

2021 Sustainability Report

TOGETHER
FOR A
GREENER FUTURE

FROM "NEAR-ZERO"
TO "NET-ZERO" PAPERMAKING



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About This Report

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 four paper mills, seven box plants, one form and packaging materials plant¹, and Headquarters) and some overseas bases in China and Vietnam, with a combined disclosure ratio reaching 99.4% of the 2021 consolidated revenue. The information disclosed in this report mainly covers data in the fiscal year 2021 (January 1, 2021 to December 31, 2021)². Part of the contents and performance data of fiscal years 2019 and 2020 are also included, and the short-, medium-, and long-term goals are stated.

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 "Core" option in the GRI Standards 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) and the Sustainability Accounting Standards Board (SASB) "Standards for the Pulp and Paper Products Industry".



Report Management

Internal Management	1	2	3	4
	Draft preparation by the six working teams of the ESG Committee	Content accuracy and integrity review by uniaheads	Report data consolidation and report writing by the executive director of the ESG Committee	Review by the chair of ESG Committee
External Assurance	<p>Quality : This report was verified and assured by the third-party British Standards Institution (BSI) in accordance with the Moderate Assurance in Type 1, AA1000AS(v3) in April 2022.</p> <p>Financial data : All financial data has been audited and certified by the KPMG and expressed in New Taiwan Dollars (NTD).</p> <p>Management Systems : All international management systems adopted by the CLC, including ISO 9001, ISO 14001, ISO 14064-1, ISO 22000, ISO 45001, ISO 50001, and ISO 27001, have been certified by world-leading certification bodies, including the BSI, SGS, and DNV GL.</p>			

Reporting cycle and report publication

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

Current Issue: June 2022 (alongside the English version)

Previous Issue: June 2021

Next Issue: June 2023



Contact Us

If you have any comments or recommendations about this report or the CLC, welcome to contact us through the following methods:

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Email: spokesperson@mail.clc.com.tw

Report Download Link: http://www.clc.com.tw/_upload/files/2021ESG_EN.pdf

Design concept of the Sustainability Report 2021



From traditional papermaking to low-carbon smart paper, CLC adheres to the concept of sustainable development, and uses books to extend the imagery of "think tanks". When open the pages of white books, rolling hills and green trees also unfold, symbolizing CLC's carbon neutrality and efforts in ecological balance.

Note 1: The Form and Packaging Materials Plant was merged into the Corrugated Container Division on September 1, 2021

Note 2: Consolidated statement includes Taiwan parent company and 2021 annual report subsidiary (p. 97)

Message from Top Management



Smart papermaking with green energy, low-carbon production through circulation

Based on the strategy of "optimizing Taiwan, leaning China, and expanding Vietnam," we constantly scaling up the recycling of recovered paper at home and abroad, strengthen the advantages of green energy and circulation, actively promote low-carbon papermaking, develop renewable energy and digital transformation, and deploy the capacity for the circular economy. Following the operation inauguration of important projects in 2022, including the biomass CFB boiler system of Chupei Mill and the recovered bleached pulp line at Tayuan Mill in Taiwan; the start-up of Binh Duong Paper Mill phase II and Ben Cat Container Box Plant, preparation of Bac Giang Container Box Plant in northern region, and planning of Binh Duong Paper Mill phase III in Vietnam, we constantly turn CLC into Asia's new low-carbon paper company.

Besides incorporating the government's "Corporate Governance 3.0 Sustainable Development Roadmap" into our corporate sustainability goal alongside business development, we also renamed the CSR Committee into the ESG Committee to practice ESG through all directions. With the BoD implementing "low-carbon smart papermaking" transformation to enhance the efficiency of the green supply chain through digital transformation, CLC turns into Taiwan's first paper company that implements smart production and sales. In 2021, we also created new heights for both EPS and ROE to prove that corporate competitiveness and sustainable development are complementary to each other.

Creating value together and talent succession

To support the call for climate-related financial disclosures by the Task Force on Climate-related Financial Disclosures (TCFD), CLC becomes Taiwan's first papermaker to be rated top at the TCFD verification, and is also the first paper company to commit to reducing 30% carbon emissions by 2030 and achieving carbon neutrality by 2050. To actively manage climate change, we expand the realization of renewable applications to develop comprehensive eco-products, and invest in green energy technologies including waste to resources, wind power, photovoltaic, biogas, and biomass generation to strengthen sustainable resilience based on the renewable experience in papermaking through digital transformation.

Aiming for sustainable development, we team up with employees and suppliers to expand our influence in the environmental aspect. Internally, besides engaging in talents cultivation, creating a comprehensive, inclusive learning

organization, and resolving the talents discontinuation problem in the overall paper industry, we also value employee care by raising employee salary for 15 consecutive years and optimizing the welfare and remuneration to attract talents. Externally, we provide the evaluation and guidance mechanisms to foster 300 key suppliers to engage in transformation and upgrading to scale up the practice of environmental sustainability. We also build the multidimensional secondary forest promotion program in collaboration with stakeholders to engrain the circular economy in Taiwan.

From near-zero papermaking to net-zero smart papermaking for a sustainable circulation

Facing the outbreak of COVID-19 in 2021, we immediately adopted the total epidemic control mechanism to safeguard the health of employees and their family, and also launched 10 epidemic care actions to help protect the society.

Facing uncertain future, we will continue to incorporate ESG in our corporate strategy to strengthen sustainable competitiveness. We also make a commitment to focus on smart papermaking with green energy, low-carbon production through circulation, creating value together and talent succession to transform CLC into a new low-carbon and green energy paper company and activate the virtuous circle of sustainable development.

Suanne Cheng

Chairperson,
Cheng Loong Corporation

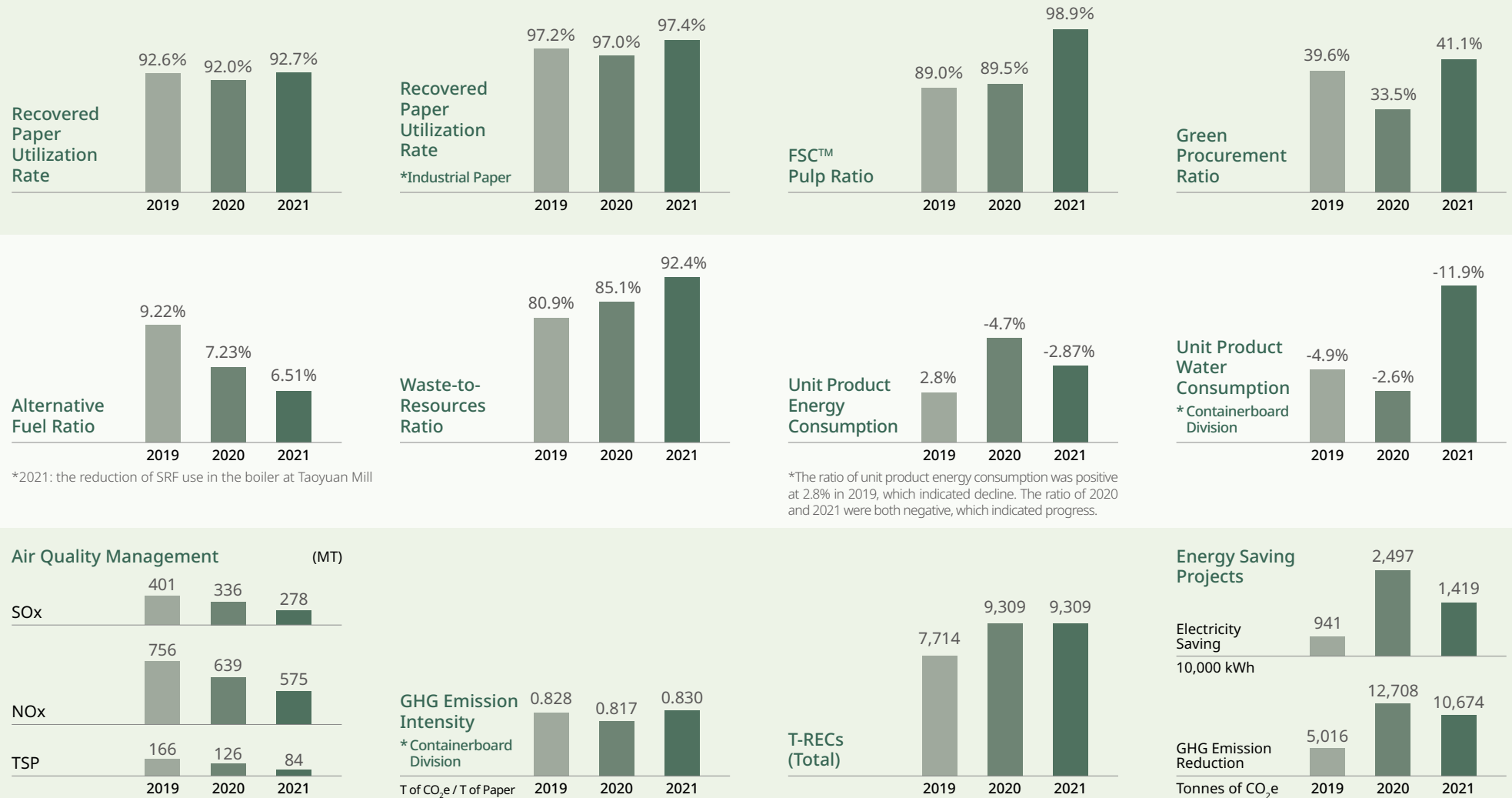


ESG Goals & Results

ESG/SDGs	Material Issues	Index	2021	2025	2030
Environment	Sustainable Products and Development	Recovered Paper Utilization Rate *Industrial Paper	97.4%	> 97%	> 97%
SDG 6	Biodiversity	FSC™ Pulp Ratio	98.9%	> 98%	> 98%
SDG 7	Climate Change Action	GHG Emission (Base Year: 2018)	1.87%	-5%	-30%
SDG 12	Energy Management	Alternative Fuel Ratio	6.51%	15%	20%
SDG 13	Energy Management	Unit Product Energy Consumption (Base Year: 2019)	-2.87%	-5% (Total)	-10% (Total)
SDG 15	Water Resources Management	Unit Product Water Consumption *Containerboard Division (Base Year: 2019)	-11.9%	-5% (Total)	-10% (Total)
	Green Procurement	Green Procurement Ratio	41.1%	42%	45%
	Air Quality Management	SOx	-30.7%	-30%	-42%
		NOx	-23.9%	-33%	-45%
		TSP	-49.4%	-57%	-65%
	Waste to Resources	Waste-to-Resources Ratio	92.4%	95%	96%
Social	Social Inclusion	Social Welfare Investment	NT\$ 24.91 million	> NT\$ 10 million	> NT\$ 10 million
SDG 1 SDG 10	Social Inclusion	Paper Library	21 (Total)	30 (Total)	40 (Total)
SDG 4	Talent Cultivation and Development	Training Hour Per Staff (yearly)	45.2hrs	> 42 hrs	> 42 hrs
SDG 8	Supply chain Management	Local Procurement Ratio	61.5%	73%	75%
	Healthy Workplace	Health Promotion Participation (yearly)	1,135	2,000	+5%/year (from 2025)
Governance	Supply Chain Management	On-site Supplier Audit	42 suppliers completed	60% complete	100% complete
SDG 12	Product Responsibility and Customer Service	Customer Satisfaction Score	86.5	87	88
SDG 17	Risk Management	Material Violation Incidents	0	0	0

ESG Key Results

Environment

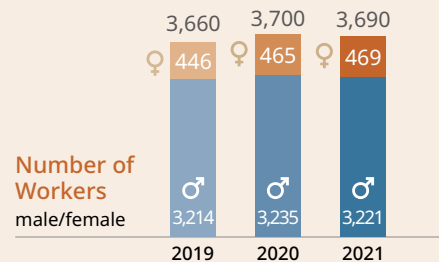


*2021: the reduction of SRF use in the boiler at Taoyuan Mill

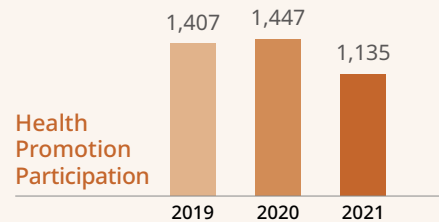
*The ratio of unit product energy consumption was positive at 2.8% in 2019, which indicated decline. The ratio of 2020 and 2021 were both negative, which indicated progress.

*2021: The wind turbine is damaged, and the foreign technicians cannot come to Taiwan due to the epidemic, which affects the repair progress.

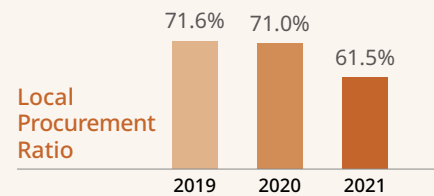
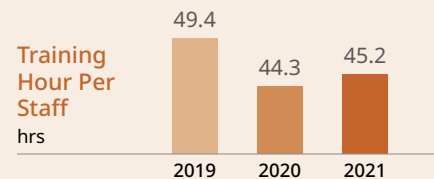
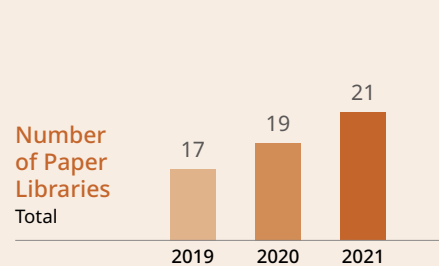
Social



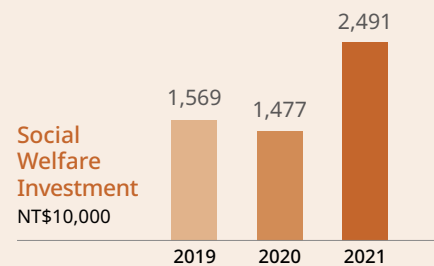
*Advocate diverse and equal workplaces, so the ratio of female colleagues is increasing year by year.



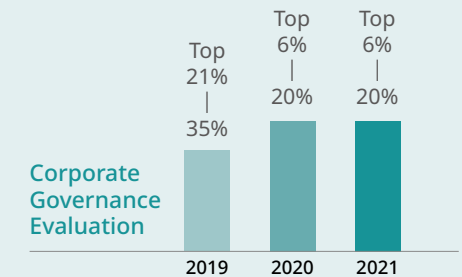
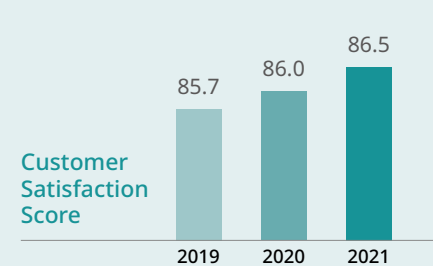
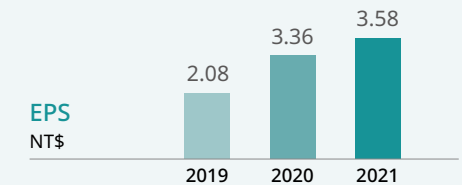
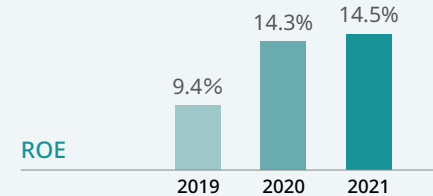
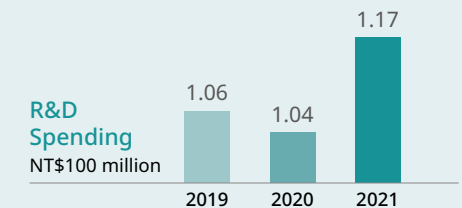
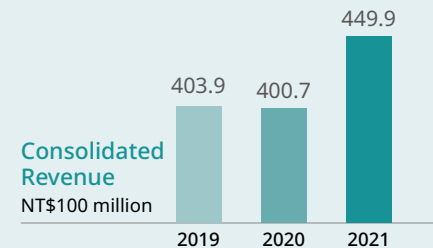
*2021: Due to the epidemic, physical health promotion activities have been reduced, and 4,494 people have been included in physical & online courses



*2021: The rise in international raw materials has led to an increase in the amount of overseas purchases



Governance



Honors & Recognition

- ★ Ranked No. 34 in the large enterprise group of the Excellence in CSR launched by the CommonWealth magazine for the eighth time.
- ★ Leading the industry with four major ESG highlights: Global Views Monthly's 2021 Corporate Social Responsibility Annual Survey - Traditional Industry Role Model Award
- ★ The four indicative awards of the TCSA launched by the Taiwan Institute for Sustainable Energy (TAISE): Taiwan's Top 50 Sustainable Enterprises, the Award for Circular Economy Leadership, and the SDG Action Award, the Platinum Award of the Corporate Sustainability Reporting Award
- ★ Develop the circular economy with net zero emissions: Taiwan Circular Economy Excellent Enterprise by Environmental Protection Administration (EPA) for the third times

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



CLC Sustainability Practice



ESG: Climate Change Action

CLC Implements 5 Smart Papermaking Strategies for Total Circular Economy Deployment Toward Carbon Neutrality by 2050

Facing the global net zero issue, CLC will focus on three development pillars: innovation, circulation, and green energy to constantly expand the deployment of business locations at home and abroad, develop the circular economy and green operations, and engage in cross-industry cooperation with the group's scientific capacity in order to achieve carbon reduction by 30% by 2030 toward carbon neutrality by 2050 in terms of the following five featured operational strategies.

Strategy 1 Promoting S.M.A.R.T. low-carbon papermaking for an all-win circular business model

By combining the five smart papermaking strategies: subtraction—reduce resource consumption, materials—waste to energy, AI—smart production-sales, recycling—reuse recovered paper, and technologies—advanced processes (S.M.A.R.T.) with the total circulation of three major resources: products, energy, and water, we have successfully integrated traditional factories and smart production, sales, and digital management to transform ourselves into eco-friendlier smart recycling manufacturer. As Taiwan's largest recovered paper recycler, we recycle 40% of recovered paper measured up to 1.8 million MT from Taiwan into eco-products at an annual conversion rate of up to 92.7%, with an overall waste-to-resources ratio of up to 92.4% and water recycling rate of up to 96% to reduce carbon for Taiwan of over 10.4 million MT each year. Aiming to constantly expand the effectiveness of recycling and circulation, we will start the operations of a 66,000 MT recovered bleached pulp line at Tayuan Mill in Taiwan in 2022H2. Besides consuming more scrapped waste food paper containers and slags, the line will expand our capacity in the total recover of scrapped paper containers for recycling into quality bleached pulp to create an all-win circular business model.



Recycle around **1.8 million MT** recovered paper annually



92.4% Waste-to-Resources Ratio



92.7% Recovered Paper Utilization Rate



96% Water Recycling Rate

Strategy 2 Transforming into Asia's new low-carbon and green energy paper company by deploying circulation locations

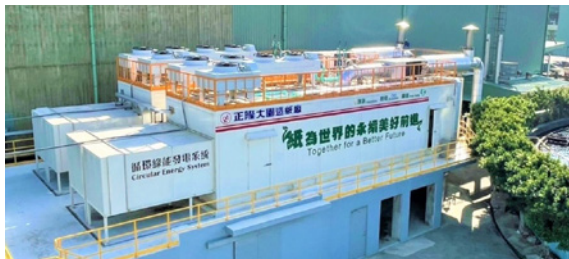


Phase II Construction of Binh Duong Mill

CLC arrange holistic education for practical talents and risk, low-carbon, quality, and environmental and safety management within the organization to train international talents that can identify risks and seek business opportunities. Currently, in addition to the 400,000 MT industrial paper line of Binh Duong Mill phase II and the Ben Cat Container Box Plant in Vietnam that will be completed in 2022H2 and the Bac Giang Container Box Plant in northern Vietnam that will start up in 2023H1, we are planning the phase III industrial paper line at the Binh Duong Mill with area of about 80 hectares for, hoping to turn Binh Duong Mill into Vietnam's first integrated international paper mill with capacity over one million MT.

Strategy 3 Realizing carbon neutrality by 2050 with science and implementing TCFD

Addressing the global net zero trend, we have announced four 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, to achieve carbon reduction by 30% by 2030 and carbon neutrality by 2050. So far, as the only local paper company acquiring the renewable energy certificate (REC) and implementing TCFD¹, we are actively engaging in low-carbon transformation to replace high-carbon emission coals with low-carbon green energy. Besides replacing the fuel oil boiler with natural gas boiler in all CLC container box plants across Taiwan, we have also massively use biofuels produced with SRF² generated within the process and agricultural and forest waste to replace petrochemical fuels and built green electricity facilities such as wind power, photovoltaic, or biogas systems after assessing the location of individual factories and the characteristics of individual production lines.



Tayuan Mill Biogas Generation System operated since 2022.05, which can provide electricity usage of 5,300 households annually

Strategy 4 Developing comprehensive low-carbon products and services based on 3Rs

The 3Rs: reduce, reuse, and recycle, are the important features of CLC products and services. As Taiwan's largest packaging paper supplier, we actively address the zero-carbon supply chain trend with the 3Rs by developing low-carbon, plastic-free, and lightweight multifunctional packaging products, including paper pallets, adhesive-tape-free online shopping cartons, ECO fresh vegetable and fruit cartons, carton-to-bench products to help the market practice green consumption and reduce waste. In addition, seeing the business opportunities in household cleaning agents in the post-pandemic era, Dandelion, CLC's No. 1 eco-friendly brand, also successfully extended its product lineups to household laundry detergents. Also seeing the rise of demographic dividend in Vietnam, CLC is actively expanding to the overseas household tissue market to help consumers reduce carbon at ease in the daily life through comprehensive ways.

Strategy 5 Enhancing carbon reduction effectiveness through digital transformation

CLC is Taiwan's first paper company to implement smart production and sales. Since the implementation of "Smart Papermaking 4.0" in 2019, we have



invested billions of NTD in the paper mills and container box plants across Taiwan to promote 12 projects, including smart factory, smart co-generation, digital IPQC, and CRM. In 2021H1, the Yenchao Plant started operations to become Taiwan's first smart, low-carbon container box plant. Besides a large area of rooftop solar panels, the plant also introduced the dual-blade scheduling, full-automatic production lines, and smart warehousing and logistics to significantly enhance the efficiency of processing, logistics, and delivery of container boxes.

Net Zero: A Common Responsibility to Upgrade Taiwan's Sustainable Resilience Through Cross-Industry Collaboration

Facing the increasingly severe climate change and environmental impact, sharing the responsibility for carbon reduction when low-carbon transformation is imminent is the key to success for Taiwan to connect with Net Zero 2050. Hence, we are committed to developing the recycling technology that can compensate for the limited resources as an island country to maximize value at the least resources. Internally, we practice decarbonization in the daily life together with employees through the ECHO ECO Low-Carbon Green Action, hoping to realize Net Zero 2050 with the whole paper industry, all supply chain partners, and Taiwan.

¹TCFD: Task Force on Climate-related Financial Disclosures

²SRF: Solid recovered fuel

ESG: Risk Management

CLC: First Taiwan Papermaker Rated Top at TCFD Verification



To support the call for climate-related financial disclosures by the Task Force on Climate-related Financial Disclosures (TCFD) created by the Financial Stability Board, besides signing up to the TCFD and applying to the British Standards Institution (BSI) for third-party verification of our compliance with the disclosures, we have engaged in active management of climate change issues and taken countermeasures, enabling us to become Taiwan's first papermaker to be rated top at the TCFD verification. Through voluntary disclosure to stakeholders of our adaptability to climate risks, we made advanced achievement in the Corporate Governance 3.0 advocated by the Taiwan's Financial Supervisory Commission (FSC) in order to contribute to strengthening Taiwan's international competitiveness in sustainable development. The physical risks brought by climate change are deteriorating and increasingly frequent, and investment and insurance institutions also enhance the climate-related credit ratings and sustainable investment strategies accordingly. In addition, based on net zero vision, advanced European countries and the USA also actively plan climate-related laws and carbon tariff systems, causing the ripple effect on the industrial chain of different countries in the world. By implementing the TCFD management framework, CLC has accelerated the response to and deployment of low-carbon development and adaptation strategies. In the future, we will constantly update and assess TCFD in response to the global climate change trends and changes in policies and regulations in order to enhance the sustainable development of operations.



1 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.

Core Element	Management Strategies and Actions
Governance	<ul style="list-style-type: none"> Set up the ESG Committee to integrate climate action resources and progress across departments, and the chairman reports to the BoD quarterly. The BoD and the management team are responsible for approving climate-related strategies, goals and specific actions.
Strategy	<ul style="list-style-type: none"> Continue to implement climate change mitigation and adaptation projects. Promote smart production and sales and a green energy circulation, and transform the company into a low-carbon and green energy paper company.
Risk Management	<ul style="list-style-type: none"> Engage in inter-departmental collaboration to identify climate-related risks and opportunities. Quantify financial impacts, devise countermeasures. Incorporate into corporate risk management and ISO management processes.
Metrics and Targets	<ul style="list-style-type: none"> 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 reducing carbon emissions by 30% by 2030 and achieving carbon neutrality by 2050, respectively.



VP Chien-Ming Lee of the Taiwan Research Institute shared "Global Development of Net-Zero Carbon and Responses of Enterprises" with three board members and members of senior management on 2021.8.27

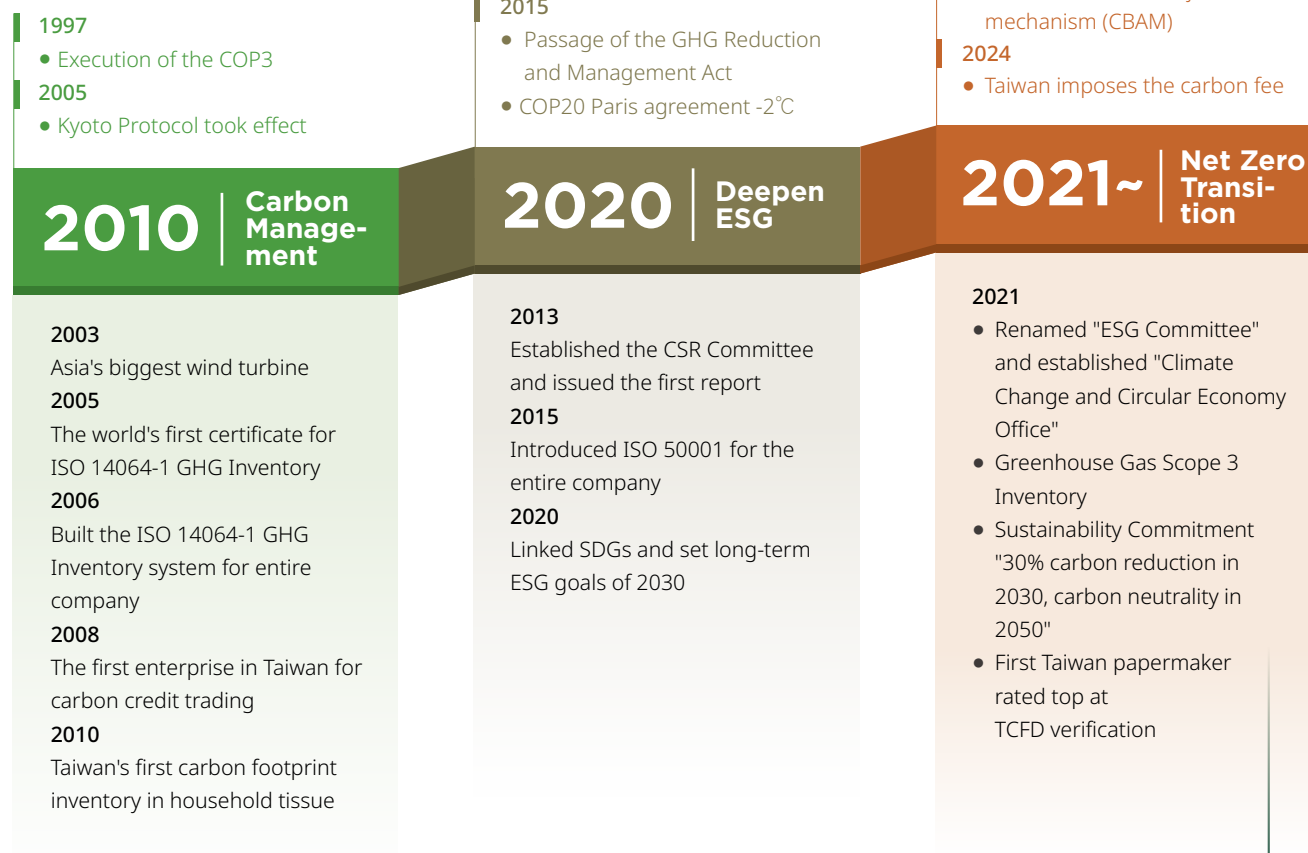
2 Climate change strategy

Engaging in green production over time, every year we review the overall effectiveness of our carbon reduction efforts through the third-party verification of our GHG inventory results in order to become a new low-carbon and green-energy paper company. In addition, we also connect with international initiatives to mitigate and adapt to climate change as shown in the figure below.

While direct (Scope 1) GHG emissions and energy indirect (Scope 2) GHG emissions are CLC's major sources of GHG emissions, we make continual improvement in process energy conservation and carbon reduction and have implemented smart management. During 2013–2021, a total of NT\$467.18 million was invested in 387 energy conservation projects to substantially reduced carbon by 62,355 tCO₂e.

In addition, we have actively carried out energy transformation by using recycled low-carbon fuels and developing renewable energy. Currently, besides using wind power and solar photovoltaic (PV) systems at three sites (complexes), we have also constructed a biogas power plant at the Tayuan Mill start up in May 2022 to engage in green energy transformation.

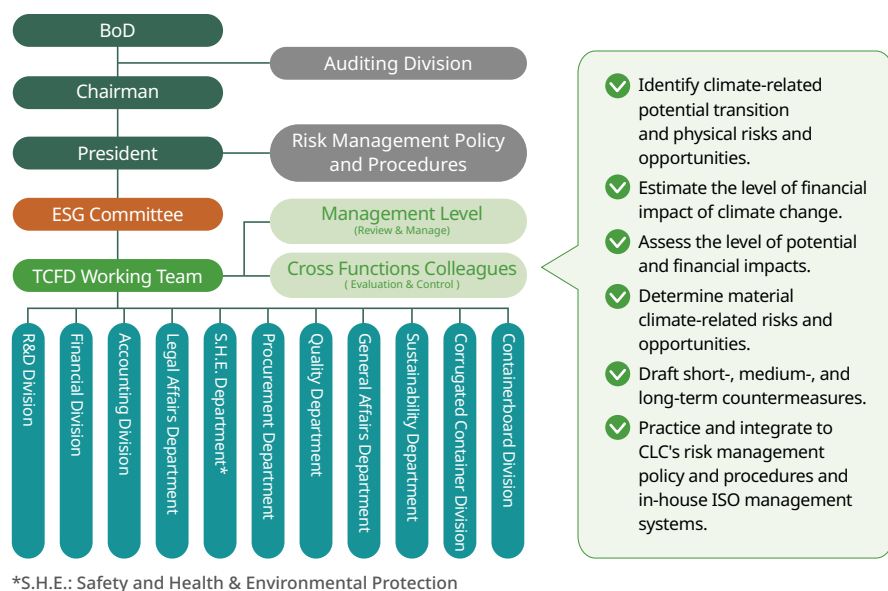
Milestones in CLC climate governance



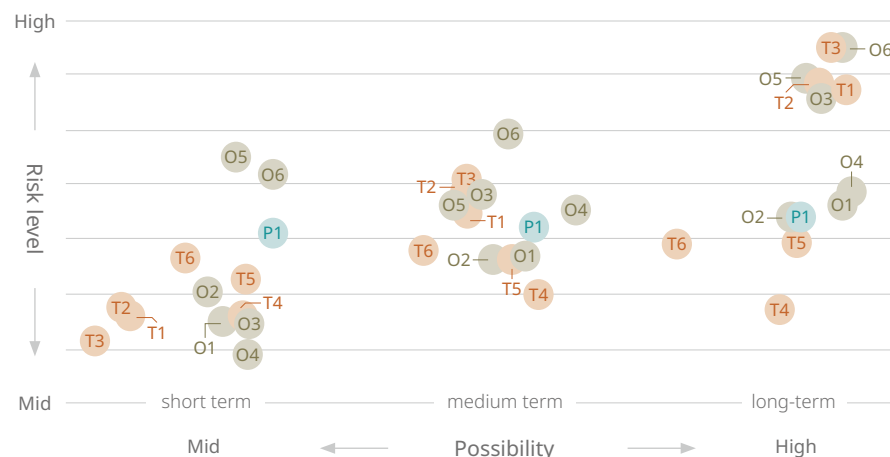
3 Management of climate risks and opportunities

We have established the TCFD Working Team under the ESG Committee. By holding three "Workshops on Climate-Related Risks and Opportunities," we have identified key risks and opportunities related to climate change based on the business locations in Taiwan. We have also identified the financial impacts brought by the following two scenarios: Well-below 2°C (W2DS: According to the Paris Agreement, global temperature rise should be controlled well below 2°C by the end of this century) and Nationally Determined Contributions (NDCs) and established measurement and management targets based on the identification results. With respect to the levels of potential and financial impacts, we have assessed the risk value of short-, medium-, and long-term exposures and identified **6 material transition risks, 1 physical risk, and 6 climate-related opportunities** and the TCFD Working Team would calculate the level of short-term (1–3 years) financial impact on the company and established plans to enhance the management of climate change risks.

TCFD Working Team Operation Structure



Material Climate-Related Risks and Opportunities Matrix



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

Transition risks	Physical risk	Opportunities
T1 GHG control and carbon tax, carbon price	P1 Rainfall	O1 Investment in low-carbon technology and equipment, promote green, low-carbon production
T2 Renewable energy development		O2 Participation in international renewable energy initiatives and green electricity trading
T3 Energy efficiency and energy transformation		O3 Deployment of the circular economy and green operations
T4 Tightened and total quantity control of air pollution and quality		O4 Enhancement of wastewater treatment efficiency
T5 Resource recovery based on the circular economy and tightened recovered paper supervision		O5 Passing green label certification for products to increase green business opportunities.
T6 Low-carbon technology transformation		O6 Entry to the emerging markets

Material Climate Risks: Financial Impact and Corresponding Metrics and Targets



Increased operating costs
by **2.2-3.4%/year**



Reduced revenue or output
value < **0.3%/year**



Increased capital expenditure
by NT\$**7.98 billion**

Transition/ Physical Risk	Key Strategy	Correspondent Metrics and Targets	Results in 2021	2025	2030
GHG control and carbon tax, carbon price	<ul style="list-style-type: none"> ◆ Activate product carbon footprint inventory. ◆ Engage in low-carbon technology and energy mix transformation. 	GHG Reduction (Base year: 2018)	1.87%	-5%	-30%
Renewable energy development	<ul style="list-style-type: none"> ◆ Inventory mill-specific geographic features and building structure and assess the construction of renewable energy equipment. 	Unit Product Energy Consumption (Base year: 2019)	-2.87%	-5% (cumulative)	-10% (cumulative)
Energy efficiency and energy transformation	<ul style="list-style-type: none"> ◆ Build biogas boilers based on the characteristics of the paper industry and develop low-carbon fuels based on the circular economy. ◆ Actively deploy biofuel sources. 	Alternative Fuel Ratio	6.51%	15%	20%
Tightened and total quantity control of air pollution and quality	<ul style="list-style-type: none"> ◆ Increase air pollution control facilities. ◆ Actively assess transformation to clean fuels. 	Air Quality Management (Base year: 2019) SOx NOx TSP	-30.7% -23.9% -49.4%	-30% -33% -57%	-42% -45% -65%
Resource recovery based on the circular economy and tightened recovered paper supervision	<ul style="list-style-type: none"> ◆ Promote guidance for recovered paper supply chain upgrading to improve the quality of recovered paper and increased material sources. ◆ Introduce technology for testing and inspection to increase the quality of recovered paper. 	Reduction of Waste in Recovered Paper	< 6%	Continuous reduction	Continuous reduction
Low-carbon technology transformation	<ul style="list-style-type: none"> ◆ Continue to invest in R&D resources, introduce low-carbon and energy-efficient equipment, and modify paper machines. 	Unit Product Energy Consumption (Base year: 2019)	-2.87%	-5% (cumulative)	-10% (cumulative)
Frequent rainfall in rain season lowers the quality of recovered paper.	<ul style="list-style-type: none"> ◆ Increase the procurement and stock of domestic wastepaper before rain season and make smart use of and electronic purchase scales to accurately capture the procurement strategy of foreign wastepaper. ◆ Search for alternative sources and guide supply chain partners to improve the quality of recovered paper. 	Waste to Resources Recovered Paper Utilization Rate Recovered Industrial Paper Utilization Rate	92.4% 92.7% 97.4%	95% > 92% > 97%	96% > 92% > 97%

Material Climate Opportunities: Financial Impact and Corresponding Metrics and Targets



Reduced operating costs by **0.8%/year**



Increased operating income by **3.6-7.2%/year**

Opportunity	Key Strategy	Correspondent Metrics and Targets	Results in 2021	2025	2030
Investment in low-carbon technology and equipment, promote green, low-carbon production, early response to carbon price/carbon tax.	<ul style="list-style-type: none"> ◆ Implement the ISO 50001 energy management system for constant energy conservation. ◆ Promote smart papermaking. ◆ Introduce internal carbon pricing and engage in low-carbon investment to lower costs and cultivate low-carbon business opportunities. 	GHG Reduction (Base year: 2018) Unit Product Energy Consumption (Base year: 2019)	1.87% -2.87%	-5% -5% (cumulative)	-30% -10% (cumulative)
Participation in international renewable energy initiatives and green electricity trading	<ul style="list-style-type: none"> ◆ Build high-efficiency co-generation systems to improve performance. ◆ Build renewable energy equipment. ◆ Sell excessive green electricity. 	Unit Product Energy Consumption (Base year: 2019) Legal Compliance of Renewable Energy Facilities	-2.87% -	-5% - (cumulative)	-10% - (cumulative)
Deployment of the circular economy and green operations	<ul style="list-style-type: none"> ◆ Further development of circular-economy-based business locations at home and abroad and expand the recycling capacity of recovered paper. ◆ Develop sustainable low-carbon products and services to capture green business opportunities. 	Unit Product Energy Consumption (Base year: 2019)	-2.87%	-5% (cumulative)	-10% (cumulative)
Enhancement of wastewater treatment efficiency	<ul style="list-style-type: none"> ◆ Build wastewater anaerobic treatment with biogas generation equipment to enhance wastewater treatment efficiency. 	Subject to Regulatory Requirements	-	-	-
Passing green label certification for products to increase green business opportunities.	<ul style="list-style-type: none"> ◆ Expand the product lineups of recycled household tissue. ◆ Provide low-carbon packaging products and services. 	Recovered Paper Utilization Rate Recovered Industrial Paper Utilization Rate	92.7% 97.4%	> 92% > 97%	> 92% > 97%
Entry to the emerging markets	<ul style="list-style-type: none"> ◆ Expand the capacity paper container processing to capture low-carbon and plastic-reduction business opportunities in double circulation. 	Recovered Paper Utilization Rate Recovered Industrial Paper Utilization Rate	92.7% 97.4%	> 92% > 97%	> 92% > 97%

ESG: Supply Chain Management

Fostering the Upgrading of Recovered Paper Supply Chain to Build a Sustainable Ecosystem



Facing the increasingly severe climate change and environmental impact, when low-carbon transformation is imminent, it is CLC's responsibility to lead supply chain partners to make continual improvement in every ESG aspects: low-carbon product, innovative application, responsible production, employee development, and social inclusivity. Through practical supply chain management (SCM), we have established a stable, reciprocal, symbiotic, and sustainable supply chain ecosystem by formulating SOPs, building evaluation mechanisms and management systems, providing training and guidance, and engaging in dialog and exchange to share industrial trends and practices for energy conservation and carbon reduction. To accelerate supply chain transformation and upgrading, we activated the "Recovered Paper Supply Chain Upgrading Guidance" program in 2018 to constantly further the guidance and expand the scope of influence. We have also deepened the effectiveness of supply chain ESG by organizing the Supplier ESG Conference to extend our influence to the upstream suppliers.



CLC Supplier ESG Conference: Energy conservation and emissions reduction with 300 suppliers

In response to the global net-zero emission issue, 2021 CLC Supplier ESG Conference focused on climate change adaptation and sustainable development strategy with over 300 supply chain partners toward net-zero vision together. We also set the green and local procurement ESG targets to 45% and 75% respectively in 2030. To show gratitude for the support of supply chain partners, we commended 15 outstanding partners at the conference.

Compared to overseas leading papermakers with access to rich natural resources, Taiwan papermakers must face more limits and challenges on the road to net zero. Hence, besides enhancing the effectiveness of energy conservation through digital transformation, we also build a procurement platform to ensure supply chain continuity, simulate the price trend of materials with AI, and share energy conservation information to achieve carbon neutrality by 2050 through science together with supply chain partners.



Right Uses for Right Materials! Upgrading Recovered Paper Supply Chain Guidance

To deepen the circular economy, we introduced the Recovered Paper Supply Chain Guidance Program ahead of competitors in 2018 to help over 90 recovered paper suppliers across Taiwan engage in upgrading and reduced paper waste by 50% with innovative technology. At the end of 2020, we activated the upgraded program to extend guidance to frontline individual collectors, and a total of 151 collectors were influenced in 2021. We also teamed up with YouTuber to expand the influence.

CLC made advanced deployment for recycling waste food paper containers at our Chupei Mill in response to the massive amounts of spent paper meal boxes generated by the food delivery service during the pandemic. We thus earned the 1st Taiwan Sustainability Action Awards (TSAA) and were recognized as the winner of the Better Business Awards in Corporate Social Responsibility of the British Chamber of Commerce in Taipei (BCCT).



Director, CLC Procurement Department
Chun-Long Jian

"Valuing the mutual prosperity and growth with supply chain partners, CLC promptly adjusted the orientation of procurement policies and implemented the CPM procurement platform to enhance efficiency and accurately capture market trends. Through experience exchange and guidance, CLC hopes to create an all-win ecosystem."



Special Assistant, Tsai Jinn Electric Machinery Co., Ltd
Yu-Tsung Hung

"At the CLC Supplier Conference, I fully understood CLC's ESG strategy, which also drove our positive competitiveness in sustainable development."

ESG: Sustainable Products and Development

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



Both consumers and packaging suppliers are increasingly aware of the need for sustainability. Paper products are mainly made with recovered paper or FSC™ fibers to ensure recyclability and natural decomposition. This recyclability feature enables paper products to be widely used in different industries and become the top choice of packaging and transportation materials. 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 270.387 billion m² in 2021, with an average annual growth rate (AAGR) of 5.3%. 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), CLC has restructured the Household Products Division in 2021 in order to extend product line and seize business opportunities in eco-paper products in the post-pandemic era.



