship program was further extended to include CLC's overseas factories in Vietnam. By 2023, the program had held its 2nd award ceremony in Vietnam, with a cumulative total of 190 scholarships awarded, demonstrating that CLC's love knows no borders.

"Let Trees Grow High and Let Love Fly" Scholarships and Grants

CLC has collaborated with "Taiwan Fund for Children and Families" to promote "Let Trees Grow High and Let Love Fly" project since 2007, awarding scholarships to foster students with excellent grades and behavior in elementary, junior and high school, and university, recognizing the hard work of foster families. Volunteers from CLC also plan every awarding ceremony and activities for parent and child carefully, helping the participants enrich knowledge and good memories.

Partner	Theme
Taiwan Fund for Children and Families	- Publicity for "Embrace Abused Children with Love" - Open the Door of Love "Let Trees Grow High and Let Love Fly" Scholarships and Grants - No Poor Generation Program
Seed of Love Education Foundation	Orphanage Scholarship
Elementary School Sport Association	National Basketball Championship



Facebook Link of "Cheng Loong Children's Care Foundation" and "Cheng Huo-Tien Charity Foundation"

Unceasing Love without Borders! CLC Awards 2nd Annual Overseas Scholarships in Vietnam

In 2023, the CLC We Care Scholarship was awarded at the National Liang-Hoa Elementary School in Binh Luc District, Long An Province, witnessed by the Vice Chairman of the People's Committee of Liang Hoa Township and the elementary school principal. The scholarships were presented by Chieh-Yang Chen, General Manager of the Vietnam Paper Products Business Group, and Cheng-Heh Tsai, Director of the Long An Plant. Scholarships were given to children excelling in academics, character, and physical education. By the end of the year, scholarships will have been distributed at various factories, benefiting a total of 190 children.



The 1st Dandelion "Let Carbon Rest" Paper Marketing Competition Showcases Stunning Creativity! Partnering with Youth for a Future of Net Zero and Sustainable Society

To promote the concept of circular regeneration that contributes to sustainable social development, CLC's Dandelion Eco Household Paper brand offered a prize of NT\$100,000 and hosted the 1st "Let Carbon Rest: Dandelion Eco Brand Marketing Competition" in 2023. The competition attracted elite youth teams from across Taiwan, with 721 young participants forming 154 teams. In addition to identifying blind spots in the brand's communication with the younger generation and integrating "environmental protection" and "sustainability" into consumers' daily lives, the competition also aligned with the global pursuit of the grand vision of "net zero emissions."



Let Carbon Rest: Dandelion Eco Brand Marketing Competition

Social Participation

Volunteer Service Promoting Social Care and Services during the Epidemic Situation

Upholding "spending on society with what is taken from society," we actively engage in charitable activities and address major social issues. In addition to publicly commending, providing volunteer leave, rewards, and professional service training courses, CLC also assists employees to establish related volunteer clubs within the company. For instance, Hsinchu Mill joined hands with the residents in the community to set up a water environment patrol team, and jointly maintains the community stream environment. In 2023, we participated in 160 charitable activities. A total of 862 volunteers making selfless contributions up to 3,289 hours through 2 CLC volunteer teams: "environmental protection" and the "caring", with +80% YoY.

CLC Volunteer Service in 2023

Volunteers Type	Count	Number of Participants	Hours
Environmental Protection	25	437	1,425
Caring	135	425	1,864
Total	160	862	3,289

Note: Taiwan Area



Environmental Protection Volunteer

In 2023, CLC promoted recovered paper classification, beach, street, and mountain cleanups, and tree planting. We recycled 986 MT of paper in 2023, totaling 4,314 MT from 2020 to 2023. We also adopted and maintained 80 public toilets in Taiwan, providing eco toilet paper for public spaces to enable the public to practice environmental protection even while using the toilet. For this, we received a commendation as an enthusiastic company.

The Tayuan Mill formed a water patrol team for stream cleanups since 2016, and received a certificate of appreciation from the Taoyuan City Government. The Hsinchu Mill collaborated with the City Government to enhance the quality of water environment patrols, donating patrol materials such as sun hats and rain boots. Through public-private cooperation, we aim to create a livable city. CLC publicly recognized the employees for their selfless contributions.



Caring Volunteers

CLC volunteers visited over 25 townships and towns across Taiwan, engaging in active interaction and cooperation with external units on projects such as winter charity donations, in-kind donations during three major folk festivals, and blood donations. We integrate resources to expand our influence.

Since 2016, employees at each plant have voluntarily donate blood. In 2023, various departments actively participated, collectively donating 266 bags, equivalent to 97,000 cc of blood. Starting in 2022, CLC partnered with the National Police Agency Broadcasting Service and the Jin-Shu Charity Foundation, donating household paper products to encourage public blood donations. This effort resulted in collecting 9,600 bags, or 2.4 million cc of blood.

6 Care initiatives before Lunar New Year: Integrating cross-industry resources for bigger influence Warmth from CLC did not stop for the pandemic and benefited 100K households over 15 years.

On the eve of the 2024 Lunar New Year, CLC continues to uphold its original intention of "Love Paper & Our Earth," extending care to frontline individual recyclers. Collaborating with local government agencies and 4 NGOs, CLC has launched the "Major Warmth Actions" before the new year, connecting the seeds of corporate volunteerism and exerting a positive corporate influence.