3R Design: Last mile toward a zero-carbon supply chain

We develop low-carbon, plastic-free, and low-weight multifunctional packaging products based on the principle of 3Rs to help the market realize green consumption and reduce waste. In addition to reducing the carbon footprint of products without lowering their protection performance through technology development, we enhance the efficiency of logistics and carbon reduction to finish the last mile toward a low-carbon supply chain.

In addition, according to the Department of Statistics, Ministry of Economic Affairs, the sales AAGR of Taiwan's online shopping during 2012–2021 was over 10%. Due to the pandemic, e-commerce thrived in the last couple of years, with an overall sales turnover increasing by 14% to NT\$338 billion in 2021. In view of the high demand for packaging materials in e-commerce, CLC has strengthened the structure and graphic design of the related products in collaboration with e-commerce operators, carried out the principle low

weight, single material, and higher use of recovered paper, and reduced colors and space and used water-based ink in printing. CLC has also adopted the Design-in 3D design platform, introduced the sales prediction system and AI technology to enhance the operational performance.

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.

One-piece plastic-free handles



- ✓ Plastic-free for environmental protection
- ✓ Materials simplification
- ✓ 100% recyclable for making ordinary paper after use without additional waste sorting
- ✓ Patent pending (CLPA-210726-T2479-TW)

Play the Eco Way-Variety paper box



With a few simple actions, consumers can transform these paper boxes into a storage box, tissue container, children's playground, gift box, and others.

- ✓ Innovative reuse

Case: BRAND's Container Box

From box to bench



To reuse scrapped paper box, through simple folding, becomes a hexagonal bench.

- ✓ Innovative reuse
- ✓ Awarded the national utility model patent for its carbon reduction design.



ECO Food Storage



200% longer storage time than ordinary paper containers. Water-based eco-ink for reducing environmental impact.

- ✓ Storage period up to 7 days (+200%)
- ✓ Solution for fruit and vegetable perishing
- ✓ Passed SGS heavy metal verification
- ✓ 100% recyclable and degradable
- ✓ Invention patent pending



Value Earth with Dandelion Household Products Together

"Keeping the Nature with habit change" As a single-use product, toilet tissue is non-recyclable, causing a great waste of Earth's resources. Besides making household tissue with FSC™ pulp to practice responsible production, in 2009, we launched the Dandelion eco-household tissue series with quality and price similar to products made with virgin pulp to encourage consumers to practice environmental protection. Made of 100% recovered paper and using clean energy—wind power—the Dandelion Household Tissue is thus Taiwan's first household tissue brand that has passed triple certification: Green Mark, Carbon Footprint Label, and Carbon Reduction Label. With annual sales exceeding 40 million packs, Dandelion Household Tissue has become Taiwan's No. 1 brand of eco-household tissue. We also introduced the Dandelion multipurpose bag to combine the external package with the dedicated garbage bag to create a carbon reduction efficiency of up to 30,000 KG. The Chupei Mill producing the Dandelion products also earned numerous recognitions on green production.



Dandelion laundry detergents: Pure MIT for Lower Carbon Footprint

Seeing the business opportunities of household detergents in the post-pandemic era, Dandelion has successfully extended its product lineups to laundry detergents. The Dandelion Laundry Detergent passed the Green Mark and SGS certification. It has a mild, neutral formula containing no formaldehyde. The Dandelion Eco-friendly Laundry Capsule even reduces the use of plastic containers to make a step forward in environmental protection for the public. The Dandelion Laundry Detergents are all made in Taiwan (MIT) to reduce carbon footprint from transportation.

	Dandelion Laundry Detergent	Dandelion Eco-friendly Laundry Capsule	General Laundry Detergent
Biodegradability	>95%	>95%	Not specified
Surfactant	Plant surfactant	Plant surfactant	Mostly petrochemical surfactant
Fragrance	Pure natural essential oil	Pure natural essential oil	Synthetic fragrances
Less use	2 times better than the national standard in cleaning power.	8 times better than the national standard in cleaning power.	
Less carbon footprint	MIT to reduce carbon emissions from transportation.	MIT to reduce carbon emissions from transportation. Low-foaming formula for rinsing with less water.	
Others		Less packaging materials and waste from plastic containers.	

ESG: Social Inclusivity

Increasing Production at Full Steam and Activating 10 Epidemic Care Actions to Protect Loved Ones



In response to the social anxiety, also a big challenge to the backup materials and labor, from the prolonged COVID-19 pandemic, besides increasing production in support of the national policy to ensure the supply of toilet tissue and corrugated container box, in order to achieve social stability together with the government, we also demonstrated our enterprise influence by launching 10 epidemic care actions starting from the location of Taiwan HQs and business locations at home and abroad.

1. Donating NT\$10 million as the epidemic control fund to high-risk area New Taipei City

CLC HQs donated NT\$10 million to the New Taipei City Government as the epidemic control fund to support the city's epidemic control work and the vulnerable group affected by the pandemic.

2. Donating two positive-pressure aircon test kiosks to protect the safety of testing personnel

For testing personnel to hold the first line of the pandemic in an air-conditioned and safe environment, and to improve the quality and enhance the efficiency of tests, the Houli Mill donated two positive-pressure aircon test kiosks to the Taichung City Government.

3. Caring for 128 individual resources collectors to show warmth during the pandemic

As a result of the pandemic, the quality of spent meal boxes escalated to increase the workload of frontline resource collectors. The Tayuan Mill donated the Dandelion eco-toilet tissue and eco-laundry detergents to 128 individual resources collectors on the eve of Dragon Boat Festival to show our care and warmth.

4. Protecting community sanitation and safety with free disinfectants for citizens

On May 20, 2021, the Chupei Mill began to supply a total of 114 MT of free disinfectant sodium hypochlorite (NaClO) for local citizens to carry out epidemic control. Since the outbreak in 2020, the mill has also supplied a total of 56 MT of NaClO (Feb 24–May 17, 2020) for local communities to maintain the environment.

5. Cheering medical and quarantine hotel staff with 2,000 packs of Andante Little Superman Toilet Tissue

We donated the Andante Little Superman Toilet Tissue to staff of Caesar Park Hotel Taipei and medical staff to thank for their efforts.

新北好日子愛心大平台

今日新增捐款： 新北市政府 2021/6/5

捐贈單位	捐贈金額
國泰金控	3,500 萬元
正隆股份有限公司	1,000 萬元
蘆洲慈惠堂	50 萬元
嘉潤建設開發股份有限公司	20 萬元
邱垂睿	20 萬元
總計	4,590 萬元



Cared 128 individual collectors during COVID-19



6. Producing micro-film Gentleness Makes Us Stronger to spread positive energy to society

Believing that gentleness is the biggest power, we must unite together in order to protect our loved ones. Andante thus advocating a social activity to encourage netizens to thank for the people who protect and reduce vituperation and confrontation during the pandemic. The film has attracted over 305,000 views and nearly 1,000 comments and shares since going live on June 7. (Gentleness Makes Us Stronger: <https://youtu.be/kxeVHprRis>)

7. Donating over 50,000 eco-partitions as support for students

CLC donated 54,500 eco-partitions made of 100% recovered paper for several elementary and junior high schools in New Taipei City and Taichung City for schoolchildren to dine safely. Compared to plastic or acrylic participations, COVID-19 would stay for a shorter time on corrugated paper that is recyclable, and students can also graffiti on the surface, making the eco-partition safe for epidemic control, eco-friendly, and fun.



8. Cleaning up the coast with 100 volunteers for the first post-pandemic marine music carnival

To welcome the first post-pandemic music party, the Chupei Mill recruited 100 volunteers and their family to clean up Xinyue Beach in Chupei under the hot sun. We also used the all-terrain vehicle to regain the cleanliness and beauty of the beach for the Xinyue Beach Marine Music Carnival. At this cleanup, a total of 500 kg of marine debris cleaned.

9. Donating blood to relieve blood shortages with 14,000cc of blood in 57 bags

A national blood shortage swept across Taiwan as the number of donors reduced since the outbreak of COVID-19. To relieve the blood shortage, the Houli Mill recruited employees to donate a total of 14,000cc of blood in 57 bags on August 20. At the same time, HQs also promoted blood donation with the Taipei Blood Center to encourage the public to donate blood to relieve blood shortages.



10. Donating VND5 billion for Vietnam to purchase vaccines, and voluntary donating rice and food donation from employees

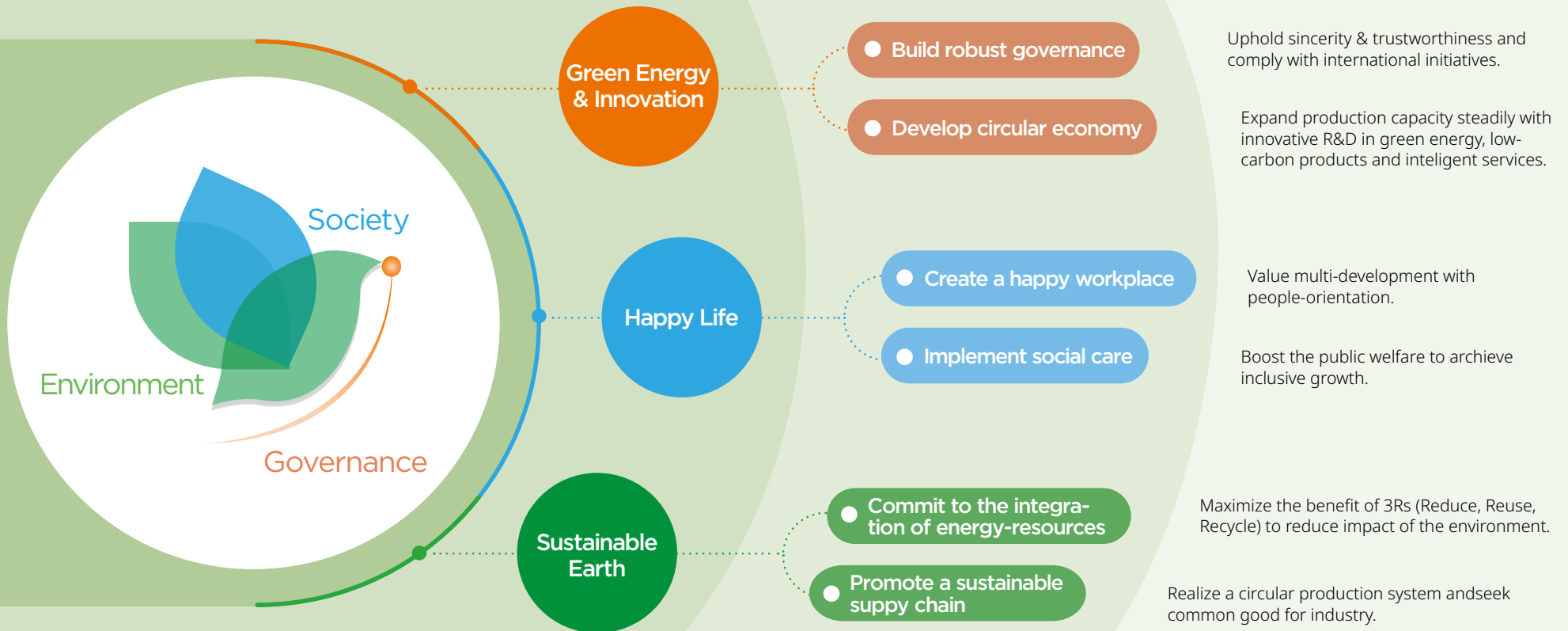
Besides donating VND5 billion to Binh Duong Province to purchase vaccines, we also provided an aid of VND50 million for them to purchase epidemic control materials. Employees also voluntary donated 1MT of rice, can food, and seasonings to save local citizens from food supply interruption due to the lockdown.

Strategy and Objectives

ESG Policy

On the way to practice sustainability, CLC actively practices all aspects of ESG in our routine operations. Pursue a sustainable green future with stakeholders (interested parties), including employees, investors, customers, suppliers, government entities, and local communities.

Together For A Greener Future



CLC's Value Chain and the UN's SDGs

With "Together for a Greener Future" as the goal of sustainable development, we proactively link our value chain with the UN's Sustainable Development Goals (SDGs). We incorporate SDGs into the core of corporate operations, identify impact and key development opportunities from the value chain of the paper industry, and formulate a sustainable development blueprint and strategy for "green energy & innovation, happy life, and sustainable earth", and implement ESG in an all-round way.



SDGs and CLC Sustainability Goals

SDGs	CLC Sustainability Goals	CLC Results in 2021	Page
SDG1 No poverty (1.5)	Unceasing Love Toward a Social Common Good		
	Goal 1: Donate > NT\$10 million on society and underprivileged groups every year.	◆ The social welfare expenses of the CLC and two foundations exceeded NT\$24.91 million.	118
SDG4 Quality education (4.4、4.5、4.7、4.a)	Advocate Lifelong Learning and Promote Sustainable Education		
	Goal 1: Establish ≥ two paper libraries every year.	◆ Established and restarted 2 and 1 paper libraries respectively, totaling 21 across Taiwan so far.	119
	Goal 2: Organize the industry-academia cooperation and project on a yearly basis to guide young people and assist them in preparing for employment.	◆ Constantly engage in the internship programs and industry-academia collaboration projects since 2017 with Minghsin University of Science and Technology; Department of Forestry, National Chung Hsing University, and National United University.	109
	Goal 3: Care for the education of disadvantaged students by providing scholarship funds together with non-profit organizations (NPO).	◆ Released NT\$3.17 million of grants and scholarships, totaling NT\$16 million since 2006.	121
SDG6 Clean water and sanitation (6.3、6.4、6.b)	Save Water and Optimize Water Resource Management		
	Goal 1: Achieve at least 1% of water saving in manufacturing every year.	◆ Unit product water consumption reduced by 11.9% (*Containerboard Division)	89
SDG7 Affordable and clean energy (7.2、7.3、7.a)	Goal 2: Implement water resource conservation, take charge of maintaining sanitation of public toilets and form river patrol teams on a yearly basis.	◆ Provided rivers and wetlands with stable water sources from safe and regulation-compliant effluents, and mitigated greenhouse effect through carbon fixation. Adopted up to 90 public toilets across Taiwan and continuous participation in river clean-ups of Tayuan Mill and Hsinchu Mill.	90
	Improve Energy Efficiency and Support Renewable Energy Development		
	Goal 1: Reduce energy consumption per product unit by more than 1% every year.	◆ Saved energy by 14.19 M kWh and decreased GHG emission by 10,674 tCO ₂ e and unit product energy consumption by 2.87% through 42 energy conservation projects.	83
	Goal 2: Raise alternative fuel ratio to 20% by 2030.	◆ Alternative fuel ratio: 6.51%	86
SDG8 Decent work and economic growth (8.2、8.4、8.5、8.8)	Goal 3: Adopt wind and solar power generation systems; increase the capacity of renewable energy to 10% of the contract capacity by 2025.	◆ Accumulated 9,309 T-RECs during 2017-2021, support power consumption by 2,586 households. Green energy output will increase after activating the rooftop PV system at the new box plant in Yanchao in 2021 and biogas power generation of Tayuan Mill and PV system of Houli Mill in 2022.	85
	Increase Employment Rate Transition into New Low-Carbon & Green Energy Paper Company		
	Goal 1: Serve as the new low-carbon & green energy paper manufacturer and continue to develop domestic and overseas green production bases.	◆ Invested in the construction of a new box plant in Yanchao, Kaohsiung, Taiwan; added a recovered bleach pulp line at Tayuan Mill; initiated Binh Duong Phase II; and constructed a box plant in Ben Cat, Vietnam.	34
	Goal 2: Create a new generation of smart paper making; optimize production for the future.	◆ Optimized G1, G2 intelligent steam and electricity system at Houli Mill; Deepened smart production and marketing by introducing smart warehousing and logistics to Yanchao new box plant, becoming Taiwan's first green, smart box plant.	64
	Goal 3: Build a safe and health workplace of inclusion; increase wages, promote various welfare and health promotion plans every year.	◆ Raised salary for 15 consecutive years, up 2.17% in 2021, and per employee benefit expenses at NT\$49 thousands (+19.5% YoY).	104
		◆ Up to 4,494 persons participated in health promotion activities (including physical and online).	116

SDGs	CLC Sustainability Goals	CLC Results in 2021	Page
	SDG10 Reduced Inequalities (10.2、10.3)	Eliminate Inequalities and Build an Amicable and Harmonious Work Environment	
	Goal 1: Be concerned and listen to employees. Conduct annual survey to collect employee's opinions.	♦ Organized the 3rd Employee Opinion Survey, and the overall satisfaction continues to improve every year.	103
	Put Circular Economy in Practice and Construct a Green Circular System for Production and Marketing		
	Goal 1: Industrial Recovered Paper Reuse Rate up to 97% and waste-to-resources ratio up to 96% by 2030.	♦ Reused recovered paper over 1.794m MT, with a utilization rate up to 92.7%. ♦ Waste-to-resources up to 92.4% (+7.3%). In 2022 we will further introduce Taiwan's largest biomass CFB boiler system to enhance the waste-to-resources capacity. ♦ Created channels for consuming waste food paper containers and trimmed PE laminated paper to increase material sources and maximize material uses, with a total consumption of 24,300 MT in 2021.	58 93 55
	Goal 2: Promote green consumption and sustainable awareness of correct classification.	♦ Opened visits of the factory's recycling process for over 1,000 persons. ♦ Co-organized the "Box War" with the Taiwan Paper Industry Association and the EPA for five consecutive years, attracting over 25,000 participants (cancelled in 2021 due to the epidemic). ♦ Online marketing affects millions of people.	121
	Save Energy and Reduce Carbon Emission Develop Low-Carbon Products and Services		
	Goal 1: Reduce GHG emission by 30% in 2030 (base year:2018).	♦ Established "Climate Change and Circular Economy Office" to actively carry out climate sustainable governance.	11
	Goal 2: Develop innovative low-carbon products and services, and sustainable packaging materials; increase the production and sale of environmentally friendly household paper products on a continuous and yearly basis.	♦ Developed new products of fresh-keeping/high-waterproof multi-functional carton, Andante wash and bath series.	16
	Goal 3: The green procurement ratio is up to 45% in 2030.	♦ The amount of green procurement reached a new high to NT\$8.86 billion, with 41.1% of the overall total procurement amount, an annual increase of 7.6%.	71
	Implement Forest Sustainable Management		
	Goal 1: Promote the FSC™ pulp and raise its procurement ratio to 98% by 2030 to save the forest diversity.	♦ Purchased up to 98.95% (+9.45%) procurement ratio of FSC™ pulp. ♦ Adopted an area of 2,000 pings right in front of headquarters from 2009 to build the Cheng Loong Park, where nearly 20 native plants are grown. ♦ Building the ecological monitoring system with NCU through adoption of Chaxi River for 7 years.	71 96 95
	Seek Common Good for Industry and Consolidate Partnership		
	Goal 1: Support local suppliers and assist two suppliers in their transformation and upgrading.	♦ Keep activating the Recovered Paper Supply Chain 2.0 Upgrading Guidance Program to personally care for the work situation of 151 frontline waste collectors so far.	14
	Goal 2: The on-site supplier audit is up to 100% in 2030.	♦ Organized the Supplier ESG Conference for two consecutive years and visited 42 important suppliers (28% completed in total) to enhance the supply chain's risk management.	67
	Goal 3: Spend 2,000 volunteer service hours for social welfare activities.	♦ Engaged in social welfare with 555 persons for 1,626 hours.	122

ESG Committee

Valuing corporate sustainability, CLC led the industry to set up the CSR Committee in 2013 to be responsible for the formulation of sustainable strategic goals and performance tracking. In 2021, the Committee was renamed the "Corporate Sustainability Committee", referred to as the ESG Committee, to focus on ESG issues and continue to improve, working together with stakeholders to create a win-win situation.

At the ESG committee, the Chairperson serves as an advisory committee member and the President chairs the committee. The Sustainability Department is designated as the dedicated unit, along with six task forces in charge of implementation and the execution methods of material issues. These six departments consist of "corporate governance," "environmental sustainability," "employee care," "supply chain management," "industrial services," and "social inclusion." The most senior executives of each relevant departments serve as the commissioner of each task force.

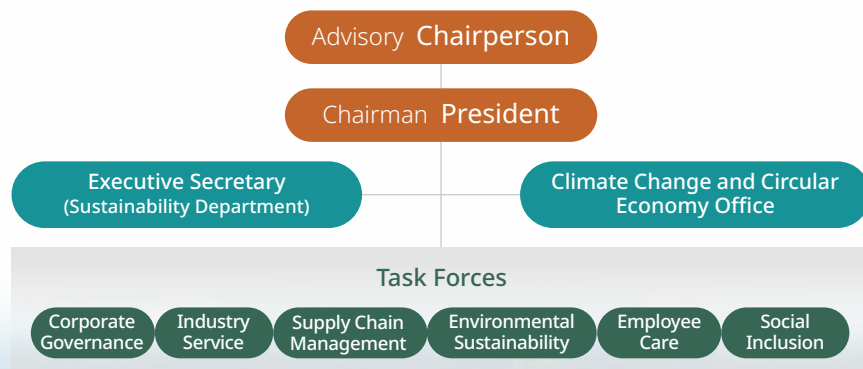
The Committee holds more than two meetings for the formulation and review of strategic targets each year, and the Chairman regularly reports to the BoD on ESG issues and implementation

results. The BoD identifies and reviews the Company's ESG performance, and proposes for strategic planning and recommendations. Each department reports and reviews the impact of various issues and how to respond on the company through regular reports. In 2021, the ESG Committee held 25 committee meetings to establish the medium- and long-term ESG goals and revised the company's ESG Best Practice Principles in response to the Corporate Governance 3.0. To improve the expertise and constantly enrich the new knowledge in the sustainable management, the BoD has attended related training courses every year.



*Please refer to annual report p.28, 29 for related training courses.

CLC's ESG Committee



*Top management officers relating to economic, environmental, and social departments are members of the six major groups.

Main Duty

◆ Reports to the board of directors / Quarterly

Chairman reports the ESG results and performance, and the BoD proposes strategic planning and recommendations.

2021 Report Highlights:

(1) 2050 carbon neutral goals and pathways, (2) TCFD strategic responses, (3) Revised ESG medium- and long-term goals, (4) ESG promotion and key results.

◆ Meetings for the formulation and review of strategic targets / Half-yearly

Discuss and implement the material issues, and keep to track and improve. Held 2 committee meetings in 2021.

◆ Six task forces / Aperiodically

Held 23 committee meetings in 2021

Identification of Stakeholders and Material Issues

We firmly believe that well communication with internal and external stakeholders is the prime mission of corporate accountability. Therefore, the ESG Committee holds the consensus meeting for sustainable development strategy and identifies stakeholders and material issues to provide important references for the contents disclosed in the sustainability report to meet all types of stakeholders' responses.

Flowchart of Stakeholder and Material Issues Analysis



Identification of Stakeholders

Every year, the ESG Committee scores stakeholder groups with the Likert 5-point scale based on the five attributes of stakeholders: dependency, responsibility, tension, influence, and diverse perspectives stated in AA 1000 Stakeholder Engagement Standard 2015. The 17 ESG Committee officers, including the chairperson, president, senior management officers, and members of each work promotion group, answer the stakeholder identification questionnaire to identify six major stakeholder groups with contacts or influence on the CLC in business operations. These six stakeholder groups include: (1) employees, (2) customers, (3) shareholders/investors/financial institutions, (4) suppliers/contractors, (5) government/industry associations, and (6) society (media, local communities, NPOs, academic institutions).

Identification of Material Issues

In 2021, we concluded the 18 sustainability topics in the previous year into 19 topics (separate "digital transformation" from "sustainable products and development") with respect to the GRI Standards, SASB, TCFD, FTSE, and other opinions gathered from stakeholder communication. To discern the tension of stakeholders over the material issues in order to deepen topic management approaches and improve the quality of information disclosure, we collected 1,319 responses to our ESG questionnaire, integrated the assessment of impacts on operations of individual topics by the 17 senior officers, and produced the matrix of material topics.



2021 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	Share-holders /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	Reduce potential operational risks, avoid financial & reputational losses, and strengthen competitiveness.	1.3	●	●	●	●	△	●
		Ethical corporate management	-	GRI 419	Integrity is the root for social progress, and actively achieves legal compliance to pursue a virtuous circle.	1.4	●	●	●	●	●	△
		Operational performance	SDG 8.2、8.4	GRI 201	Help to maintain industry leadership and diversify value for stakeholders.	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	3.1	●	△	●	●	△	△
		Green procurement	SDG 12.7、15.2	GRI 204	Procurement is core value indispensable to corporate sustainability.	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	2.2	●	△	△	●	△	△
		Sustainable products and development	SDG 12.2、12.5	GRI 305	Play a key role in the circular economy by integrating knowledge experience, and technology.	2.1	●	●	●	●	△	△
Environment	Practice resource integration, pursue zero emissions, build a circular production system.	Climate change action	SDG 13.2	GRI 305 GRI 307	GHG Emissions RR-PP-110a.1 RR-PP-110a.2	4.1	●	△	△	△	●	●
		Energy management	SDG 7.1、7.2 SDG 13.2	GRI 302	Energy Management RR-PP-130a.1	4.2	●	△	△	△	●	△
		Water resources management	SDG 6.3、6.4、6.b	GRI 303	Water Management RR-PP-140a.1 RR-PP-140a.2	4.3	●	△	△	△	●	●
		Air quality management	SDG 12.4	GRI 305	Air Quality RR-PP-120a.1	4.4	●	△	△	△	●	●
		Waste into resource	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	Commit to sustainable forest stewardship to stabilize the ecosystem.	4.6	●	△	△	△	●	●
		Digital transformation	SDG 8.2	Customize Issue	Using AI digital tools to improve operational efficiency.	2.3	●	△	●	●	△	△
Social	Build a happy workplace environment, develop a society of diversity and inclusion, and shape a positive circle.	Healthy workplace	SDG 8.8	GRI 403	Responsible for building a safe and healthy workplace.	5.3	●	△	●	●	△	△
		Workplace diversity and equality	SDG 8.5、10.2	GRI 202 GRI 401	Maintain fair treatment and dignity for employees.	5.1	●	△	△	△	△	△
		Talent cultivation and development	SDG 4.4	GRI 404	Promote employee rights, interests and retain talents.	5.2	●	△	△	△	△	△
		Social participation	SDG 1.5、4.7、17.17	Customize Issue	Leverage CLC's strengths to promote social inclusion.	6	●	△	△	△	△	●





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.

Communication Channels, Frequency and Important Interaction

By addressing the issues that concern the six 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.

Significance to CLC	Communication Channels / Frequency	Issues of Concern	CLC's Response	Important Exchange in 2021
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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> ⊙ Raised salary for 15 consecutive years, with an annual rate of 1.5-3%. ⊙ OH&S training hours of employees reached 26.3 hours per person and participants of health promotion activities were 4,494 persons in 2021 (Included physical and online). ⊙ The number of excellent cases generate more than NT\$100 million in profit in 2021 so as 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 the product line to personal and household lotions, grasping the post-epidemic business opportunities. 	<ul style="list-style-type: none"> ⊙ Continue to improve the results of the Employee Opinion Survey in 2020, including salary incentives, training and development, and working environment; in 2021, the 3rd Employee Opinion Survey results showed an annual increase of 3.6% in overall satisfaction. ⊙ In response to the rise of COVID-19 in 2021H1, the comprehensive epidemic prevention mechanism was improved, and an additional NT\$15,000 was issued to encourage colleagues for their hard work during the epidemic. <p> Yu-ying Yang at the HQs: "I feel that the Company has continued to improve the working environment. The newly opened staff lounge and pantry room allow us to relax."</p>
Customers Creating value for customers based on the market and customer needs is the competitive strength of the CLC. 	<ul style="list-style-type: none"> 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 	Ethical corporate management Product responsibility and customer service Operational performance	<ul style="list-style-type: none"> ⊙ Committed to maintaining customer privacy, and conducting anti-corruption education and training for sales staff. ⊙ Set a long-term target of 88 scores in customer satisfaction in 2030, actively introduce intelligent tools, including household product CRM customer relationship management, and sales forecast. ⊙ 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. 	<ul style="list-style-type: none"> ⊙ Implemented annual satisfaction survey on 234 customers, with satisfaction score +0.6% YoY, and analyze customer opinions and feedback to make improvements. ⊙ Arranged mill/plant visits for 53 customers for them to understand CLC's technology, facility, environmental protection measures, and R&D and service capacity. <p> Carrefour: "We have cooperated with CLC for many years, and highly affirmed CLC's outstanding performance in product quality, personnel communication, delivery time and other aspects."</p>

Significance to CLC	Communication Channels / Frequency	Issues of Concern	CLC's Response	Important Exchange in 2021
Shareholders/Investors/Financial Institutions <p>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.</p> 	<ul style="list-style-type: none"> 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 	<p>Ethical corporate management</p> <p>Risk management</p> <p>Operational performance</p>	<ul style="list-style-type: none"> Emphasize stable operation and law-abiding governance, continuously improve and formulate various norms, and conduct education, training and publicity. Improve various risk management systems, actively identify and manage internal and external risks to reduce operational impact. The TCFD framework was introduced to identify six major climate risks and six major climate opportunities, and continued to invest resources to address information security risks, with the related costs increasing by about 50% annually. Committed to maintaining good operating performance. The operating results in 2021 was EPS \$3.58 and ROE 14.5%, providing investors with positive investment returns. 	<ul style="list-style-type: none"> Explained CLC's operations, domestic and overseas investment projects, and business outlook through 27 investor con-calls and 2 online investor conferences (Mar 26 and Aug 20). Disclose ESG information and information according to the paper industry indicators announced by SASB, and release major information in English. <p> Bank of Taiwan: "CLC actively use clean energy, recycle raw materials and pay attention to pollution control, we hope them to set a good benchmark for the domestic paper industry."</p>
Suppliers/Contractors <p>As partners of the CLC, suppliers/contractors support and growth with the CLC to develop a stable and sustainable supply chain and ecosystem.</p> 	<ul style="list-style-type: none"> 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 	<p>Supply chain management</p> <p>Waste into resource</p> <p>Sustainable products and development</p>	<ul style="list-style-type: none"> Launched the recycling paper supply chain guidance to enhance the competitiveness of the industrial chain. So far, we have successfully supported 8 recyclers to upgrade and transform, and cared for 151 front-line self-employed individuals. Set the long-term goal of 100% on-site audit of major suppliers in 2030, and strengthen supplier management performance. Develop circular economy and low-carbon fuel, and set a long-term goal of recycling 96% of waste into resources by 2030. Request contractors to equip the GPS on all trucks to trace and management the flow of waste. Committed to the full recycling of resources, and set the medium and long-term target of 97% recycling rate of industrial paper and 98% FSC™ pulp. Assist recyclers to appropriately divert recycled paper, and set a target of 50% reduction in non-fiber impurities. 	<ul style="list-style-type: none"> Organized 2nd online ESG Conference, with the participation of 300 major suppliers and commend 15 excellent suppliers Conducted onsite factory evaluation on 42 suppliers to ensure product quality, green production, safety and health, labor rights, etc. <p> Chang Chun Group: "We have participated in the online supplier conference for two consecutive years, CLC's various ESG solutions are more and more amazing!"</p>

Significance to CLC	Communication Channels / Frequency	Issues of Concern	CLC's Response	Important Exchange in 2021
Government/Industry Associations <p>Complying with the government's laws and regulations and competent authorities, the initiatives of industry associations, and making recommendations for industrial policies.</p> 	<ul style="list-style-type: none"> 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 	<p>Corporate governance</p> <p>Social participation</p> <p>Climate change action</p>	<ul style="list-style-type: none"> Continue to improve corporate governance and information transparency. The corporate governance evaluation results in 2021 was the top 6% to 20%. Cooperate with EPA to care for disadvantaged people and expand the influence of social care. Cooperate with industry, government, academia and research to actively promote the education of recycled paper classification. Actively participate in the government, and industry associations to promote the draft strategy of climate change-related regulations on net zero carbon emissions, renewable energy, circular economy, digital transformation, etc. Manage climate change issues: Improve climate sustainability governance through the introduction of TCFD, and set up a "Climate Change and Circular Economy Office". 	<ul style="list-style-type: none"> Signed the support and became the first paper company in Taiwan to obtain the highest TCFD rating certification. We also proposed four scientific carbon reduction pathways in committing to the goal of reducing carbon emissions by 30% in 2030 and carbon neutrality in 2050. We expanded the production of toilet tissue and box, in coordination with the government's policy to fulfill the demand. <p> Kai-wen Chen at the Industrial Development Bureau: "Thanks to CLC for fully cooperating with the national policy to expand production to ease people's sense of insecurity during the epidemic."</p>
Society <p>(media, local communities, NPOs, academic institutions)</p> <p>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.</p> 	<ul style="list-style-type: none"> Face-to-face, email, telephone interviews / Aperiodically Cheng Huotien Charity Foundation Cheng Loong Children's Care Foundation Press conferences, advertisements, press releases / Aperiodically Symposium / Aperiodically Local community activities / Aperiodically Factory visits / Aperiodically e-Newsletter / Quarterly ESG area of CLC Website / Irregularly 	<p>Social Participation</p> <p>Sustainable products and development</p> <p>Air pollution control</p>	<ul style="list-style-type: none"> With the vision of "Love paper, love Earth, we promote the four aspects "Secondary Forest," "Care for Children," "Social Participation," and "Emergency Assistance" to pursue common good. Actively open the mill/plant to visit and promote circular economy, with more than 1,000 people every year. Committed to improving air quality, introducing innovative technology and equipment, and promoting air pollution reduction, SOx and TSP have been reduced for three consecutive years. 	<ul style="list-style-type: none"> Participated in local communities to provide services with 555 persons for 1,626 hours. Continue to improve the quality of information disclosure, including the release of 44 press releases on the corporate website, 11 interviews with the media, and 4 CLC e-Newsletter. During the epidemic, we activated 10 epidemic care actions, including donation of NT\$10 million fund, 2 positive-pressure aircon test kiosks, and free disinfectants. <p> Kaohsiung Public Library: "Thanks CLC for setting up paper libraries across the country and continuing to expand sustainable environmental recycling."</p>

※ Refer to more information for stakeholders communication on press release of CLC website.

Sustainable Initiatives



A Founding CWS Member for a National Team of Sustainability

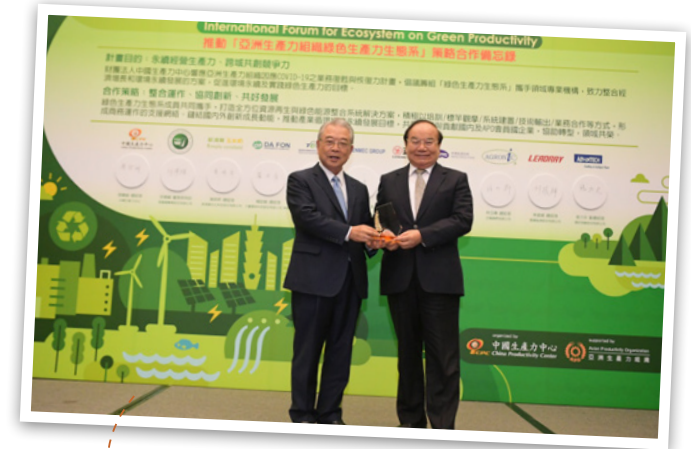


Participated in the Common Wealth Society (CWS) advocated by CommonWealth Magazine as a founding member to work for Taiwan's sustainable development with 57 leading enterprises from 30 major industries through ESG and in the publication of Taiwan's first Corporate ESG White Paper to announce the 7 major ESG trends in 2022, becoming the most powerful national assist in Taiwan's corporate ESG.



Active Engagement in Taiwan Net Zero: Cross-Sector Promotion for a Net-Zero Taiwan by 2050

To achieve net zero emissions in Taiwan, the Executive Yuan formed a cross-sector promotion platform in 2021, and CLC was invited to join the Industry and Energy Efficiency Working Circle directed by the Ministry of Economic Affairs. Besides actively developing low-carbon and emission reduction pathways for the paper industry, we also proposed CLC's vision of carbon reduction by 30% in 2030 and carbon neutrality in 2050. With such, we aim to set a benchmark for the paper industry and lead partners to develop carbon management and reduction capabilities and realize carbon neutrality in 2050 through collaboration among the industry, government, academe, and research with science and technology.



First Mover to APO Green Productivity Ecosystem for Mutual Prosperity and Mutual Interests

As a benchmark of the circular economy in Asia, we are Taiwan's largest paper company engaging in recovered paper recycling to proactively practice residual material to resources. We were invited to be the first group of participants in the APO green productivity ecosystem, with President Ching-Biao Chang signing the agreement on behalf of CLC and Director Tsun-Hui Chuang of the R&D Division sharing CLC's practice in green energy circulation and regeneration, leading other participants to discover the new business model for climate transformation in order to achieve mutual prosperity, mutual existence, and mutual interest.

01

Leading the industry

CommonWealth Magazine
Excellence in CSR Award No.34 (8th Time)

Global Views Monthly
2021 Corporate Social Responsibility
Annual Survey Traditional Industry Role
Model Award

Taiwan Institute for Sustainable Energy
(TAISE)
Four Indicative Awards of TCSA
Taiwan's Top 50 Sustainable Enterprises
Circular Economy Leadership
SDG Action Award
Platinum Award of Sustainability Reporting

British Chamber of Commerce in Taipei
(BCCT)
The Corporate Social Responsibility Award
High Distinction Award

Steady Governance

Adhering to sincerity and trustworthiness, we are committed to realizing a virtuous circle in the Company's 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 Ethical Management

✓ EPS \$ **3.58** reached a new high

✓ ROE **14.5%**

✓ Stable increase in product market share

Industrial Paper **>40%**

Corrugated Container **>30%**

Household Product **>20%**

✓ First Taiwan papermaker rated top at TCFD Verification

✓ Selected as a constituent stock of the TWSE Corporate Governance 100 Index

✓ Corporate Governance Evaluation ranked the top **6%~20%**

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.

Goals of

2030

- 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"

Goals of

2022

- Deploy circular economy bases at home and abroad
 - Add a recovered bleach pulp line with annual production capacity 66,000 MT at Tayuan Mill, Taiwan
 - Start the operations of phase II, Cheng Loong Binh Duong Paper Co., Ltd., Vietnam, with an annual capacity of 400,000 MT
 - Start up of the box plant in Ben Cat, Vietnam
 - Plan to expand a box plant in Bac Giang, northern Vietnam and phase III, Cheng Loong Binh Duong Paper Co., Ltd., Vietnam

- Complete commercial start-up of the biggest high-performance biomass CFB boiler system project in Chupei Mill with highest annual power generation 126 million kWh by H2
- Commercial start-up of biogas power generation system of Tayuan Mill in Taiwan
- Continue to promote green energy transformation

Goals / Action Results of

2021

- Constantly expand capacity and maintain industry leadership
 - Start the operations of the new smart box plant in Yenchao in Q2
 - Renovation of BM1 paper machine in Tayuan Mill in Taiwan to enhance product competitiveness
- Consolidated Revenue reached a new high at NT\$44.99 billion (+12.3% YoY), EPS NT\$3.58

- Initiate the high-performance biomass CFB boiler system project in Chupei Mill
 - Completed the construction of the main boiler, but due to the impact of the epidemic, overseas, causing the project to be delayed
- Promote the project of biogas power generation system in Tayuan Mill
 - Commercial start-up since May 2022 with annual output for 5,300 households

About 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 also 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, in order to transform into a new low-carbon and green energy paper company.

Organization

In line with business needs and development, CLC withdrew from the Paper Division and the Business Form & Packaging Materials Division from September 2021, and set the "Containerboard Division" and "Household Products and Paperboard Division". The Organization of CLC was changed to four parts: Headquarters, Containerboard Division, Container Box Division and Household Products and Paperboard Division. Besides, CLC also extends its business across the world. With Administration Division, Management Information Division, Financial Division, Accounting Division, R&D Division, Information Department and China business group, headquarters is the management center of quality control, production & sales, administration, tech, global operation and affiliates governance.

*Please refer to the annual report Organization Chart (P.9).

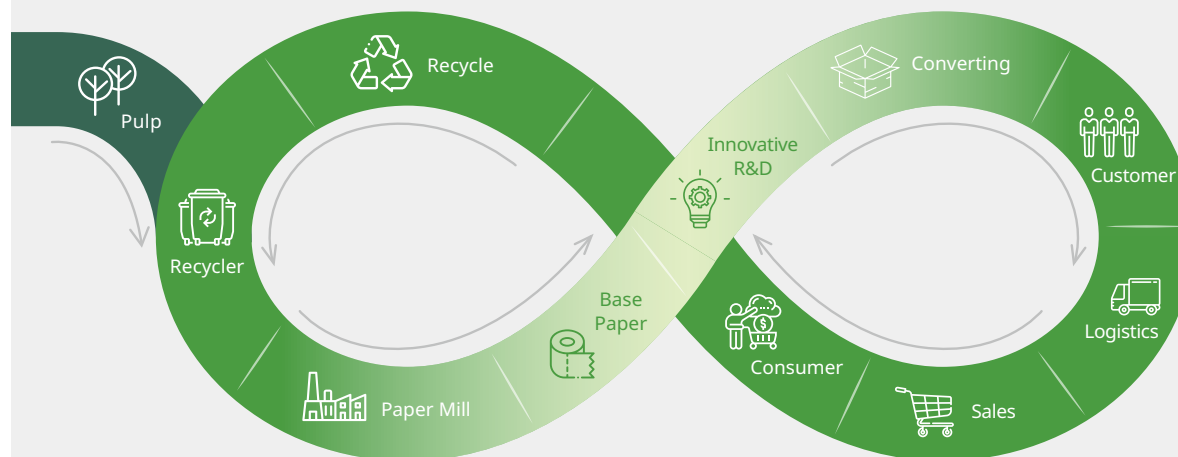
CLC : Cycling Loyalty Circulation

Secondary Forest · Circular Economy

Products & Services P.47

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 **92.7%**



Environment P.73

Green Production · Energy Conservation and Carbon Reduction

Develop cross-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 **92.4%**
Unit product water consumption deduction by **11.9%** (Containerboard Division)

Supply Chain P.65

Promoting Supply Chain Sustainability

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 **61.5%**
Green procurement **41.1%**

CLC Integrity & Prosperity

Business Philosophy	→		Sincerity and Trustworthiness
Vision	→		Caring for Life, Utilizing Resources Wisely, and Contributing to Society
Mission	→		New Low-Carbon & Green Energy Paper Company in Asia

Name Cheng Loong Corporation (CLC)
 Number of employee Global: 6,381 Taiwan: 3,690
 Date Founded 1959/02/04
 Main Products and Services Industrial Paper/
 Corrugated Container/Household Product/
 Form & Packaging Materials

Chairperson Suanne 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 Completion of production-sales integration for papermaking and container box.
- 1971 Listed on the TWSE.
- 1990-1993 Entering the fine paper and household tissue markets.
- 1995 Completion of CLC Headquarters: CLC Plaza Building.