Caring for 163 Independent Recyclers in Taoyuan City and Taichung City



Ensuring the Well-being of 400 Disadvantaged Independent Recyclers in the Greater Taichung Area



Accompany the elders who live alone in Hua-Shan in CNY



Work with the Police Radio Station to care for the elders in nursing home



Work with the volunteers of Taiwan Fund for Children and Families to send warmth to 9,600 disadvantaged families



Adopt and maintain 80 public toilets

Transformation and Upgrade of the Recycling Supply Chain 2.0: Cared for over 1,100 Frontline Individual Recyclers

Recognizing the hardships and economic difficulties faced by frontline recyclers, CLC has partnered with the environmental protection bureaus of counties and cities where its factories are located since the second half of 2020. This initiative aims to care for Taiwan's 8,900 individual recyclers registered with the Ministry of Environment, with over 1,100 recyclers supported by 2023. In addition to personally listening to the voices of frontline workers, CLC has donated raincoats, gloves, and medical kits necessary for

recycling work. The company has provided financial support and supplies (including household necessities and pandemic prevention materials) to ensure safer and more secure working conditions. Moreover, by incorporating frontline recyclers into the supply chain system, CLC has enhanced the effectiveness of carbon reduction and pollution prevention measures.



Promotion of Art and Sport

CLC has long been dedicated to the promotion of arts, culture, and sports activities. For many years, we have sponsored road races, bicycle events, concerts, calligraphy competitions, and painting activities, enriching the community's spiritual life. Encouraging participation in sports, CLC organizes national events such as the Andante Softball Friendly Tournament and Table Tennis Competition, inviting employees, third-party manufacturers, community groups, government agencies, and academic institutions to join in and enhance physical and mental health. To nurture the next generation of sports talent, CLC actively supports rural schools with funding for sports events, training equipment, and professional coaching resources, fulfilling our corporate social responsibility.

CLC Children's Foundation Partners with Elementary School Sports Association to Organize Basketball Camp in Taitung Rural Schools

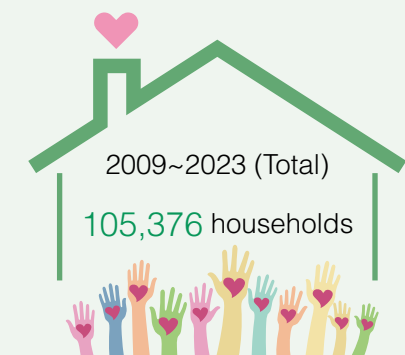
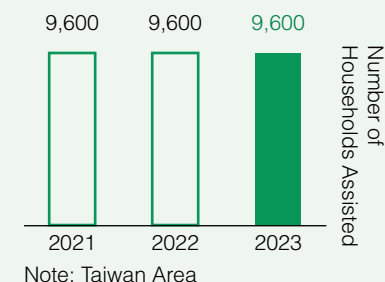
Since 2021, we have joined the "National Elementary School Sports Association" in public welfare activities, providing funding for over 40 rural schools to participate in competitions in Taipei, offering students the opportunity to fulfill their dreams. In 2023, CLC organized a 2-day free "Public Welfare Basketball Training Camp" in rural elementary schools in Taitung County, with 55 students participating. Under the guidance of coaches, students practiced and competed, receiving basketballs and T-shirts. The event garnered support from several basketball stars. The foundation aims to continue promoting sports and fostering a sports culture.



Emergency Assistance

Since its establishment in 1993, the Cheng Huo-Tien Charity Foundation has spared no effort in promoting emergency assistance. Since 2009, the foundation has sponsored the "Winter Charity Donation for Vulnerable Family Program" for 15 consecutive years, in collaboration with the Hon-Dao Senior Citizen's Welfare Foundation, Tayuan Jen-Sho Temple Foundation, Hua-Shan Social Welfare Foundation, Genesis Social Welfare Foundation, and 22 other public welfare organizations. The foundation provides household products from its brands to offer warmth to society during the year-end season, benefiting a total of 105,376 households. In 2023, the Cheng Huo-Tien Charity Foundation invested NT\$3.86 million, supporting 72 cases, with a total of 302 cases in the past 4 years (2020~2023).

Winter Charity Donation: Toilet Tissues and Supplies Donation



Orphan Welfare Foundation
CLC Baby: Kuo

Since middle school, I've aspired to become a police officer, dedicating the past year to academic pursuits, making steady progress, and laying a solid foundation for achieving this goal. Despite focusing on studies, I've maintained contact with social workers, expressing deep gratitude for the companionship and support from CLC, the Orphan Welfare Foundation, and the social workers. I'm also delighted to have had the opportunity to participate in the foundation's experiential education, courageously facing personal breakthroughs.

GRI Standards Index

Statement

The 2023 ESG Sustainability Report has been prepared in accordance with Global Reporting Initiative (GRI) Standards. The information disclosed in this report mainly covers data in the fiscal year 2023 (January 1, 2023 to December 31, 2023).