Overseas Expansion

- 2002-2010 Active deployment of production bases and sales locations in China and Vietnam.
- 2005 Acquisition of the world's first BSI ISO 14064-1 GHG certification.
- 2008 Establishment of "Chung Loong Paper Holdings Limited" to administer all companies invested in China.
- 2008 Becoming the first Taiwan-based enterprise validated for emissions trading by Voluntary Carbon Standard (VCS).

Innovation & Value Addition

- 2011 Construction of the industry-first green, low-carbon industrial paper machine (BM10 at Houli mill, Taiwan).
- 2015 Mass production of TM16 at Chupei Mill in Taiwan to expand household tissue operations.
- 2016 Mass production of Taiwan's first dustproof clean container box plant.
- 2018 Completion of Cheng Loong Binh Duong Paper Co., Ltd. in Vietnam to deepen ASEAN deployment.
- 2019 60th anniversary. Deepening the circular economy for transformation into a new low-carbon and green energy paper company.
- 2020 Toward 60+ Milestone, Focus on Innovation, Circulation, Green Energy
- 2021 Promote SMART paper and lay out a blueprint for a full circular economy

Waste to **S**ubtraction is Addition
Material
AI leads in Digital Transformation
Recycling drives Circulation
Technologies innovate Manufacture

Membership of Associations

As the leader of Taiwan's paper industry, we actively participate in related industry associations to capture the industry's domestic and overseas trends to ensure corporate governance complies with related regulations by serving as a director and supervisor and participating in professional committees to promote cooperation opportunities and communication. CLC participates in the organization as a member as follows:

	Association	Director/ Supervisor	Professional committees
Global & Regional	World Containerboard Organization	✓	
	International Corrugated Case Association	✓	
	Asian Corrugated Case Association		✓
Local	Taiwan Paper Industry Association	✓	✓
	Taiwan Paper Containers Industry Association	✓ Present Chair-person	
	Taiwan Packing Association	✓	
	Chinese National Association of Industry and Commerce, Taiwan		
	Taiwan Technical Association of the Pulp & Paper Industry	✓	
	Taiwan Bio-Energy Technology Development Association		
	Taiwan Alliance for Sustainable Supply		
	Industrial Safety and Health Association of The Republic of China		
	Taiwan Environmental Management Association		
	Taiwan Cogeneration Association	✓	
	Chinese Total Productivity Management Development Association		
	Chinese Society for Quality		
	Accounting Research and Development Foundation		
	Taiwan Printing & Machinery, Material Industry Association		
	Chinese Association of Graphics Science & Technology	✓	

Business Strategy

Expanding Domestic and Overseas Sites for Circular Economy to Transform Asia's New Low-Carbon and Green Energy Paper Industry

Currently, CLC is Taiwan's largest industrial paper & container maker and the world's 59th largest paper maker. In response to the trend of low-carbon and sustainable packaging, and the rising demand for e-shopping packaging during post pandemic era, we constantly expand circulation locations at home and abroad. In Taiwan, CLC Yenchao Plant, Taiwan's first low-carbon, smart box plant has started production in 2021Q2 with full automation and AI manufacturing. Tayuan Mill also completed the modification of the BM1 paper machine and pulp-making process. To further expand the recycling capacity for food paper containers, we invested NT\$1.5 billion for 66k MT recovered bleached pulp line in Tayuan Mill and is expected to enter commercial operation by 2022H2.

In overseas, in addition to the 400,000 MT industrial paper line of Binh Duong Mill phase II and the Bet Cat Container Box Plant in Vietnam that will be completed in 2022H2 and the planning of B c Gian Container Box Plant in northern Vietnam, we have also planned phase V occupying an area of about 80 hectares for the Binh Duong Mill to become Vietnam's first certified integrated international paper mill with capacity over one million MT.



Deployment toward an omni-papermaker is another goal. We will constantly expand the scale of recovered paper recycling and provide the international supply chain and local consumers with a wider variety of eco-products based on our competitive strength in carbon reduction with secondary forest; and develop low-carbon green energy and engage in AI smart manufacturing to enhance carbon reduction efficiency and build a green supply ecosystem through digital transformation.

Business Plan



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.

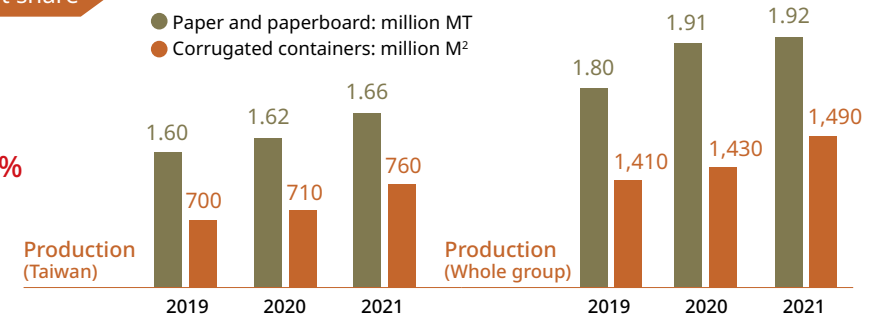
2021 Production volume and market share

Paper & Paperboard about 1.66 million MT

Market share → Industrial Paper > 40%
→ Household Product > 20%

Corrugated Container 760 million M²

Market share → > 30%



The leading integrated industrial paper and box manufacturer in Taiwan and Asia.
The 59th largest paper company across the globe.

Operational Sites

Paper Mills 5

Taiwan | Tayuan, Hsinchu, Chupei, Houli
Vietnam | Binh Duong

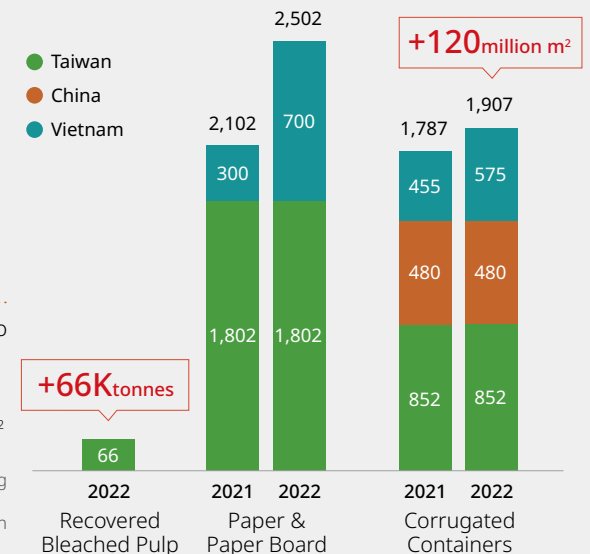
Box Plants 21

Taiwan 7 | Panchiao, Tayuan(2)¹, Miaoli, Taichung, Talin, Yenchoa
China 9 | Shanghai, Kunshan, Suzhou, Kaifeng, Dong Guan(2)¹, Zhangzhou, Qingdao, Chengdu
Vietnam 5 | Binh Duong, Ben Cat², Dong Nai, Long An, Bac Giang²

Note 1: Tayuan includes Tayuan Plant I and II; Dong Guan includes Cheng Loong (Gwangtung) Paper Co., Ltd and Dongguan Minglong Paper Co., Ltd.

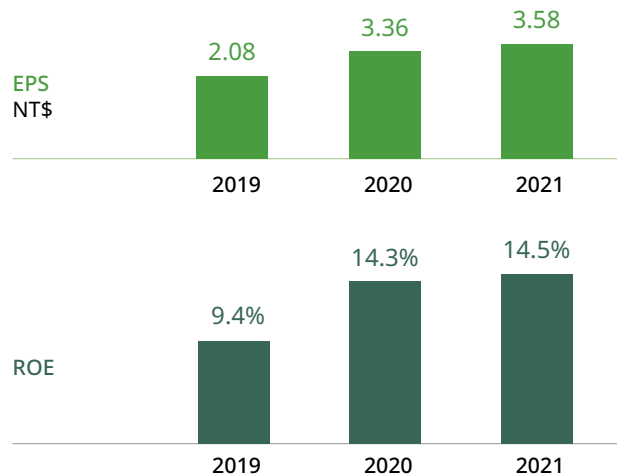
Note 2: Box plants in Ben Cat, Vietnam and in Bac Giang will be constructed in 2022 and 2023 respectively.

Capacity Expansion Plan

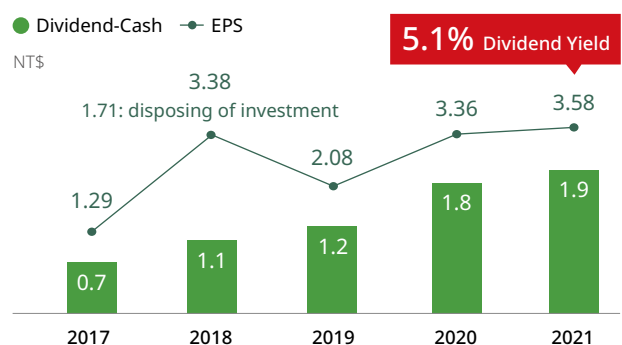


Operational Performance

Benefited from the overseas order transfer due to the US-China trade war and COVID-19 pandemic and the e-commerce boom in the post-pandemic era, the overall paper market in Taiwan thrived in 2021H1. However, the outbreak in Taiwan and Vietnam in May and the escalation of the global materials, energy, and transportation costs challenged our operations significantly. Fortunately, capacity regained progressively after Taiwan and Vietnam began to reopen in 2021Q4. Through the concerted efforts and innovation of all employees, the 2021 revenue remained as brilliant as it was in 2020. In 2021, the consolidated revenue totaled NT\$44.99 billion, and the individual revenue of the CLC (Taiwan) was NT\$34.29 billion, the annual net income and equity per share (EPS) was NT\$4.01 billion and NT\$3.58 respectively, and maintained solid operating performance.



Valuing shareholders' rights and interests, we distribute profits through dividends to repay all shareholders. In 2022, we distributed a cash dividend at NT\$1.9 per share, with a dividend yield up to 5.1%.*



*5.1% dividend yield was calculated based on the average closing price of 37.30 in 2021

Unit: NT\$1,000

	2019	2020	2021
Total Assets	49,882,080	50,932,666	54,990,007
Debt Ratio	52.4%	50.1%	50.4%
Equity ratio	47.6%	49.9%	49.6%
Economic Value Generated			
Operating Revenue	30,755,718	30,410,502	34,294,239
Economic Value Allocated			
Operating Cost	23,594,114	22,276,797	26,144,648
Employee Salary and Benefits	3,761,694	4,120,108	4,374,689
Payment to Funders	1,471,689	1,525,995	2,141,477
Payment to the Government	1,037,257	1,195,360	1,070,794
Social Expenditures	6,984	6,426	15,477
Economic Value Residual	883,980	1,285,816	547,154

Note: Taiwan Area

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 regulations. We also support the government's policies to encourage enterprise innovation, R&D, and tax preferences in order 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 noncompliance. The CLC has maintained steady operations and ethical management over the years.

Income Tax Information

Unit: NT\$1,000

	2019	2020	2021
Taiwan	693,117	903,399	804,152
China	(88,012)	75,603	138,748
Southeast Asia	33,607	49,321	33,187
Income Tax Expenses (A)	638,712	1,028,323	976,087
Pre-Tax Income (B)	2,985,814	4,772,192	4,987,575
Effective Tax Rate (C=A/B)	21.39%	21.55%	19.57%

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.

Goals of

2030

- Enhance the competence of the board of directors and raise the Company's sustainable value

- Deepen the governance and operational outcomes

- Improve the quality of information disclosure

- Constantly optimize the performance in corporate governance evaluation

Goals of

2022

- Implement board performance evaluation

- Optimize governance-related regulations

- Strengthen corporate governance and establish ethical management mechanism
- Strengthen anti-corruption education and training

- Improve the quality of information disclosure

- Committed to improving the performance of corporate governance evaluation

Goals / Action Results of

2021

- Implement board performance evaluation
→ **Completion of assessment in 2022 and report to BoD on March 15, 2022**
- Optimize governance-related regulations
→ **Revised the "Code of Practice on Corporate Governance" and reported the "Intellectual Property Management Plan" to the BoD**
- Strengthen corporate governance and establish ethical management mechanism
→ **Handle "Insider Trading Regulations and Case Sharing", attendees: all directors and senior executives, a total of 18 participants**
→ **A total of 6 anti-corruption education and training sessions, 162 participants with 113 hours, and no reported cases of corruption were received in 2021**
- Improve the quality of information disclosure
→ **Organized two online investor conferences (Mar 26 and Aug 20) and 27 conference calls**
- Improve all aspects of corporate governance evaluation and operational transparency
→ **2.9 points higher (out of 5 points) in the FTSE4Good TIP Taiwan ESG Index ratings for two consecutive years**
→ **The corporate governance evaluation ranked the top 6%-20%**
→ **Selected as a constituent stock of the TWSE Corporate Governance 100 Index**

Business Philosophy: Sincerity and Trustworthiness

Emphasizing steady and ethical operations, legal compliance and governance, besides establishing a well-planned organization framework, we have established the Auditing Division, Audit Committee, Compensation Committee, and Ethics and Integrity Team directly under the Board of Directors (BoD), CLC's top governance organization, to strengthen the CLC's supervision and control competencies and maintain fair, impartial, and open management to enhance operational transparency and protect the rights and benefits of stakeholders. Valuing the sustainable development of the company, the chairman of CLC ESG Committee reports to the BoD on the promotion of ESG and the results of implementation quarterly, assisting the BoD to master and review the performance of ESG operations, so as to formulate mid- and long-term ESG strategies.

We actively improve the competencies of the board of directors 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 in order 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, these information are disclosed in MOPS, the company's website or the annual report p.51, 53.

We amended the "Corporate Governance Best Practice Principles" and established the "Intellectual Property Management Plan" in 2021 to improve CLC's governance performance. The BoD holds at least one board meeting each quarter. In 2021, the board held a total of 7 board meetings with 100% director attendance. The term of the current board of directors is between June 13, 2019 and June 12, 2022.

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.

經營團隊成員



Experience of board members

Please refer to p. 10-11 of the CLC's Annual Report 2021 (AR2021) or corporate website at <http://www.clc.com.tw/>.

Further education of directors

In 2021, 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.28-29 of the AR2021 for details.

Important
CLC
regulations



BoD Diversity and Implementation

The BoD consists of nine Directors, including three 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. The company held an election for the 17th BoD on June 13, 2019, including one female Director (accounting for 11%), one Director with professional background in financial accounting (accounting for 11%), seven Directors with relevant management experience in the papermaking (accounting for 78%), five Directors with employee status (accounting for

56%) and three Independent Directors (accounting for 33%). The seniority of one of the Independent Directors is four to six years and the other two of the Independent Directors is seven to nine years; two of the Directors are under 49 years old, and the other seven Directors are over 50 years old. In order to implement the diversification of the Board of Directors, we have formulated appropriate guidelines with reference to the business operation and development needs:

- (1) Basic conditions and values: gender, age, nationality, and culture.
- (2) 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:



CLC's BoD



*The diversity of 17th Board of Directors's implementation situation: Please refer to p.13-14 of the AR2021 for details.

Board Performance Evaluation

The BoD passed the amended "Board Performance Evaluation Regulations." These regulations state that the board performance shall be assessed at least once annually. An external institutional or expert evaluation shall be conducted once triennially, with the results serving as the reference for the selection or nomination of directors. The first assessment of the board's 2020 performance was conducted in early 2021, and the assessment of the board's 2021 performance was conducted in 2022Q1. The scope of assessment covers the whole board of directors, individual board members, the Audit Committee, and the Compensation Committee. The assessment results were disclosed on the board meeting on March 15, 2022. The Company plans to outsource the performance evaluation of the BoD for the first time before the end of 2022.

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 the Company's 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 annually. The Audit Committee holds at least one meeting quarterly. In 2021, the Audit Committee held a total of eight meetings, with 100% member attendances. The 2nd Audit Committee is formed with the three independent directors, including Mr. Yung-Chi Wang, Mr. Yao-Ming Yang, and Mr. Fuh-Sing Chang. The three independent directors all have relevant industry experience.

Compensation Committee

The Compensation Committee periodically reviews the policies, systems, standards, and structures of director and officer performance evaluations, makes recommendations for board discussion, and holds at least two committee meetings annually. In response to the board's re-election, the board appointed three independent directors to be members of the 4th Compensation Committee on August 12, 2019, with Mr. Yung-Chi Wang as the chair. In 2021, the Compensation Committee held two committee meetings, with 100% member attendances.

Operation of Corporate Governance

To assist directors in carrying out their duties in order to protect the rights and interests of shareholders and strengthen the board's competence, the CLC has established the "chief governance officer, CGO" position acted concurrently by Mr. Chung-Lin Chou, head of the Financial Division. Chou has completed 15 hours of CGO training to improve his governance capacity. Please visit the [CLC corporate website](#) for the details of our governance performance in 2021.

Valuing the quality of corporate governance and information disclosure, the Company conducts inter-departmental discussions on the results of corporate governance assessments every year, sets goals and keeps track of them, so as to improve the results of corporate governance assessments. **At the 8th Corporate Governance Evaluation in 2021, we were ranked the top 6%-20%.** In addition, to improve the quality of information disclosure and communicate with important stakeholders, we held two online investor conferences (Mar 26 and Aug 20) and 27 conference calls in 2021 to report the status of operations to investors and the media. We also participated in various major ESG ratings at home and abroad to 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 the Company's 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.

- Ranked **59th** among the world's top 75 paper industries by The Paper 360° magazine in 2020, advancing 4 places
- The 8th Corporate Governance Evaluation ranked the **top 6%-20%**
- The FTSE4Good TIP Taiwan ESG Index ratings **2.9** points for two consecutive years (out of 5 points, be invited for the first time in 2020)
- Excellence in CSR Award (**No.34**) for the 8th time by CommonWealth Magazine.
- Selected as a constituent stock of the TWSE Corporate Governance 100 Index

The Improvement projects of the 8th Corporate Governance Evaluation in 2020

Safeguard the rights and interests of shareholders and treat them equally

- ✓ Upload the English version of the annual report to the corporate website 16 days before the annual general meeting of shareholders (AGM).

Strengthen the structure and operation of the BoD

- ✓ Disclose on the corporate website the information on the periodic review of the policies, systems, standards, and structures of the performance evaluation, salary, and reward of directors and officers.
- ✓ Draw up intellectual property (IP) management plans relevant to the operational targets and report the plan's annual management performance to the BoD each year.
- ✓ Revise the Corporate Governance Best-Practice Principles to stipulate that the appointment, dismissal, evaluation, salary, and reward of internal auditing personnel shall be determined by the chief auditor and approved by the chairperson.

Improve information transparency

- ✓ The English version of the annual report was uploaded to the corporate website 16 days before the AGM. The English version of material information began to be published in 2021.
- ✓ The policy regarding the performance evaluation and reward of directors and officers were disclosed in the annual report.

Implement corporate social responsibility

- ✓ Disclose the duties and operation of the Ethics and Integrity Team.

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.

Goals of



- Strengthen the risk warning system to be supervised by the functional committees, such as the Audit Committee or Risk Management Committee, under the board of directors

- Establish business strategies and management policies based on the quantified results of risk management

Goals of



- Implement loss control inspection of mills/plants periodically

- Complete risk management system
- Plan to establish Chief Information Security Officer

Goals / Action Results of



- Implement loss control inspection of mills/plants periodically
→ **Completed 8 onsite inspections**

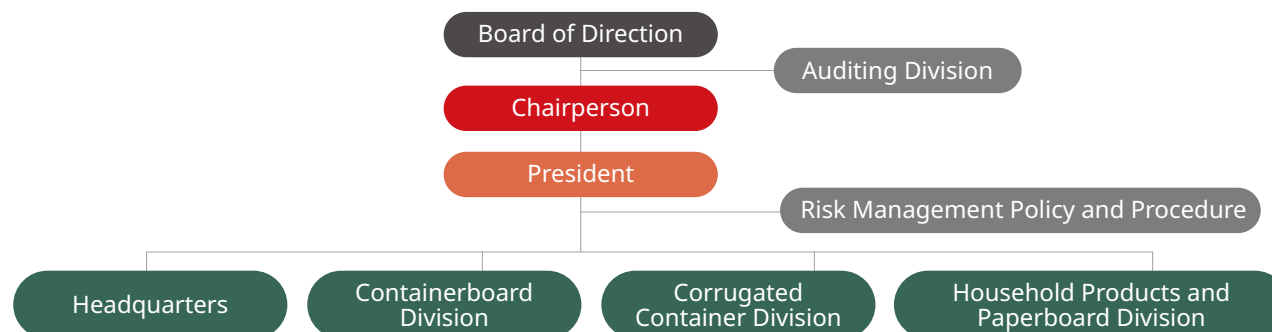
- Conduct risk assessment , actions and implement risk control
→ **Rated top at TCFD Verification**
→ **Completed the internal control statement and reported to BoD**

Risk Management

The implementation and operation of risk management are the roots to ensure CLC's steady operations. To optimize the risk management system, we followed the "Risk Management Policy and Procedure", with the BoD being the highest command of risk management and authorizing the president to engage in risk management decision-making. Based on the risk management procedure, by identifying and managing internal and external risks, each department measures and analyzes the impacts that risk factors brought to this Company in terms of operations, finance, and climate change, and the president regularly reports to the BoD.

Paying attention to the climate change crisis and responding to the Financial Supervisory Commission Corporate Governance 3.0 Sustainability Blueprint in advance, the Company responded to the TCFD initiative in 2021, signed up as a supporter and conduct third-party verification of TCFD compliance to actively manage climate change issues and take action, becoming the first paper company in Taiwan to pass the TCFD audit and obtain the highest rating certification, demonstrating resilience in the face of climate risks.

Functions and Duties

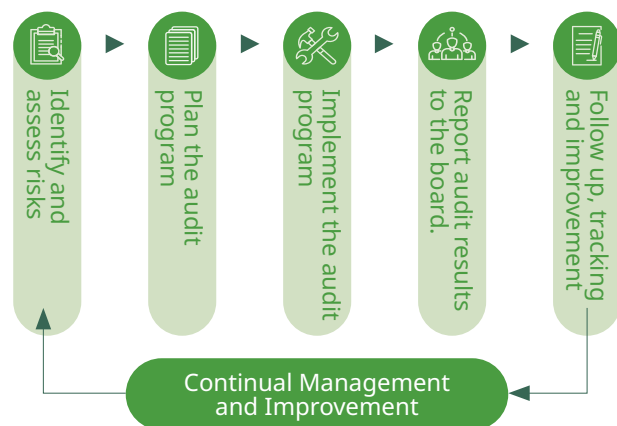


Operation Mechanisms

Board of Directors	Auditing Division	President & Management	Loss control inspection of mills/plants
The Highest Command of Risk Management <ul style="list-style-type: none"> ◆ Based on the overall operational strategy and macro environment, the board of directors discerns the risks in operations, focusing on the promotion and implementation of overall risk management to ensure the effectiveness of and assume full responsibility for risk management. 	An Independent Department under the Board <ul style="list-style-type: none"> ◆ The Auditing Division periodically audits the performance based on the Company's internal control and audit programs, produces the audit reports based and presents them to the board, and follows up the performance of each unit. 	<ul style="list-style-type: none"> ◆ 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. <p>Monthly: Hold meetings. Annually:</p> <ul style="list-style-type: none"> • 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, and energy, 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. 	<p>In 2021, CLC conducted 8 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.)</p>

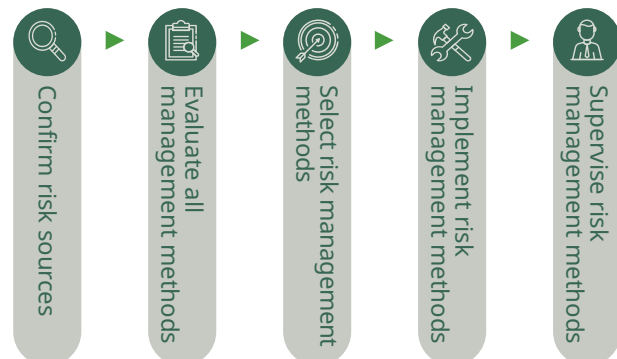
* Refer complete information in sustainable practice 2: CLC: First Taiwan Papermaker Rated Top at TCFD Verification

Risk Identification and Audit Processes



In 2021, all units completed the self-assessment of a total of 2,819 items. The Auditing Division audited 67 items and found nonconformities in six items, including acceptance operation, project contracting operation, inspection and acceptance operation, inventory management operation, scrap sale operation, etc. The improvement of all nonconformists was completed before the submission of approval at the end of the year.

Risk Warning Management Process



Special Report on COVID-19 incident in 2020-2021

In response to the outbreak of COVID-19, we immediately activated the "Epidemic Crisis Management and Response Team," with members of the senior management convening all business divisions, the administration division to discuss the risk environment we were facing, and keep pace with the pandemic development and draw up responsive strategies to reduce the pandemic's impacts on operations. Related measures as shown as follows:

Employee

- 1 In March 2020, we expanded the "COVID-19 Epidemic Emergency Response SOP", and established the "Guidelines for Prevention and Management of Communicable Diseases," with guidelines covering attendance (including overseas business trips) management, employee health management, etc. We also gave priority to supply masks for front line workers, implemented split operation, and prepared the work-from-home plan. Based on the National Epidemic Command Center, the SOP has been continuously adjusted on a rolling basis.
- 2 Thanks to colleagues in Taiwan for cooperating with full production during the epidemic, an additional incentive bonus of \$15,000 per person were paid in 2021. Concerned about the overseas cadres who were unable to return to Taiwan due to the impact of the epidemic, Chairperson also wrote a letter, thanking colleagues for sticking to their posts.
- 3 For overseas colleagues, fully subsidize entry-related quarantine hotel expenses (\$2,500/day for up to 14 days), and fully subsidize self-funded vaccinations.
- 4 Medical subsidy for overseas dispatch: up to \$30,000 for outpatients and \$100,000 for inpatients.

Customer

- 1 Preventive epidemic prevention management measures: reduce the visits by suppliers and customers.
- 2 Prevent the risk of supply disruption: All business divisions kept track of the sales and market condition, customer service, and loan security, and captured materials supply and stock with the e-materials platform to prevent the risk of supply disruption.
- 3 In coordination with the government's policy: We expanded the production of toilet tissue, an important everyday life supply, in coordination with the government's policy to ensure uninterrupted supply, fulfill the demand of customers in different retailing channels, and ease people's sense of insecurity.



* Refer to more information in sustainable practice 5: Increasing Production at Full Steam and Activating 10 Epidemic Care Actions to Protect Loved Ones (p.17-18)

Key Risks and Countermeasures

Major Risk	Risk Item	Control Strategy and Opportunity Development
Finance	Financial Transaction	<ul style="list-style-type: none"> 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 Risk	Labor Shortage Talent Gap	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Captured market trends of materials, built a collaborative e-platform for real-time information exchange, optimized inventory management to prevent supply disruption. Established a multiple supply system to ensure stability of materials.
Operation	Operation	<ul style="list-style-type: none"> Deployed a real-time warning system to immediate solved in-house production problems. Complied with no breach of trust, fraud, insider trading, or unconventional transfer of benefits that is detrimental to shareholders' interests. Established a mobile platform to well manage business operation and management anomalies. Implemented continual technology improvement and product development to fulfill customer needs, and enhanced customer relationship through irregular visits and customer relationship management. Prevented the risk of customer or sales centralization by providing services to all industries.
HSE	Environment Occupational Safety Employee Health	<ul style="list-style-type: none"> Established management systems & mechanisms and reviewed legal compliance periodically. Introduced the best available control technology (BACT) to strengthen pollution control and enhance water conservation to realize the 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 advance program.
Climate Change and Energy	GHG Emission Climate Disaster	<ul style="list-style-type: none"> Implemented GHG inventory and energy management through the Energy Management Committee, to enhance energy efficiency, alternative fuel ratio, and reduce carbon emission. Created the "Emergency Response Management SOP" to prevent production reduction or disruption caused by typhoons, floods, and droughts and enhance the adaptability of organization. Introduced the TCFD framework to improve climate sustainability governance.

Information Security Control Risk

We established a responsible unit under the Information Technology Division in accordance with the Cybersecurity Management Standard Operating Procedures. In 2021, we further increased the expenditure by nearly 50% vs 2020 to establish a complete network and computer protection framework. Hence, no incident related to information security was reported in 2021. We have also initialed a budget to improve our information security capacity and planned to establish Chief Information Security Officer in 2022. Highlights of 2021:

Strengthening education and training for information security and SOP

1. Established the Information Security section in the enterprise information portal(EIP) to publicize information security knowledge.
2. Arranged phishing drills for employees with social engineering methods to enhance information security awareness and self-protection consciousness.
3. Arranged online and classroom publicity and training of information security awareness and competence.

Enhancing hardware and software of information security

1. Built hardware and software architecture for the integrity of the core information system.
2. Established the optimal data confidentiality and backup mechanisms for systems and files and arranged real machine drills on backup and redundancy to maintain PDCA.

Optimizing SOP management

1. Established the emergency reporting and handling procedures, including external disclosure and the mechanism to respond to financial and business damages and impacts, for information security disasters.
2. Ensured the quick recovery to normal condition of the core system after a failure or attack in combination with the audits and supervision of the Auditing Division to prevent material information security risks and incidents and thereby reduce damage.

1.4 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.

Goals of

2030

- Education and training on business ethics and legal compliance, with a completion rate of 100%

- Constantly arrange anti-corruption publicity, education, and training activities for suppliers, with a completion rate of 100%

- Pursue zero non-conformity

Goals of

2022

- New employees (Taiwanese) complete the Corporate Integrity Course and sign the Statement of Ethical and Legal Compliance with an achievement rate of 100%
- Organize 6 education and training activities on legal compliance
- Add 1 online course related to integrity management
- 3 legal compliance articles

- Organize anti-corruption publicity, education, and training activities for suppliers

- Zero material violation event

Goals / Action Results of

2021

- Employees (Taiwanese) sign the Statement of Ethical and Legal Compliance with a signing rate of 95%
→ **New employees (Taiwanese) with a signing rate of 100%**
- Organize 8 education and training activities on legal compliance
→ **6 education/training activities for 162 participants**
→ **Due to the epidemic, physical courses were reduced, and an online course on "Code of Ethics and Anti-Corruption Promotion" was newly held, with a total of 42 participants**
- 3 legal compliance articles were published
→ **Completed 3 articles**
- Major suppliers sign the "Supplier Code of Conduct" with the signing rate reach of 100%
→ **Completed the signing rate of 100%**
- Zero material violation event (a single event with administrative fines accumulated up to NT\$1 million)
→ **None**

Emphasizing steady and ethical operations, legal compliance, and governance, we have been conducting business activities with the highest standard of ethics and integrity since our inception. In addition, through the regulation establishment, education and training, consistent implementation, self-assessment and review, and unfettered reporting channels, we request compliance by all CLC members.

We have established the "Ethics and Integrity Team" under the board of directors to take charge of business ethics and integrity. The team operates according to the "Procedures for Ethical Management and Guidelines for Conduct" and periodically report its performance to the board of directors. "Sincerity and Trustworthiness" is CLC's core value and the important standard of employee conduct. To ensure all employees practice legal compliance, apart from strictly requesting employees to uphold integrity and fairness, avoid conflicts and interest, protect corporate assets, fulfill the non-disclosure obligation for customers in business operations, we provide channels for reporting unlawful or unethical behavior and arrange education and training for related personnel to practice "Sincerity and Trustworthiness" in the routine business activities.

Supplier Business Ethics

We request 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



Manager, Legal Affairs Department
Bang-Yan Zheng

"Sincerity and Trustworthiness" is CLC's core value. We strictly request our employees to follow business ethics and laws, and implement risk management to realize excellent corporate governance."

Performance in Ethical Management Promotion in 2021

- 1 After new employees (Taiwanese) report for duty, the business philosophy of "sincerity and trustworthiness" are communicated to them through departmental education and training, anti-corruption publicity in the EIP to emphasize ethical management, compliance and governance and eliminate unethical and illegal behavior. All new employees agreed to follow the Code of Ethical Conduct and signed the Statement of Ethical and Legal Compliance. A total of 207 copies were collected, with an achievement rate of 100%.



- 2 A total of 6 sessions of integrity management and anti-corruption education and training were held, with a total of 162 participants. Due to the reduction of physical courses due to the epidemic, a new online course on "Code of Ethics and Anti-Corruption Promotion" was held, with a total of 42 participants.
- 3 Publicize "Insider Trading Case Analysis and Legal Compliance" to all directors and senior management. The publicity lasts for 40 minutes, and a total of 18 participants.
- 4 The anti-corruption reporting channel of "Dealing with Dishonest Behavior of Company Personnel" has not received any corruption-related reporting cases in 2021.

Note: Received 3,125 signed "Statement of Ethical and Legal Compliance" from colleagues in Taiwan with 91.7% response rate.

Legal Performance

Implementing various business activities through legal compliance and compliance with the Code of Ethical Conduct is the basic business philosophy of the CLC. By establishing related work rules and regulations, we request employees to abide by and practice them. In addition, we enhance their dissemination through education and training, corporate



CLC Bimonthly 2021.3

website, internal publications, and meetings. Besides understanding and capturing the status of legal compliance of all units, the legal unit published three legal articles in 2021 to strengthen the legal compliance concepts of employees. With case studies, the legal unit helps employees to understand related legal matters in routine business activities or daily life.

In legal compliance, no material fine in 2021 (single event with administrative fines accumulated up to NT\$1 million) was reported. Please refer to p. 65-66, 68-71 of the 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

Industry Service

Develop circular economy, accelerate digital transformation, strengthen low-carbon and green energy production-sales, provide quality products and services, to become Asia's new low-carbon & green energy paper company.

- 2.1 Sustainable Products and Development
- 2.2 Product Responsibility and Customer Service
- 2.3 Digital Transformation

- ✓ Invested NT\$ **117** million in R&D
- ✓ Developed a variety of low-carbon products and won a number of national patents
- ✓ Three household paper products sold **56** million packs annually, contributing **1,569** MT of carbon reduction
- ✓ Resource recycling
1.794 million MT of recovered paper
+4% YoY
24,300 MT waste food paper containers **+57%** YoY
- ✓ Completed **7** smart papermaking projects

Andante Toilet Tissues

羽絨新肌感

超細柔 抽取式衛生紙

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 full circular economy.



Goals of

2030

- Recovered paper utilization rate > 97%
*Industrial paper
- Exert creativity capability to develop niche products

Goals of

2022

- Recovered paper utilization rate > 97%
*Industrial paper
- Engage in innovation and R&D, increase recovered paper application, and develop niche products
- Apply for carbon footprint inspection for household paper product line expansion

Goals / Action Results of

2021

- Recovered paper utilization rate (industrial paper): 97%
→ Industrial paper: 97.4%
Overall: 92.7%
- R&D investment: NT\$117 million
→ Cultivated the application of recyclable packaging materials
→ Carbon reduction design won the national new patent
→ Three household products was sold over 56 million packs annually, contributing 1,569 MT of carbon reduction
→ Sold 920,000 bags of Dandelion eco-toilet tissue and reduced plastics up to 30,000 kg since the launch of the Dandelion multipurpose bags
- InnoCircular Economy
→ Recycled waste food paper containers up to 24,300 MT
→ Created profit over one hundred million NTD through projects with nearly 1,000 excellent performance

2.1 Sustainable Products and Development 2.2 Product Responsibility and Customer Service 2.3 Digital Transformation

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.

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 2021, we consumed a total of 1.794 million MT of recovered paper, with an annual reuse rate increasing by 0.7% to 92.7%, and the reuse rate of industrial recovered paper was even up to 97.4%, increasing by 0.4% over last year.

According to the statistics of Asian Corrugated Case Association (ACCA), the global consumption of industrial packaging paper was 183 million MT, up by 4% in 2021, including 86 million MT or 47% by Asia (including China). ACCA also predicted that the annual growth rate of industrial paper will increase by 3.5% during 2022–2023. Meanwhile, the significant growth of e-commerce across the globe stimulated by the COVID-19 pandemic also thrived the ongoing demand for paper packages. In addition, when both businesses and consumers emphasize more on the practice of green, sustainable consumption and production as net zero emission has become a global commitment after COP26, many branded customers have announced the replacement of some plastic wrappings with paper packages.

We firmly believe that promoting the circular economy is

key toward a carbon neutrality society. In the future, we will continue our insistence on maximizing value with the least resources, uphold the 3R – reduce, reuse, and recycle –to constantly develop various sustainable products and services, deploy recycling and circulation locations at home and abroad, develop a sustainable business model for the circular economy, contribute to society and the environment, while capturing the great opportunity for prosperous development.

R&D and Innovation

Out of the emphasis on innovation and R&D, CLC invests over 100 million NTD in the development of green and sustainable products and the optimization of production processes every year to enhance production efficiency, conserve energy, and reduce carbon emissions, in order to actively keep up with the global trends and customer demands, furthermore, to enhance corporate competitiveness. In 2021, the total R&D expenditure (excluding capital expenditure and equipment fee) was NT\$117 million, and the major R&D outcomes are as follows:

- ✓ Promote 20 important projects, such as process transformation, introduction of low-carbon energy-saving equipment and technology.
- ✓ Introduced new raw materials to enhance efficiency: Saved >NT\$77 million annual.
- ✓ Process optimization and quality improvement saved costs >NT\$33.6 million every year.
- ✓ New product development:
 - Household products: Disposable medical gowns, personal hygiene products, household cleaning products.
 - Industrial packages: Carry bag paper, heat seal connector, high-quality paper tube paper, functional corrugated containers (high water-resistant, fresh-keeping, oil-resistant, antibacterial), and acquiring patents for several inventions.

In the future, based on the market demand and the corporate development needs, CLC will constantly engage in domestic and overseas expansion, introduce new processes to optimize production efficiency, and develop new products through energy and resource integration, and equipment reengineering to enhance capacity and maintain competitive strengths.

Development of Green and Sustainable Packaging Products

In new product development, based on recycling environmentally friendly raw materials and in consideration of product life-cycle, we ceaselessly combine the design practice and demand for green packaging materials in product packaging design. Through collaboration among internal departments, we develop all kinds of sustainable low-carbon products, and introduce the application of digital technology, introduce 3D printing technology, accelerate the design and packaging service process, and provide customers with more professional services with the full energy of technology research and development.



CLC has won a range of awards in packaging design: WorldStar, National Design Award, Taiwan Packaging Star Award, Green Star Award, TAPPI-Industrial Product Protection Award, Golden Pin Design Award, Packaging Expert Competition, invention patents.

* Refer more cases in sustainable practice 4: Less is More! CLC Maximized Value at the Least Resources with Low-Carbon Products. p15-16

2.1 Sustainable Products and Development

2.2 Product Responsibility and Customer Service

2.3 Digital Transformation

Case 1.

Circular Forest: 100% all-paper folding eco-cultural and creative products

Unlike ordinary wooden or plastic photo frames, we design and develop paper picture frames with 100% recovered paper by integrating aesthetics and structure: printing is replaced by papers of different colors, glue by folding and mortise and tenon, plastic strings by paper strings, and traditional, eco-unfriendly plastic containers by paper boxes.

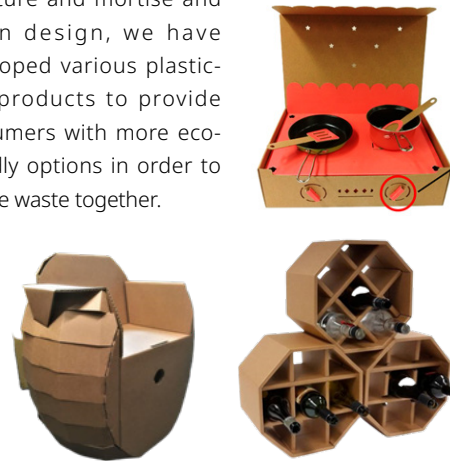


Acquired two Taiwan Utility Model Patent (Number of M621882, M624322)

Case 2.

Eco Packaging – Replacing plastic with paper

While plastics are made from synthetic resins and oil, there are different types of plastics that are difficult to recover and are a burden on the environment. Paper is made from recyclable plant fiber that can be recovered, recycled, or decomposed by nature after use. Through structure and mortise and tenon design, we have developed various plastic-free products to provide consumers with more eco-friendly options in order to reduce waste together.



Case 3.

Environmental protection and epidemic control – 100% paper eco-partitions

Research shows that viruses can stay longer on plastics and acrylic than paperboards. Paperboards are lightweight, easy to assemble and disassemble, recyclable after recovery, easier to acquire, and cheaper to purchase. In response to the massive partition demand during the pandemic, we have developed various custom paper partitions using 100% recovered paper to help epidemic control while valuing the limited resources of Earth at the same time.

Paper classroom desk partitions:

Lightweight, easy to carry, recyclable, and enabling graffiti for schoolchildren to combine epidemic control, eco-friendliness, and fun.

Paper office partitions: Convenient to access and easy to recover.



Transformer online shopping corrugated boxes – Corrugated box reuse

In response to the "reduction mark" policy for online shopping containers of the Environmental Protection Administration (EPA), in 2020 we develop "just fit-it" to reduce materials consumption without reducing packaging capacity, and launch the "self-adhesive online shopping box" to reduce plastic waste. In 2021 we further developed the value-added reusable packaging boxes to address the customer's demand for "corrugated box reuse" and extend the lifecycle of corrugated boxes.



Collection box with double layer

Tissue box with double space



Toy Case

Case 4.

Pet House



2.1 Sustainable Products and Development 2.2 Product Responsibility and Customer Service 2.3 Digital Transformation

Green and Innovative Products Helps Consumers to Reduce Carbon Footprint



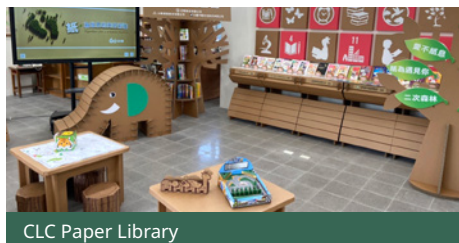
A clean and beautiful environment for future generations

In response to the green consumption trend, besides developing green packaging papers for industrial use, CLC also invents circular & low-carbon products in consumer categories. 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 recycled corrugated paper.

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", the "Box War" over the years, 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.



Box War



CLC Paper Library



CLC Office Building Christmas Decoration in 2021

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 two quality brands, Lover 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 first automated household tissue warehouse, Asia's first millions MT wind turbine, and implementation of digital transformation, Chupei Mill engaged in energy conservation, carbon reduction, development of low-carbon products, and improvement of customer services. Valuing the business opportunities of post-epidemic cleaning products, CLC has also entered the field of household and personal cleaning products in recent years, launching "Andante Alcohol Wipes" to improve personal health and hygiene, and "Andante Bath Series" which emphasizes that it strictly selects Taiwan's local agricultural extracts as the only one in the industry. Dandelion, the No. 1 eco-friendly brand, has also successfully extended its product line to household detergents, helping consumers to easily reduce carbon in their daily lives and be environmentally friendly.



Actively towards the all-round layout of the paper industry, CLC completed the internal organizational adjustment in September 2021, separate the household paper department from the Paper Division, and establish the Household Products and Paperboard Division, which is committed to providing a more complete product line to meet customer expectations for natural and environmentally friendly household products.

3重防護 好安心

Post COVID Lifestyle: Wipe Anytime!
Andante Alcohol Wipes
 Added "ACS antibacterial formula patent" and acquired certificate of SGS and ISO.

SGS 經SGS測試 抗菌效果達99.9%

ISO 9001/22716 雙認證工廠

2.1 Sustainable Products and Development 2.2 Product Responsibility and Customer Service 2.3 Digital Transformation

Eco Friendliness: Starting from a piece of toilet tissue CLC household paper products reduce carbon emissions by 1,569 MT per year. Expand carbon footprint inventory in 2022

Starting from the product life cycle, CLC focuses on the development of low-carbon products, leading the industry. A total of three household paper products including Andante and Dandelion have obtained dual certifications of "Carbon Footprint" and "Carbon Reduction Label". In 2021, the three products was sold over 56 million packs annually, contributing 1,569 MT of carbon reduction. To continue to contribute to product carbon reduction efforts, we plan to extend carbon footprint inspection to more product lines in 2022.



CLC Carbon Footprint Class

The purpose of carbon footprint establishment is to understand the GHG generation from the different life cycle of products and effectiveness of carbon reduction.

CLC x A-Chang Sheltered Workshop: A Brighter Future for the Disabled

Recognizing the employment difficulty of persons with disabilities, we began to partner with A-Chang Sheltered Workshop in 2020 to focus our care on the vocational training for persons with mental disabilities. In practice, we provide toilet tissue for A-Chang to establish a simple processing plant for the mentally disabled to achieve self-reliance and gain self-esteem through packaging and selling toilet tissue in order to learn social integration and work for a better future.



A-Chang Sheltered Workshop Ping Ping

"Thank CLC to give me a hope, I will work hard and take care of myself, and I want to take my parents out."



The Winning Leader of Low-carbon Products: Chupei Mill



2017

Low-carbon Product Award-Excellence from EPA

2018

Top Performance Assessment in Waste Resource Circular Economy from EPA

2019

The first National Enterprise Environmental Protection Awards, Low-carbon Product Award-Excellent from EPA

2020

Low-carbon Product Award-Premium, Carbon Footprint Coefficient Contribution Award from EPA

2021

Green Purchasing Excellent Unit from EPA and Hsinchu County Environmental Protection Bureau

Use recovered paper for a virtuous cycle Dandelion household tissue "Keeping the Nature with habit change"

Dump after use: Toilet tissue- a single-use product. To practice responsible production and promote green, responsible consumption, besides making household tissue with FSC™ pulp, we produce eco-toilet tissue with a process that is more complicated than products using virgin pulp, in order to maximize resource utilization and putting environmental interests first. In 2009, we launched the "Dandelion Household Tissue" series with quality similar to those made with virgin pulp to encourage consumers to practice environmental protection and love Earth from daily life.

Made of 100% recovered paper and using clean energy – wind power, the Dandelion Household Tissue is thus Taiwan's first household paper brand to acquire triple certification: The Green Mark, Carbon Footprint Label, and Carbon Reduction Label. Currently, the annual sales of Dandelion Household Paper exceed 5,000MT, making it Taiwan's No. 1 brand of eco-household paper. We also introduced the Dandelion multipurpose bag to combine the external package of Dandelion Household Tissue with the dedicated garbage bag to create carbon reduction efficiency ahead of competitors.

We constantly invest resources in marketing and cultivating sales channels. In 2018, we introduced CLC's second eco-household tissue brand: Pure Generation. We also actively develop a series of eco-household products with distributors and brand customers. In 2020, we further introduced the Dandelion Eco-Household Detergent to provide consumers with more options for green product brands to contribute to the Earth's sustainable development.

Starting from the love for Earth, we wish for a better living environment in the future. Besides successfully attracting consumers to join eco-shopping, Dandelion was awarded the 2021 Top 10 Advert Slogans Award by Brain Magazine with the slogan "Use recovered paper for a virtuous cycle." We also made the Dandelion: My Choice video and promoted related Facebook activities to encourage the public to choose recycled toilet tissue to love Earth based on the slogan "Sustain Resources and Befriend with Earth".



Choose Dandelion: <https://www.youtube.com/watch?v=LOK36xUm8P4>



Dandelion Facebook



Dandelion Multipurpose Bag: Reduce plastics and save trees

In response to the country's plastics reduction policy, Dandelion collaborated with the New Taipei Government in 2014 to combine the external package of products with the dedicated garbage bag to launch the "Dandelion Multipurpose Bag," an eco-friendly and practical new product which can reduce plastics. Since the bag was launched, a total of 920,000 packs of Dandelion household tissue have been sold to reduce plastics up to 30,000kg.

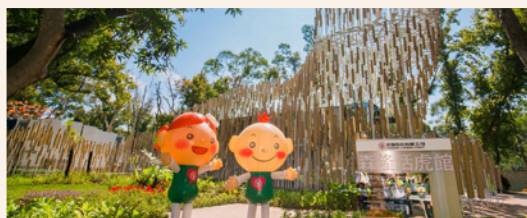
Enhancing recycled toilet tissue popularization with brand distributors



CLC introduced the co-branded Dandelion eco-toilet tissue with Eastern Home Shopping (EHS), Post Mall, PX Mart and Department of Defense one after another. In 2021, the "Dandelion Family Package" dedicated to RT-Mart was officially launched to meet the shopping needs of different consumers and drive the growth of the popularity of recycled toilet tissue in Taiwan.

Experiential Marketing

Sponsor large-scale international events, open factory visits, and launch NAT GEO RUN environmentally friendly gift boxes with National Geographic Road Run. In recent years, in response to the epidemic, through online marketing, including sponsoring National Geographic Channel's environmentally friendly programs and FB community activities, we invites consumers to start a new environmentally friendly life together.



Environmental Protection: Dandelion Eco-Laundry Detergent

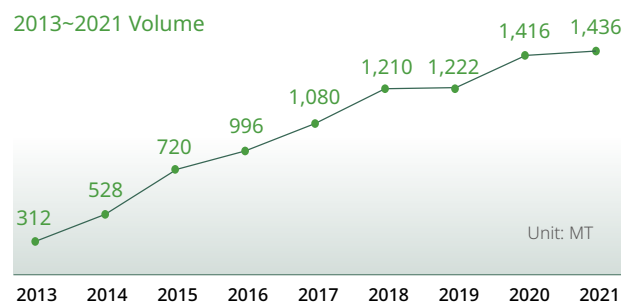
When people begin to get aware of environmental protection, more and more people will use eco-products at a higher price. To fulfill the diversified customer demands, we entered the eco-household detergent market. In August 2020, we launched the Dandelion Eco-Laundry Detergent and Dandelion Detergent Capsule. The Dandelion Eco-Laundry Detergent passed the Green Mark and SGS certification. It has a mild neutral formula containing eight ingredients, excluding toxic substances such as formaldehyde. The Dandelion Eco-Detergent Capsule even reduces the use of plastic containers to make a step forward in environmental protection for the public.

Innovative Circular Economy

Besides constantly investing in equipment and technology to pour in new energy for sustainable development, CLC engages more in realizing SDG 12: Ensure sustainable consumption and production patterns to achieve a win-win in practicing circulation and regeneration with various innovative approaches.

“Setting out for a virtuous cycle, with the corporate spirit to pursue sustainable prosperity and common good with local societies, CLC constantly demonstrates our industrial innovation capacity to promote the enterprise-centered green transformation through connection with the government, the paper industry, business partners, and consumers.”

Pulping for document destruction reduced carbon emission by 51,736 MT and saved 180,000 trees



In 2013, we began to provide free document destruction service by exerting our pulping expertise in paper recycling to repay society through the innovative use of our experience recycled paper papermaking. By doing so, we prove the possibility of reducing environmental impact while achieving economic efficiency. Over the last 9 years, we have helped 400 partners, including government entities, listed companies, banks and insurers, and national defense units, to destroy 8,920 MT of confidential documents through pulping for free to recycle paper for producing over 38 million packs of eco-toilet tissue to realize paper fiber resource sorting and maximize resource utilization to significantly enhance the efficiency of recycling.



3 Features

Maximization of resource use, integrated confidentiality protection, free service

Environmental protection benefit

Recycled **8,920** MT of paper

- Reduced carbon emission by **51,736** MT
- Saved **180,000** trees
- Retained the annual carbon absorption of **132** Daan Parks

* Using 1 ton of recovered paper may reduce 5.8 tons of carbon emission. The annual carbon absorption volume of the Daan Park is 389 MT.

First 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.

Acquiring Waste Food Paper Containers Processing Registration Expanding the Waste Paper Container Disposal Project

We believe that it is responsible for papermakers' responsibility to engage in recycling waste food paper containers. Therefore, we invested a "efficient film laminated paper treatment system" at the Chupei Mill in 2018. By developing paper-plastic separation technology, the paper fiber yielded becomes the raw material for producing recycled coated whiteboard, while the tailings of trimmed laminates will become one of the alternative raw materials for household tissues. The plastic laminate is recycled into solid recovered fuel (SRF) bars and green bricks to realize environmental protection and economic benefits with a creative double-circulation model recognized by several domestic sustainability awards. In 2020, due to the epidemic in Taiwan, the growth of the stay-at-home economy and take-out catering culture was driven by the epidemic. Our model help reduces the environmental burden in advance. With the goal of continuously deepening the recycling efficiency, the 66,000 MT recycled bleached pulp line of Tayuan Mill, which will operate in 2022H2, will expand the use of waste food paper containers and scraps.

Create secondary forests and maximum environmental benefits

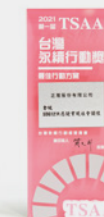


Note: 1 ton of food paper containers can produce 0.6MT recovered paper, save 20 trees and reduce 5.8 tons of carbon emission.

The CSR Award from the BCCT-High Distinction Award



TSSA SDG Action Award-Gold Award



Demonstrate social influence for consumers to understand the importance of waste food paper containers to promote environmental sustainability

Through the breadth of multimedia, we made eight creative videos to communicate the message of "Recycle for Better Circulation" to the public in collaboration with the Hsinchu County Government, TVBS, Da Ai Television, and YouTuber Taiwan Taiké Story.



Driving ESG Innovation and Value Addition

Enhancing competitiveness with the excellent cases management system

Driving operational efficiency with innovation, CLC began to implement activities including the improvement proposal system, QCC, and TPM in 1980 to focus on quality and service improvement. Further in 2008, we promoted the "Excellent Case Improvement Activity" to integrate the evaluation and reward mechanisms of the above management activities. In recent years, ESG actions have been incorporated, and employees are encouraged to actively explore problems through the competition system, enhance problem solving and innovation energy, and cultivate ESG sustainability.

Activity Process

Apr.	Aug.	Sep.-Oct.	Nov.	Dec.	
Preparation	Preliminary Review	Application Review	Final Review	Results Presentation	Benchmark Learning
-	805 PCS	100 PCS	48 PCS	10 PCS	-
Topic selection: Innovation profit creation, quality, energy conservation, waste reduction, and equipment, processes improvement	Each factory completes the preliminary review and submits excellent cases of A and B grades for application review	20~25% of premium and excellent cases for the final review	3-in-1 Evaluation • Excellent case improvement • Industrial waste reduction • Second-class or higher awards proposals	resentation and commendation at the operation vision meeting and business review meeting	Top 3 excellent case improvement upload E-Learning platform



Creating profit over NT\$100 million with the best improvement case of the year

At Q1 each year, HQ's Administration Division will initiate the activity by follow the topic selection, status review, and cause-and-effect analysis and to first organize an in-house improvement case competition to focus on innovation and profit creation, and the continual improvement of quality, equipment, processes, energy conservation, and waste reduction, in order to select the outstanding cases to report to HQ's Administration Division. Then, combining with the improvement proposals with second-class or higher awards and excellent proposals for clean production and 5S, the "3-in-1 Evaluation" is implemented in November each year to determine the winners with a professional evaluation team formed by different divisions. In 2021, a total of 43 excellent cases were reported, and alongside the excellent proposals for improvement and clean production, a total of 48 proposals entered the final. Eventually, a total of 10 proposals were selected. These efficiency enhancement cases and proposals have created a profit over NT\$100 million.



Enhancing improvement efficiency through organizational benchmark learning

We conduct excellent case sharing through annual plant operation vision meeting and enterprise-wide business review meeting every year. Through the CLC E-Learning platform and internal publications, we implement knowledge management and promotes benchmarking within the organization. In recent years, we have also extended excellent case improvement management activities to overseas subsidiaries, encouraging group colleagues to continue to innovate, optimize, and enhance service capabilities.

Feature Case 1

ChuPei Mill – Improvement of toilet tissue packaging defects

Problem Excessive consumption of packaging materials and high re-packaging rate due to the packaging defects of bulk toilet tissue packs, lowering production efficiency.

Remedy Replacing one-way sensors with retrospective sensors and enhancing the suction power of the motor vacuum.

Results • Reduced consumption of packaging materials: 470 packs/month → 64 packs/month
• Reduced man-hours for removing nonconforming packages.

-86%

Feature Case 2

Panchiao Plant Smart Production- Labels and barcodes for box POs and real-time display of roller storage

Problem Copying purchase orders (POs) and locating product storage locations are time consuming.

Remedy Digitizing the paper feeding sequence table to reduce document copying time.

Results • Reduced man-hours: 540 minutes/day → 180 minutes/day
• Successfully established the smart production system.

-66%

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.

Goals of

2030

- Introduce and develop new eco-materials to replace cardboard coating to reduce wax paper consumption, enhance paper surface cleanliness, and reduce pollution
- All products comply with international environmental protection regulations
- 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
- End the use of traditional film by 2030
- Replace traditional plate-making and proofing with digital plate-making to reduce plate making and waste resin

Goals of

2022

- Product test results comply with regulatory requirements
- Optimize the production-marketing monitoring chain every year
- The overseas companies in Vietnam implement the e-Customer Complaint Recurrence Prevention Form
- Promote the standardization project of Corrugated Container Plant
- Customer Satisfaction: 87 marks
- Continuously optimize the Household Products Salesforce CRM customer relationship management platform
- Increase the proportion of inkjet films to replace traditional films
- Increase the proportion of liquid plate-making to reduce the waste resin from solid plate-making

Goals / Action Results of

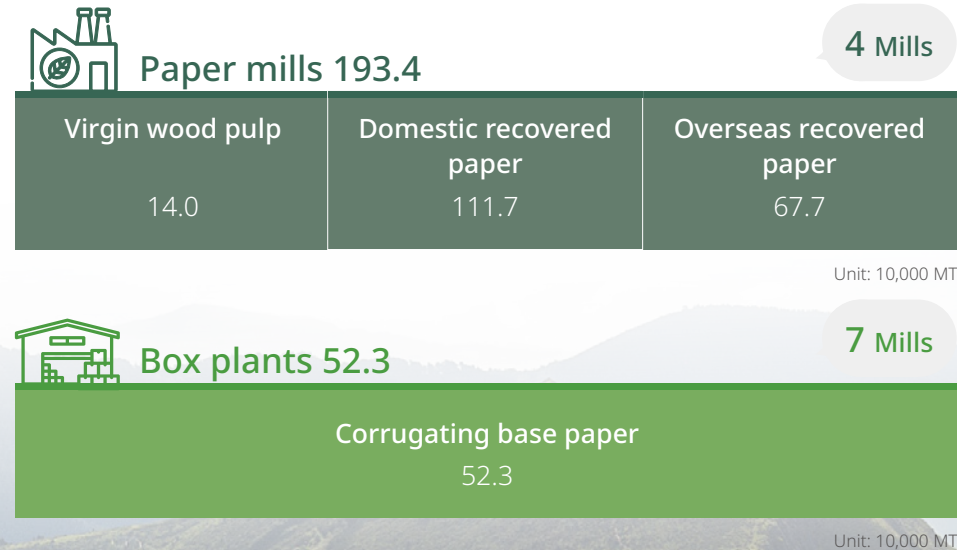
2021

- Product test results comply with regulatory requirements
→ **Acquired hazardous substance test reports and complied with the laws**
- Production-marketing monitoring every year
→ **Completed ISO 9001 and FSC™ external audits**
- Implement the Full Material Declaration (FMD) management-at-the-source model
→ **Completed**
- 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**
- Customer satisfaction survey
→ **86.5 marks, up by 0.5 marks**
- Started the establishment of Household Products Salesforce CRM platform
→ **Launched in December 2021**
- Increase the proportion of inkjet films to replace traditional films
→ **Replacement rate 18% (+8% YoY)**
- Increase the proportion of liquid plate-making to reduce the waste resin from solid plate-making
→ **Replacement rate 2.46%**
- Promoting plastic container reduction with the supply chain
→ **Reduced about 220-260 200 kg plastic drums per year**

2.1 Sustainable Products and Development 2.2 Product Responsibility and Customer Service 2.3 Digital Transformation

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 improve product quality and enhance customer satisfaction through total participation and the PDCA management cycle.

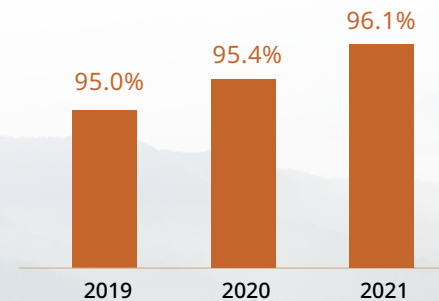
Facing the challenges of the changing global economy and market, CLC accelerates the upgrading and transformation of product development and production management, integrates industry chain partners, and strives to recycle used products into the manufacturing process to form a complete product cycle. 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.



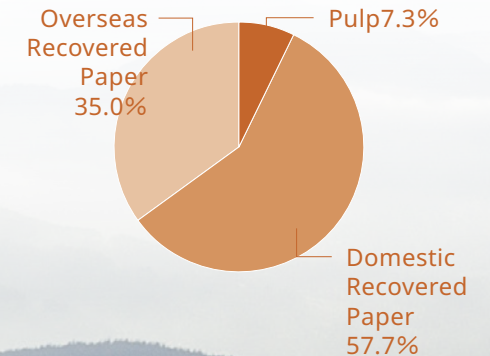
To support the international trend at home and abroad, we have been using recovered paper as the major production material. Besides saving trees, this helps reduce CO₂ emissions, making CLC a model of the circular economy. We are committed to purchasing FSC™ pulps (up to 98.9% of all virgin pulp in 2021) to protect forests.

- 2021
- **92.7% of recovered paper utilization rate**
We used about 1.794 million MT of recovered paper. Two-thirds of recovered paper was purchased locally from Taiwan to effectively promote paper recovery and recycling in Taiwan.
 - **96.1% of recycled materials**
We used raw materials consumption totaled 1.934 million MT including domestic recovered paper of about 1.117 million MT, overseas recovered paper of about 0.677 million MT, virgin pulp of about 0.14 million MT, and other plant materials, such as starch and tapioca; and about 0.076 million MT of non-recycled materials, such as chemicals for papermaking.

Proportion of recycled materials consumption in 2019-2021



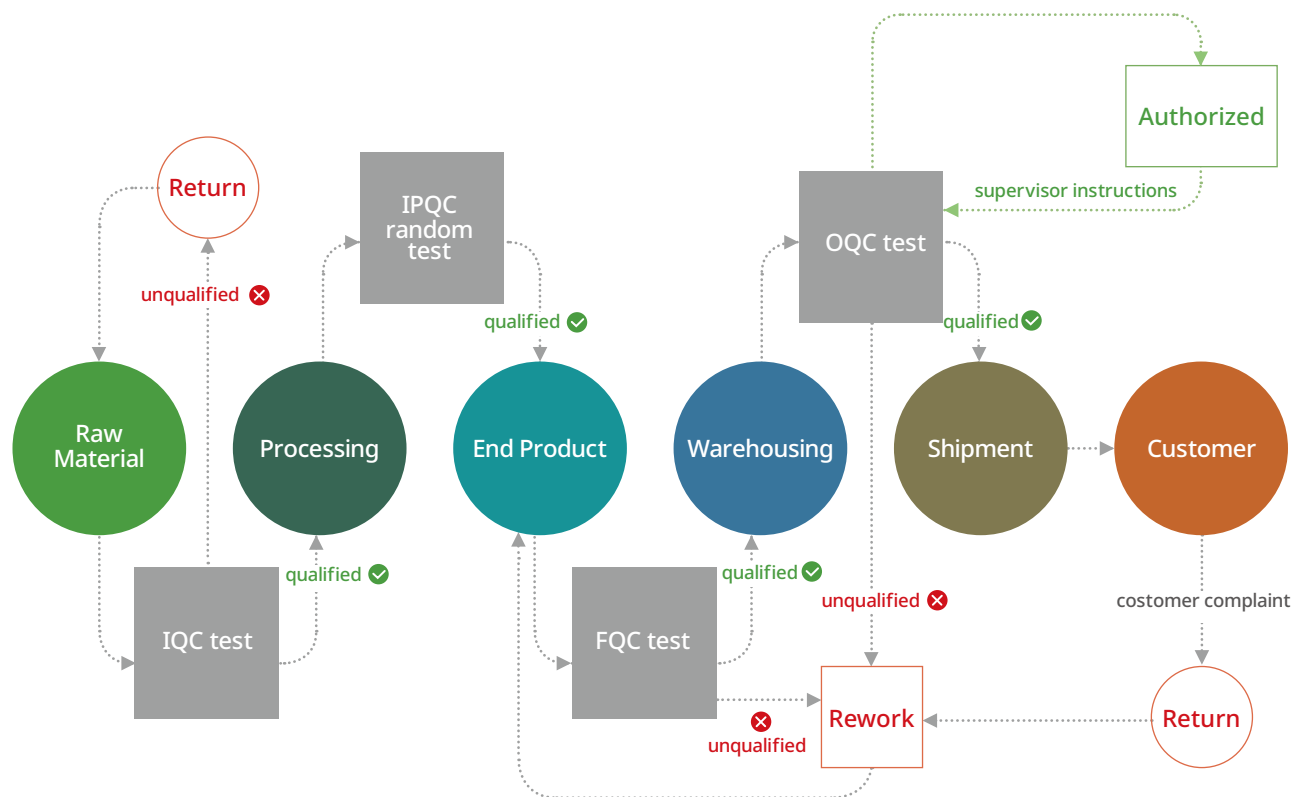
Proportion of materials consumption in 2021



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 2021, CLC products passed all regulatory requirements and conformed to customer requirements. ([Refer to reports](#))

As the REACH (SVHC) testing items have increased from 16 to 219 items over the years, 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.

Annual Inspection of Hazardous Substances

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

Inspection specifications of household paper

Chupeil 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-friendly toilet tissue, paper towel from Chupei Mill are tested for the content of the BPA to ensure consumer safety and worry-free, and the test result in 2021 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.

Plate-making for Reduce and Reuse

With sustainability, environmental protection, and waste reduction as the targets, the CLC Collaborative Technology Center makes recyclable and reusable plates. To achieve paperless operation and paper and ink reduction, the pre-printing group provides the sales unit and customers with electronic color drafts for confirmation. In addition, electronic file matching is also adopted on printing presses to reduce color printing 12000-14,000 A4 sheets a year and also ink consumption, which is eco-friendlier than traditional color draft confirmation.

While traditional film output needs to use developers and fixers which contain heavy metals and toxic chemical substances that require disposal by qualified service providers, we purchased the EPSON film inkjet printer in 2019 to replace traditional film output with inkjet printing to gradually reduce film uses. It is estimated that a total of 10% waste chemical liquids will be reduce each year.

In addition, while solid plate-making produces waste resin that requires recovery and incineration by professional service providers, the annual output of waste resin is about 8-12 MT a year. To reduce waste resin from solid plate-making to achieve waste reduction and recycling, we have specifically imported the "liquid plate casting machine" to replace solid plate making. As unhardened liquid resin is reusable, the recycling of 1MT of liquid resin is equivalent to reduce the production of 1MT of waste resin.

Benefits

Replace traditional films with inkjet films by **18% (+8% YoY)** in 2021

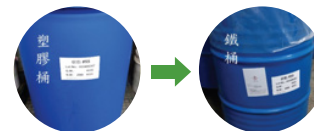
Replace solid plate-making with liquid plate-making by **2.46%** in 2021

Promoting plastic container reduction for zero waste with the supply chain

As major resin suppliers used to contain resin with plastic barrels, we needed to hire qualified contractors to dispose of such containers afterwards. Besides causing additional disposal expenses, those barrels are unable to be recycled or reused. After frequent communication, some suppliers began to replace plastic barrels with reusable metal barrels in 2021 to significantly reduce the disposal of plastic containers and the waste of resources.

Benefits

Reduced about **220-260** 200 kg plastic drums.



Product and Service Labeling

Our household tissue products include toilet tissue, facial tissue, paper towels, dining napkins, kitchen paper, and eco-laundry detergents. Besides passing CNS Mark certification, all products pass the inspection and are approved by the Bureau of Standards, Metrology and Inspection (BSMI) every year, and both product quality and labeling comply with the CNS standards. To make customers have greater faith in and feel safer of CLC products, some products come with a QR Code for consumers to trace their SGS inspection reports. In 2021, no non-compliance with quality specifications and labeling was report in products made and sold by CLC.



Safer with SGS Inspection

Industry-first

QR code for direct access to SGS inspection reports

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.

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 2021.

Customer Relationship

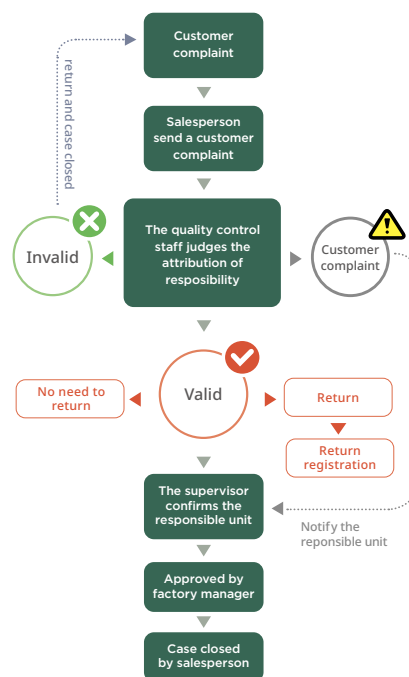
Quality policy: "Total Participation. Quality Maintenance, Customer Satisfaction"

Valuing excellent and stable product quality and implementing environmental sustainability, the CLC factories 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.

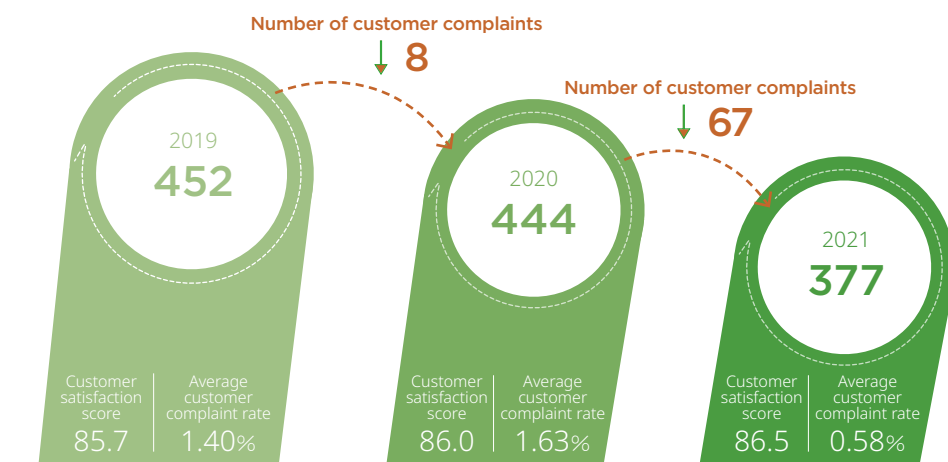
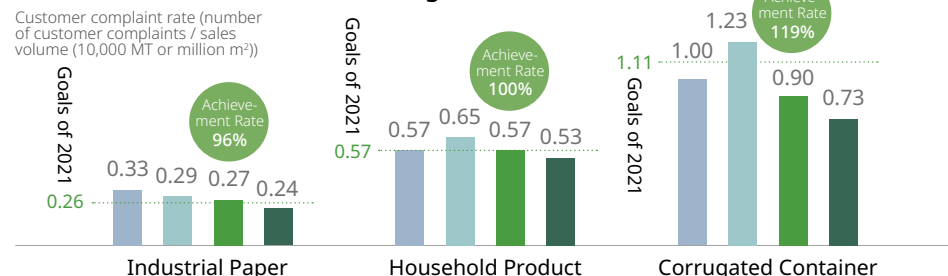
At CLC, enhancing customer satisfaction is the target of the concerted efforts of employees. We have set up a nationwide customer service network for household products, consumers can leave their questions on our corporate website, Facebook and shopping website Aeshop, or call our toll-free 0800 consumer hotline. All consumer questions will be answered shortly by our professional staff.

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 Complaints Handling Procedure



Comparison of Customer Complaints Rate by Product (2019-2021) and 2022 Target



into the Salesforce CRM customer relationship management platform to master customer needs and relationship management, improve work efficiency and marketing effectiveness, and improve customer satisfaction, and will continue to optimize in 2022. In order to strengthen and stabilize the quality of products, we plans to introduce the standardization project in Corrugated Container Plant in 2022 to improve customer service and satisfaction through standardized management of machines.

In 2020, the Container Box Division implemented the e-quality anomaly order system. In 2021Q4, the e-quality anomaly order system was expanded to the Containerboard Division, Household Products and Paperboard Division, and the additional function of quality abnormality order was added. In December 2021, Household Products and Paperboard Division have been imported

We conduct a customer satisfaction survey every year and set a mid- and long-term goal of 88 satisfaction scores in 2030, and implement countermeasures or items with a lower score. In 2021, the customer satisfaction score increased by 0.5 to 86.5. In average customer complaint rate, the customer complaint rate of industrial paper, household tissue, and container boxes also decreased compared to 2020.

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.



Goals of

2030

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

Goals of

2022

- Plan 5 smart paper projects and continue to promote intelligent production and sales

Goals / Action Results of

2021

- Complete 7 smart paper projects
 1. New Smart Plant in Yenchao
 2. Houli Mill G1 and G2 Cogeneration Systems
 3. Digital IPQC System Platform (3-Year Plan)
 4. Salesforce CRM System
 5. Industrial Paper Sales Demand Prediction
 6. Power BI System Implementation
 7. Tablet Stock Positioning System Construction

CLC: The first 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 2003 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 first 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. By 2021, CLC has completed the promotion of 12 projects, including smart factories, smart steam and electricity, digital IPQC, Salesforce CRM customer management, 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.

Build the intelligent system, with the IoT process, achieve fully automatic and intelligent integrated connection, improve production efficiency, product quality, quickly serve customers, and improve operational efficiency through an automated and visual integrated system.

In 2021H1, the Yenchao Plant started operations to become Taiwan's first smart, low-carbon container box plant. Besides a large area of rooftop solar panels, the plant also introduced the dual-blade scheduling, full-automatic production lines, and smart warehousing and logistics to significantly enhance the efficiency of processing, logistics, and delivery of container boxes and thereby upgrade the manufacturing of paper containers and packaging materials in Taiwan.



Yanchao Plant – Taiwan's first low-carbon, smart box plant

Features

1. Introduced the world's most advanced BHS 2.8M double-knife corrugator to double production efficiency by producing products for two orders at the same time.
2. Fully automated scheduling and smart quality inspection system shorten materials preparation lead-time, enhance product quality, and reduce labor.
3. AI automated logistics and intelligent warehousing through remote control to maximize capacity with the least labor.
4. Predictive maintenance through big data management to minimize downtime and dissipation.

Results

1. increase man-hour productivity.
2. Enhance production efficiency, save energy, and reduce carbon.
3. Improve customer service and enhance customer satisfaction.

Smart Papermaking 4.0

Strategy

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



Smart Manufacturing

The device adopts the IoT function: Through information integration, we can instantly control the machine status, ensure product quality, and use energy resources best.

- ➔ OSI smart management platform, digital IPQC, smart steam and electricity, and data analysis of parking time of corrugator



Smart Services

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

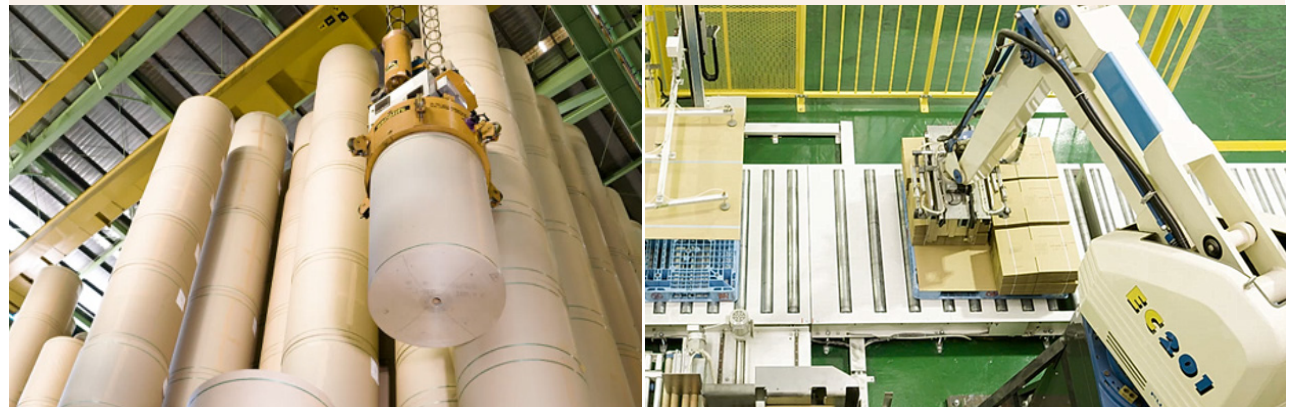
- ➔ Industrial Paper Sales Demand Prediction
- ➔ Salesforce CRM system
- ➔ Corrugated container sales APP, industrial paper demand forecast, and instant Inventory check APP



Smart Logistics

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

- ➔ Smart warehousing and logistics



CLC Digital Management Process

All digital technologies (AI, big data, cloud, IoT, 5G) are combined to assist with production (knowhow inheritance), implement monitoring and management (preventive warning), and engage in process optimization and performance enhancement.

- Improve the total energy efficiency of the power system, and connect CEMS for real-time monitoring and early warning
- Optimize paper machine operation and process optimization to improve the overall equipment effectiveness
- Equipment management, paper machine breakage prediction monitoring, equipment operation health monitoring, system active exception elimination
- Integrate marketing, production, logistics to smart production-marketing, enhance shipping efficiency and customer satisfaction.

Highlights of 2021

Intelligent warehousing for box plants: Stock positioning system of corrugated boards

- | | |
|--------------------|---|
| Problem | Locating the correct products for shipping is the biggest challenge to logistics. As the space of Panchiao Plant is limited, corrugated boards of minor orders are stacked at random, and drivers need to spend 1–2 hours to locate the exact location of the required corrugated boards. |
| Features | <ol style="list-style-type: none"> 1. Implement ultra-wideband (UWB) wireless positioning to accurately locate the corrugated boards pending shipping. 2. Help drivers to quickly locate the corrugated boards required for shipping. |
| Results | <ol style="list-style-type: none"> 1. Enhance shipping efficiency and avoid warehouse congestion from affecting production efficiency. 2. Accelerate shipping to enhance customer satisfaction. 3. Enhance the work efficiency of drivers to shorten working time, enhance transportation logistics efficiency, and raise shipping achievement rate. |
| Future plan | Promote to other plants and mills and integrate with other applications to upgrade traditional box plant warehousing into intelligent warehousing |

2019 | Completed 2 projects

- Houli Mill G3 Cogeneration System
- Chupei Mill TM16 Household Tissue Machine

2020 | Completed 3 projects

- Houli Mill BM10 Industrial Paper Machine
- Chupei Mill TM15 Household Tissue Machine
- Developed Container Box Sales APP

2021 | Completed 7 projects

- New Smart Plant in Yenchao
- Houli Mill G3 Cogeneration Systems (Continue to optimize)
- Digital IPQC System Platform (3-Year ongoing plan)
- Salesforce CRM System (Completed and continue to optimize)
- Industrial Paper Sales Demand Prediction (Completed)
- Power BI System Implementation (Completed and continue to optimize)
- Tablet Stock Positioning System Construction (Completed and continue to optimize)

2022+ | Go full steam ahead with digital transformation

- Continue to optimize the project outcomes in 2021 and extend to all plants and mills at home and abroad.
- Construct phase III of Smart Paper 4.0 (Tayuan, Houli, and Chupei)
- Improve production and logistics management through AI.
- Build the production information platform of printing press
- Quality inspection of corrugator zone-marking defects of corrugated boards
- AR guided system: Education training, equipment maintenance, logistics and warehousing, and integration of DCS data display.

03

Sustainable Supply Chain

Implement green supply chain management, secure competitive material sources, constantly encourage and guide suppliers achieve sustainable development, transformation, and upgrading.

3.1 Supply Chain Management

3.2 Green Procurement

- ✓ Organized the 2nd CLC Supplier ESG Conference to create sustainable supply chain
- ✓ Recovered Paper Supply Chain Upgrading Program
Guided **8** recycling suppliers to complete transformation and upgrading (Accumulated)
Cared **151** frontline individual waste collectors (Accumulated)
- ✓ Completed **28%** of major suppliers on-site evaluation (Accumulated to 88 suppliers)
- ✓ **399** major suppliers signed "Supplier Code of Conduct"
- ✓ Green procurement ratio at **41.1% +7.6%** YoY
All factories won Excellence in Green Procurement by the EPA

3.1 Supply Chain Management

Material Issues Supply Chain Management

Strategy

Enforce sustainable supply chain management and ensure competitive material sources and service quality.



Goals of



- Disperse supply chain sources, and the proportion of single suppliers does not exceed 50%
- Local procurement ratio up to 75%
- Higher quantity of local procurement than that of competitors
- Commend outstanding green suppliers through the supplier conference and related platforms
- On-site supplier evaluation: 100%

Goals of



- Implement ESG evaluation on major suppliers
- Perform supplier ESG risk assessment and management
- Local procurement ratio up to 65%
- Organize major supplier conferences and 2 supplier HSE education/training activities
- On-site supplier evaluation: another 68

Goals / Action Results of



- Implement ESG evaluation on major suppliers
→ **Completed ESG evaluation on 399 suppliers**
- Perform supplier ESG risk assessment and management
→ **Advanced supplier evaluation data and enlarge ESG check point**
- Local procurement ratio up to 72%
→ **Ratio at 61.5%, resulted from rising price of global raw material, driving the amount of foreign procurement to increase**
- Organize major supplier conferences and 2 supplier HSE education/training activities
→ **Organized online ESG Conference for 2 consecutive years, with the participation of 236 major suppliers and commend 15 excellent suppliers**
→ **Organized 7 education and training activities for 132 suppliers**
- On-site supplier evaluation: another 57
→ **Though impacted by COVID-19, still completed 42 suppliers evaluation and accumulated to 88 suppliers (Achievement rate= 28%, higher than target= 20%)**

3.1 Supply Chain Management 3.2 Green Procurement

Building Sustainable Ecosystem, Pursuing Common Good of Industry

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. To ensure the supply chain's ESG capability, we also hold supplier conference to facilitate conversation.

We organized ESG Conference for two consecutive years and shared the trend and development of ESG online. Focusing on climate adaption and sustainable strategies, we promise to build up the sustainable ecosystem thorough circulation economy, employee development, and social communion.

CLC 2021 ESG Supplier Conference Save Energy and Reduce Emission with Suppliers to Help Taiwan Achieve Net-Zero Emission in 2050

In response to the global urge for net zero emissions, besides focusing on topics including net zero emissions, digital transformation, and talent competence, at the 2nd CLC Suppliers ESG Conference (2021), we further set the green procurement amount at 45% and local purchasing amount at 75% as our ESG goals for 2030 in order to enhance the supply chain's sustainable competitiveness, strengthen the climate sustainability and resilience of local partner suppliers, and raise their awareness of risk management. A total of 236 suppliers participated in the conference with a supplier satisfaction of 4.8 out of 5 points.

Procurement Policy and Rick 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 and constantly publicize the "Integrity and Non-Disclosure Agreement". To follow the global trend and industry development, CLC renamed the agreement to "Supplier Code of Conduct" in 2021, reinforcing the health & safety, recruitment conditions,



To pursue the common good of the industry and society, we selected 15 partner suppliers with outstanding performance in "responsible production", "green procurement", "energy conservation and carbon reduction", and "employee care" through on-site evaluation and commended them at the ESG conference. In the future, we will adjust the evaluation criteria through rolling reviews to enhance overall competitiveness in collaboration with supply chain partners.

environment and energy conservation, energy efficiency, banned substances to enhance supply risk management into the agreement and asked all of the major suppliers to sign it. A total of 399 suppliers signed the agreement in 2021 and all new suppliers in 2022 are also required to sign the agreement. In 2021, we maintained cooperation with 399 major suppliers (annual purchase amount over NT\$10 million), with purchases mainly including raw materials, manufacturing, energy, chemicals, equipment and construction projects.

Raw Materials 233 Suppliers	Manufacturing 103 Suppliers	Others 63 Suppliers
Pulp: 7	Energy and fuel: 9	Materials: 39
Imported recovered paper: 39	Equipment and accessories: 26	Transportations: 4
Domestic recovered paper: 153	Contractors: 68	Others: 20
Chemicals: 34		



 Director, CLC Procurement Department
Chun Long Jian

"As the leader of Taiwan's paper industry, it is our responsibility to lead supply chain partners to constantly optimize various ESG aspects: low-carbon products, innovation and application, responsible production, employee development, and social inclusion to build a steady supply-chain ecosystem."

3.1 Supply Chain Management 3.2 Green Procurement

Supplier Chain Management Guidance

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

- ✓ Improve friendly workplaces with the ESG 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 ESG internally and externally, and compile ESG 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 close 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.

Major Suppliers On-site Evaluation

In 2020, we began 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

Building the Supplier Evaluation Mechanism



New Suppliers Development

CLC developed "Supplier evaluation regulations" to ensure the equipment, service and product quality, delivery time, flexibility could meet the procurement and price policy of company. 100% of new suppliers in 2021 completed the environment and social evaluation.

Annual Suppliers Evaluation

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 three grades: 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	64 \geq TTL	Disqualification, cessation of procurement.

suppliers for evaluation each year to achieve **evaluation on all important suppliers by 2030**. In 2021, we completed on-site evaluation of 42 suppliers to a total of 88 suppliers (28%) over the past two years. Although physical evaluation was reduced on suppliers because of the pandemic, the 20% target was achieved. The outcomes of the 2021 evaluation included 30 excellent suppliers, 11 grade A suppliers, 1 grade B suppliers, and no grade C suppliers. To expand the sustainable capacity of the supply chain, we will continue to plan and implement on-site audit each year and keep optimizing the evaluation indicators with reference to the industry's status and actual supplier performance. We will also provide guidance for suppliers with lower grades in order to promote sustainable operations and management.