The version of GRI 1

GRI 1: Standards 2021

GRI	Disclosure Title	Chapter	Pages	Note
GRI 2: General Disclosures 2021				
Organization and reporting	2-1 Organizational details	About This Report	3	-
	2-2 Entities included in the organization's sustainability reporting	About This Report, 1.1 Operational Performance	3 25	-
	2-3 Reporting period, frequency and contact point	About This Report, Identification of Stakeholders and Material Issues	3 17-19	-
	2-4 Restatements of information	-	-	No restatements.
	2-5 External assurance	-	125	-
Activities and workers	2-6 Activities, value chain and other business relationships	1.1 Operational Performance	25	-
	2-7 Employees	5.1 Diversity and Equal Opportunity	93	-
	2-8 Workers who are not employees	5.1 Diversity and Equal Opportunity	122-124	-
Governance	2-9 Governance structure and composition	1.2 Governance Organization	28	-
	2-10 Nomination and selection of the highest governance body	Coporate Sustainability Committee, 1.2 Governance Organization	14 28	-
	2-11 Chair of the highest governance body	Coporate Sustainability Committee	14	-
	2-12 Role of the highest governance body in overseeing the management of impacts	Coporate Sustainability Committee	14	-
	2-13 Delegation of responsibility for managing impacts	Coporate Sustainability Committee, 1.3 Risk Management	14 32	-
	2-14 Role of the highest governance body in sustainability reporting	Coporate Sustainability Committee	14	-
	2-15 Conflicts of interest	1.2 Governance Organization	28	-
	2-16 Communication of critical concerns	Identification of Stakeholders and Material Issues	17-19	-
	2-17 Collective knowledge of the highest governance body	1.2 Governance Organization	29	-
	2-18 Evaluation of the performance of the highest governance body	1.2 Governance Organization	28	-
	2-19 Remuneration policies	1.2 Governance Organization	30	-
	2-20 Process to determine remuneration	1.2 Governance Organization, 5.1 Diversity and Equal Opportunity	30 97	-

GRI	Disclosure Title	Chapter	Pages	Note
Governance	2-21 Annual total compensation ratio	5.1 Diversity and Equal Opportunity	-	Ratio: Taiwan is our principal operating base. In Taiwan the highest annual income of individuals was about 4.13 times the median annual income of other employees.
			-	Variance (increase) percentage: The highest annual salary variance (increase) of individuals in Taiwan was -3.01%. Additionally, the percentage of the highest annual income reduction amount of individuals and the median annual income reduction amount of other employees was about 40.0%. Income in 2023 reduced mainly because of the reduced year-end bonus and performance bonus caused by the reduced operating performance and profitability over last year, leading to the reduction of the median annual income of employees.
			4 5	-
			24 94	-
			24 94	-
Strategy, policies and practice	2-25 Processes to remediate negative impacts	Coporate Sustainability Committee Identification of Stakeholders and Material Issues	14	-
			17-19	-
			14	-
			17-19 94	-
			36	-
Assessed stakeholder engagement	2-29 Approach to stakeholder engagement	Identification of Stakeholders and Material Issues	17-19	-
			-	Although our factory labor union has not yet signed a collective agreement, discussions and negotiations are ongoing.
			-	
			-	
			-	

GRI	Disclosure Title	Chapter	Pages	Note
Major Issues				
GRI 200 : Economic Disclosures				
Economic Performance GRI 201:2016	3-3 Management of material topics	Operational Performance	1.1 Operational Performance	21 -
	201-1	Direct economic value generated and distributed	1.1 Operational Performance	26 -
	201-2	Financial implications and other risks and opportunities due to climate change	4.1 Action for Climate Change	70 -
	201-3	Defined benefit plan obligations and other retirement plans	5.1 Diversity and Equal Opportunity	95 -
	201-4	Financial assistance received from government	-	NT\$98,890 thousand (Including the Ministry of Economic Affairs' Industrial Upgrade and Innovation Platform Guidance Program - 13,722 thousand yuan for carbon reduction technology optimization in the paper industry's wet section, and 80,106 thousand yuan for subsidies for the recycling and disposal of waste paper tableware)
	3-3 Management of material topics	Workplace diversity and equality	5.1 Diversity and Equal Opportunity	92
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	5.1 Diversity and Equal Opportunity	123-124
	202-2	Proportion of senior management hired from the local community	5.1 Diversity and Equal Opportunity	122
	203-1	Infrastructure investments and services supported	6 Society	- Incomplete information
	203-2	Significant indirect economic impacts	6 Society	- Incomplete information
Procurement Practices GRI 204:2016	3-3 Management of material topics	Supply Chain Management, Green Procurement	3.1 Supply Chain Management, 3.2 Green Procurement	54 59
	204-1	Proportion of spending on local suppliers	3.1 Supply Chain Management	58
Anti-corruption GRI 205: 2016	205-1	Operations assessed for risks related to corruption	1.5 Ethical Management	36
	205-2	Communication and training about anti-corruption policies and procedures	1.5 Ethical Management	36
	205-3	Confirmed incidents of corruption and actions taken	-	- No corruption incidents.
Anticompetitive Behavior GRI 206: 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	1.5 Ethical Management	36 -