	Excellent	A	B	C	Number of evaluated suppliers
2020	28	8	8	2	46
2021	30	11	1	0	42

*Suppliers On-site Evaluation-Annual Evaluation Results

3.1 Supply Chain Management 3.2 Green Procurement

Evaluation and commendation of outstanding suppliers

In 2021 we organized the 1st Outstanding Supplier Selection. After selecting suppliers with outstanding performance based on the annual evaluation, the list of outstanding suppliers of the year was determined through the preliminary, semi-final, and final evaluations. Winners were commended at the annual supplier ESG conference. In the future, we will constantly adjust the evaluation mechanism through rolling reviews based on the international trends and industrial movements to encourage supply chain partners to aim at a better future.

Four Indicators of Evaluation



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 2021, we organized 7 sessions with the participation of 132 suppliers.



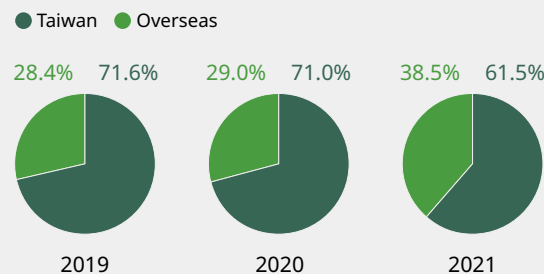
CLC's Suppliers/Contractors ESH Management Guidance:

Safety First	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.
Product Regulatory Compliance	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.
Energy Efficiency First	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.

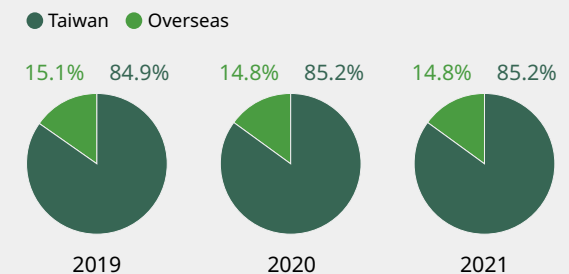
Support for Local Procurement

To pursue the stability and localization of the supply chain, we prioritize the use of Taiwan local suppliers and set the ratio of local procurement at 75% as mid- and long-term goal. Besides shortening the delivery time and reducing transportation risk, we can also benefit local enterprises and thrive domestic economic development. We take rolling adjustment for managing the local suppliers. The local supplier ratio was 85.2% and the amount of procurement increased by 23% vs LY. However, impacted by COVID-19 and shortage of sea shipping container, the price of raw materials rose dramatically, driving the amount of overseas procurement increased significantly. As a result, the local procurement ratio was 61.5% and declined by 9.5% vs LY.

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

Toward low-carbon and green procurement and build a green, sustainable supply chain



Goals of

2030

- Green procurement ratio at 45%
- 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

- FSC™ pulp ratio at 98%
- Full use of FSC™ products

- Recovered paper supplier transformation, increasing multiple recycled material sources

Goals of

2022

- Green procurement ratio at 42%
- Implement procurement projects relating to green procurement and purchase products and equipment certified by the Energy Label and the Green Mark
- Recovered paper utilization rate of industrial paper >97%
- Strengthen recovered paper sorting and quality and reduce impurity rate

- FSC™ pulp ratio at 98%
- Implement sustainable forest stewardship and practice ecological conservation

- Complete the guidance of 2 recovered paper suppliers to upgrade
- To encourage recovered paper and other suppliers to improve operation model base on sustainable management

Goals / Action Results of

2021

- Green procurement ratio at 35%
→ **Ratio at 41.1%, +7.6% YoY**
→ **All factories won Excellence in Green Procurement by the EPA**
- Recovered paper utilization rate of industrial paper >97%
→ **Recovered paper utilization upto 1.794 million MT, recovered paper utilization rate of industrial paper at 97.4% (+0.4% YoY)**
- Strengthen recovered paper sorting and quality
→ **Reduced residual waste from 10-13% to 6%**
→ **Added 12 new waste food paper container suppliers, with a total of 48 suppliers so far**
→ **Cooperated with KOL, media and government, and produced 8 videos from 2020-2021 to promote sustainability education toward society and influenced over 1M persons**
- FSC™ pulp ratio at 90%
→ **Ratio at 98.95%**
- Complete the guidance of 2 recovered paper suppliers to upgrade
→ **Guided 2 suppliers in 2021 and accumulated to 8 suppliers so far. Recycling quality and volume both raised up**
→ **Cared 151 front-line waste collectors (Accumulated) and donated 3 collectors through foundation**

3.1 Supply Chain Management 3.2 Green Procurement

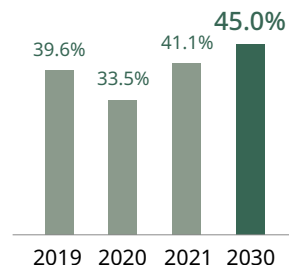


Promoting Green Procurement

To support national policies, connect with international trends, and practice SDG: "Promote the green economy, ensure sustainable consumption and production patterns", we actively implement green procurement according to the CLC's green procurement related SOPs to actively prioritize the purchase of raw materials, plant facilities, and office supplies certified by the Green Mark, Energy Label, and FSC™ to reduce environmental impact. In 2021, we used 1.794 million MT of recovered paper, with the utilization rate up to 92.7% (in terms of industrial paper was up to 97.4%), increasing by 0.7% vs LY (Industrial paper: +0.4%). FSC™ annual procurement ratio reached 98.95% and greatly surpassed target 90%, showing ambition of pursuing biodiversity.

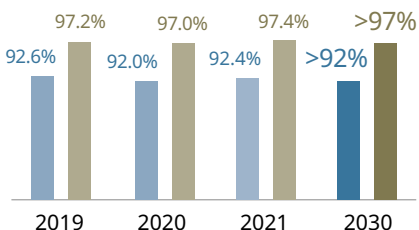
To achieve the circulation and waste reduction, CLC set the target ratio of green procurement at 45% in 2030 and continuously to increase the amount of green procurement and reached NT\$8.86B in 2021 (41.1% of total procurement, +7.6% YoY). We maintained leading green procurement performance among local cooperation and all factories were awarded Excellence in Green Procurement by the EPA and outstanding green procurement certification by local governments.

Green Procurement Ratio

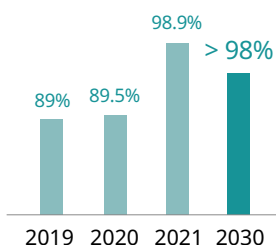


Recovered Paper Utilization Rate

● Recovered Paper ● Industrial Paper



FSC™ Pulp Ratio



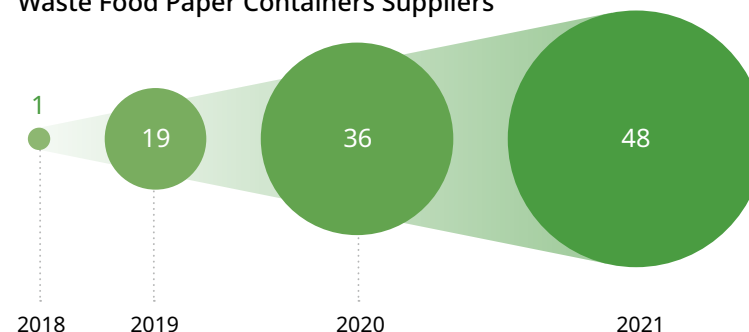
※2020: CLC's total amount of green procurement declared to the EPA / total amount of procurement *100%

Green Circulation Paper Supply Chain Upgrading Program

At CLC, we put the circular economy as an important corporate development target. In 2021, we recycled around 1.117 million MT of domestic recovered paper accounting 40% of domestic recovered paper with the largest scale in Taiwan. However, recovered paper in Taiwan usually mixes with 10-13% of household waste (e.g. plastics, hemp ropes, and waste food paper containers). To enhance the local recovered paper quality in line with the international standard and competitiveness of supply chain, we planned three stages of "counseling period, observation period and replacement period" for 90 recovered paper suppliers in Taiwan, including promotion and communication, revision of procurement guidance for recovered paper, to introduce the first "Recycled Paper Moisture Analyzer" in Taiwan and e-platform. We also targeted to support 2 supplies to upgrade to reduce impurities and waste from the source. In second half of 2020, we even advanced the plan by promoting repeatedly, monitoring the execution status, visiting front-line individual collectors and donating those with difficulties by Cheng Huotien Charity Foundation.

In 2021, we successfully guided eight focused recycling companies to implement transformation to reduce paper sludge by 50% with innovative technology, the number of suppliers of waste food paper containers also increased to 48 to form the local purchase and recovery supply chain ecosystem. In addition, we also expanded the social care and environmental influence through the industry's capacity to care about 151 waste collectors cumulatively and made videos on food paper containers issues in collaboration with key opinion leaders (KOLs), the media, and local governments.

Waste Food Paper Containers Suppliers



Expanding influence on sustainability with the video Recycle for Better Circulation

To encourage consumers to understand the issue of sustainability. During 2020–2021, we made eight videos on the recovery and recycling of food paper containers to communicate the message "Recycle for Better Circulation" to the public through multimedia.

The video Electricity from Waste Meal Boxes: Transforming Waste Food Paper Containers made in collaboration with Taiwan Taikē Story, a KOL of environmental issues, investigating the creative solutions of meal boxes for takeaway orders with explosive growth successfully stimulated echoes from the youth generation, reaching over one million persons through social media.

2021

- 12/09 Waste paper containers into regenerated fuel? Exclusively releasing of "secret weapon"
- 11/28 The Secrets of Paper Containers
- 11/04 Promotional Video of Used Paper Container Recycling
- 10/08 How Does the Lunch box Generate Electricity? Transformation of Used Paper Container

2020

- 08/13 Beautiful Cycle x CLC 60 - Environment Friendly
- 06/14 Zero Journey- The Cycle of Used Paper Container to Achieve Zero Waste
- 05/27 National Chengchi University Newspaper-Unexpected "epidemic" Environmental Crisis in the New life of Epidemic Prevention
- 04/20 Where is the Plastic Going? Used Paper Containers Turned into Eco-friendly Toilet Paper



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.

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.

04

Environmental Sustainability

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 Resources
- 4.6 Biodiversity

First Taiwan papermaker rated top at TCFD verification

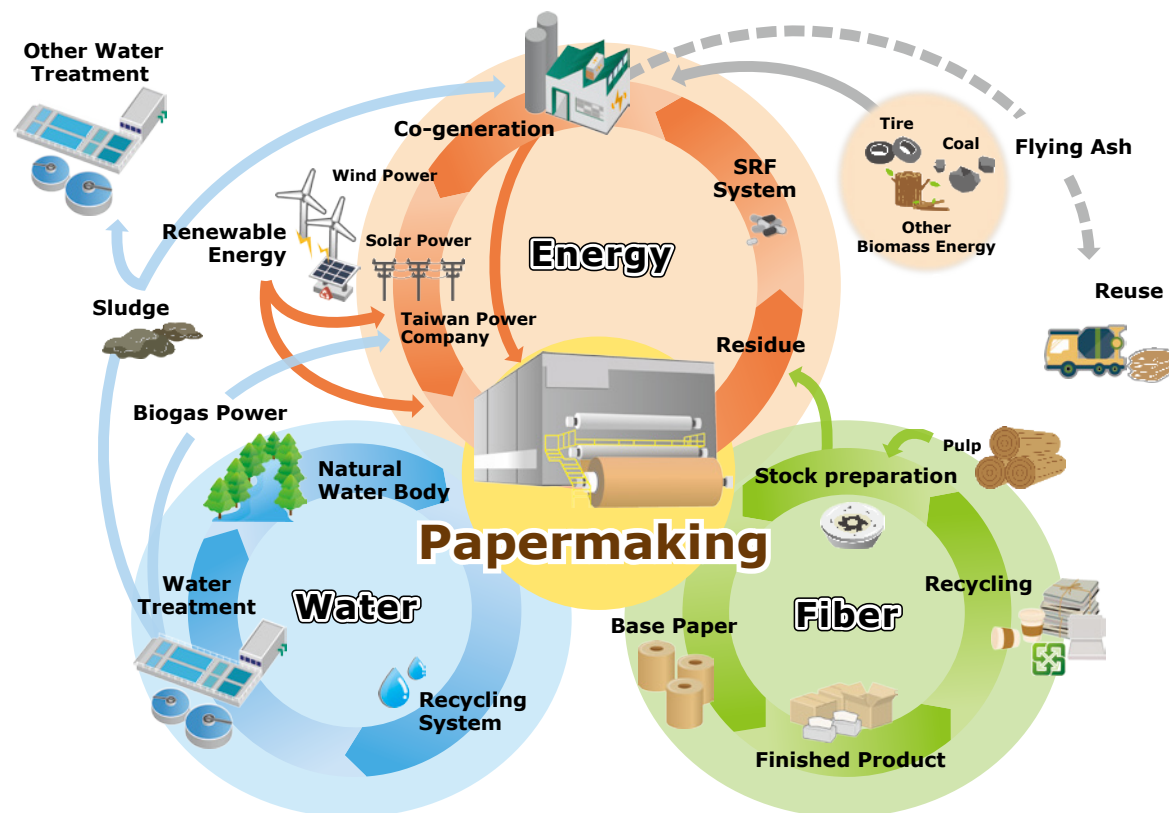
Awarded Taiwan Circular Economy Excellent Enterprise by Environmental Protection Administration (EPA) for three times

- ✓ Recycled **1.794** million MT of recovered paper
92.7% recovered paper utilization rate
- ✓ **387** energy conservation projects to save electricity by **81.69** GWh (2013-2021)
- ✓ **92.4%** Waste-to-resources ratio
6.51% Alternative fuel ratio
Replacing **39,100** MT coal
- ✓ **-11.9%** Unit product water consumption (Containerboard Division)
- ✓ NOx、SOx、TSP reduced **>20%**
Continue to improve air quality
- ✓ Success in Chaxi River restoration in Tayuan

CLC Resource for Total Circulation

Implementing sustainable business operations and abiding by laws and regulations related environmental protection, the Company continues to increase environmental protection investment and expenditures. Through process improvement and promotion of 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 promote low-carbon smart paper. Since the establishment, CLC improved the overall efficiency of the three major resources of products, energy and water with large-scale recycling technology and set short-, medium- and long-term goals to continue to improve. In 2021, we recycled 40% of recovered paper from Taiwan at an annual conversion rate of up to 92.7%, with an overall waste-to-resources ratio of up to 92.4% and water recycling rate of up to 96% to reduce carbon for Taiwan of over 10.4 million MT each year with the largest scale of waste recycling in Taiwan. Through the recycling of resources, we provide green products and low carbon package which could help reduce carbon footprint and fulfill the corporate social responsibility.



Product Recycling

Goals of 2030
Recovered paper utilization rate (industrial paper) **>97%**

The paper industry is the most environmentally friendly industrial chain. 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
Alternative fuel ratio **20%**
Waste-to-resources ratio **96%**

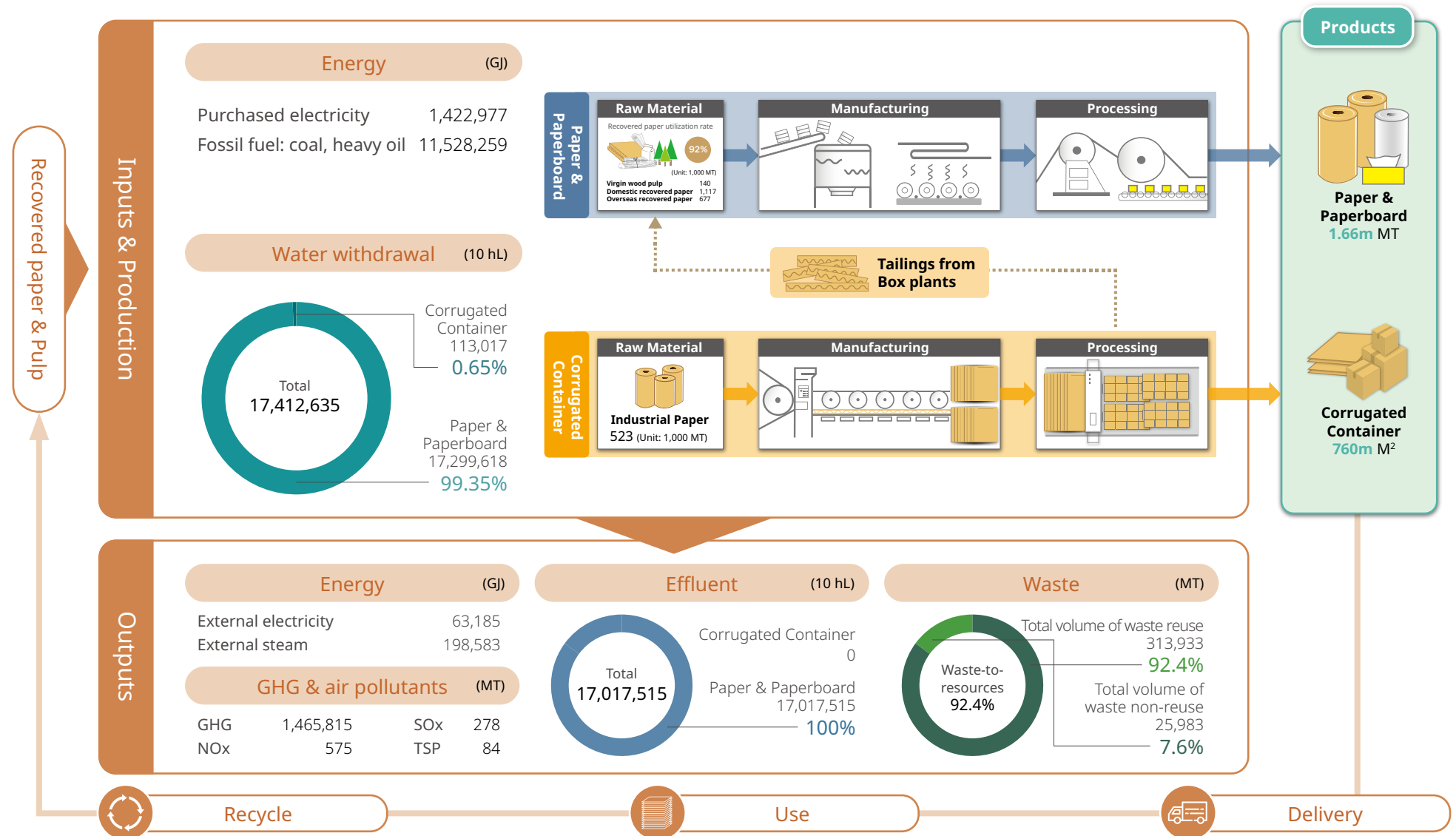
Committed to energy integration and application in order to improve energy efficiency, continue to invest in cogeneration of steam-electricity, develop wind power and biogas power generation, promote the recycling of process residual materials and increase the ratio of alternative fuels. Through cross-industry 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.

2021 CLC Raw Material Flow Chart



Note: Taiwan Area

4.1 Action for Climate Change



Material Issues

Action for Climate Change

Strategy

Plan four 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.

Goals of



- GHG -30% (base year: 2018)
- Establish short-, medium-, and long-term carbon reduction pathways towards a carbon neutrality in 2050

Goals of



- GHG -2% (base year: 2018)
- Overseas companies established ISO 14064-1 GHG inventory management system
- Tayuan Mill - GHG offset project certification by EPA
- Reply to CDP climate change questionnaire

Goals / Action Results of



- GHG -1.5% (base year: 2018)
→ GHG increased by 1.87% due to the renovation of the BM1 paper machine of Tayuan Paper Mill, the growth of market demand in the first half of the year and the coordination with the government to stabilize packaging for daily necessities, which caused industrial paper production volume raised by 4.39%
- Implement Scope 3 GHG inventory
→ **Completed**
- Plan to implement the TCFD Project
→ **Completed and rated top at TCFD verification as the first Taiwan papermaker**
- Application for GHG offset to EPA of Tayuan Mill
→ **Completed the monitoring report and will conduct third-party verification then apply for the offset**
- Established the "Climate Change and Circular Economy Office" to deepen the blueprint for a full circular economy
- Annual sales of 56 million packs of low carbon household products and contributed GHG emission reduction by 1,569 tonnes of CO₂e

Our climate has been deteriorating in recent years, and the world has entered a critical moment of climate disasters. According to the Global Risks Report published by the World Economic Forum (WEF) in 2022, three of the five risks that are most likely to occur are climate-related environmental risks, including "climate action failure," "extreme weather," and "biodiversity loss."

We keep track on climate change adaptation strategies over time to mitigate the impact from climate change. To realize business sustainability, based on the sustainable development strategy: Together for a Greener Future, we began to publish our sustainability report in 2013 to enhance ESG disclosures and communication. In addition to integrating the Governance 3.0– Sustainable Development Roadmap of the Financial Supervisory Commission (FSC) to business development and including it in our sustainable development goals, we also implemented the framework of the Climate-Related Financial Disclosures announced by the Task Force on Climate-Related

Financial Disclosures (TCFD) in 2020. Further on the following Earth Day, i.e., April 22, 2021, we signed up to become a TCFD supporter to demonstrate to stakeholders and ensure our adaptability to climate risks in terms of four core elements: governance, strategy, risk management, and metrics and targets; transform the climate change strategy into a key competitive strength; and actively seek solutions to mitigate climate change. In return, we received the first highest-level TCFD certificate in the paper industry to complete advanced deployment in the FSC's Governance 3.0.

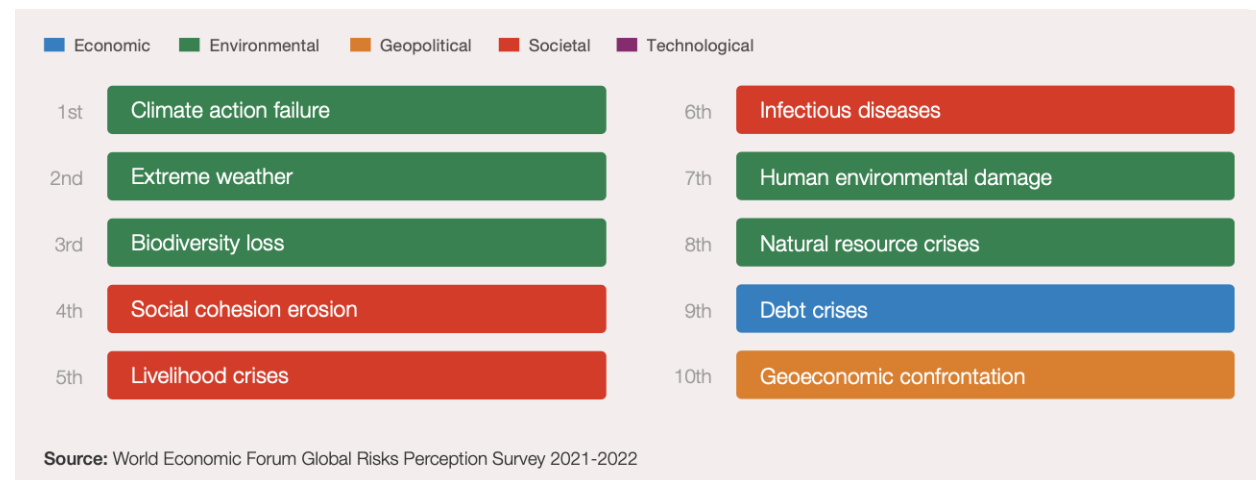
According to COP26, the circular economy is key to carbon neutrality, and the paper industry is the typical circular as we make paper with recovered paper and FSC™ pulps. Adhering to the "zero waste" core value, we began to develop high efficiency, scaling up recycling technology a long time ago. By making over 90% of products with recovered paper and residual materials, we aim to provide the market with a green option and build in the local environmental a carbon neutrality

pathway that is friendlier than the forest-pulp-paper integrated process featuring "felling before forestation" as practiced in foreign countries. Based on the TCFD framework, we have also identified material climate-related risks and opportunities and defined medium- and long-term ESG strategies and goals to actively engage in zero-carbon transformation.

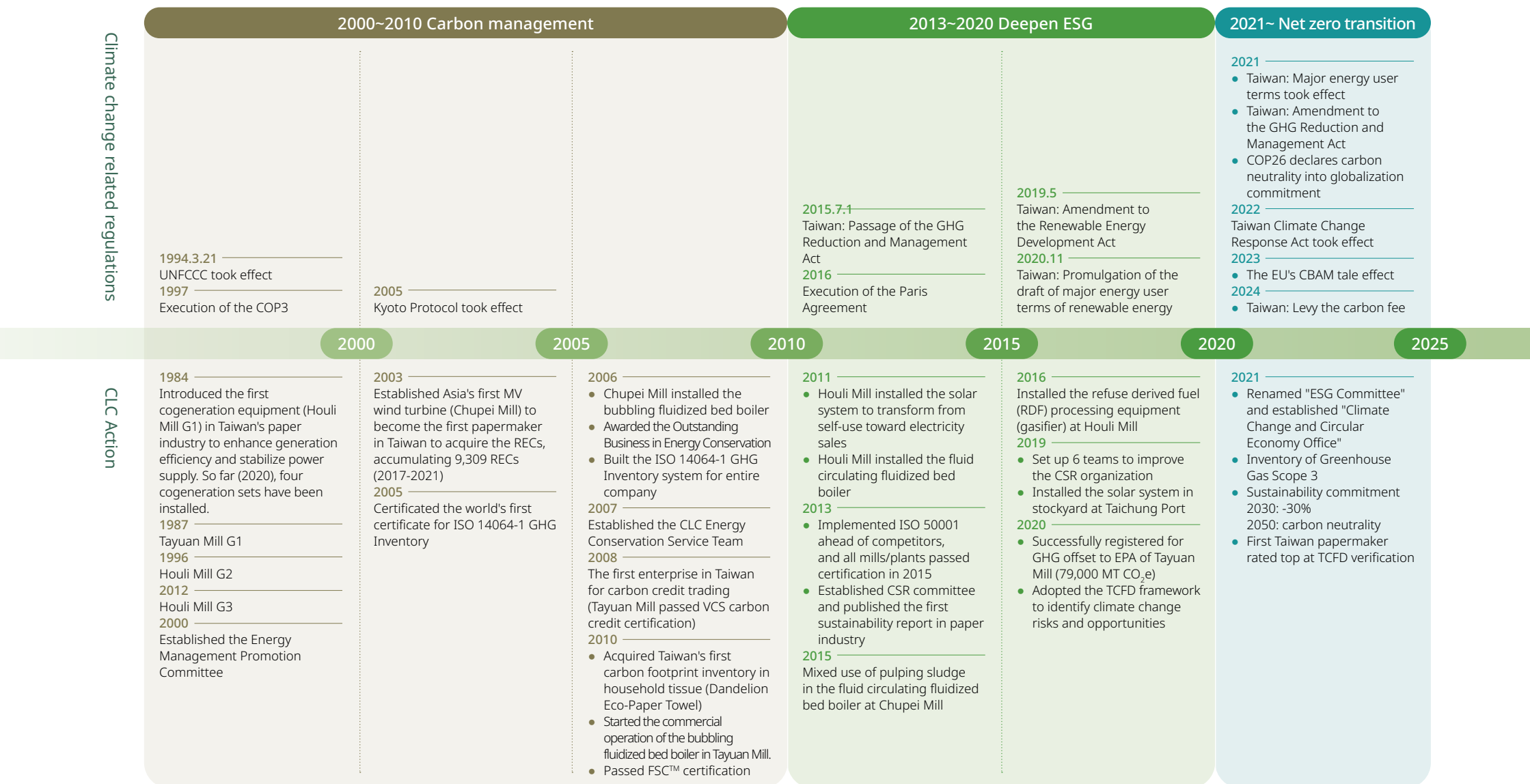
To constantly comply with international initiatives, improve the management quality of the carbon disclosure program (CDP), after implementing TCFD and setting the criteria for the climate governance database, we will activate the response to the CDP Climate Change Questionnaire in 2022 to fully capture the environmental impact of the overall value chain, implement the benchmark management of the net zero target, and actively respond to stakeholders by evaluating the reviewing the level of climate governance.

※ For more information, please refer to sustainable practice: "CLC: First Taiwan Papermaker Rated Top at TCFD Verification" (p.10-13)

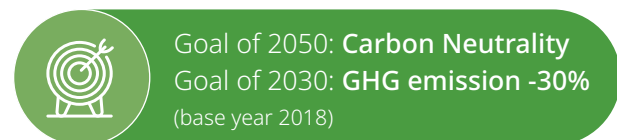
World Economic Forum (WEF) - Global Risks Report 2022: Top 10 crises for the next 10 years



CLC Important milestones on climate governance



Greenhouse Gas Management



In the face of the challenge of global climate change and in order to support the national long-term goals of reducing greenhouse gas emissions, CLC Tayuan Mill took the lead to participate in the preliminary project of the Industrial Development Bureau and implement the ISO 14064-1 GHG management system in 2004 and successfully obtained the world's first ISO 14064-1 GHG inventory certificate. Since 2006, CLC has built the GHG inventory system for entire company based on the successful experience at the Tayuan Mill, by setting GHG emission management policies and targets for each mill/plant, CLC effectively suppress GHG emissions.

CLC's GHG Emissions (Scope 1)

Unit: MT CO₂e

GHG Type	2019	2020	2021
CO ₂	1,113,799	1,103,137	1,150,174
CH ₄	36,943	32,071	18,866
N ₂ O	5,061	5,063	5,308
HFCs	215	252	234
PFCs	0	0	0
SF ₆	0	0	0
NF ₃	0	0	0
Total	1,156,017	1,140,522	1,174,581

Note: Taiwan Area

In line with the national net zero emission target, we have set the reduction targets for 2030 and 2050 at 30% and carbon neutrality respectively over 2018, and have practically proposed four scientific carbon reduction paths: energy efficiency

improvement, regeneration energy development, deepening circular economy low-carbon fuels, innovatively applying negative carbon emission technologies, and actively responding to global carbon reduction trends and corporate green energy transformation goals. In 2021, CLC's total GHG emissions increased 52,870.915 tCO₂e over 2020 to 1,465,815.305 tCO₂e. Due to the renovation of the BM1 paper machine of Tayuan Paper Mill, as well as the growth of market demand in the first half of the year and the coordination of the government to stabilize people's livelihood packaging materials, the output of industrial paper increased. In 2022, CLC will continue to promote various projects and move towards the short-, medium- and long-term carbon reduction goals.

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 MT CO₂e). We also completed the monitoring reports and collected related data in 2021. Then, we will conduct third-party verification and apply for 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.

CLC's GHG emissions statistics

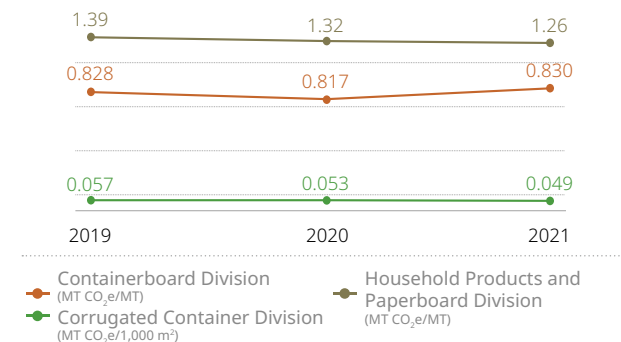
Unit: MT CO₂e

	2019	2020	2021
Scope 1	1,156,016.9838 (81.4%)	1,140,522.3739 (80.7%)	1,174,581.0889 (80.1%)
Scope 2- TYC	132,171.9311 (9.3%)	138,680.2890 (9.8%)	162,368.9918 (11.1%)
Scope 2- TPC	131,486.9430 (9.3%)	133,741.7267 (9.5%)	128,865.2244 (8.8%)
Total (Scope 1+ Scope 2)	1,419,675.8579 (100%)	1,412,944.3896 (100%)	1,465,815.3051 (100%)
Scope 3	—	265,918.3757	280,951.2716
Biomass GHG	49,546.5231	42,168.7640	39,674.7210
ISO 14064-1 third-party assurance	Passed (Scope 1 & Scope 2)	Passed (Scope 1~Scope 3)	Expected to complete by August 2022 (Scope 1~Scope 3)

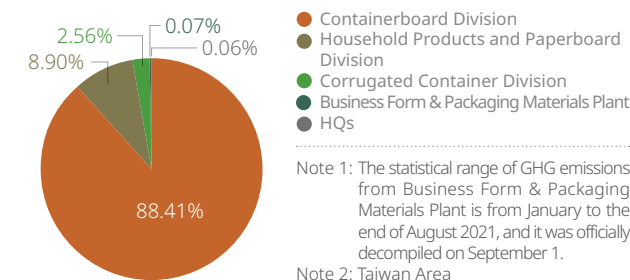
Note 1: In 2021, we have identified Type 3-6 indirect GHG emissions in 2020 (including upstream logistics, purchased products, solid and liquid waste treatment, and leased assets) according to the new version of ISO 14064-1:2018 GHG inventory standard. The estimated total GHG Scope3 emissions in 2020 was 265,918.3757 tCO₂e and got the third-party verification. The Scope 3 GHG emissions in 2021 are estimated at 280,951 tCO₂e.

Note 2: Taiwan Area

Intensity of Divisional GHG Emissions



Distribution of Divisional GHG Emissions



Develop low-carbon products: The first enterprise acquiring the "Carbon Reduction Label" for three household paper products in Taiwan

"Dandelion Hand Towel, Dandelion Toilet Tissue, and Andante Toilet Tissue" achieved highest 17.35% of carbon reduction, with 56 million packs annual sales, contributed GHG emission reduction by 1,569 tonnes of CO₂e.

The Winning Leader of Low-carbon Products by EPA

2017: Dandelion Hand Towel — Excellence Award

2019: Dandelion Toilet Tissue — Excellence Award

2020: Andante Toilet Tissue — Highest Honor Award



Product	Dandelion Hand Towel	Dandelion Toilet Tissue	Andante Toilet Tissue
Inventory year			
2012	750	260	340
2015	650 (Carbon Reduction Label) 750 (Carbon Label)	320	380
2018	686 (Carbon Reduction Label) 750 (Carbon Label)	262 (Carbon Reduction Label) 280 (Carbon Label)	367 (Carbon Reduction Label) 400 (Carbon Label)

* Carbon footprint unit: g CO₂e / package

* Carbon Label emissions: the inventory coefficient of the current year

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

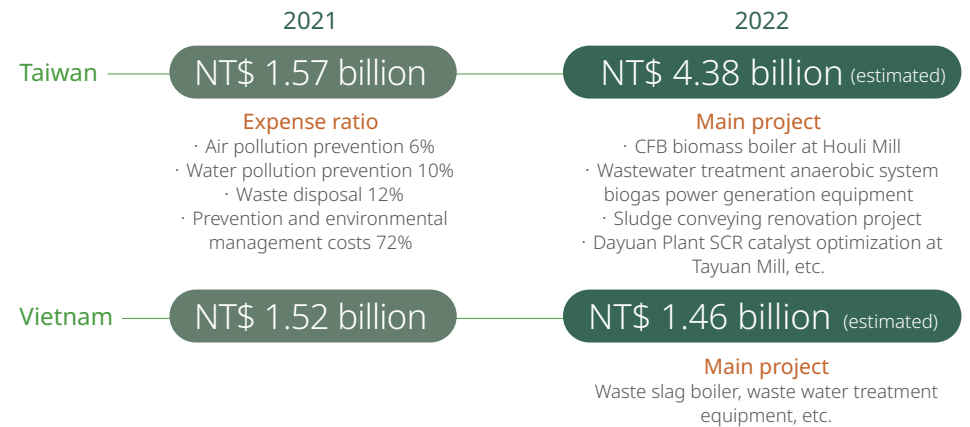
※ Validity period: 2019.8.21~2021.8.20

※ For more information, please refer to Ch2.1 Sustainable Products and Development (p.50)

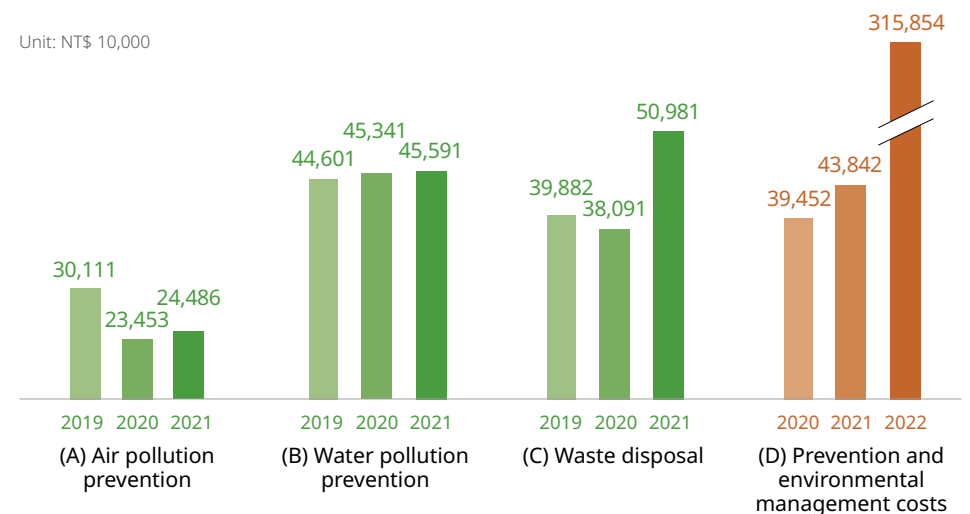
Environmental Management and Environmental Protection Expenditure

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 to optimize the management of environmental cost efficiency.

Environmental Investment and Expenditure



Unit: NT\$ 10,000



Note: Taiwan Area; 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. Overseas factories have also introduced the ISO 14001 environmental management system. In order to be in line with the "Sustainable Development Roadmap for Listed Companies" to be released by the Financial Regulatory Commission in advance, and to manage the carbon emissions of overseas companies, the CLC's mill in Vietnam will promote the ISO 14064-1 education, training and management project in 2022 to actively prepare for the GHG inventory.

Verification Standard	Certified Factory		
	Taiwan	China	Vietnam
ISO 14001 environmental management system	All factories (4 paper mills and 6 box plants)	All factories	All factories
ISO 50001 energy management system		Executed in 2022	Executed in 2022
ISO 14064-1 GHG inventory		Executed in 2022	Executed in 2022
ISO 9001 Quality management certification		All factories	All factories
ISO 45001 Occupational health and safety management systems		5 box plants	All factories
FSC™		All factories	All factories

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

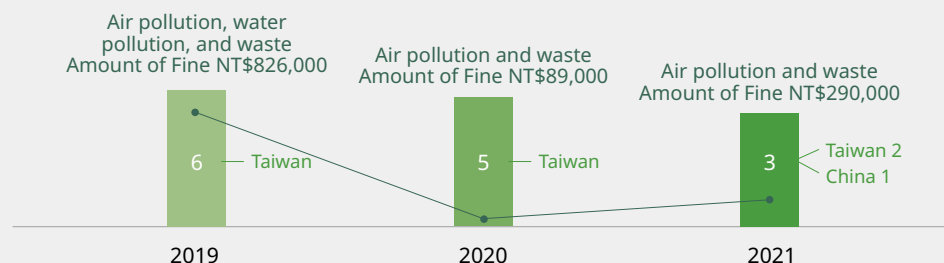
CLC ECO ECHO Initiative: Assembling employees and suppliers to start a simple lifestyle, reducing carbon over 1,160 tCO₂e

In response to the global climate crisis, we advocated the ECO ECHO Low-Carbon Initiative in 2021 to assemble employees and suppliers to practice carbon reduction in the daily life and recruit pre-owned goods. We received a total of 4,291 commitments of sustainability and 1,850 goods, totaled reduce carbon by 1,160 tCO₂e each year. In addition, we also shared four scientific pathways to reduce carbon; the carbon neutrality, net zero, and climate knowledge for dummies; and environmental protection quizzes on the ECO ECHO event website, hoping to encourage employees and suppliers to pay attention to climate change through learning and sharing.



Environmental Fines

In 2021, there were 3 violations of our environmental protection laws and regulations, including 1 counts relating to the waste disposal plan, and 2 counts to air pollution (including 1 count in China). We will continue to strengthen management, specify various legal compliance requirements, and strengthen the frequency of internal self-checking, with the goal of zero defects throughout the year.



Actions to reduce noncompliance with environmental protection in 2021

1. Requested the supplier of the continuous emission monitoring system (CEMS) to immediately verify the accuracy of database data settings and made adjustments.
2. Added the early warning mechanism to automatically alert personnel for database data anomalies or other nonconformance and arranged education and training for related personnel to reduce the risk of recurrence.
3. Immediately contacted legal contractors to clean up all waste in temporary storage.
4. Designated special staff to capture the temporary storage of Cat. C waste, maintain records periodically and complete disposal by the deadline to prevent the recurrence of similar problems.

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.



Goals of

2030

- Reduce accumulated unit product energy consumption by 10% (base year: 2019)
- Alternative fuel ratio at 20%
- Build renewal energy equipment in appropriate sites, and increase the capacity of renewable energy equipment to 10% of the contract capacity in response to the have electricity user terms

Goals of

2022

- Reduce unit product energy consumption by 3% (base year: 2019)
- Alternative fuel ratio at 10%
- Chupei Mill-High-Performance Biomass CFB Boiler System in Taiwan start up
- Officially start up the biogas generation at Tayuan Mill
- Complete the solar panels at Houli Paper Mill
- Overseas companies established ISO 50001 energy management system

Goals / Action Results of

2021

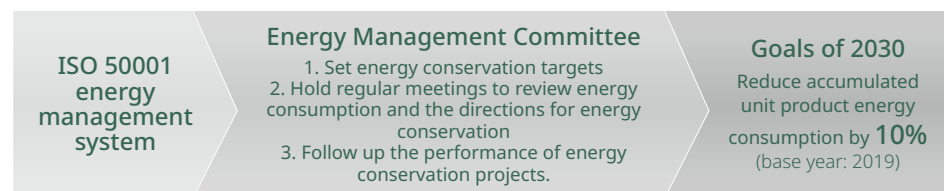
- Reduce unit product energy consumption by 2%. (base year: 2019)
→ **-2.87%**
- Implement 42 energy conservation and carbon reduction projects, saved electricity by 14.19 GWh
- Alternative fuel ratio at 10%
→ **6.51% (Due to reduction of SRF use in Tayuan Mill BFB boiler)**
- Chupei Mill-High-Performance Biomass CFB Boiler System in Taiwan start up in 2021Q4
→ **The epidemic affected the installation progress of overseas technicians to Taiwan, and it is expected to be officially start up in 2022H2**
- Start-up of the biogas generation at Tayuan Mill
→ **Officially operated in May 2022 with electricity usage of 5,300 households**
- Plan the solar panels at Houli Paper Mill
→ **The contract has been completed**
- Complete the rooftop solar panels at the new plant in Yenchao
→ **Completed**
- Accumulated 9,309 RECs (2017–2021)

Green Production: Energy Conservation and Emissions Reduction

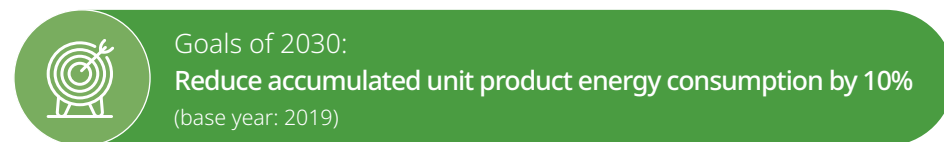
Upholding the energy policy: total participation, energy conservation, carbon reduction, and green production, by implementing the ISO 50001 energy management system, we achieve energy management and verify energy efficiency and the achievement of energy conservation targets of all sites. To achieve 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 the Container Box Division in 2015. The headquarters established a cross-department Energy Management Committee to ensure energy management to be developed towards the goals of continual improvement.