GRI	Disclosure Title	Chapter	Pages	Note
Tax GRI 207: 2019				
	207-1	Approach to tax	1.1 Operational Performance	26 -
Materials GRI 301:2016	3-3 Management of material topics	Corporate Governance	1.2 Governance Organization	27 Customize Issue
	3-3 Management of material topics	Risk Management	1.3 Risk Management	31 Customize Issue
	3-3 Management of material topics	Information Security Management	1.4 Information Security Management	34 Customize Issue
	GRI 300 : Environmental Disclosures			
Energy GRI 302:2016	3-3 Management of material topics	Sustainable Products and Development, Product Responsibility and Customer Service	2.1 Sustainable Products and Development, 2.2 Product Responsibility and Customer Service	38 46 -
	301-1	Materials used by weight or volume	2.2 Product Responsibility and Customer Service	47 -
	301-2	Recycled input materials used	2.2 Product Responsibility and Customer Service	47 -
	301-3	Reclaimed products and their packaging materials	2.1 Sustainable Products and Development	40 -
	3-3 Management of material topics	Energy Management	4.2 Energy Management	75 -
Water and Effluents GRI 303:2018	302-1	Energy consumption within the organization	4.2 Energy Management	77 -
	302-2	Energy consumption outside of the organization	4.2 Energy Management	77 -
	302-3	Energy intensity	4.2 Energy Management	77 -
	302-4	Reduction of energy consumption	4.2 Energy Management	76 -
	302-5	Reductions in energy requirements of products and service	4.2 Energy Management	76 -
	3-3 Management of material topics	Water Management	4.3 Water Management	80 -
	303-1	Interactions with water as a shared resource	4.3 Water Management	80-81 -
	303-2	Management of water discharge-related impacts	4.3 Water Management	83 -
	303-3	Water withdrawal	4.3 Water Management	82 -
	303-4	Water discharge	4.3 Water Management	82 -
	303-5	Water consumption	4.3 Water Management	82 -

GRI	Disclosure Title	Chapter	Pages	Note
Biodiversity GRI 304:2016	3-3 Management of material topics Biodiversity	4.6 TNFD Biodiversity	88	-
	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	4.6 TNFD Biodiversity	88-90	-
	304-2 Significant impacts of activities, products and services on biodiversity	4.6 TNFD Biodiversity	88-90	-
	304-3 Habitats protected or restored	4.6 TNFD Biodiversity	88-90	-
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	-	-	NA. No CLC location is located in areas with IUCN Red List species and national conservation list species.
Emissions GRI 305:2016	3-3 Management of material topics Action for Climate Change, Air Quality Management	4.1 Action for Climate Change, 4.4 Air Quality Management	65 84	
	305-1 Direct (Scope 1) GHG emissions	4.1 Action for Climate Change	72	-
	305-2 Energy indirect (Scope 2) GHG emissions	4.1 Action for Climate Change	72	-
	305-3 Other indirect (Scope 3) GHG emissions	4.1 Action for Climate Change	72	-
	305-4 GHG emissions intensity	4.1 Action for Climate Change	72	-
	305-5 Reduction of GHG emissions	4.1 Action for Climate Change	71-72	-
	305-6 Emissions of ozone-depleting substances (ODS)	-	-	No emissions.
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	4.4 Air Quality Management	85	-
Waste GRI 306 : 2020	3-3 Management of material topics Waste to Resources	4.5 Waste to Resources	86	-
	306-1 Water discharge by quality and destination	4.5 Waste to Resources	86-87	-
	306-2 Waste by type and disposal method	4.5 Waste to Resources	86-87	-
	306-3 Significant spills	4.5 Waste to Resources	86-87	-
	306-4 Transport of hazardous waste	4.5 Waste to Resources	86-87	-
	306-5 Water bodies affected by water discharges and/or runoff	4.5 Waste to Resources	86-87	-

GRI	Disclosure Title	Chapter	Pages	Note
Supplier Environmental Assessment GRI 308:2016	3-3 Management of material topics Supply Chain Management	3.1 Supply Chain Management	54	-
	308-1 New suppliers that were screened using environmental criteria	3.1 Supply Chain Management	56-57	-
	308-2 Negative environmental impacts in the supply chain and actions taken	3.1 Supply Chain Management	56-57	-
	3-3 Management of material topics Digital Transformation	2.3 Digital Transformation	51	Customize Issue
GRI 400 : Social Disclosures				
Employment GRI 401:2016	3-3 Management of material topics Diversity and Equal Opportunity	5.1 Diversity and Equal Opportunity	92	
	401-1 New employee hires and employee turnover	5.1 Diversity and Equal Opportunity	95 123-124	
	401-2 Benefits provided to full-time employees that are not provided to temporary or parttime employees	5.1 Diversity and Equal Opportunity	97-98	
	401-3 Parental leave	5.1 Diversity and Equal Opportunity	98	-
Labor/ Management Relations GRI402: 2016	402-1 Minimum notice periods regarding operational changes	-	-	CLC will make advance notification regarding significant operational changes.
Occupational Health and Safety GRI 403: 2018	3-3 Management of material topics Healthy Workplace	5.3 Healthy Workplace	104	-
	403-1 Occupational health and safety management system	5.3 Healthy Workplace	105	-
	403-2 Hazard identification, risk assessment, and incident investigation	5.3 Healthy Workplace	105-106	-
	403-3 Occupational health services	5.3 Healthy Workplace	107	-
	403-4 Worker participation, consultation, and communication on occupational health and safety	5.3 Healthy Workplace	106	-
	403-5 Worker training on occupational health and safety	5.3 Healthy Workplace	106	-
	403-6 Promotion of worker health	5.3 Healthy Workplace	107	-
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.3 Healthy Workplace	106	-
	403-8 Workers covered by an occupational health and safety management system	5.3 Healthy Workplace	105-106	-
	403-9 Work-related injuries	5.3 Healthy Workplace	105	-
	403-10 Occupational disease	5.3 Healthy Workplace	105	-

GRI	Disclosure Title	Chapter	Pages	Note
Training and Education GRI 404 : 2016	3-3 Management of material topics Talent Cultivation and Development	5.2 Talent Cultivation and Development	98	-
	404-1 Average hours of training per year per employee	5.2 Talent Cultivation and Development	99	-
	404-2 Programs for upgrading employee skills and transition assistance programs	5.2 Talent Cultivation and Development	101	-
	404-3 Percentage of employees receiving regular performance and career development reviews	5.2 Talent Cultivation and Development	102 124	-
Diversity and Equal Opportunity GRI 405: 2016	405-1 Diversity of governance bodies and employees	1.2 Governance Organization, 5.1 Diversity and Equal Opportunity	14 94	-
	405-2 Ratio of basic salary and remuneration of women to men	5.1 Diversity and Equal Opportunity	123-124	-
Non discrimination GRI 406: 2016	406-1 Incidents of discrimination and corrective actions taken	-	-	No incidents of discrimination.
Freedom of Association and Collective Bargaining GRI 407: 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	-	All subsidiaries comply with the collective bargaining agreement in accordance with the laws and regulations of the host regions/ countries and respect the right to collective bargaining and freedom of association of employees.
Child Labor GRI 408: 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	5.1 Diversity and Equal Opportunity	94	CLC promise that all employees are treated with respect and dignity and no child labor will be used.
Forced or Compulsory Labor GRI 409: 2016	409-1 Operations and supplier Operations and suppliers at significant risk for incidents of forced or compulsory labor	-	-	No forced or compulsory labor was reported in high-risk and suppliers' operational locations and suppliers.
Security Practices GRI 410: 2016	410-1 Security personnel trained in human rights policies or procedures	-	-	Same as CLC employees.
Rights of Indigenous People GRI 411: 2016	411-1 Incidents of violations involving rights of indigenous peoples	-	-	No incident in 2023.
Local Communities GRI 413: 2016	413-1 Operations with local community engagement, impact assessments, and development programs	6 Society	114-115	-
	413-2 Operations with significant actual and potential negative impacts on local communities	6 Society	114-115	-

GRI	Disclosure Title	Chapter	Pages	Note
Supplier Social Assessment GRI 414:2016	3-3 Management of material topics Supply Chain Management	3.1 Supply Chain Management	54	-
	414-1 New suppliers that were screened using social criteria	3.1 Supply Chain Management	56	-
	414-2 Negative social impacts in the supply chain and actions taken	3.1 Supply Chain Management	56	-
Public Policy GRI 415: 2016	415-1 Political contributions	-	-	No political contributions.
Customer Health and Safety GRI 416:2016	3-3 Management of material topics Product Responsibility and Customer Service	2.2 Product Responsibility and Customer Service	46	-
	416-1 Assessment of the health and safety impacts of product and service categories	2.2 Product Responsibility and Customer Service	48-50	-
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	-	-	No violation of relevant laws and regulations.
Marketing and Labeling GRI 417: 2016	417-1 Requirements for product and service information and labeling	2.2 Product Responsibility and Customer Service	48-50	Related service information and labeling are disclosed on products and the CSR website with 100% compliance with various international standards, voluntary disclosure standards, and green mark regulations.
	417-2 Incidents of non-compliance concerning product and service information and labeling	-	-	No significant violation.
	417-3 Incidents of non-compliance concerning marketing communications	-	-	No significant violation.
Customer Privacy GRI 418:2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	-	No complaint regarding breach of customer privacy or lose in data.
	3-3 Management of material topics Social participation	6 Society	108	Customize Issue

SASB Index

Topic	Code	Category	Accounting Metrics	Note/ Chapter/ Pages		
				2022	2023	Unit
Greenhouse Gas Emissions	RR-PP-110a.1	Quantitative	Gross global Scope 1 emissions	1,088,575 ch 4.1 (P.76)	1,124,542 ch 4.1 (P.72)	tCO ₂ e (Exclude overseas sites)
	RR-PP-110a.2	Discussion and Analysis	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	ch 4.1 (P.72, 76)	ch 4.1 (P.67,72)	
Air Quality	RR-PP-120a.1	Quantitative	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O) (2) SO ₂ (3) Volatile organic compounds (VOCs) (4) Particulate matter (PM) (5) Hazardous air pollutants (HAPs)	(1) 483 (2) 228 (3) 101 (4) 89 (5) 0 ch 4.4 (P.90)	(1) 441 (2) 279 (3) 94 (4) 64 (5) 0 ch 4.4 (P.85)	MT
Energy Management	RR-PP-130a.1	Discussion and Analysis	(1) Total energy consumed, (2) Percentage grid electricity, (3) Percentage from biomass, (4) Proportion of renewables (deducting biomass energy) (5) Capacity of self-generation of renewables	(1) 13,153,671 (2) 10.7% (3) 10.13% (4) - (5) 0.08% ch 4.2 (P.79-84)	(1) 14,398,090 (2) 9.83% (3) 15.72% (4) - (5) 0.06% ch 4.2 (P.75~79)	% / GJ (Exclude overseas sites)
Water Management	RR-PP-140a.1	Quantitative	(1) Total water withdrawn, (2) Total water consumed (3) Total water withdrawn, percentage of each in regions with High or Extremely High Baseline Water Stress (4) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	(1) 17,635,019 (2) 1,015,708 (3) - (4) - ch 4.3 (P.87)	(1) 16,480,234 (2) 2,737,107 (3) - (4) - ch 4.3 (P.82)	10 hL
	RR-PP-140a.2	Discussion and Analysis	Amount of recycled and recovered fiber procured	ch 4.3 (P.85~87)	ch 4.3 (P.80~82)	
Supply Chain Management	RR-PP-430a.1	Quantitative	Percentage of wood fiber sourced from (1) 3 rd -party certified forestlands and percentage to each standard and (2) meeting other fiber sourcing standards and percentage to each standard	92.6% ch 3.2 (P.65)	98.1% ch 3.2 (P.60)	% FSC™ pulp ratio
	RR-PP-430a.2	Quantitative	Amount of recycled and recovered fiber procured	Utilized nearly 1.572 million tons of recovered paper and 1.699 million tons of renewable raw materials. ch 2.2 (p.51)	Utilized nearly 1.628 million tons of recovered paper and 1.718 million tons of renewable raw materials. ch 2.2 (P.47)	million MT