Save Energy and Reduce Carbon Emission



In 2021, the energy emission intensity of the Containerboard Division and the Corrugated Container Division was 8.07 (GJ/ton of paper) and 0.62 (GJ/1,000 m²) respectively, a slight increase over the previous year. The energy emission intensity of the Household Products and Paperboard Division was 11.76 (GJ/ton of paper), an annual decrease of 2.7%. In 2021, we invested NT\$171.07 million in implementing 42 energy conservation projects in three main categories: process improvement, equipment improvement, and energy management. The energy conservation performance was significantly higher than the year before, with a unit product energy consumption reduced by 2.87%*. Power conservation totaled 14,186,891 kWh (or 51,073 GJ). GHG reduction totaled 10,674 tCO₂e. Energy cost saved about NT\$40.67 million.

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

Performance of 2021 Energy Consumption Projects



Categories	Energy savings (kWh/yr)	Carbon reduction (MT CO ₂ e)	Cost savings (NT\$ 10,000)	Investment amount (NT\$ 10,000)
Process improvement	1,694,210	4,403	896	1,812
Equipment improvement	10,080,687	5,061	2,544	14,840
Energy management	2,411,994	1,211	627	456
Total	14,186,891	10,675	4,067	17,107

A total of 387 energy conservation projects were implemented to save power up to 81.691 GWh and reduce GHG emission up to 62,355 tCO₂e. (2013–2021)

Performance table of energy saving and carbon reduction project

	2019	2020	2021	Total
Cases	42	35	42	119
Energy savings (kWh/yr)	9,410,734	24,966,379	14,186,891	48,564,004
Carbon reduction (MT CO ₂ e)	5,016	12,708	10,674	28,398
Cost savings (NT\$ 10,000)	2,353	5,413	4,067	11,832
Investment amount (NT\$ 10,000)	2,499	12,988	17,107	32,594

Note: Taiwan Area



Supporting to TPC Demand Bidding

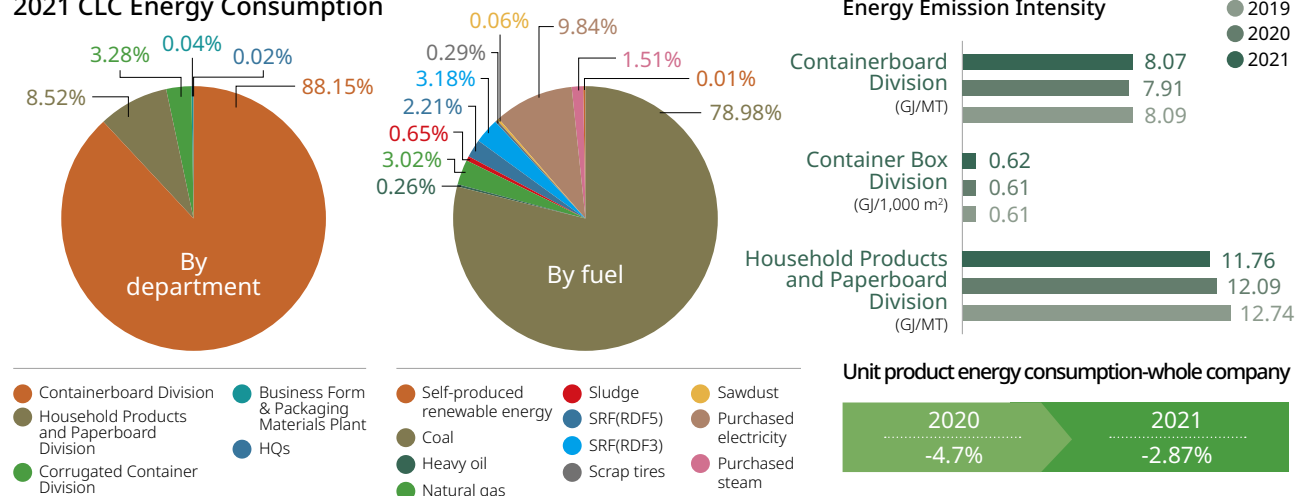
In response to the diversified development of products and the increasing complexity of the process, and effectively and properly use energy, CLC continues to set energy-saving improvement goals, and actively cooperate with the national energy-saving policy to achieve the goal that the average annual electricity saving rate of large energy users should be greater than 1%. Supporting the nighttime price competition measure of Taiwan Power Company (TPC), Chupei Mill have saved power over 1,764,617 kWh and NT\$5.09 million.

CLC Houli Mill received the delegation of the county government and council of Penghu to help promote waste-to-resources

To make advanced deployment for resolving the insufficiency of waste disposal channels, CLC Houli Mill promoted waste-to-resources in 2012 to transform waste into energy. In recent years, the mill also assisted the Taichung City Government in handling local solid recovered fuel (SRF). To understand the SRF renewable energy system, the county government and council of Penghu formed the "Friendly City & Eco Equipment Observation Delegation" to visit Houli Mill under the leadership of Speaker Chen, Chao-Ling to discover the paper mill's recycling system and the government-business collaboration experience for the reference of future promotion in Penghu.



2021 CLC Energy Consumption



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

Unit: GJ	Containerboard Division			Container Box Division			Household Products and Paperboard Division		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Self-produced renewable energy	1,534	1,677	1,004	0	0	0	10,326	5,775	0
Coal	10,103,075	10,252,234	10,860,138	0	0	0	674,902	665,637	630,307
Heavy oil	41,204	23,852	37,814	78,653	891	0	0	0	0
Natural gas	0	0	0	236,632	318,491	344,341	97,437	97,384	95,675
Sludge	131,769	38,546	57,596	0	0	0	35,050	19,522	36,268
SRF (RDF5)	660,074	446,594	322,144	0	0	0	0	0	0
SRF (RDF3)	394,808	443,183	463,222	0	0	0	0	0	0
Scrap tires	51,665	40,400	42,563	0	0	0	0	0	0
Sawdust	0	0	8,157	0	0	0	0	0	0
Purchased electricity	816,714	825,667	844,133	111,016	114,055	123,685	456,545	468,404	455,159
Purchased steam	184,876	183,677	219,115	0	0	0	0	0	0
External electricity	86,767	94,698	63,185	0	0	0	0	0	0
External steam	203,362	192,240	198,583	0	0	0	0	0	0
Total energy consumption	12,095,590	11,968,890	12,594,117	426,301	433,438	468,027	1,274,260	1,256,724	1,217,409

¹The 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.

²SRF is the abbreviation of solid recovered fuel. RDF is the abbreviation of refuse derived fuel. RDF3 is solid refuse with non-flammable contents (metal, glass, and other organic substances) removed by breaking. RDF5 is flammable refuse compressed in cylindrical form (spherical or ingot).

³Taiwan Area

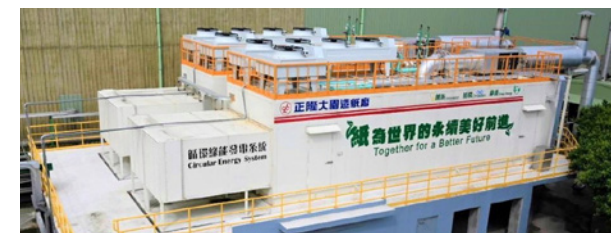
Renewable Energy



Goals of 2030:
Increase the capacity of renewable energy equipment to 10% of the contract capacity.

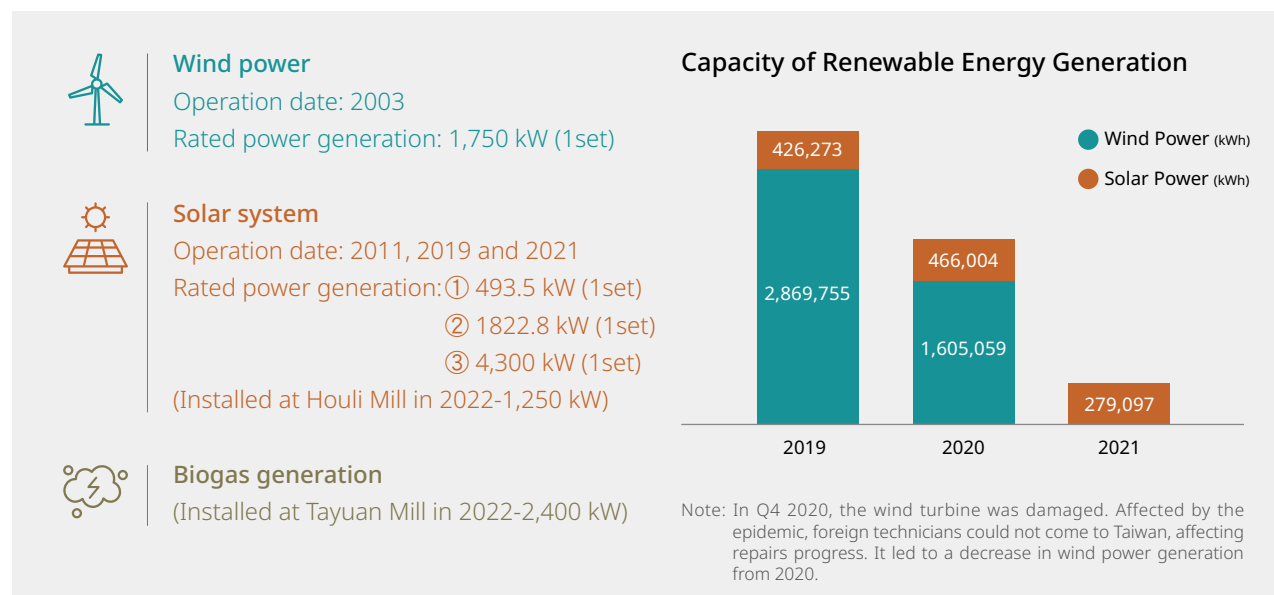
Through the smart use of the geographical characteristics of individual paper mills, CLC engaged in wind power generation in 2003 and implemented solar power generation facility at the Houli Mill and Taichung Harbor respectively in 2011 and 2019. The wind power generation facility in the Chupei Mill was certified by the National Renewable Energy Certification Center in 2017, becoming the first paper mill in Taiwan acquiring RECs. The Mill have accumulated 9,309 certificates during 2017 and 2021 which equals to the annual electricity consumption for 2,586 households (calculated based on the average monthly electricity consumption per household in the past 10 years, 300 kWh, announced by the Taiwan Power Company.)

Actively developing green electricity, we will constantly purchase renewable energy and install renewable energy generation equipment at suitable sites, including the rooftop solar system at Yenchao Container Box Plant starting operations in 2021, the biogas generation system at Tayuan Mill, and the solar panels at Houli Mill in 2022, in order to achieve the goal of renewable energy installed capacity at 10% of the contract capacity, support renewable energy development in real action, and thereby mitigate the impact of climate change.



CLC Tayuan biogas plant started operation which can supply green electricity for the usage of 5,300 households every day

Unlike the intermittent generation of wind and solar power, the 24-hour non-disruptive generation biogas power provides a stable electricity source. CLC Tayuan Mill started operation since May 2022 and can supply electricity for the usage of 5,300 households each year and help Taiwan reduce carbon by over 15,500 tCO₂e each year. In the future, we will actively extend the success of biogas generation of Tayuan Mill to other paper mills at home and abroad, expand the use of anaerobic bacteria, and develop the reuse of food waste to enhance the capacity of biogas generation.



Cogeneration System

The Company has implemented four cogeneration systems at the Houli Mill and Tayuan Mill. In 2019, CLC got ahead in the industry and applied the intelligent management to the biofuel cogeneration boiler at Houli Mill. Through the optimal monitoring for boilers, CLC is able to extend the boiler maintenance period, achieve zero temporary failure, raise the operating rate of cogeneration boilers, and improve the generation efficiency. In the future, the intelligent management will be gradually promoted throughout the entire company. Furthermore, the Company will add bio-energy cogeneration equipment at the Chupei mill to improve its power autonomy and cost competitiveness.

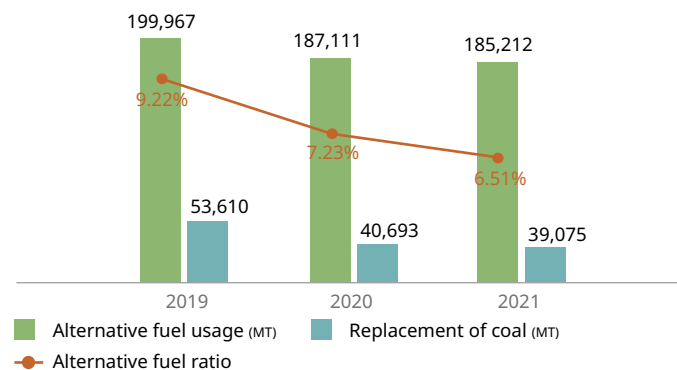
Alternative Fuel



Goals of 2030:
Alternative fuel ratio at 20%

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. In 2020, we began to use sawdust as the alternative fuel for the cogeneration system G1 at Houli Mill. In 2021 alternative fuels ratio was 6.51%, replacing 39,100 MT coal. However, as SRF use was reduced for the BFB boiler of Tayuan Mill, the alternative fuels ratio reduced by 0.72% from the previous year.

CLC alternative fuel usage



Note: Taiwan Area; SRF use was reduced for the BFB boiler of Tayuan Mill in 2021

To progressively achieve the 20% utilization rate of alternative fuels in 2030 for sustainable development, we have invested over NT\$2 billion in the biomass CFB boiler system (including peripheral equipment) at Chupei Mill. After commercial operation begins in 2022H2, it can help consume more process residual materials from all CLC mills across Taiwan to enhance the utilization rate of alternative fuels and reduce coal consumption for carbon reduction.

Chupei Mill High-Performance Biomass CFB Boiler System-4 Features



Taiwan's Unique Quad-fuel

(SRF, pulp sludge, biomass fuel) feeder to enhance energy efficiency



Effective inhibition of dioxin generation

Furnace flu gas temperature >850°C ; flu gas stay >2 seconds



Support burning with 0-100% SRF



Power generation efficiency up to 29%

better than regulatory requirements by 25%

4.3 Water Management



Material Issues Water Management

Strategy Enhance water treatment and process water conservation efficiency.

Goals of

2030

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

Goals of

2022

- Containerboard Division reduces unit product water consumption by 3%
- Improve wastewater treatment efficiency
- Save process water consumption and increase reclaimed water usage

Goals / Action Results of

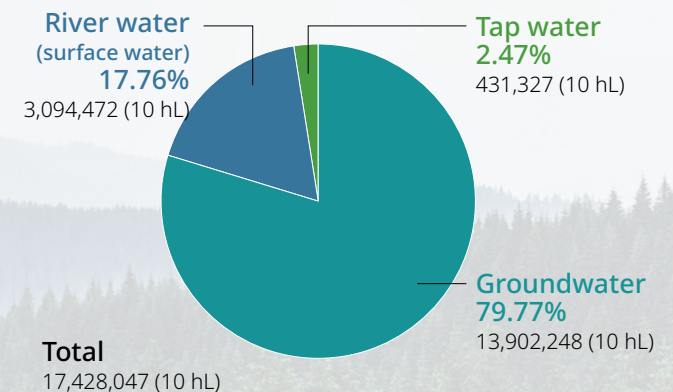
2021

- Reduce the process saving water rate by more than 1%
→ **Reduced unit product water consumption (Containerboard Division) by 11.90%**
- Improve wastewater treatment efficiency
→ **Set the secondary IC anaerobic treatment equipment; Centralized the production of same-color ink and reduced machine washing frequency**
- Save process water consumption and increase reclaimed water usage
→ **The recovery rate of process water is 92-96%**

Cherish Water Resources

Water is an important resource for the paper industry. CLC carefully planned the use of water resources when evaluating and selecting production sites. In addition to considering policies, regulations and corporate development, we also took into account the water resources needs of surrounding residents. Valuing water resources, CLC improves water use efficiency through recycling and reuse with perfect water resources management, expansion of diversified water resources, and prevention management, and continues to introduce innovative water-saving solutions to maximize the benefit of every drop of water. In 2021, CLC's process water recovery rate was up to 96%, and the total daily process water recovery exceeded 949 million liters. Through the introduction of water-saving measures, the Containerboard Division reduced unit product water consumption by 11.9% annually, exceeding the year's target 1%. All CLC factories 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. The Company also continues to promote the optimized operation of wastewater plants. In recent three years (2020-2022), a total of NT\$810 million has been invested in improving wastewater improvement measures, including the installation of anaerobic treatment equipment (including biogas power generation system), the optimization of tertiary treatment systems, etc. Also, 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.

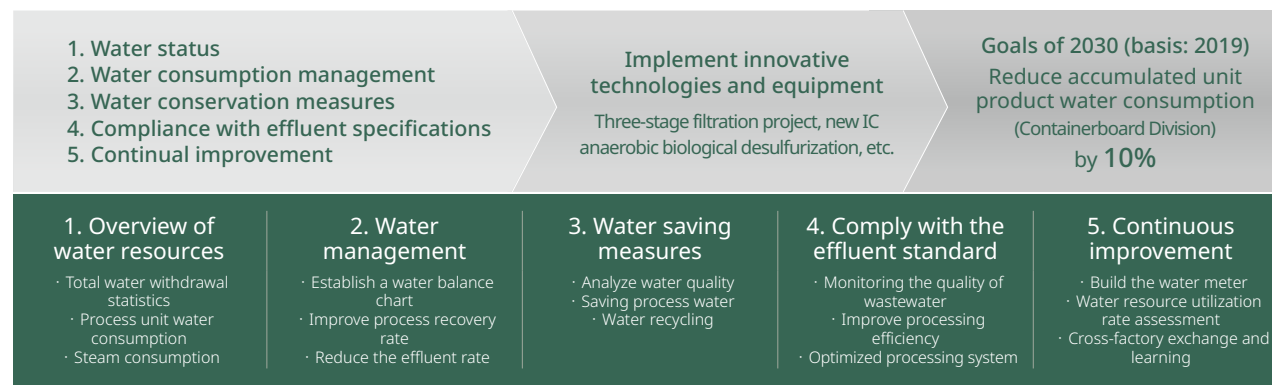
Water source



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. Each drop of water is reused 22 times in some CLC mills to achieve a recycling rate of 92-96%. 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 constant track on water information through computer connection. In 2021, surface water and groundwater accounted for approximately 97.50% of the total intake volume, and tap water accounted for approximately 2.50%. The total water intake volume was approximately 17,428 million liters, with a decrease of 1,588 million liters compared in 2020, and the total water consumption was 410 million liters. The unit product water consumption of the Containerboard Division and Corrugated Container Division reduced by 11.90% and 7.36% from 2020 respectively. However, as there is a wide variety of household tissue requiring complex washing processes, their unit product water consumption increased from last year. For the proper management of water withdrawal sources, we reduce water consumption according to the government regulations during reduced supply or regional water rationing according to the water indicators of the Water Resources Agency. Our water withdrawal sources receive little impact from areas with water stress, and there is no area of high water stress. When there is reduced supply or regional rationing of tap water, we adopt measures including:

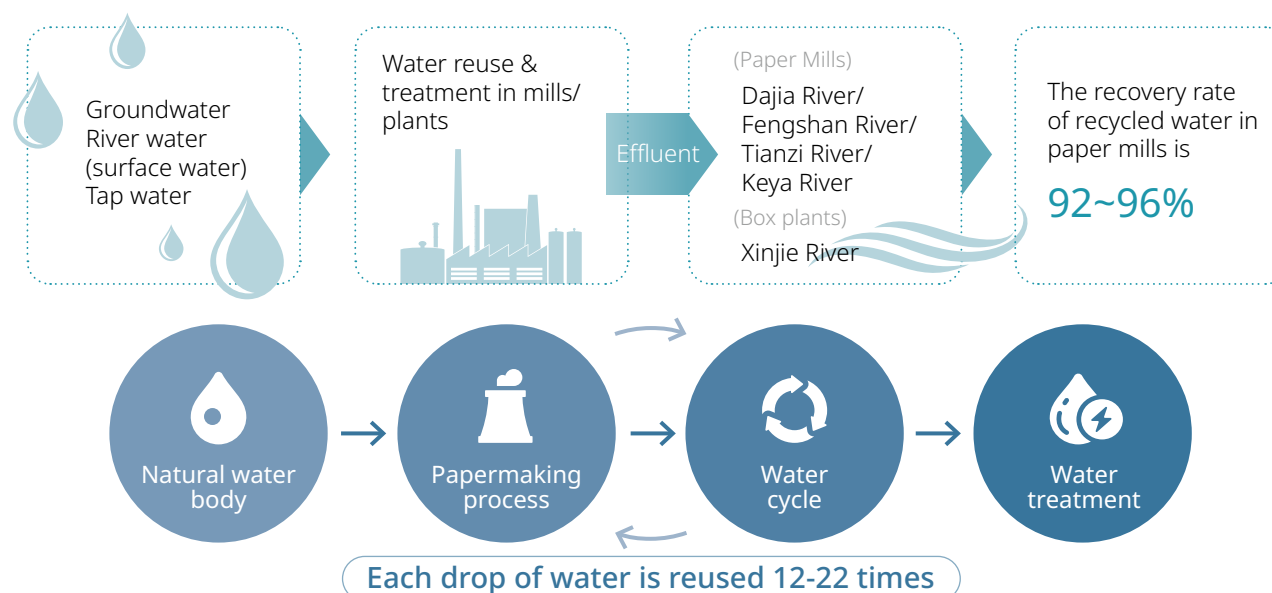
- (1) Flexible adjustment of tap water consumption or reclamation of effluents for reuse in the process
- (2) Replace part of fresh water with effluents
- (3) Process adjustment and management (optimization of papermaking and printing scheduling; process water conservation and management models)

Water Management Strategy



2021 Water Management Project → Reduced unit product water consumption

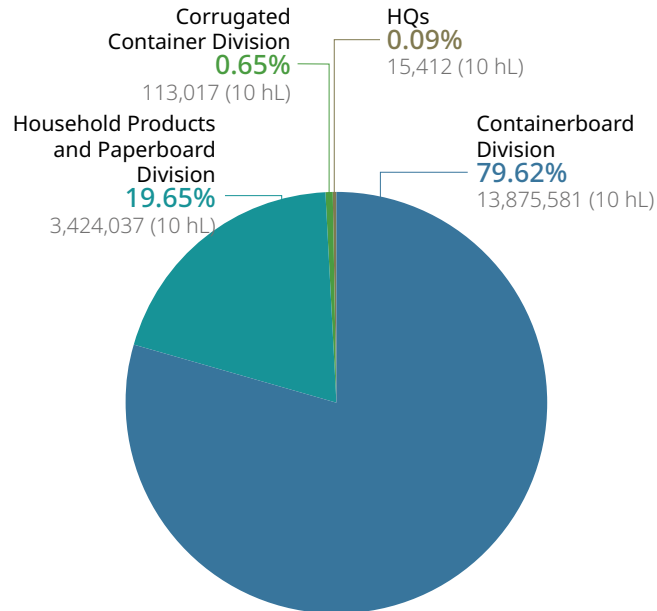
- ◆ Containerboard Division: secondary IC anaerobic treatament equipment (including biogas power generation system)
 - ◆ Corrugated Container Division: Centralized the production of same-color ink and reduced machine washing frequency.
- | | | | |
|-----------------|---------|----------------------|--------|
| Container-board | -11.90% | Corrugated Container | -7.36% |
|-----------------|---------|----------------------|--------|



	Containerboard Division			Household Products and Paperboard Division			Corrugated Container Division			Others (Business Form & Packaging Materials Division and HQ)			Total		
Unit: 10hL	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
River water (surface water)	4,480,234	4,485,032	3,094,472	0	0	0	0	0	0	0	0	0	4,480,234	4,485,032	3,094,472
Groundwater	11,105,439	10,514,088	10,499,981	3,433,898	3,503,350	3,383,218	19,898	16,599	19,049	0	0	0	14,559,235	14,034,037	13,902,248
Tap water	313,830	320,752	281,128	0	28,066	40,819	92,582	97,671	93,968	28,788	20,229	15,412	435,200	466,718	431,327
Total water withdrawal	15,899,503	15,319,872	13,875,581	3,433,898	3,531,416	3,424,037	112,480	114,270	113,017	28,788	20,229	15,412	19,474,669	18,985,787	17,428,047
Total effluent	15,150,696	14,917,669	13,764,291	3,253,650	3,397,064	3,253,224	187	13	0	1,033	1,079	0	18,405,566	18,315,825	17,017,515
Total water consumption	748,807	402,203	111,290	180,248	134,352	170,813	112,293	114,257	113,017	27,755	19,150	15,412	1,069,103	669,962	410,532

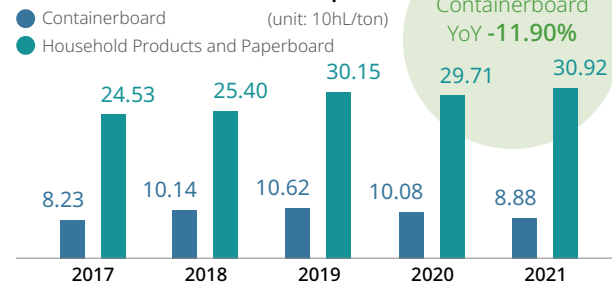
※ The statistical range of water consumption from Business Form & Packaging Materials Plant is from January to the end of August 2021, and it was officially decompiled on September 1.

Water intake of Divisions



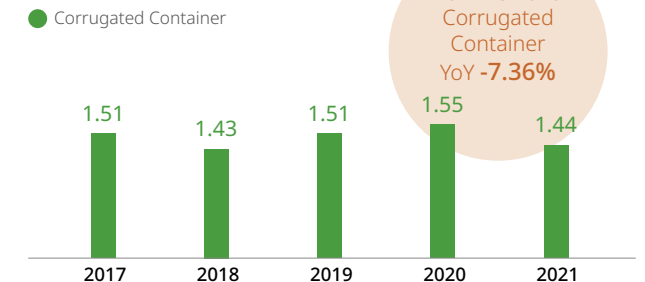
Note: Taiwan Area

Unit Product Water Consumption

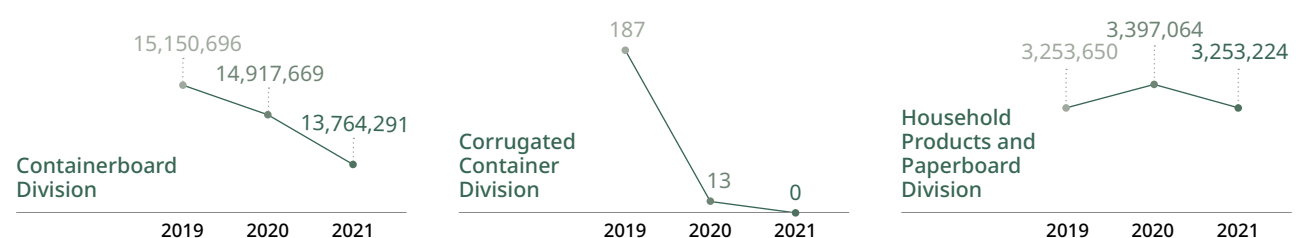


Note: From 2021, the calculation was adjusted: Total water consumption/production

(unit: 10hL/10,000 m²)



Effluent statistics (Unit: 10hL)



Note: In 2021, 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 2021

	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	160/180	550
Houli Mill	9.0	5.0	160.0	200
Tayuan Mill	10.0	27.3	104.0	162
Hsinchu Mill	11.3	2.5	52.0	37
Chupei Mill	10.0	16.0	64.0	25

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

Supporting the United Nations SDG6 "Clean Water and Sanitation", CLC provides environment-friendly toilet tissue at public places, and gives assistance with cleaning toilets and sanitary facilities. The Company has adopted 90 sanitaries around Taiwan up to now, which reduced carbon footprint and water pollution, contributing 1,600 kg of carbon reduction benefits per year.

To promote environmental sanitation and implement water resource conservation, we form river patrol team, and the Houli Mill supports the "World Toilet Day - Learn from Cleaning Public Toilets" event organized by the Environmental Protection Bureau of Taichung City Government for many years. In 2021, the Chupei Mill also called on nearly 100 employees and their families to carry out the beach clean-up activity. For two consecutive years, we have responded to the action of "Dashui River Convention" by CommonWealth magazine, implemented green procurement, adopted parks to maintain biodiversity, promoted the cherishing of water, and practiced to protect the water environment.



Note: The period of river adoption was from November 2015 to present.

4.4 Air Quality Management



Material Issues

Air Quality Management

Strategy

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

Goals of

2030

- SOx : -42%
 - NOx : -45%
 - TSP : -65%
- *Base year: 2019

Goals of

2022

- SOx : -36%
 - NOx : -39%
 - TSP : -50%
- *Base year: 2019
- Zero odor effusion from the process
 - Keep purchasing high-quality coals
 - No fine for odors from air pollution

Goals / Action Results of

2021

- SOx : -10%
→ **-30.7%**
 - NOx : -8%
→ **-23.9%**
 - TSP : -20%
→ **-49.4%**
- *Base year: 2019
- Zero odor effusion from the process
→ **Installed the biogas desulfurization equipment in wastewater treatment plant**
 - New box plant in Yanchao invest VOCs activated carbon adsorption facility
→ **Completed**
 - Keep purchasing high-quality coals
→ **Sulfur content of coal dropped for two consecutive years (0.8% → 0.45%)**
 - 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, the Houli Mill and Tayuan Mill 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 three 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. After building an indoor coal yard in Houli Mill in 2019 to reduce dust effusion, we continue to add a dust prevention equipment over the top access of the coal bunker, water spray and foal dust removal equipment, and bag-type dust collector fly ash air conveyor system in 2020. We also built the SCR* control equipment at Tayuan Mill, and installed other SCR control equipments at Hsinchu Mill and Chupei Mill in 2021 to actively improve air quality. Moreover, the Purchasing Department also purchase high-quality coal, as a result, the sulfur contained in coals purchased in 2021 reduced from 0.8% in 2019 to 0.45%, and SOx also reduced significantly. The Container Box Division has faded out oil-fire boilers to gas-fired boilers since 2013, and all projects were completed in 2020. It not only saves fuel costs, but also increase air emission quality, achieving win-win for both environment and corporate.

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

Air Pollution Management Strategy



CLC Houli Mill: Taiwan's first 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 coal yard covers up to about 20.6% of the coal of the mill. The coal bunker consists of three sections and care store three 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. We also constantly assess the construction of coal bunker in other mills to enhance coal efficiency.

Taiwan's first papermaker using gas boilers in all container box plants

In 2013, we began to fade out the fuel-oil boiler of all container box plants and had completed the modification project of in five container box plants: Panchiao, Tayuan, Miaoli, Taichung, and Yenchao. In 2019, supporting the "Industry Low-Carbon Application Project" of the Chiayi County Government, the Talin plant has activated the gas-fired boiler modification project in January 2020. After using gas-fired boilers in all container box plants, the combustion efficiency increased by over 5%, GHG emissions reduced by 27%, NOx emissions reduced by 63%, and TSP emissions reduced by 93%*.

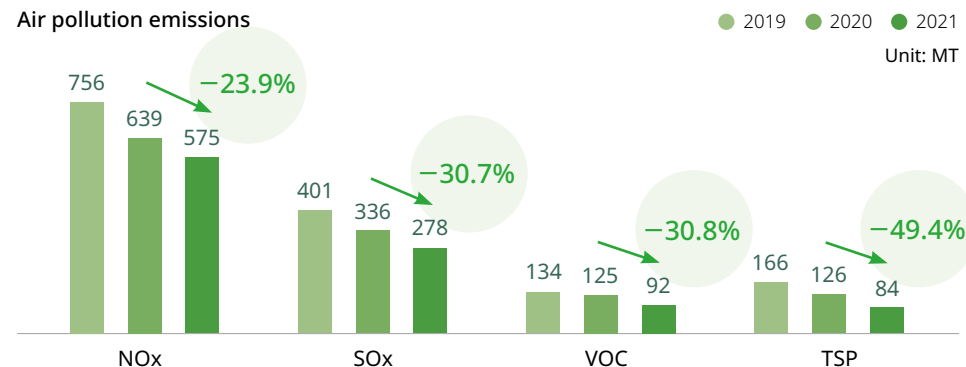
* Calculated according to the "Regulations Governing the Emission Coefficients, Control Efficiency, and Other Quantification Rules for the Declaration of the Air Pollution Control Fees for Particulates, Lead, Cadmium, Mercury, Arsenic, Hexavalent Chromium, and Dioxin at Public and Private Stationary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

To resolve the odor problems in paper mills, 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 2021, the Company receive no fine for odors from air pollution.

Mills 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 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 Resources



Material Issues Waste to Resources

Strategy

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

Goals of

2030

- Waste-to-resources ratio up to 96%
- Implement the circular economy in waste management

Goals of

2022

- Waste-to-resources ratio up to 92%
- Implement waste-to-resources revitalization and regeneration

Goals / Action Results of

2021

- Waste-to-resources ratio up to 85%
→ Amount of waste-to-resources reached 313,933 MT at 92.4%, up by 7.3% YoY
- Implement waste-to-resources revitalization and regeneration
→ Expanded the waste paper mixture reuse channels to reduce incineration and landfill
→ Increased the co-firing coal ash reuse channels
→ Waste food paper container certified processing capacity up to 2,000 MT/month, up by 42%, at Chupei Mill
→ 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 four approaches: reduction at the source, reuse, recycling, and flow management. The waste that the Company produces is general industrial waste without any hazard.

Every year, we recycle a large quantity of recovered paper and implement waste-to-resources on the impurities contained in

wastepaper based on the circular economy model and achieve the zero waste vision. In 2021, we recycled 313,933 MT of waste to achieve waste-to-resources up ratio to 92.4%, with an annual growth by 7.3%. To make a step forward toward the 96% waste-to-resources target in 2030, we will start the operation of the high-performance biomass CFB boiler system at Chupei Mill in 2022H2 to reuse process residual of all CLC mills 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 plant, we also enhance contractor audits, including requesting contractors to equip the GPS on all trucks 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.

Zero waste with circular economy CLC awarded Circular Economy 2 Stars three times from EPA

Aiming to become a new low-carbon & green energy paper company, we are committed to building the circular economy business model at all CLC plants and mills across Taiwan to achieve zero waste and zero emissions. Hsinchu Mill was recognized by EPA being with awarded Circular Economy 2 Stars in 2021, the third time after Tayuan Mill and Houli Mill in the last two years to recognize our efforts in creating economic, social, and environmental performance through the circular economy. In response to the national policy, Hsinchu Mill actively engages in waste reduction at the source by reusing waste such as pulp sludge, coarse rejects, and slags in-house after recycling through collaboration with other plants to achieve a recycling and reuse rate of waste up to 99%.



Main waste

- Waste paper mixture contained in recovered paper
- Pulp and sludge from wastewater treatment system
- Fly/bottom ash from steam boilers and cogeneration systems

Waste Disposal Innovation Project

1. 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 2022, we will introduce Taiwan's largest high-performance biomass CFB boiler system, with a monthly processing capacity of 14,000 MT toward the 96% waste-to-fuel target in 2030. Combining the 4 existing cogeneration system, we focus on waste-to-energy for development renewable energy.
2. Introduce the first 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 (one factory reduce cost by \$20 million / year).
3. 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%.
4. To support of the government's waste food paper container recycling policy, we build the first paper maker completely recycling food paper containers in Chupei Mill. From January 2022, the approved processing capacity of waste food paper containers reach 2,000 MT per month, with an increase of 42%.

Waste Disposal Methods

Unit: MT

Type	2019	2020	2021	Reuse method/ Types of non-recyclable waste
Recyclable waste (A)				
Waste paper mixture	85,104	109,201	132,185	Reused to SRF
Sludge	75,729	105,282	98,101	Steam boiler fuel
Fly ash/bottom ash	29,008	28,071	32,038	Cement plant/ concrete plant reuse
Other waste	64,163	38,162	51,769	
Non-recyclable waste (B)				
	58,482	48,926	25,822	Incinerator fly ash, waste paper mixture, mixed burning ash, etc.
Total waste (A+B)	312,486	329,642	339,915	
Waste-to-resources ratio (A/(A+B))	81.3%	85.2%	92.4%	

Note: Taiwan Area

4.6 Biodiversity

We are committed to realizing the vision of sustainable forests, and purchasing FSC™ pulp. In addition, we have set the FSC™ pulp consumption ratio at 98% in 2030 target, and all CLC mills/plants have passed FSC™ certification to encourage landowners to maintain the original look of forests to protect and promote environmental sustainability. In addition, with a perfect water management strategy and through a series of sustainable development actions, such as building wildlife ponds and greeneries, growing trees, and adopting parks, and ecological monitoring with National Central University in 2021, we actively nurture biodiversity, fix carbon to mitigate the greenhouse effect, and correspond to "halt biodiversity loss" in SDG15 "Life on Land".

Rivers and Wetlands

By implementing water PDCA management and cross-plant exchange, enforcing process water conservation and graded water management, enhancing the efficiency of process water reuse, we supply safe and compliant effluents as a steady water source of rivers and wetlands near our mills/plants. By actively practicing river adoption, Tayuan Mill and Hsinchu Mill are recognized as "Outstanding River Adoption Enterprise" by the Government.

Adopted Chaxi for 7 years and build the ecological monitoring system with NCU
Discover winter birds and endemic plants by successful ecological restoration



CLC Tayuan Mill has adopted nearby Chaxi River for 7 years. To enrich local biodiversity, Tayuan Mill in 2021 began to explore the habits of local species and local environmental needs in collaboration with the Department of Life Science, National Central University (NCU) to seek active methods to co-exist with nature. The research found the trace of the Taiwanese fresh-water crab *Candidiopotamon rathbunae* at the river valley in 2021. It was the newest record of the species found at low-altitude areas. As this also suggests the enrichment of the local food sources for water birds, the river has become the habitat of winter birds such as the Eurasian teal and common moorhen.



Section Supervisor, S.H.E. Department of Tayuan Mill
Tzu-Chieh Chang

"To constantly enrich local biodiversity, Tayuan Mill will plan to grow more local plants, establish education resources to provide positive influence toward society."

Coexistence of Ecology and Factories in Harmony

It presents the coexistence between a diversified ecosystem and factory buildings in harmony.



As the feedstock waste-paper storage of Tayuan Mill is located in a low-lying alluvium, to reduce land subsidence due to the heavy weight on top and to nurture biodiversity, we fill in the waste soil left from the factory building construction at the lower part of the oblique terrestrial surface to form two hillocks with rain harvesting function to form a wildlife pond through natural waterflow. To maximize resource use, a pavement is built with the spent coal ash from the mill and decorated with slags, gravels, and glass to filter rainwater and retain mud from direct discharge into the pond to demonstrate the multifunctionality.

In mill greenery planning, endemic plants with better adaptability have been selected. In addition, bird- and insect-attracting plants are also grown to provide sufficient food sources to attract insects and birds to nest in the greenery to create a sustainable natural landscape of floral and faunal diversity.

Greening and beautification of CLC Binh Duong Mill:

A modern mill in harmony with nature

To value ecological conservation and factory greening, besides actively implementing phase II and III expansion projects of Binh Duong Paper Mill in Vietnam, we also spare no efforts in greening and beautifying the plant environment. Besides reducing carbon and regulating temperature, greening and beautifying the site with flowers and trees have turned the front of the mill, the employee dormitory area, and the water treatment zone into small verdant parks and transformed the mill into a harmonious green space for employees to enjoy and take a walk after work.





Plantation for Forest Protection

Since CLC was established, we began to grow trees actively across Taiwan. For example, Chupei Mill began to plant over 2,000 seedlings a year from 1973. Today, it has grown nearly 100,000 trees to achieve a high oxygen plant site with a landscaping greenery. It also collaborates with the Forestry Bureau and private professional forestation teams to select species suitable for the environment. We also respond to local government tree planting plans irregularly to enrich biodiversity.



Adopting CLC Park and growing endemic plants to keep the green for a virtuous cycle.

To provide citizens working and living near CLC HQ in Banqiao with a safe and comfortable corner for leisure and recreation and a greenery that can block traffic, noise, and unpleasant landscapes, from 2009, we began to adopt an open space with an area of 2,000 ping (approx. 6,610 m²) right in front of CLC HQ to build the CLC Park. Inside the CLC Park, we have grown early twenty endemic species of trees to realize biodiversity with trees and grasses. We also periodically maintain the plants, clean up the environment, ensure lighting safety, and keep the public toilets clean inside the park. Moreover, we change the flowers and plants according to the seasonal changes to provide local residents with a green corner to enjoy the common good.

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

- ✓ Expenses on employee benefits up by **19.5%** YoY
- ✓ Salary raised by **2.17%** YoY
Increased for **15** consecutive years
- ✓ Salary for full-time non-management employees raised by **4.98%**
Ranked **No. 1** in the paper industry
- ✓ Selected as a constituent of the "TWSE RA Taiwan Employment Creation 99 Index" for **11** consecutive years
- ✓ ESOT (Employee Stock Ownership Trust) up to **47.8%**, +2.2% YoY
- ✓ **8** mills/plants certificated the MOHW "Healthy Workplace"
OH&S promotion activities with **4,494** participants

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.

Goals of

2030

- Diversify employee benefits

- Raise the average employee salary by 10% vs 2020

- Cultivate young management

Goals of

2022

- Diversify employee benefits
- Strengthen the employee assistance program (EAP)

- Provide competitive salaries

- Implement cultivation programs for a younger management

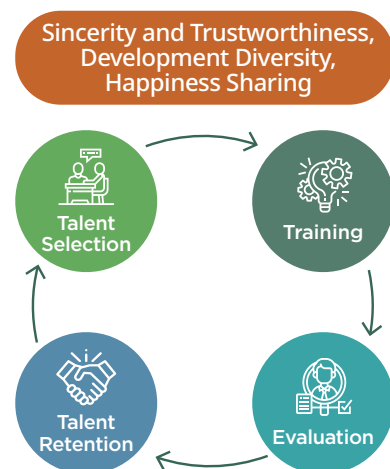
Goals / Action Results of

2021

- Diversify employee benefits
 - Conducted employee opinion survey for 3 consecutive years, valid feedback ratio reached 41.3%, +4.3% YoY. Score of 2021 were 4.35 (Full score = 5), +3.6% YoY
 - Expenses on each employee were NT\$ 49,000, +19.5% YoY
 - Enhanced COVID-19 epidemic prevention mechanism and provided NT\$ 15,000 bonus for each employee
- Provide competitive salaries
 - Raised salaries by 2.17%, salary for full-time non-management employees increased by 4.98%
 - Selected as a constituent of the "TWSE RA Taiwan Employment Creation 99 Index" for 11 consecutive years
 - Hsintsu Mill was commended due to hire individuals with disabilities above employment quota by law
- Implement the internal job rotation and promotion system
 - Promoted 33 employees with <5 years seniority to the management in 2018-2021
 - Facilitated elite rotation plan

5.1 Diversity and Equal Opportunity 5.2 Talent Cultivation and Development 5.3 Healthy Workplace

Human Resources Strategy



Talents are the most important asset to CLC. In response to domestic and overseas expansion and the need for sustainable development, we attract excellent talents to join the CLC with a competitive remuneration system. With "sincerity and trustworthiness" as the highest guidance, we cultivate partners who recognize with our corporate culture, vision, and core value to work for CLC's mission.

Management Approach

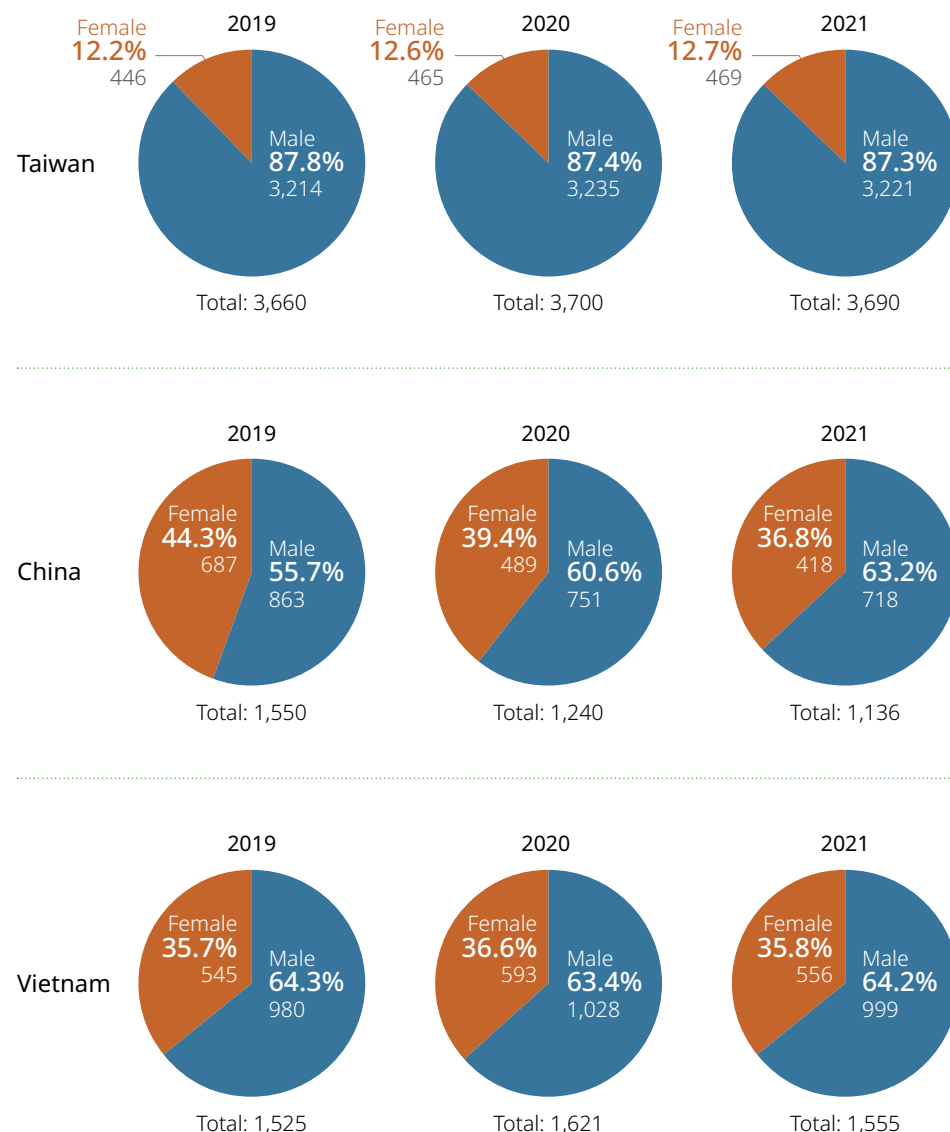
- ✓ Optimize talent and workforce management, engage in domestic and overseas development, become a local benchmark enterprise.
- ✓ Cultivate excellent international talents, strengthen the management system, and innovate workforces.

Employees are key to the success of corporate sustainability and one of important stakeholders. To align with SDG 8: "Decent Work and Economic Growth", from the viewpoint of long-term talent development, we discern the positioning of the salary and workforce markets and combine with the medium- and long-term strategies for business development and operational performance to make constant adjustment of wages and benefits, listen to the needs of employees, and optimize the welfare system, hoping to effectively retain talents through sharing.

By the end of 2021, the number of employees across major operation base (Taiwan, China and Vietnam) were 6,381 persons, decreasing 180 persons. For Taiwan district, there are 3,690 employees, including 2,875 labor staff, 669 management staff, and 146 senior officers* hired 100% from Taiwan. The overall number of employees decreased 10 persons mainly due to the foreign workers were hard to replenish immediately once they return to Taiwan by COVID-19. 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 2021, the proportion of female employees increased by 0.1% to 12.7%. 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 2021.

*Senior officers are "first-level of supervisor"

CLC Gender Structure of Employees



5.1 Diversity and Equal Opportunity • 5.2 Talent Cultivation and Development • 5.3 Healthy Workplace

CLC Manpower Structure in 2021

Item	Category	Taiwan		China		Vietnam		Subtotal				Total	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
		Number	Number	Number	Number	Number	Number	Number	Ratio	Number	Ratio	Number	Ratio
Position	Labor	2,454	421	617	260	959	519	4,030	81.6%	1,200	83.2%	5,230	82.0%
	Management*	624	45	100	158	40	37	764	15.5%	240	16.6%	1,004	15.7%
	Senior Management*	143	3	1	0	0	0	144	2.9%	3	0.2%	147	2.3%
Age	<30	510	75	92	50	461	262	1,063	21.5%	387	26.8%	1,450	22.7%
	30~50	1,941	292	556	339	501	262	2,998	60.7%	893	61.9%	3,891	61.0%
	≥51	770	102	70	29	37	32	877	17.8%	163	11.3%	1,040	16.3%
Seniority	≤5	1,076	157	321	193	774	384	2,171	44.0%	734	50.9%	2,905	45.5%
	6-15	949	76	322	199	213	162	1,484	30.1%	437	30.3%	1,921	30.1%
	16-25	615	70	75	26	12	10	702	14.2%	106	7.3%	808	12.7%
	26-35	501	157	0	0	0	0	501	10.1%	157	10.9%	658	10.3%
	≥36	80	9	0	0	0	0	80	1.6%	9	0.6%	89	1.4%

*Management: Number of supervisors (non-high-level) ; Senior Management: number of supervisors above level six

Item	Category	Taiwan		China		Vietnam	
		Male	Female	Male	Female	Male	Female
Education	Below senior high school	8.4%	8.5%	57.7%	47.9%	31.5%	32.7%
	Senior high school	36.8%	26.2%	31.0%	24.6%	40.2%	26.8%
	University	49.4%	56.9%	11.3%	27.5%	28.1%	40.5%
	Master / PhD	5.4%	8.3%	0.0%	0.0%	0.1%	0.0%
Nationality	Taiwan	93.3%	93.0%	China		Vietnam	
	Foreign (Blue-collar)	6.6%	5.8%				
	Foreign (White-collar)	0.1%	1.3%				
Period of Employment Contract	Irregular	99.7%	99.1%	42.3%	43.8%	99.9%	100.0%
	Regular	0.3%	0.9%	57.7%	56.2%	0.1%	0.0%
Type of Employment Contract	Full time	99.9%	99.1%	100%	100%	100.0%	100.0%
	Part time	0.1%	0.9%	0	0	0.0%	0.0%

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.



Hsintsu Mill was commended due to hire individuals with disabilities above employment quota by law

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." For employees to understand more about human rights, we enable employees to learn more about their rights and interests through internal publications and the E-Learning system. The courses and reports included "New Civil Law Amendments Closely Relevant to You and Me", "Constitutional Cornerstone for Realizing Human Rights and Freedoms", "Epidemic Prevention and Human Rights". Value workplace equality, we promoted project of friendly workplace, including to revise "Sexual Harassment Prevention Act" and hold a series of seminar.

CLC builds a gender-friendly workplace

At CLC, we build a gender-friendly workplace through various efforts. To enhance the awareness of sexual harassment among employees, we specifically arranged a series of "gender equality" courses in 2021. In Taiwan, nine physical talks and online classes were organized in terms of four aspects: fundamentals, law, response, and handling, with case study. A total of 767 participants, accounting for 20% of all employees in Taiwan, received up to 734 hours of training. We also put those courses on the E-Learning platform for employees at home and abroad.



Management Guidelines on Human Rights Policy

- ✓ Tolerance of diversity and anti-discrimination
- ✓ Ban on child labor and prohibition of forced labor
- ✓ Anti-corruption and ethical management
- ✓ Health and safety workplace and work balance
- ✓ Freedom of association and smooth communication channels

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

Equal Employment

We followed the "People with Disabilities Rights Protection Act" and "Indigenous Peoples Employment Rights Protection Act" and hired 39 persons with disabilities and 26 indigenous people. In order to promote multiple employment, we have set up the "Bonus for Indigenous Long-term Employment". In 2021, a total of 26 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(job openings) that cannot be filled by local citizens.

	2019	2020	2021
Equal Employment Table			
Disabilities	42	40	39
Indigenous	25	27	26

Note: Taiwan Area

A Younger Workplace

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. 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. In addition, following the rise of equal opportunity in employment, male is no more the only option of important positions. Since 2018, there are 5 employees with seniority below five years have been promoted to the junior management, and 15.2% of them are female, showing a significant change from the past (2014-2017).

	2014~2017	2018	2019	2020	2021
The gender ratio of promoting supervisors in recent years					
Female	0	3	1	1	0
Ratio	0%			15.2%	
Male	48	10	3	7	8
Ratio	100%			84.8%	

Note1: Taiwan Area

Note2: Young executives are defined as less than 5 years of seniority

Note3: Proportion calculation method = number of male (female) young executives promoted / total number of young executives promoted (5 female young executives promoted / 33 young executives promoted supervisor = 15.2%)

5.1 Diversity and Equal Opportunity 5.2 Talent Cultivation and Development 5.3 Healthy Workplace

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. In 2021, there were 295 new employees, with an employment rate of 8%. The male-to-female ratio of new employees in all employees was 7.7%:10.0%.

People oriented, Right People in the Right Place

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 2021, a total of 315 employees or 8.5% resigned, in terms of gender among all employees, 8.4% were male and 9.6% were female.

To effectively retain employees, we actively interview those filing their resignation and provide them with information about the internal job openings in order to facilitate the adaptive development of employees, reduce the impact of adaptation to job transfer, and to lower the overall turnover rate. In 2019, we began to conduct the online anonymous survey of the resignation procedure to discover, analyze, 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 value experience inheritance and the need for talent development. In 2021, a total of 24 employees reached the retirement age. During 2018–2021, we hired 3 retirees as short-term consultants.

Turnover rate in the past three years

	2019	2020	2021
Total turnover	373	366	315
Number of workers	3,660	3,700	3,690
Turnover rate	10.2%	9.9%	8.5%

Note: Taiwan Area

Listening to Employee Opinions

To build a quality workplace environment and realize the corporate commitment and policy, 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, labor union, chairperson's box, and audit hotline, for employees to freely express their opinions.

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.



Employee Opinion Survey

Execution Focus

2019 → First time to systematically gather employee opinions as the reference of decision making

2020 → Enlarged to collect the employees' opinion of workplace, career development, and motivation from management, etc.

2021 → Added dimension of colleagues, enterprise culture, etc. Provided reward mechanism to increase response rate.

Respondents Employees in Taiwan area

We surveyed the opinions of employees since 2019 and the satisfaction of employees raised up for 3 consecutive years. The 2021 survey results show, employees have higher recognition of CLC's work, colleagues, and compensation than the average of other surveyed enterprises. However, employees have higher expectations for management team and career development. Based on the survey results, the management also held a meeting to discuss optimization measures, prioritized them as the reference for the improvement of the company's management system, salary, and welfare, and implemented related improvement projects. In the future, we will continue to interact and communicate with employees through various channels and listen hard to the employee's opinion to pursue co-prosperity and growth with employees.

Hsinchu Mill Makeover: New look after 40 years



CLC Hsinchu Mill, as a mill established for over 40 years, looks old and shabby. To provide employees with a more comfortable workplace environment, Hsinchu Mill started a makeover in 2021, including the renovation of the office area, leisure area, conference room, lavatories, and exterior walls. Additionally, a large vertical garden was designed, LED lighting fixtures were used, new wooden furniture and system storage was purchased. Most importantly, all female employees were invited to decorate the office to create a homelike environment. The new look of Hsinchu Mill after the makeover stunned locals, and its literary youth style has attracted many passers-by to take photos.



General Affairs Chief of Hsinchu Mill
Shih-Kai Hung

"After the makeover, people and vehicles slow down when passing by the entrance, and I feel proud about this change. After the makeover, the office space is better lit and looks more energetic."

2021 CLC Employee Opinion Survey



Notification → Implementation → Results Analysis → Review and Improvement



Management, Development, Work, Compensation, Colleagues, Enterprise Culture



1,434 responses, with a valid response rate of **41.3%**, **+4.3%** YoY
Overall satisfaction reached 4.35 pt. (Full score = 6 pt.), **+3.6%** YoY



1. Work environment:

- (1) HQ in Banqiao: Renovate the pantry, staff lounge, and develop and improve a food plan.
- (2) Hsintsu Mill: Improve office interior structure, break area, equipment renewal m, exterior renovation.



2. Organization development:

Organize management training for junior and senior supervisors.

3. Salary and reward:

Expenses on employees in 2021 were NT\$ 49,000 (+19.5% YoY) , Salaries +2.13%

4. Long-term Projects:

Continuously renew equipment to provide comfortable working space.

- Added a new dormitory in Tayuan Mill (2020)
- Rebuild dormitory Chupei Mill (Outsourced in 2021 and expected to finish by 2023)
- Continuous reconstruction of dormitories in Taiwan factories (from 2021)

5.1 Diversity and Equal Opportunity 5.2 Talent Cultivation and Development 5.3 Healthy Workplace

Salary and Treatment

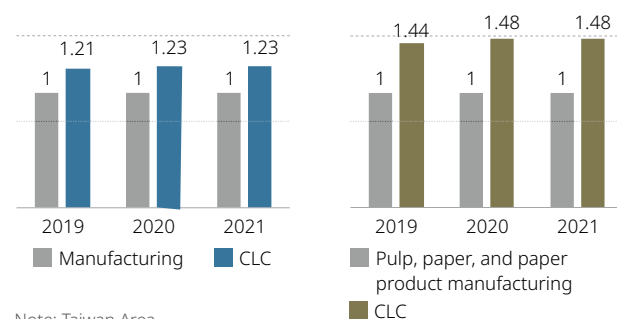
Competitive Salaries

Besides employee salaries are higher than the minimum wage, 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 salary adjustment plan based on the commodity price, resulting in the raise of the employee's salary for 15 years at 1.5~3% each year, and up to 2.13% in 2021. In addition, we have become a constituent the "TWSE RA Taiwan Employment Creation 99 Index" for ten consecutive years for our efforts in promoting the overall employment growth in Taiwan.

Average and Mean Wage of Full-time Employees

	2019	2020	2021	Growth rate
Number of non-management full-time employees (persons)	3,506	3,568	3,566	-0.06 %
Average wage of full-time employees (NT\$)	876,000	955,014	1,002,595	4.98 %
Mean wage of full-time employees (NT\$)	826,000	904,111	940,805	4.06 %

Comparison of Regular Earnings of Employees in Different Industries by the DGBAS



Note: Taiwan Area

Average Wage of New Employees VS Local Minimum Wage

		2019	2020	2021
Taiwan	Male	117%	125%	134%
	Female	123%	127%	130%
China	Male	100%~178%	100%~166%	100%~159%
	Female	100%~141%	100%~166%	100%~172%
Vietnam	Male	111%~138%	110%~141%	119%~141%
	Female	111%~138%	110%~141%	119%~141%

¹Calculation: (Minimum compensation for non-supervisor new employees/ Statutory minimum wage) x 100%

²The above amount includes all fixed compensations, excluding non-fixed salary including OT pay, standby allowance for emergency repair, shift allowance, and variable performance bonuses.

³The 2021 statutory minimum wage in Taiwan was NT\$24,000 each month.

⁴The statutory minimum wage in China and Vietnam is different by region. In China, the statutory minimum wage is CNY1,570~CNY2,590. In Vietnam, it is VND3,070,000~VND4,420,000. The calculations thus fall within 100~172% for China and 119~141% in Vietnam. In the table, the lowest value (China: 100% and Vietnam: 119%) means the minimum compensation of each region is higher than the local statutory minimum wage.

Minimum Wage of New Employees VS Local Minimum Wage

	2019		2020		2021	
	Bachelor	Master	Bachelor	Master	Bachelor	Master
Statutory minimum wage	1.00	1.00	1.00	1.00	1.00	1.00
	\$23,100		\$23,800		\$24,000	
Male	1.34	1.48	1.24	1.46	1.38	1.56
Female	1.23	1.78	1.24	1.41	1.30	1.61

Note: Taiwan Area

Salary Ratio by Gender

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
General Employees	1	1	0.99	1	1.03	1
Junior Supervisors	1.06	1	1.05	1	0.99	1
Intermediate Management	1.01	1	0.99	1	0.98	1
Senior Management	0.99	1	0.99	1	0.98	1

Note: Taiwan Area

Employee Benefits

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 2021, we spent about NT\$49,000 on the benefits of each employee, up by 19.5% from 2020.

	2019	2020	2021
Employee Benefit Expenses	14,508.1	15,249.7	18,038.9
Average benefit expense per employee	4.0	4.1	4.9
Birth allowance	91.0	79.0	96.0
Children's education allowance and scholarship	697.5	698.8	697.3
Medical allowance for employees and dependents	433.4	446.1	439.1
Employee travel allowance	2,838.6	2,560.4	936.6

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/yr	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

Note: Taiwan Area

Employee health checkup

- ◆ Every year, we arrange free health checkup for employees and sign up health checkup special offer programs for employees/dependents with health checkup organizations. In 2021, we added NT\$3,000 allowance for each employees, making them select suitable examination item by their selves.
- ◆ Provide additional health checkup allowance for intermediate management and increase to NT\$17,000~NT\$23,000/person in 2021.

Club allowance

We provide NT\$4,000 club allowance annually for each employees and hire exercise instructors to assist employees to develop physical strength, sports skills, and sports literacy. In 2021, there are 23 clubs in CLC, including sports, foreign language, board games, etc. The number of participants are 827 persons, accounting for 22.3% of all employees.

Item	2019	2020	2021
Number of clubs	18	22	23
Total number of club members	585	726	827

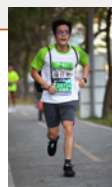


Our efforts to turn the CLC into a health workplace were rewarded by the iSports certification of the Sports Administration (validity 2019-2022).



Head Office Dandelion Road Running Club
Guo Hui Yu

"Thanks to the club for holding several coaching courses, so that I can exert my training results during the competition, finally winning the 2nd place in the "Bali Night Run Party"!"



Travel Allowance

Every year we organize group tours with fund for employees. In 2020, the allowance was increased to NT\$12,000 for each person. In 2021, impacted by COVID-19, we adjusted the program into gift or accommodation vouchers and the allowance amount reached NT\$14,000.

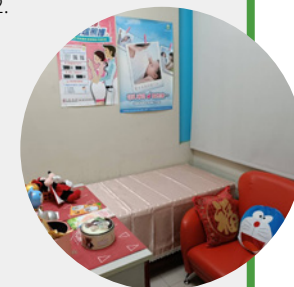
Grants and Scholarship for Children

To encourage employees' children(form elementary to master degree) to study hard and engage in comprehensive development, we released a total of NT\$6.973 million as scholarships in 2021. For employees' children with outstanding performance, we provide another NT\$9,000 as incentive.

Parental Care

- ◆ We offered a range of incentives to encourage birth. In 2021, 94 CLC babies were born, with a crude birth rate of 2.55%, higher than Taiwan's crude birth rate at 0.65% 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 2021, we issued a total of NT\$960,000 of birth allowance.
- ◆ Provide breastfeeding (lactation) rooms, and pregnancy parking spaces for female employees for a comfortable and safer workplace.
- ◆ Tuition fees discount by contracted kindergartens. Added 1 kindergarten in 2021 and there are a total of 10 contracted kindergartens in Taiwan.
- ◆ Family Care Leave : Parents could apply individually.
- ◆ Build up parent-friendly workplace and will provide paternity leave superior than regulations from 2022.

Item	Male	Female
Total number of employees entitled to parental leave in 2021	306	27
Total number of employees that took parental leave in 2021	1	3
Total number of employees that returned to work in the after parental leave ended in 2021 (A)	1	1
Total number of employees that expected to return to work after parental leave ended in 2021 (B)	1	3
Return to work rate after parental leave in 2021 (A/B)	100%	33.3%
Total number of employees that returned to work in the after parental leave ended in 2020 (C)	0	1
Total number of employees that returned to work after parental leave ended in 2020 that were still employed 12 months after their return to work (D)	0	1
Return to work rate after parental leave in 2020 (D/C)	NA	100%



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\$ 4.391M in 2021.

Free Meal Supply

Supply free meals for employees and establish a sanitary and comfortable dining environment.

Cash Gifts and Allowances

Wedding (including children) and birthday cash gifts.

Employee Assistance Program (EAP)

Established the regulations that relate to employee counseling and arrange psychological counseling and life guidance as necessary. Insurance and law consultation services and special training courses for foreign workers are arranged.

Leave Diversity

With superior natural disaster leave to the regulations, CLC employees are entitled to paid natural disaster leave with attendance bonuses and 1 day engagement leave; menstrual leaves are provided for female employees.

Dormitory and Housing Allowance

Provide dormitories for employees from other counties and cities in 11 mills/plants or offer them the housing allowance (NT\$6,000/month).

COVID-19 Allowance

1. **Allowance for quarantine hotels:** Employees required to quarantine are entitled to the allowance for quarantine hotels at NT\$2,500 daily, for a maximum of 14 days.
2. **Vaccination allowance:** Expatriates are entitled to full-amount allowance for COVID-19 vaccination overseas.
3. **Medical allowance for expatriates:** A maximum of NT\$30,000 for outpatient consultation and NT\$100,000 for hospitalization.
4. **To thank employees for their full cooperation during the pandemic,** an additional bonus of NT\$15,000 was distributed on the eve of the Dragon Boat Festival in 2021.

Employee Profit Sharing and Encouragement for Investment

To stimulate employee morale and appreciate the efforts and contributions made by employees, we review the overall operational performance every year to appropriate a certain amount of profit as employee profit sharing. Since 1998, we established a trust fund to encourage employees to participate in the employee share ownership trust (ESOT) to share the company's long-term operation results. CLC would provide 40% added allowance base on the amount employee allocate in the trust fund. In 2021, a total of 1,648 employees signed up to the ESOT, participate rate were 47.8%, total allowance reached NT\$35.38M.

	2019	2020	2021
Number of employees in ESOT (persons)	1,511	1,613	1,648
Employee participation rate*	44.9%	47.4%	47.8%
Amount of trust funds (NT\$10,000)	3,169	3,553	3,538

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

Well-Developed Retirement System

To protect the later life of employees, we have established the "Employee Retirement Implementation Regulations" according to the Labor Standards Act and Labor Pension Act. Besides stating the requirements for retirement, we contribute to the pension reserve by law to protect the employee's rights and interests to claim their pensions. To thank for employee's contributions to the CLC, the supervisor in hiring unit will also present retirees a "Merits for CLC" retirement gold medal to express the CLC's appreciation for their contributions.



5.2 Talent Cultivation and Development



Material Issues

Talent Cultivation and Development

Strategy

Accumulate talent strengths, optimize the job rotation heritage.

Goals of

2030

- Training hour per staff up to 42 hours/year
- Establish a key personnel talent pool and plan the talent development roadmap

Goals of

2022

- Training hour per staff up to 42 hours/year
- Optimize existing training regulations/systems, implement 5 projects (Cultivation of box plant supervisor, junior and intermediate supervisors training camp, internal seed instructor incubation training, expatriate management training, management talent training)
- CLC E-Learning system upgrade (Target to complete in 2022Q2)

Goals / Action Results of

2021

- Training hour per staff up to 42 hours/year
→ **Training hour per staff up to 45.2 hours/year**
- Optimize existing training regulations/systems
→ **Organized 13 physical courses by external lecturer**
→ **Kick off CLC E-Learning system optimization and added 29 online courses**
→ **Implemented foreign language ability enhancement project**
→ **Revised the "Administrative regulations for On-the-job Learning". Expanded the scope of application and increased the amount of allowance to encourage lifelong learning**
- Optimize existing training regulations/systems
→ **Developed internship scholarships for students**



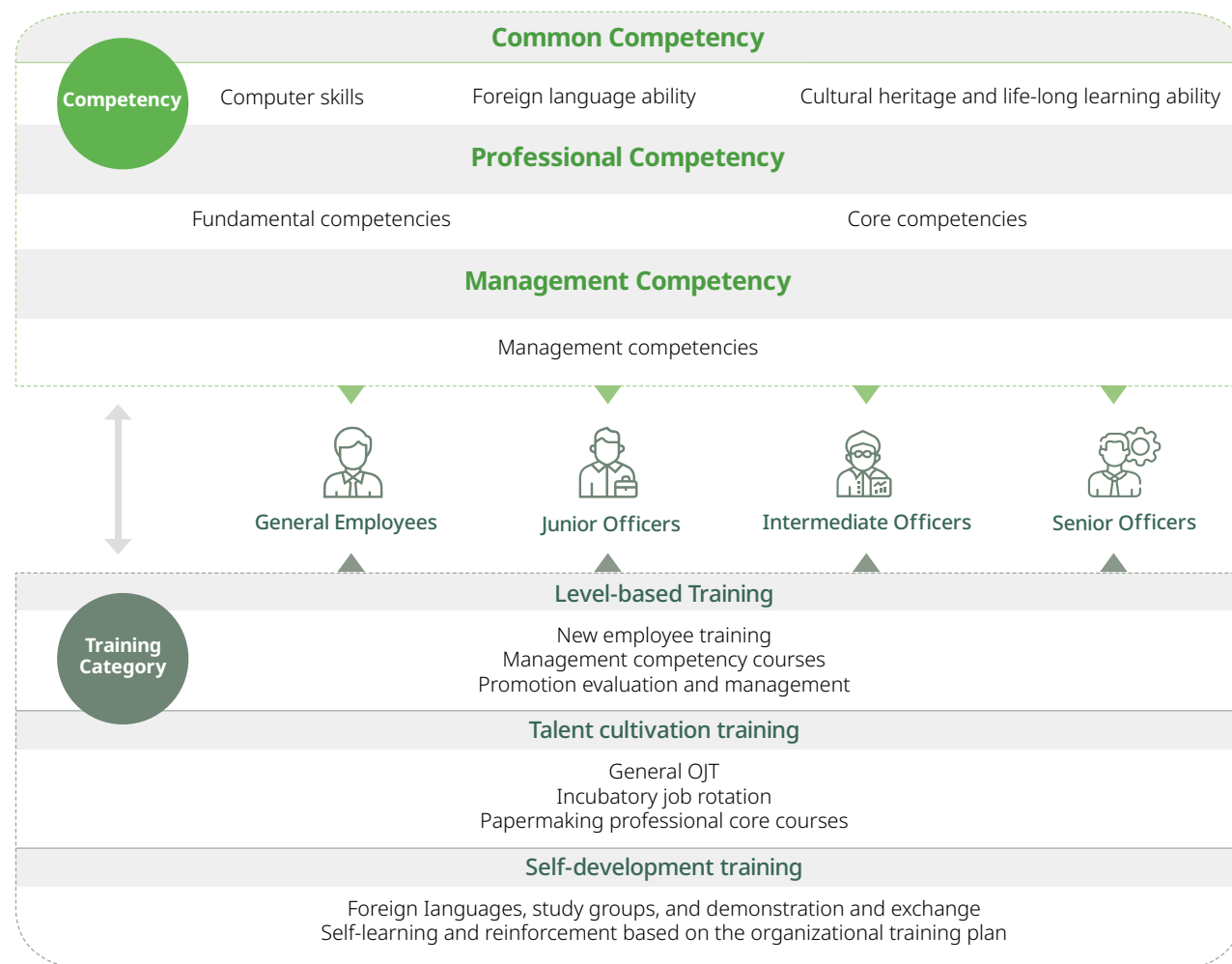
Talent cultivation and employee competence improvement are the cornerstone for business innovation and sustainable development. Learning resource diversification is the engine for competence improvement.



In response to business development, we are committed to building a complete talent development system. The HR department of the HQ takes charge of the enterprise-wide education and training and plans the hierarchical training for supervisors at all levels. In 2003, the CLC E-Learning system was introduced in response to the e-learning trend. All factories have their own responsible units to plan and organize talent development training. We have also combined E-Learning to the best-practice management system and total productive maintenance (TPM) to build CLC's total learning environment to provide employees with a systematic and targeted learning environment and channels for continuing education.

We actively implement focused talent training programs, including building the internal instructor and key talent pools and offer comprehensive training resources, to implement job rotation and cultivation of management and leadership talents and complete education for papermaking talents in order to constantly enrich CLC's workforce and capacity. In response to the need for international development, we also introduced the Foreign Language Improvement Program in 2021. Besides organizing the 1st English Presentation Contest, we also activated the CLC E-Learning Platform upgrading project and amended the "Employee In-Service Education Allowance Regulations" to increase the amount and expand the scope of the allowance for studying graduate programs to encourage lifelong learning.

CLC Talent Cultivation System



In 2021, the annual employee education/training was 166,515 hours (including E-Learning), and the per person training hour was 45.2 hours (+0.6 hours vs LY). We set a goal of 42 hours of training per person per year in 2030. For the development of company in the future, we actively plan relative courses to encourage employees to create career competitiveness.

2021 Employee Education and Training

	2019	2020	2021
Total amount of employee training (NT\$)	4,760,726	4,778,346	4,219,386
Total employee training hours (hours)	177,581	162,318	166,515
Training hours per person (hours/year-person)	49.4	44.3	45.2
Training expenses per person (NT\$)	1,324	1,305	1,146

Note: Taiwan Area. Training hours include internal training, external training hours, digital learning, work guidance and other learning methods.



CLC total learning and training resource diversity

Nonstop learning with CLC E-Learning

In response to the e-learning trend, we introduced the E-Learning Platform in 2003. In 2011, we further upgraded the platform according to the talent cultivation strategy to include the knowledge management and license/certificate management modules for employees and supervisors to quickly capture their personal learning records and provide expatriates with timely guidance to enrich practical and core competencies for overseas work, such as languages and risk, quality, and environmental safety management. We also combine the learning achievements in the E-Learning platform with the Company's promotion system to ensure all employees must complete the courses related to promotion.

✓ 423 courses in 29 categories with comprehensive coverage

In response to zero-carbon transformation, international talent development, and the reduction of physical courses by pandemic, we added 12 and 29 courses in 2020 and 2021 respectively to include fun sciences, papermaking core courses, carbon border tax, and epidemic control. Currently, we offer 423 courses in 29 categories. To enhance the mobile learning flexibility, we activated the upgrading project in 2021H2 to optimize the browser and operation user interfaces (UI) for mobiles and pads. The project is expected to be completed in 2022Q2.

Enhancing competitiveness with outstanding case management system

We introduced the best-practice improvement system to encourage employees to engage in innovation and benchmarking. In 2020, we expanded the system to overseas locations. (Please refer to Industry Services in P.56 for related reports.)

✓ In 2021, 47 best practices were reported, and 10 were selected to help enhance efficiency and create profit nearly NT\$100 million.

TPM: Deepening green energy transformation

✓ Training focus 2021: Smart manufacturing, energy conservation, and carbon reduction

In 1999 we introduced total productive maintenance (TPM). Through the six pillars of TPM, 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 enhance the overall productive and equipment effectiveness to enhance corporate competitiveness. Cross-plant/mill exchange was arranged half-yearly, with a total of 40 sessions so far. In response to corporate development, we added topics including digital transformation, smart manufacturing, and green energy and carbon reduction in the last two years.

Internal instructor empowerment for corporate succession

✓ Number of internal instructors in 2021: 284 persons, Cultivation Project for 2022

In 2001, we introduced the "internal instructor" system to cultivate instructors required by corporate development to strengthen CLC's five pillars: TPM, production expertise, quality, environmental safety, and energy. We also constantly organized relevant courses to improve their teaching skills, capability and knowledge. In 2021, there were 284 internal instructors. In 2022, we will implement the "Internal Seed Instructor Cultivation and Training Program" to systematically cultivate seed instructors and put all courses on the E-Learning platforms to extend of all CLC businesses

Industry-Academia Collaboration/Internship Programs

✓ Scholarships for student internship in 2021 and 63 internship vacancies in 3 years

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 for internship during summer and winter breaks. During 2019–2021, we engaged in industry-academia collaboration with colleges such as Minghsin University of Science and Technology and the Department of Forestry, National Chung Hsing University to provide 63 internship vacancies. The student internship scholarship was established in 2021 to encourage outstanding students from disciplines related to papermaking to focus on studying. We also arrange suitable vacancies for them after graduation to provide smooth connection from education to employment.

Talent pool building and comprehensive elite training programs

Besides actively promoting potential excellent talents to management posts based on the inventory of key talents and the management and technical competences of intermediate and senior management and the management's emphasis on the rise of young supervisors, we also organize training for focused talents to the need of corporate expansion.

✓ 2020: To strengthen the leadership of supervisors and build a high-efficiency team, we held the 3 days training camp for senior executives (level above factory director) with a total of 40 participants.

✓ 2022: Promote the project of cultivation of box plant supervisor, junior and intermediate supervisors training camp, expatriate management training, management talent training

Promote Comprehensive Training and Complete Talent Cultivation

Hold "New Employees Consensus Camp" 1 to 2 Times Every Year

Help the new member to improve the understanding of CLC's operational strategies, corporate culture, and industry and cohere the loyalty of new employees (lectured by CEO). From 2019-2021, we organized 3 camps with total of 205 participants.



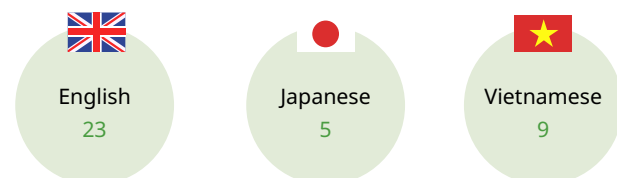
Marketing Department, Household Products and Paperboard Division, **Chi-Fang Wu**

"I still remember I was attracted to CLC's sense of mission. After the new staff camp, I understand better about the value of sustainable operations, and this makes me proud to be part of CLC."

Encouraging continuous education of foreign languages

We established the Foreign Language Allowance in 2006 and expanded the scope from English and Japanese to Vietnamese in 2015. In 2021, a total of 37 employees applied for the allowance. Since its establishment, a total of 135 employees have applied for the allowance to enrich CLC's international talent pools. In 2021, we introduced the "Foreign Language Improvement Program" to provide resources for foreign language training. We also organized an English presentation contest attended by 38 contestants from different departments to help improve the verbal expression of employees.

Number of applicants for 2021 foreign language allowance



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 regardless of territorial limits to optimize the cultivation of all talents.

Each quarter we organize the thematic speechand training courses

Courses in 2021 included: 2021 Economic Forecast, Global Net Zero Development and Business Responses, Risk and Crisis Handling, Customer Cultivation and Maintenance, and Sales Skills Improvement.

1st CLC English Presentation Contest

The 1st CLC English Presentation Contest was arranged on October 22, 2021, with contents including company, department, and project introductions. A total of 38 elite employees from different departments participated in the contest.

CLC Diversified Language Learning Platform

1. E-Learning: Ray Du English and related English learning courses.
2. TutorABC online small-class English learning: 350 online English courses.
3. Physical classroom English courses: established the "Foreign Language Learning and Incentivization Instructions" to provide employees with allowances for foreign language learning and Foreign language incentives.
4. Language clubs: funded these clubs to hire English and Vietnamese instructor. Currently, there are language clubs at Headquarters, Houli Mill, and ChuPei Mill.



The Procurement Department
Speeches of Winners First Prize: Kuan-Jung Chen

"I learned from the judges' recommendations: 3I –information, impression, and interaction; eye contacts; speech tempo; body language; and standing position, each has great learning in itself. Of course, I'm happy with the award, but a new experience and the lesson learned are more important."

Hsinchu Mill strengthened competence training to accelerate technology succession during the pandemic



Facing the pressure from intermediate workforce disruption and technology succession in the manufacturing industries, CLC Hsinchu Mill unfolded the "Competence Training Enhancement Project" when shifts were reduced under the climate of the pandemic.

Professional skill
presentation
training 3 round

On-site operation
training 4 round

Develop production
technology course material
100 copies

Course Material
Presentation

CLC Builds the fun "Reading Bar", "Study Groups" and "Seasonal Selected books"

By exerting our paper design expertise, CLC builds the fun, scholarly "Reading Bar" in the office to spread the good of reading. CLC also organizes study groups from time to time to encourage employees to share what they've learned from reading. We also recruit quality pre-owned books from employees and the New Taipei City Library to enrich our books. To encourage comprehensive learning, CLC also organizes city field trips to explore and experience the city's beauty. We also purchase selected books for management team with 80 persons every quarter and organize study group by division.



2021 第二季 i 閱讀書單：
如何避免氣候變遷（Bill Gates）

Performance Evaluation and Promotion

We have established a robust career development combining with a dual-track promotion system for professional and management to allow employees to exert their talent based on their expertise, resources, and knowledge. In recent years, alongside the inventory of key talents and intermediate & senior management and technical competencies, the management emphasized on the development of younger supervisors by actively promoting potential excellent talents as supervisors. From 2019–2021, a total of 176 young talents were promoted to supervisors and 23.3% (35 persons) of them were below 35 years old.

Number of employees promoted to supervisors	
2021	64
2020	69
2019	43

For employees to keep up with new knowledge and put theory to practice, we perform annual performance evaluation every year and evaluation for new employees. Those who have been working (including reinstatement) with us for one 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.

In 2021, a total of 3,083 received the performance evaluation, the proportion of male was 84% and female was 83%. No significant difference between gender is found in the evaluation results. However, the proportion of female employees with excellent performance (A grade) is higher than that of male employees.

Ratio of Employees Receiving Regular Performance Assessment

	2019	2020	2021
Male	81%	82%	84%
Female	83%	82%	83%

*Exempt from participating in regular performance assessment: Senior supervisors, new employees with a service length less than one year, foreign employees, contract hourly paid employees, employees returning to work for less than half a year after unpaid leave.

Assessment Results

	Male			Female		
	2019	2020	2021	2019	2020	2021
Distinction	1.0%	1.3%	1.9%	1.0%	1.8%	1.3%
A grade	54.0%	53.9%	60.8%	58.0%	56.4%	65.1%
Other grades	45.0%	44.8%	37.4%	41.0%	41.8%	33.6%

5.3 Healthy Workplace



Material Issues

Healthy Workplace

Strategy

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

Goals of

2030

- Cultivate CLC's OH&S culture (Effective 2025, a 5% yearly growth for participants of OH&S promotion activities and talks)

- Implement zero occupational accident

Goals of

2022

- OH&S promotion activities with 1,700 participants
- Complete ISO 45001 certification at 10 mills/plants
- Employee OH&S training hours: 20 hours/person/year

- Implement zero occupational accident

Goals / Action Results of

2021

- OH&S promotion activities with 1,600 participants
→ **Physical and online course reached 4,494 participants (Physical: 1,135 participants)**
- 10 Factories completed ISO 45001 certification
→ **All completed**
- Employee OH&S training hours: 20 hours/person-year
→ **26 hours/person-year (Physical, online and written copies)**
→ **Enhanced AED orientation**
→ **Completed 6 health promotion column articles**
- Complete the establishment of the health management system platform
→ **Completed**
- Headquarter and Hsinchu plant were awarded the Health Promotion Mark, 8 mills/plants certificated the MOHW "Healthy Workplace"
- In response to epidemic prevention operations, we set up epidemic control platforms, in-plant health management, and autonomous health management system. Besides, we established and implemented epidemic prevention plans, guidelines, emergency response operation SOP
- Implement zero occupational accident
→ **No occupational accident in 2021**

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.

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 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 and make employees healthier through wellness promotion and strengthening sanitation management against the pandemic and the personal health risk management of employees.

Through constantly organizing wellness promotion activities, optimizing healthcare projects, and promoting 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 a health enterprise. We have also set the short-, medium-, and long-term goals for the participants of wellness promotion activities.

2022	1,700 persons
2025	2,000 persons
2026~2030	Increase by 5% every year

Strategic goal : Total participation for safe and healthy workplace with zero accidents.

Management Approach

1. Total participation :

Promote the OH&S management system, encourage employees to participate in training, enhance OH&S awareness to equip with the ability to identify hazard and assess and handle risks. Provide OH&S-related consultation and assistance channels, prevent occupational accidents through improvement proposals, and continuous advancement of the overall OH&S performance.

2. Zero Accident

Insist on providing employees with a safe workplace and achieving zero accident in business operations and project implementation.

3. Safety and Health

Promote self-management of workplace health, enhance protection and care for mental and physical health, arrange appropriate activities to enhance employee connection, enhance employees' environmental and social care, promote LOHAS, and enforce employee self-protection, mutual protecting, and supervision.