IFRS Index

[Draft] IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information

	Description	Chapters
Governance	The objective of sustainability-related financial disclosures on governance is to enable users of general purpose financial reporting to understand the governance processes, controls and procedures used to monitor and manage sustainability-related risks and opportunities. An entity shall disclose information about the governance body or bodies (which can include a board, committee or equivalent body charged with governance) with oversight of sustainability-related risks and opportunities, and information about management's role in those processes.	ch 1.1 ch 1.2 ch 1.3
Strategy	The objective of sustainability-related financial disclosures on strategy is to enable users of general purpose financial reporting to understand an entity's strategy for addressing significant sustainability-related risks and opportunities	Message from Top Management Major Issues ch 1.3
Sustainability-related risks and opportunities	An entity shall disclose information that enables users of general purpose financial reporting to understand the significant sustainability-related risks and opportunities that could reasonably be expected to affect the entity's business model, strategy and cash flows, its access to finance and its cost of capital, over the short, medium or long term.	ch 1.1 ch 1.3 ch 4.1
	An entity shall disclose information that enables users of general purpose financial reporting to understand its assessment of the current and anticipated effects of significant sustainability-related risks and opportunities on its business model	ch 1.1 ch 1.3 ch 4.1
Strategy and decision-making	An entity shall disclose information that enables users of general purpose financial reporting to understand the effects of significant sustainability-related risks and opportunities on its strategy and decision-making.	Major Issues ch 1.1 ch 1.3
Financial position, financial performance and cash flows	An entity shall disclose information that enables users of general purpose financial reporting to understand the effects of significant sustainability-related risks and opportunities on its financial position, financial performance and cash flows for the reporting period, and the anticipated effects over the short, medium and long term—including how sustainability-related risks and opportunities are included in the entity's financial planning. An entity shall disclose quantitative information unless it is unable to do so. If an entity is unable to provide quantitative information, it shall provide qualitative information. When providing quantitative information, an entity can disclose single amounts or a range.	ch 1.1 ch 1.3
Resilience	An entity shall disclose information that enables users of general purpose financial reporting to understand its capacity to adjust to the uncertainties arising from significant sustainability-related risks. An entity shall disclose a qualitative and, when applicable, a quantitative analysis of the resilience of its strategy and cash flows in relation to its significant sustainability-related risks, including how the analysis was undertaken and its time horizon. When providing quantitative information, an entity can disclose single amounts or a range.	ch 1.1 ch 1.3
Risk management	The objective of sustainability-related financial disclosures on risk management is to enable users of general purpose financial reporting to understand the process, or processes, by which sustainability-related risks and opportunities are identified, assessed and managed. These disclosures shall enable users to assess whether those processes are integrated into the entity's overall risk management processes and to evaluate the entity's overall risk profile and risk management processes.	ch 1.1 ch 1.3
Metrics and targets	The objective of sustainability-related financial disclosures on metrics and targets is to enable users of general purpose financial reporting to understand how an entity measures, monitors and manages its significant sustainability-related risks and opportunities. These disclosures shall enable users to understand how the entity assesses its performance, including progress towards the targets it has set.	Major Issues ch 1.3
General features	An entity shall disclose the financial statements to which the sustainability-related financial disclosures relate	ch 1.1

	Description	Chapters
General features	An entity shall disclose the industry or industries specified in the relevant IFRS Sustainability Disclosure Standard or industry-based SASB Standards that it has used when identifying disclosures about a significant sustainability-related risk or opportunity.	About This Report, Identification of Stakeholders and Material Issues, Appendix - SASB Index
	When providing sustainability-related financial disclosures an entity shall disclose comparative information that reflects updated estimates.	About This Report
	An entity shall correct material prior period errors by restating the comparative amounts for the prior period(s) disclosed	About This Report

[Draft] IFRS S2 Climate-related Disclosures

	Description	Chapters
Governance	The objective of climate-related financial disclosures on governance is to enable users of general purpose financial reporting to understand the governance processes, controls and procedures used to monitor and manage climate-related risks and opportunities.	ch 4.1
	An entity shall disclose information about the governance body or bodies (which can include a board, committee or equivalent body charged with governance) with oversight of climate-related risks and opportunities, and information about	ch 4.1
Strategy	The objective of climate-related financial disclosures on strategy is to enable users of general purpose financial reporting to understand an entity's strategy for addressing significant climate-related risks and opportunities	ch 4.1
Climate-related risks and opportunities	An entity shall disclose information that enables users of general purpose financial reporting to understand the significant climate-related risks and opportunities that could reasonably be expected to affect the entity's business model, strategy and cash flows, its access to finance and its cost of capital, over the short, medium or long term.	ch 4.1
	An entity shall disclose information that enables users of general purpose financial reporting to understand its assessment of the current and anticipated effects of significant climate-related risks and opportunities on its business model.	ch 4.1
Strategy and decision-making	An entity shall disclose information that enables users of general purpose financial reporting to understand the effects of significant climate-related risks and opportunities on its strategy and decision-making, including its transition plans.	ch 4.1
Financial position, financial performance and cash flows	An entity shall disclose information that enables users of general purpose financial reporting to understand the effects of significant climate-related risks and opportunities on its financial position, financial performance and cash flows for the reporting period, and the anticipated effects over the short, medium and long term—including how climate-related risks and opportunities are included in the entity's financial planning. An entity shall disclose quantitative information unless it is unable to do so. If an entity is unable to provide quantitative information, it shall provide qualitative information. When providing quantitative information, an entity can disclose single amounts or a range.	ch 4.1
Climate resilience	An entity shall disclose information that enables users of general purpose financial reporting to understand the resilience of the entity's strategy (including its business model) to climate-related changes, developments or uncertainties—taking into consideration an entity's identified significant climate-related risks and opportunities and related uncertainties. The entity shall use climate-related scenario analysis to assess its climate resilience unless it is unable to do so. If an entity is unable to use climate-related scenario analysis, it shall use an alternative method or technique to assess its climate resilience.	ch 4.1
Risk management	The objective of climate-related financial disclosures on risk management is to enable users of general purpose financial reporting to understand the process, or processes, by which climate-related risks and opportunities are identified, assessed and managed.	ch 1.3 ch 4.1
Metrics and targets	The objective of climate-related financial disclosures on metrics and targets is to enable users of general purpose financial reporting to understand how an entity measures, monitors and manages its significant climate-related risks and opportunities. These disclosures shall enable users to understand how the entity assesses its performance, including progress towards the targets it has set.	ch 4.1

Employee Information Tables

CLC Manpower Structure in 2023

Item	Category	Taiwan		China		Vietnam		Subtotal				Total	
												Number	Ratio
		Number	Number	Number	Number	Number	Number	Number	Ratio	Number	Ratio		
Position	Labor	2,422	437	528	256	1,142	278	4,092	78.1%	971	64.1%	5,063	75.0%
	Management*	619	49	103	118	263	366	985	18.8%	533	35.2%	1,518	22.5%
	Senior Management*	150	3	9	6	1	1	160	3.1%	10	0.7%	170	2.5%
Age	<30	449	68	49	33	820	407	1,318	25.2%	508	33.6%	1,826	27.0%
	30~50	1,975	284	487	313	556	224	3,018	57.6%	821	54.2%	3,839	56.9%
	≥ 51	768	137	104	34	28	15	900	17.2%	186	12.3%	1,086	16.1%
Seniority	≤ 5	976	167	191	128	1,045	417	2,212	42.2%	712	47.0%	2,924	43.4%
	6-15	1,084	90	358	222	340	213	1,782	34.0%	525	34.7%	2,307	34.2%
	16-25	532	55	91	30	23	13	646	12.3%	98	6.5%	744	11.0%
	26-35	501	165	0	0	0	0	501	9.6%	165	10.9%	666	9.9%
	≥ 36	98	12	0	0	0	0	98	1.9%	12	0.8%	110	1.6%

*Management: Number of supervisors (non-high-level), senior Management: number of supervisor above level 6

Item	Category	Taiwan		China		Vietnam	
							
Education	Below senior high school	6.8%	8.2%	57.0%	53.9%	41.9%	30.1%
	Senior high school	36.1%	28.8%	29.1%	17.9%	30.3%	25.6%
	University	51.2%	55.8%	13.9%	28.2%	28.7%	41.6%
	Master / PhD	6.0%	7.2%	0.0%	0.0%	0.2%	0.5%
Nationality	Taiwan	91.5%	93.0%	China		Vietnam	
	Foreign (Blue-collar)	8.4%	5.9%				
	Foreign (White-collar)	0.1%	1.0%				
Period of Employment Contract	Irregular	98.9%	96.9%	32.5%	27.9%	48.6%	55.2%
	Regular	1.1%	3.1%	67.5%	72.1%	51.3%	45.0%
Type of Employment Contract	Full time	99.9%	99.2%	100%	100%	100%	100%
	Part time	0.1%	0.8%	0.0%	0.0%	0.0%	0.0%

New Employees (by Age and by Gender)

Item	2021		2022		2023	
						
< 30	141 (27.7%)	32 (42.7%)	184 (37.3%)	30 (41.7%)	172 (31.3%)	22 (27.1%)
31-45	1.04 (6.6%)	14 (8.2%)	131 (8.2%)	17 (10.3%)	99 (6.7%)	25 (15.2%)
46-60	3 (0.3%)	1 (0.5%)	10 (1.0%)	10 (4.1%)	17 (1.7%)	5 (2.2%)
> 60	0 (0%)	0 (0%)	5 (3.0%)	1 (11.1%)	7 (4.4%)	1 (7.1%)
Subtotal	248 (7.7%)	47 (10.0%)	330 (10.1%)	58 (11.9%)	295 (9.2%)	53 (10.8%)

Note: Taiwan area, calculation: new employees of an age group/ the total number of employees of the same age group

New Employees (by Region)

Item	2021		2022		2023	
						
North	135	36	208	37	175	49
Central	73	8	81	9	64	2
South	40	3	41	12	56	2
East	0	0	0	0	0	0
Subtotal	248	47	330	58	295	53

Note: Taiwan area

Resigned Employees (by Age)

Item	2021		2022		2023	
						
< 30	91 (17.8%)	29 (38.7%)	111 (22.5%)	23 (31.9%)	119 (21.7%)	12 (14.8%)
31-45	87 (5.5%)	10 (5.9%)	104 (6.5%)	15 (9.1%)	131 (8.8%)	22 (13.4%)
46-60	45 (4.6%)	5 (2.4%)	50 (5.0%)	2 (0.8%)	55 (5.4%)	13 (5.6%)
> 60	47 (30.3%)	1 (10.0%)	38 (23.0%)	2 (22.2%)	49 (31.4%)	5 (35.7%)
Subtotal	270 (8.4%)	45 (9.6%)	303 (9.3%)	42 (8.6%)	354 (11.0%)	52 (10.6%)

Note: Taiwan area, calculation: resigned employees of an age group/ the total number of employees of the same age group (including retirees)

Resigned Employees (by Region)

Item	2021		2022		2022	
						
North	165	39	180	32	220	41
Central	71	3	88	8	89	8
South	34	3	35	2	45	3
East	0	0	0	0	0	0
Subtotal	270	45	303	42	354	52

Note: Taiwan area

Average Wage of New Employees VS Local Minimum Wage

Year	Taiwan		China		Vietnam	
						
2021	134%	130%	100%~159%	100%~172%	119%~141%	119%~141%
2022	133%	137%	100%~155%	100%~155%	109%~143%	109%~143%
2022	128%	126%	100%~156%	119%~156%	128%~159%	128%~159%

Note 1: Calculation: (Minimum compensation for non-supervisor new employees/Statutory minimum wage) x 100%

Note 2: The above amount includes all fixed compensations, excluding non-fixed salary including OT pay, standby allowance for emergency repair, shift allowance, and variable performance bonuses.

Note 3: The 2023 statutory minimum wage in Taiwan was NT\$26,400 each month.

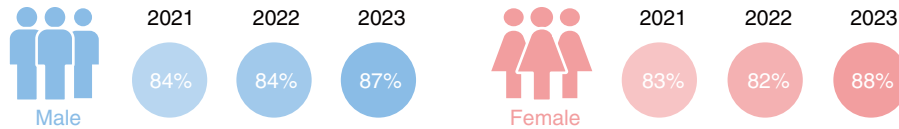
Note 4: The statutory minimum wage in China and Vietnam is different by region. In China, the statutory minimum wage is CNY1,810~CNY2,590. In Vietnam, it is VND3,250,000~VND4,680,000. The calculations thus fall within 100~155% for China and 128~159% in Vietnam.

Minimum Starting Salary for New Hires with a Bachelor's Degree or Higher VS Local Minimum Wage

Year	2021		2022		2023	
	Bachelor	Master	Bachelor	Master	Bachelor	Master
Statutory Minimum Wage	1.00	1.00	1.00	1.00	1.00	1.00
	\$24,000		\$25,250		\$26,400	
	1.38	1.56	1.33	1.45	1.27	1.39
	1.30	1.61	1.33	1.52	1.27	1.47

Note: Taiwan Area

Percentage of Employees Regularly Receiving Performance Reviews



Note 1: Taiwan Area

Note 2: Employees exempt from regular performance reviews: senior executives, new hires with less than one year of service, foreign employees, contract hourly employees, and employees returning from unpaid leave for less than 6 months.

Healthy Workplace Information Tables

Occupational Accident Statistics (in Taiwan)

All Employees Item		2021		2022		2023	
							
GRI	The rate of fatalities as a result of work-related injury	0	0	0.16	0	0	0
	The rate of high-consequence work-related injuries	0.16	0	0.00	0	0	0
Occupational Accident Statistics	Disabling Frequency Rate (FR)	0.95	0	1.42	1.07	0.80	0
	Disabling Severity Rate (SR)	39	0	54	1	15	0
	Frequency-Severity Indicator (FSI)	0.19	0	0.28	0.03	0.11	0
	Hours worked	6,334,200	922,304	6,452,421	737,111	6,200,131	956,792

Note:

- Non-staff whose work and/or workplace is under CLC control are not included in the statistics.
- The rate of fatalities as a result of work-related injury = Fatalities as a result of work-related injury / Hours worked × 1,000,000
- The rate of high-consequence work-related injuries = Number of high-consequence work-related injuries / Hours worked × 1,000,000
- FR=Number of disabling injuries / Total hours worked × 1,000,000
- SR=Number of workdays lost due to disabling injuries / Total hours worked × 1,000,000

Salary Ratio (by Gender)

Year	2021		2022		2023	
						
General Employees	1.03	1	0.99	1	0.99	1
Junior Supervisors	0.99	1	1.03	1	1.03	1
Intermediate Management	0.98	1	1.00	1	1.11	1
Senior Management	0.98	1	0.96	1	0.80	1

Note: Taiwan Area

Annual Evaluation Results

Year / Grade	2021		2022		2023	
						
Excellent	1.9%	1.6%	1.4%	1.3%	1.0%	0.7%
Good	60.8%	61.8%	63.0%	65.1%	67.5%	67.9%
Others	37.4%	36.6%	41.8%	33.6%	31.5%	31.4%

Note 1: Taiwan Area

Note 2: Employees exempt from regular performance reviews: senior executives, new hires with less than one year of service, foreign employees, contract hourly employees, and employees returning from unpaid leave for less than 6 months.

Assurance Statement



Assurance Statement





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