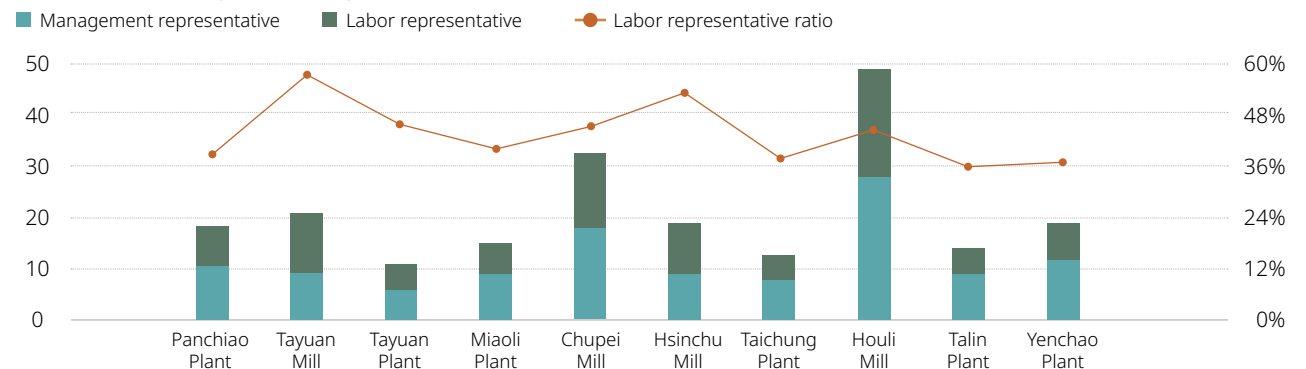
Management Process

The management and HQs Health, Safety & Environment Department shall assess and determine the direction of implementation according to the ISO/CNS 45001:2018 OH&S management system and authorize mill/plant management and HSE staff to implement the system.

- ➡ Assess OH&S risks
- ➡ Propose improvement and control measures
- ➡ Department heads, industrial safety staff, mill/plant nurses, and occupational medicine specialist of each mill/plant implement health management

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 39%~57%). 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.

Labor and Management Representative of the OH&S Committee in 2021



HSE Risk Assessment

We establish our HSE assessment criteria according to ISO 14001:2015 and ISO/CNS 45001:2018 management systems. The unit heads and qualified personnel of each mill/plant shall plan risk identification and assessment, and HSE personnel shall gather the data of the entire mill/plant. 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 implement OH&S management and improve OH&S performance, we introduce the improvement proposal system to encourage employees to propose improvement for operation safety or the work environment. In 2021, a total of 1,890 OH&S proposals were received, and mills/plants with outstanding HSE performance were rewarded at the year-end.

In 2020, 6 employee disability injuries were reported (Taiwan, China and Vietnam), no serious occupational accident and pinch hazard was the main type of occupational injury; no occupational disease was reported. We also actively implement improvement procedures to move forward zero accidents:

- ① Strengthening safety operation education and training
- ② Reviewing the operating procedures and immediately improve the operating environment and equipment
- ③ 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 2021, no occupational accidents on non-CLC employee resident at CLC was reported.

Installing online vibration monitoring systems for better employee occupational safety

To prevent occupational safety accidents, Hsinchu Mill installed the online vibration monitoring system in 2021 to improve the occupational safety of employees. Additionally, digital management was applied to help judge the causes of accidents to reduce the operational risks of employees.

Occupational Accident Statistics

		2019		2020		2020	
All Employees		Male	Female	Male	Male	Female	Male
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	1.10	1.10	0.16	0
Taiwan MOL Occupational Accident Statistics	Disabling Frequency Rate (FR)	1.12	0	1.26	0.16	0.95	0
	Disabling Severity Rate (SR)	1	0	1,906	1	39	0
	Frequency-Severity Indicator (FSI)	0.04	0	1.55	0.01	0.19	0
	Pulp, paper, and paper product manufacturing FSI	0.92		1.03		0.82	
	Hours worked	6,226,165	863,992	6,348,126	912,482	6,334,200	922,304

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 x 1,000,000
- The rate of high-consequence work-related injuries = Number of high-consequence work-related injuries / Hours worked x 1,000,000
- FR=Number of disabling injuries / Total hours worked x 1,000,000
- SR=Number of workdays lost due to disabling injuries / Total hours worked x 1,000,000
- Pulp, paper, and paper product manufacturing industries are subject to the "2018-2020 FSI by Industry" announced on OH&S management system recognized information and application platform on March 8, 2022.

OH&S Education and Training Management

For HSE personnel to timely capture the changes in OH&S related laws and regulations, we have setting up our own OH&S education and training program and sending staff to participate in conferences and talks on OH&S-related topics from time to time. In addition, each mill/plant sends senior staff 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. In 2021, we created "Health Promotion Column" in CLC Journal(Published every 2 month) and shared 6 articles related to cardiovascular disease and stay away from infectious diseases, etc. The average OH&S training for each employee is about 25.9 hours.

	2019	2020	2021
HSE training hours	73,880	71,552	95,542
Training length of each employee	20.2	19.3	25.9

*2021: Include physical, online and written copies

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.

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 2021, we arranged 3,734 hours of contractor education and training for 5,111 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.



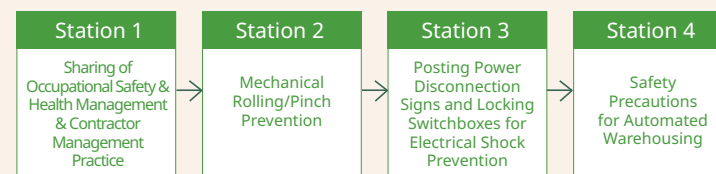
Cross-factory Audit/ OH&S Rating

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. In 2021, we performed cross-factory OH&S audits on 4 mills and conducted annual OH&S rating at 10 mills/plants.

2021 Workplace Safety and Health Exchange: Mechanical Rolling/Pinch Hazard Prevention for Manufacturing Industries

To constantly reduce occupational hazards, Houli Mill and Taichung City Labor Inspection Office co-organized the "Workplace Safety and Health Exchange: Mechanical Rolling/Pinch Hazard Prevention for Manufacturing Industries" on September 29, 2021.

Exchange Process



Health at CLC: CLC Health Management System Platform & LINE Health Group

We developed the "CLC Health Management Platform" in 2021 to replace traditional paper data, hoping to keep track on employees in the health high-risk group by online. Then, professional in-house nurses and occupational medical specialists will analyze their data and give advice on health. In addition, we also established the CLC Medical LINE@Health Group in early 2020 for nurse editors to provide real-time health and pharmaceutical information and health consultation services. Since the outbreak of COVID-19, the company has also used this group to conduct a comprehensive epidemic investigation, grasp the health information of colleagues at the first time, and share the epidemic situation, increase medical knowledge to protect the health of every colleague.

Promoting Workplace Health

To prevent employee from health hazards, maintain employee health, effective manage employee health data, and ensure employee OH&S, we have established five health instruction and management measures:

Health Inspection	<p>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.</p> <p>➡ In 2021, a total of 2,976 employees took the general health checkup, with an achievement rate of 80.6%; and 1,181 employees took the special health checkup. For employees with abnormal results, the Company also actively provided health guidance and related consultations by medical staff.</p> <p>➡ Hired Dr. Guan Tang Li as medical director in 2021 and provided severe illness, health care and other related issues consultation every week.</p>
Improving Operation Environment	<p>To keep the work environment cool, besides improving the ventilation equipment, we installed cooling equipment at focused work zones to provide employees with a comfortable work environment.</p>
Promoting No Smoking Workplace	<p>Established the "Plant Site Smoking Management Regulations." In consideration of plant safety and in conformity with the "Tobacco Hazards Prevention Act," we also established related health-promoting regulations toward a no smoking workplace.</p>
Health Promotion	<p>To build a quality workplace environment, we progressively promote various health management and health promotion activities to improve the employee's health condition and the work environment quality, in order to build a happy, healthy workplace.</p> <p>➡ In 2021, we organized a total of 47 health promotion activities and talks with 4,494 participants. Due to the unstable epidemic situation this year, in addition to the physical sports classroom activities, we also opened online courses and published article in CLC journal, The relevant written information will be released by the professional medical staff in factory to circulate base on the health status of the colleagues in the factory in factories.</p>
Health Protection	<p>In conformity with the overwork, maternal, ergonomic, workplace violence, and respiratory protection issues as stated in the Occupational Safety and Health Act, we actively take care of employees for the above issues by arranging stress relief talks, core muscles exercise, and ergonomic hazards prevention talks or on-site instructions to protect the health of employees.</p>
Epidemic Prevention	<p>In response to epidemic prevention, we have established the "Guidelines for Epidemic Control"; built and implemented the epidemic investigation platform, plant/mill access health management, self-imposed health management systems; and established and implemented the plans, guidelines, and emergency response SOPs for epidemic control. During the level 3 control in 2021, our counteractions included:</p> <p>➡ Investigation of the epidemic footprint and vaccination coverage on employees.</p> <p>➡ Maintenance of business continuity through work from home by headquarters and each factory offsite office to reduce the risk of infection from work and transportation for employees.</p>

Achievements in Workplace Health Promotion Eight Mills/Plants Pass MOHW "Healthy Workplace Certification"

CLC devote to promote health in workplace. Headquarter and Hsinchu plant were awarded the Health Promotion Mark. We will continue to provide full protection for employees based on the 4 aspects" Knowing, Eating, Exercising, Supporting".

MOHW "Healthy Workplace"

Health Promotion Mark → Head Office, Panchiao Plant, Tayuan Plant, Hsinchu Mill

Health Activation Mark → Tayuan Mill, Miaoli Plant, Houli Mill, Yenchao Plant



"Knowing" means "knowledge promotion"

Take Hsinchu Factory as an example, they use the health management APP to release new health knowledge every week and hold a series of health promotion lectures.



"Eating" means "Healthy Diet "

Take the head office as an example, they offer weight loss classes irregularly, regular body examination and tracking, yoga and fitness courses, and provide cutting carbs meals and incentives.



"Exercising" means "Play sports in life"

We funds club activities every year and hire sports instructors for the members. In 2021, sports clubs accounted for 80% of the total clubs and the number of participants were 697.



"Supporting" means "Medical Support"

We analyze the annual health examination report and self-assessment questionnaire to screen out colleagues with high health risks, providing individual health guidance and education and assist in arranging interviews with doctors or referral to medical institutions for further care.



06

Society

Develop a society of diversity and inclusion, enhance public wellbeing, and shape a society of a positive circle.

✓ 1,626 volunteer service hours

✓ Invested
NT\$24.91 million
on social welfare

✓ Implemented **10** Anti-epidemic caring
actions at home and abroad

✓ Added **2** paper libraries, with a total of
21 nationwide

✓ CLC Paper libraries plant the seeds of circulation
Awarded
PwC's CSR Impact Award

Material Issues Social Participation

Strategy

Based on the vision of "CLC: Love Paper & Love Earth," we integrated internal resources with "Cheng Huotien Charity Foundation" and "Cheng Loong Children's Care Foundation" to engage in social welfare in terms of four aspects: "Secondary Forest," "Care for Children," "Social Participation," and "Emergency Assistance."



Goals of

2030

- 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

Goals of

2022

- 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 2 paper libraries
 - On-site inspection and maintenance of existed paper libraries

Goals / Action Results of

2021

- Invest in social welfare > NT\$10 million
 - NT\$24.91 million (include 2 foundations)
 - Implemented 10 Anti-epidemic caring actions at home and abroad
- Improve volunteer participation system
 - 96 environmental volunteers, 459 caring volunteers, a total of 1,626 volunteer service hours, commended in public
 - Developed "Recycled Paper Education Course" and cultivated volunteers for environmental education.
- Allocate resources to social welfare
 - Caring 85,600 families in winter for 13 consecutive years.
 - 81 assistance cases
- Promote activities relating to Secondary Forest
 - Recycled 869 tons of recycled paper from community.
 - Collected 1,850 second-hand goods in "CLC Eco Echo Green Action Campaign"
 - Factory Visit >1,000 persons
 - Created the first paper recycling promotion manual in paper industry, organized the national elementary school camps and teacher training to conduct environmental education
- Add 2 paper libraries
 - Xinhe Elementary School in New Taipei City and Xingang Elementary School in Chubei, reopened the 4th paper library- Fenggang Elementary School in Chupei, and build the first kindergarten paper library
 - Cooperated with Kaohsiung Public Library to build 5 micro-paper libraries

Education of Secondary Forest, CLC Plant the Seeds of Circulation for Society



Promote environmental protection, eco education, energy conservation, and carbon reduction for a sustainable earth

In 2014, we created the "Paper Library" for elementary schools in remote townships with recovered paper and design resources. Besides enabling schoolchildren to contact paper and understand the importance of forest conservation and environmental protection, the library also resolved the book resource shortage in remote townships to stimulate the learning interest of children.

Foreseeing the changes in macroenvironmental trends, we engaged in the education for youths, the public, and the industry in 2016. From opening plant/mill visits, organizing creative activities (Box War) for college and university students, to the technological exchange of sustainable paper application through industry-academia collaboration, we promoted the sustainable value of secondary forests through various innovative actions to plant more seeds of circulation in society.

Expanding the influence of sustainable initiatives by sharing industrial information through transparent online mass communication

Playing the role of a bellwether, we share online education resources on recycling and posted a total of 26 videos on the corporate website to help stakeholders quickly understand recycling. We also help businesses in the same industry resolve waste disposal with recycling through paper sorting education. Cumulatively, **nearly 14,000 persons visited CLC recycling webpage on the corporate website in 2021.**

➡ Love Paper, Love Earth: <http://www.clc.com.tw/activity>



Concept of Sustainability Education × Corrugated Paper Recycle Circulation

1. Paper Library

3. Video Marketing

2. Box War

4. Factory Open Visit

1. Paper Library, Green Place

"Using 1 ton of recycled pulp can reduce the felling of 20 trees, just like planting 20 invisible trees. This is the secondary forest".



Knowing that education is the driving force for the advancement of society, CLC has built a "paper library" in Taiwan since 2014, allowing students to understand the importance of resource recycling to the environment through recycled paper products. Echoing the sustainable development vision of the United Nations SDGs, CLC has set a goal of building 40 paper libraries by 2030 to continuously facilitate the education of secondary forest. A total of 21 libraries were established till 2021, benefiting more than 15,000 children, donating more than 5,400 good books, and expanding their influence through the film of "Recycling Seeds Germinating | Paper Library Microfilm".

4 Characteristics of Paper Library:

- (1) Made of 100% recycled paper, customized specification for every school
- (2) Books selected by Professional Scholar to enhance the environmental awareness of children
- (3) Develop "Paper Studio Eco-courses" to stimulate the creativity and learning interest of children
- (4) Promotes recycling actions and concepts in campus

To facilitate the seed of sustainability and circulation engraining in Taiwan, we have made a film to record of "paper libraries" to communicate with the public, and was awarded the PwC's CSR Impact Award. The paper library has achieved the dual goal of library environment improvement and quality education optimization, and its creativity and achievements are worthy of recognition.



CLC Paper libraries plant the seeds of circulation
Awarded PwC's CSR Impact Award
(2021.11.11)

Extending paper library project with the macroenvironmental trend through heterogenous collaboration for bigger influence in 2021

Building the first kindergarten paper library to constantly engrain recycling in children

Located at the kindergarten affiliated to Xinhe Elementary School in Xindian, the paper library enables preschoolers to become aware of environmental protection earlier with paper installations fitting their physique and atmosphere.



Building sustainable reading areas with micro paper libraries in coordination with the Kaohsiung Public Library

In this first-time collaboration with public libraries, we progressively added creative reading areas with wonderful paper desks and chairs at five Kaohsiung Public Library branches: Yenchao, Gangshan, Lujhu, Alian, and Mitou during library closure for the pandemic. Story-telling mothers also drew totems with local elements in these areas to welcome readers visiting the library after the pandemic. In 2021, a total of one million persons visited these libraries.

Expanding sustainability influence through training for environmental education volunteers across Taiwan: Production of the sustainable development education handbook and training for instructors of sustainable development education



(1) Producing teaching materials and organizing seed teacher training camps with Tetra Pak and Future Parenting Platform

- **The Adventure of Paper Superman and Box Soldiers picture book**—Guide children to understand the origins, recovery and recycling, and magic transformation of recovered paper through storytelling.
- **Getting seniors to help juniors**—Four sustainability teacher training camps in northern, central, and southern Taiwan in 2022. The knowledge of paper recycling is transformed and designed into lesson plans that teachers can use in class or activities, and interesting lesson plan interaction is designed in the four teacher training camps, each with 50 participants. Site: <https://parenting.cwgv.com.tw/event/2022TPCL/EDM.html>

(2) Training enterprise volunteers, organizing elementary school camps through CLC paper libraries across Taiwan

- Systematically trained over 10 environmental protection volunteers at CLC to help children to understand paper recovery and sorting through paly and picture books for children to understand the correct knowledge of paper sorting.
- Organized elementary school camps with CLC paper libraries to extend sustainable development education to campus education.

Event Highlights

2022.1.16 Teacher Camp in Taichung:
["CLC first sustainability education camp for teacher kick off! Promote seeds of circulation into campus": https://www.clc.com.tw/new?i=501](https://www.clc.com.tw/new?i=501)



CLC-General Affairs Department
 Xian Da Xiao

"It was a terrific experience teaching in the campus team. I was so glad to see that children could learn correct paper sorting through play. I wish the sustainability concept can be engrained in the minds of children."

2. Box War

Sponsored Box War five times with over 54,000 participants

Besides engraining sustainable development education in elementary schoolchildren, we began to co-organize Box War with the Taiwan Paper Industry Association and Environmental Protection Administration in 2016 for more citizens to understand secondary forest. With recovered cartons as the medium, sustainable development, environmental protection, and resource recycling are realized through creative handicraft and group competitions and combined to CLC's Sustainable Paper Application industry-academia collaboration project to add more creativity to the paper industry and increase its favorability.



3. Video marketing

Making paper microfilm in collaboration with environmental protection KOL to expand media influence

Although physical activities were reduced by the pandemic, our progress in environmental education never stops. Hence, we extended the reach to online media platforms and made the video Electricity from Waste Meal Boxes: Transforming Waste Food Paper Containers in collaboration with Taiwan Taike Story, a KOL of environmental issues, to investigate the creative solutions of meal boxes for takeaway orders with explosive growth during the pandemic to proactively engage in dialog with the young generation.



4. CLC Mill/Plant Visit

To pursue the common good and improve the circular economy image of the paper industry, we have proactively opened mill/plant visits to the public since 1959 for them to understand the operations of paper manufacturing and share the circular knowledge. Although the visitors were reduced during recent pandemic, compared to 2,300 visitors annually, there were still 1,000 visitors in 2021, including 46% from academic units and schools. Besides the exchange, cooperation, and sharing of technology and resources, further exchange on circulation and recycling was made to empower secondary forest education to the youth and engrain it in children.



We established the "Cheng Loong Children's Care Foundation" and "Cheng Huotien Charity Foundation" to care for the vulnerable in society and invested over NT\$115 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 2021, two foundation and CLC invested NT\$24.91 million and the allocation were as follows:

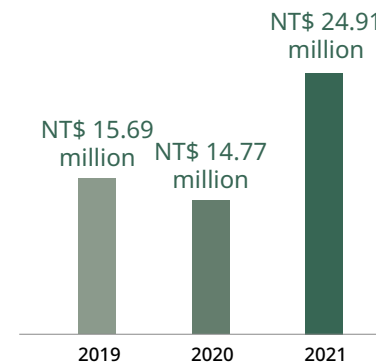
Cheng Loong Corporation: NT\$15.75million, totaled NT\$56.86 million.

Cheng Loong Children's Care Foundation: NT\$5.74 million, totaled NT\$40.23 million.

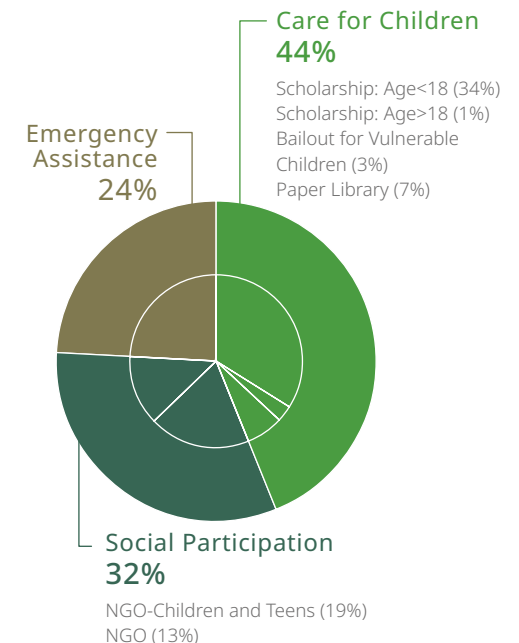
Cheng Huotien Charity Foundation: NT\$ 3.42million, totaled NT\$72.24million.

*CLC Foundation Annual Donation Details/Budget/Account

Social Expenditure in Recent 3 Years (CLC and 2 Foundations)



2021 Social Expenditure Ratio (2 Foundations)



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 Cheng Loong Children's Care Foundation in collaboration with NGOs and social welfare organizations. In addition to the paper library project, we also provides 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 2021, we continued to support the children despite of the COVID-19 impact and a total of NT\$3.17 million of scholarships (included 37 schools, covered the students from elementary to college) were awarded.

CLC Scholarships and Grants 13th 6,388 students

Eligibility: Students of primary and secondary schools near CLC mills/plants

"Let Trees Grow High and Let Love Fly" Scholarships and Grants 29th 2,867 students

Eligibility: Fostered children and youth from Taiwan Fund for Children and Families

We Care! CLC Care Scholarship

To encourage students to study hard, CLC established the "CLC Care Scholarship" in 2015 providing scholarships for disadvantaged in elementary schools near the CLC factories so that the students with excellent grades or special talents can also continue to study hard under the encouragement. Since 2016, we expanded to more school and added scholarships for the junior high school in 2018 to benefit more students.



Facebook Link of "Cheng Loong Children's Care Foundation" and "Cheng Huotien Charity Foundation"

"Let Trees Grow High and Let Love Fly" Scholarships and Grants

CLC collaborate 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, 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 to enrich knowledge and good memories.

Partner	Theme
Taiwan Fund for Children and Families	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Orphanage Scholarship
Elementary School Sport Association	<ul style="list-style-type: none"> National Basketball Championship

Andante x Taiwan Fund for Children and Families: Building A gentle Castle for Child Protection

Insisting on "Pamper loved ones with tenderness" Andante household tissues brand promoted the A gentle Castle for Child Protection online game in collaboration with the Taiwan Fund for Children and Families to encourage the public to



care about child protection issues in 2021, including health, improper treatment, education, and fostering. The project was promoted for 1.5 months to affect up to 500,000 people.

Social Participation

Upholding "spending on society with what is taken from society," we actively engage in charitable activities and address major social issues. In addition, besides participating in community activities through all CLC mills/plants across Taiwan, we organize the table-tennis and softball competitions, household product charity sales, uniform receipt (invoice) donation, charity sales, streetlamp and river adoption, sheltered bus stops and pavement beautification, and blood donations. In response to the COVID-19 edged up, CLC immediately launched ten anti-epidemic care actions, including NT\$10 million epidemic prevention fund to support New Taipei City, donating 2 positive pressure testing booth, etc. Our factories in Vietnam also Vietnam provided vaccine and supplies to fight with disease.

(More content refer: 5th Sustainability Practice: Increasing Production at Full Steam and Activating 10 Epidemic Care Actions to Protect Loved Ones p.17, 18)

Volunteer Service: Promoting Social Care and Services during the Epidemic Situation

In 2021, we participated in 158 charitable activities. A total of 555 volunteers making selfless contributions up to 1,626 hours through two CLC volunteer teams: "environmental protection" and the "caring" to bring a warm, positive circle to the environment and society.

CLC Volunteer Service in 2021

Volunteers Type	Count	Number of Participants	Hours
Environmental Protection	17	96	329
Caring	141	459	1,297
Total	158	555	1,626

329
Hours

Environmental Protection Volunteer

Engaged in the publicity of paper recycling in all CLC mills/plants across Taiwan to collect a total of 869 MT of recovered paper. The team also engaged in coastal clean-ups, street clean-ups, and tree plantations; and adopted and maintained 90 public toilets (Added 30 toilets vs. 2020) across Taiwan to provide eco-friendly toilet tissues and clean up public toilets. Besides, Tayuan Mill also adopted river near the factory since 2016 and was awarded the certificate of appreciation by the Taoyuan City Government.

1,297
Hours

Caring Volunteers

For children to study without worries, we organized the "13th CLC Scholarships and Grants" to send encouragement and warmth to over 25 townships and downs across Taiwan through volunteers. We also engaged in community support by distributing 170 MT of disinfectants to residents living in Chupei Mill's neighborhood to clean their homes during the COVID-19 pandemic. We also engage in active interaction and cooperation with external units to engage in various projects, such as disaster prevention drills, winter charity donations, in-kind donations on three major folk festivals, and blood donations. In addition, we launch 6 major actions to provide warmth before CNY, integrating cross-border resources to expand influence, including caring for waste collectors in the Taichung area, assisting the elders to let go of the old and take hold of the new, etc. We also extend our care to A-Chang Shelter Factory in Miaoli, providing simple packaging work to disadvantaged groups to help develop their skills. And we even provided guidance and referrals for foreign collectors entering into CLC near the Banqiao Factory, providing stable jobs and improving their lives.



CLC adopted 90 public toilets across Taiwan and provided recycled tissues and posters for promoting environment protection

Love the earth with Small Actions, CLC organizes the "Recycling and Classification" Activities

To deepen the local connection, CLC factories across the country continue to hold internal and external paper recycling activities to promote the correct classification. A total of 869 tons of recycled paper will be recycled in 2021.

CLC ECO ECHO: Goods Recruitment

Recruited 404 kg of pre-owned goods containing 1,850 items in 23 boxes to reduce carbon by 832 kgCO₂e

In response to the country's zero carbon vision, we unfolded the CLC ECO ECHO Low-Carbon Initiative in late October 2021 to urge employees and supply chain partners to practice low-carbon life, including replacing elevators with the stairs, preparing own shopping bags, and others. In just 3 weeks, we recruited 4,291 commitments of green actions. Furthermore, we initiated the one-week "Goods Recruitment" event in December to recruit six types of new or pre-owned goods from employees at HQs and Panchiao Plant. The event earned heat feedback and recruited 404 kg of pre-owned goods containing 1,850 items in 23 boxes to reduce carbon by 832 kgCO₂e. All recruited goods were delivered to the "New Taipei City Xmas Treasure Fun- Flea Market" organized by the New Taipei City Government. All proceeds from the charitable sale were donated to the New Taipei City Good Day platform.

CLC Financial Division
Yu Lian Zheng

"It was a meaningful campaign that I could let go out with the old and take hold of the new ahead and deliver care for the public."



Six Care initiatives before Lunar New Year: Integrating cross-industry resources for bigger influence Warmth from CLC did not stop for the pandemic and benefited 85K households over 13 years

Before LNY of 2022, we integrated the caring cases of waste collectors within the internal supply chain and launched "Six Winter Charity Operations" in collaboration with government units and over four non-governmental organizations (NGOs). Unlike the large charitable activities before, we combined cross-industry resources and mobilized volunteers to ceaselessly support remote townships and socially vulnerable groups with various small activities during the pandemic to make these enterprise charitable acts safe and warm.

Care individual collectors in Houli, Taichung

Expand care for waste collectors in Taichung area

Accompany the elders who live alone in Huashan in CNY

Help the elders of Hongdao to get rid of the old and renovate the new

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

Promotion of Art and Sport

CLC dedicated to the promotion of arts and culture, education and culture, and sports activities. We have sponsored concerts, road races, bicycle activities, calligraphy and cultural feasts, talent sketches, and painting activities for years, enriching the spiritual life of the community. Since 2013, we organized the national Andante Softball Friendly Game, Andante Table Tennis Competition, inviting employees, third-party manufacturers, community groups, government agencies and academic groups and other groups to join.



*Andante Cup National Table-Tennis Competition: Canceled due to COVID-19 in 2021

Glory for Taiwan: Development of Next-Generation Table-Tennis Stars for Taiwan from CLC

To promote table tennis sport to children, the CLC funded the table tennis team of Chu Jen Elementary School and Feng Tien Elementary School in Hsinchu County in 2020, including sponsoring the fund for events and practice equipment. The CLC also hired professional coaches to provide players with guidance and training to support table tennis players' development in elementary to bring glory to Taiwan.



Emergency Assistance

Since the establishment in 1993, Cheng Huotien Charity Foundation has spared no effort in promoting emergency assistance, disaster relief, medical aid, and charity donation. Since 2009, the foundation has sponsored the "Winter Charity Donation for Vulnerable Family Program" for 13 consecutive years to provide the needy with CLC household tissues to show warmth in society at the end of the year. So far, we have benefited 85,600 households.

Partner	Theme
Taiwan Fund for Children and Families	• Winter Charity Donation for Vulnerable Family
Hondao Senior Citizen's Welfare Foundation	• The Ageless Riders Travels a Thousand miles for Love • 2021 Long Term Care Service Plan • Epidemic Prevention Care Goods Project

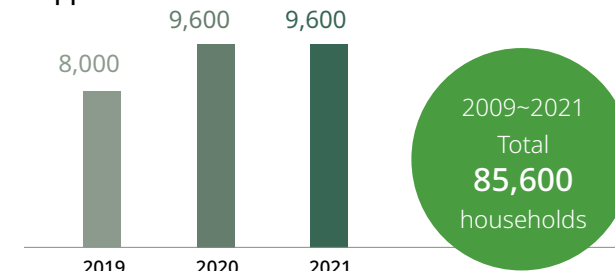
To take care of a large amount of individual collectors, CLC launched the "Caring Activity for Individual Collectors" since the fourth quarter of 2020 and cared for 151 front-line individuals so far. In addition, the foundation constantly donates household tissues, diapers, and paper products for daily use; and provides consolation money, new year food, dumplings, and moon cakes through charities such as the Hondao Senior Citizen's Welfare Foundation, Tayuan Jensho Temple Foundation, Huashan Social Welfare Foundation, Genesis Social Welfare Foundation. In 2021, Cheng Huotien Charity Foundation invested NT\$3.41 million in supporting 81 cases.

Expanding the virtuous cycle of the supply chain and realizing social welfare through industry: Care for 1,000 waste collectors by 2030

The EPA has recorded up to 8,900 waste collectors across Taiwan. Each quarter, we pay visits on five individual waste collectors through collaboration with the local EPA authorities to understand their problems and listen to them. When COVID-19 broke out in Taiwan in May 2021, we specifically expanded the scale of care for up to 151 waste collectors in collaboration with the Taoyuan City Government. After understanding the family care responsibility and economic difficulties of each visited waste collector, we immediately notified Cheng Huotien Charity Foundation to make donations to promptly send warmth and care to those in need of assistance. So far, we have referred three waste collectors.



Winter Charity Donation: Toilet Tissues and Supplies Donation



Hondao Senior Citizen's Welfare Foundation CEO
Ruo Qi Li

"When level 3 control started after the outbreak of COVID-19 across Taiwan, we thanked CLC for donating epidemic control supplies to help vulnerable seniors to go through the pandemic safe."

Individual Collectors
Mrs Hou

"From the conversation with CLC employees, I realized that resources can be recycled into paper boxes and eco toilet tissues. I feel happy for contributing to the environment and also thanked CLC for their warm care."

GRI Standards Index

GRI	Disclosure Title	Chapter	Pages	Note
GRI 102: General Disclosures 2016				
Organizational profile	102-1 Name of the organization	1.1	33	
	102-2 Activities, brands, products, and services	1.1	35	
	102-3 Location of headquarters	1.1	33	
	102-4 Location of operations	1.1	35	
	102-5 Ownership and legal form	1.1	33	
	102-6 Markets served	1.1	35	
	102-7 Scale of the organization	1.1	33	
	102-8 Information on employees and other workers	5.1	100	
	102-9 Supply chain	3.1	67	
	102-10 Significant changes to the organization and its supply chain		32	From September 2022, the organization of CLC was changed to four parts: Headquarters, Containerboard Division, Container Box Division and Household Products and Paperboard Division.
	102-11 Precautionary Principle or approach	1.3	41	
	102-12 External initiatives	Sustainable strategy and goals	19	
	102-13 Membership of associations	1.1	34	
Strategy	102-14 Statement from senior decision-maker	Message form Top Management	3	
	102-15 Key impacts, risks, and opportunities	1.3	44	
Ethics and integrity	102-16 Values, principles, standards, and norms of behavior	1.4	45	
Governance	102-18 Governance structure	1.2	37	
	102-19 Delegating authority	ESG committee	23	
	102-20 Executive-level responsibility for economic, environmental, and social topics	ESG committee	23	

GRI	Disclosure Title	Chapter	Pages	Note
Governance	102-22 Composition of the highest governance body and its committees	ESG committee	23	
	102-23 Chair of the highest governance body	ESG committee	23	
	102-25 Conflicts of interest	1.2	37	
	102-32 Highest governance body's role in sustainability reporting	ESG committee	23	
Stakeholder engagement	102-40 List of stakeholder groups	Identification of Stakeholders and Material Issues	24	
	102-41 Collective bargaining agreements		-	No signing
	102-42 Identifying and selecting stakeholders	Identification of Stakeholders and Material Issues	24	
	102-43 Approach to stakeholder engagement	Identification of Stakeholders and Material Issues	25	
	102-44 Key topics and concerns raised	Identification of Stakeholders and Material Issues	25	
Reporting practice	102-45 Entities included in the consolidated financial statements	About this report	2	
	102-46 Defining report content and topic Boundaries	Identification of Stakeholders and Material Issues	25	
	102-47 List of material topics	Identification of Stakeholders and Material Issues	25	
	102-48 Restatements of information		-	No restatements
	102-49 Changes in reporting	Identification of Stakeholders and Material Issues	24	
	102-50 Reporting period	About this report	2	
	102-51 Date of most recent report	About this report	2	
	102-52 Reporting cycle	About this report	2	
	102-53 Contact point for questions regarding the report	About this report	2	
	102-54 Claims of reporting in accordance with the GRI Standards	About this report	2	
	102-55 GRI content index	GRI Standards Index	125	
	102-56 External assurance	About this report	129	

GRI	Disclosure Title	Chapter	Pages	Note
Major Issues				
GRI 201: Economic Performance 2016	GRI 103: Management Approach 2016	1.1	31	
	201-1 Direct economic value generated and distributed	1.1	35	
	201-2 Financial implications and other risks and opportunities due to climate change	Sustainability Practice	13	
	201-3 Defined benefit plan obligations and other retirement plans	5.1	102	
	201-4 Financial assistance received from government			No
GRI 202: Market Presence 2016	GRI 103: Management Approach 2016	5.1	98	
	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	5.1	104	
	202-2 Proportion of senior management hired from the local community	5.1	100	
GRI 204: Procurement Practices 2016	GRI 103: Management Approach 2016	3.1	66	
	204-1 Proportion of spending on local suppliers	3.1	69	
GRI 301: Materials 2016	GRI 103: Management Approach 2016	2.2	57	
	301-1 Materials used by weight or volume	2.2	58	
	301-2 Recycled input materials used	2.2	58	
GRI 302: Energy 2016	GRI 103: Management Approach 2016	4.2	82	
	302-1 Energy consumption within the organization	4.2	84	
	302-2 Energy consumption outside of the organization	4.2	84	
	302-3 Energy intensity	4.2	84	
	302-4 Reduction of energy consumption	4.2	83	
	302-5 Reductions in energy requirements of products and services	4.2	83	
	GRI 103: Management Approach 2016	4.3	87	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	4.3	87	
	303-2 Management of water discharge-related impacts	4.3	90	
	303-3 Water withdrawal	4.3	89	Formula before 2020: Water Volume of Production/ Volume of Production

GRI	Disclosure Title	Chapter	Pages	Note
GRI 303: Water and Effluents 2018	303-4 Water discharge	4.3	89	
	303-5 Water consumption	4.3	89	
GRI 304: Biodiversity	GRI 103: Management Approach 2016	4.6	95	
	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	4.6	95	
GRI 305: Emissions 2016	GRI 103: Management Approach 2016	4.1	76	
	305-1 Direct (Scope 1) GHG emissions	4.1	79	
	305-2 Energy indirect (Scope 2) GHG emissions	4.1	79	
	305-4 GHG emissions intensity	4.1	79	
	305-5 Reduction of GHG emissions	4.1	79	
	305-6 Emissions of ozone-depleting substances (ODS)		-	No emission
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	4.4	79	
GRI 306: Waste 2020	GRI 103: Management Approach 2016	4.5	93	
	306-1 Waste generation and significant waste-related impacts	4.5	93	
	306-2 Waste by type and disposal method	4.5	93	
	306-3 Waste generated	4.5	94	
	306-4 Waste diverted from disposal	4.5	94	
GRI 307: Environmental Compliance 2016	GRI 103: Management Approach 2016	4.1	81	
	307-1 Non-compliance with environmental laws and regulations	4.1	81	
GRI 308: Supplier Environmental Assessment 2016	GRI 103: Management Approach 2016	3.1	66	
	308-1 New suppliers that were screened using environmental criteria	3.1	68	
	308-2 Negative environmental impacts in the supply chain and actions taken	3.1	68	
GRI 401: Employment 2016	GRI 103: Management Approach 2016	5.1	98	
	401-1 New employee hires and employee turnover	5.1	102	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.1	105	
	401-3 Parental leave	5.1	105	

GRI	Disclosure Title	Chapter	Pages	Note
GRI 403: Occupational Safety and Health 2018	GRI 103: Management Approach 2016	5.3	112	
	403-1 Occupational health and safety management system	5.3	113	
	403-2 Hazard identification, risk assessment, and incident investigation	5.3	114	
	403-3 Occupational health services	5.3	116	
	403-4 Worker participation, consultation, and communication on occupational health and safety	5.3	115	
	403-5 Worker training on occupational health and safety	5.3	115	
	403-6 Promotion of worker health	5.3	115	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.3	115	
	403-8 Workers covered by an occupational health and safety management system	5.3	114	
	403-9 Work-related injuries	5.3	114	
	403-10 Work-related ill health	5.3	114	
GRI 404: Training and Education 2016	GRI 103: Management Approach 2016	5.2	107	
	404-1 Average hours of training per year per employee	5.2	108	
	404-2 Programs for upgrading employee skills and transition assistance programs	5.2	108	
	404-3 Percentage of employees receiving regular performance and career development reviews	5.2	111	
GRI 414: Supplier Social Assessment 2016	GRI 103: Management Approach 2016	3.1	66	
	414-1 New suppliers that were screened using social criteria	3.1	68	
	414-2 Negative social impacts in the supply chain and actions taken	3.1	68	
GRI 416: Customer Health and Safety 2016	GRI 103: Management Approach 2016	2.2	57	
	416-1 Assessment of the health and safety impacts of product and service categories	2.2	59	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	-	-	No violation of relevant laws and regulations
GRI 419: Socio-economic Compliance 2016	GRI 103: Management Approach 2016	1.4	45	
	419-1 Non-compliance with laws and regulations in the social and economic area	-	-	In 2021, there are 1 labor inspections defects, 2 environmental violations, and 5 safety and health violations.

SASB Index

Topic	Code	Category	Accounting Metrics	Chapter/ Pages	Note
Greenhouse Gas Emissions	RR-PP-110a.1	Quantitative	Gross global Scope 1 emissions	4.1 (p.79)	Overseas operations are not counted
	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	4.1 (p.78-79)	
Air Quality	RR-PP-120a.1	Quantitative	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM), and (5) hazardous air pollutants (HAPs)	4.4 (p.92)	
Energy Management	RR-PP-130a.1	Quantitative	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage from biomass, (4) percentage from other renewable energy	4.2 (p.82-86)	
Water Management	RR-PP-140a.1	Quantitative	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	4.3 (p.89)	
	RR-PP-140a.2	Discussion and Analysis	Description of water management risks and discussion of strategies and practices to mitigate those risks	4.3 (p.87-89)	
Supply Chain Management	RR-PP-430a.1	Quantitative	Percentage of wood fiber sourced from (1) third-party certified forestlands and percentage to each standard and (2) meeting other fiber sourcing standards and percentage to each standard	3.2 (p.71)	
	RR-PP-430a.2	Quantitative	Amount of recycled and recovered fiber procured	2.2 (p.58)	
Activity Metric	RR-PP-000.B	Quantitative	Paper production	1.1 (p.35)	
	RR-PP-000.C	Quantitative	Total wood fiber sourced	3.2 (p.71)	

Employee Information Tables

New Employees by Age

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
< 30	253 (32.4%)	47 (46.5%)	186 (25.3%)	75 (53.2%)	141 (27.7%)	32 (42.7%)
31-45	128 (8.1%)	7 (2.9%)	122 (7.5%)	15 (7.1%)	104 (6.6%)	14 (8.2%)
46-60	13 (1.3%)	2 (1.3%)	8 (0.8%)	2 (1.1%)	3 (0.3%)	1 (0.5%)
> 60	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Subtotal	397 (12.4%)	56 (12.6%)	316 (9.8%)	92 (19.8%)	248 (7.7%)	47 (10.0%)

Note: Taiwan Area, calculation: new employees of an age group/ the total number of employees of the same age group

New Employees by Region

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
North	239	53	172	80	135	36
Central	130	1	107	7	73	8
South	28	2	37	5	40	3
East	0	0	0	0	0	0
Subtotal	397	56	316	92	248	47

Note: Taiwan Area

Resigned Employees by Age

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
< 30	147 (18.8%)	32 (31.7%)	113 (15.4%)	51 (36.2%)	91 (17.8%)	29 (38.7%)
31-45	100 (6.3%)	12 (5.0%)	96 (5.9%)	15 (7.1%)	87 (5.5%)	10 (5.9%)
46-60	45 (4.6%)	6 (3.9%)	46 (4.5%)	6 (3.4%)	45 (4.6%)	5 (2.4%)
> 60	28 (21.9%)	3 (37.5%)	38 (25.2%)	1 (12.5%)	47 (30.32%)	1 (10.0%)
Subtotal	320 (10.0%)	53 (11.9%)	293 (9.1%)	73 (15.7%)	270 (8.4%)	45 (9.6%)

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

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
North	207	44	169	71	165	39
Central	92	5	93	2	71	3
South	21	4	31	0	34	3
East	0	0	0	0	0	0
Subtotal	320	53	293	73	270	45

Note: Taiwan Area

Assurance Statement

By Royal Charter

獨立保證意見聲明書

正隆股份有限公司 2021 年永續報告書

英國標準協會與正隆股份有限公司(簡稱正隆)為相互獨立的公司，英國標準協會除了針對正隆股份有限公司 2021 年永續報告書進行評估和查證外，與正隆並無任何財務上的關係。

本獨立保證意見聲明書之目的，僅作為對正隆股份有限公司 2021 年永續報告書所界定範圍內的相關事項進行保證之結論，而不作為其他之用途。除對查證事實提出獨立保證意見聲明書外，對於其他目的之使用，或閱讀此獨立保證意見聲明書的任何人，英國標準協會並不負有或承擔任何有關法律或其他之責任。

本獨立保證意見聲明書係英國標準協會審查正隆提供之相關資訊所作成之結論，因此審查範圍乃基於並局限於這些提供的資訊內容之內，英國標準協會認為這些資訊內容都是完整且準確的。

對於這份獨立保證意見聲明書所載內容或相關事項之任何疑問，將由正隆一併回覆。

查證範圍

正隆與英國標準協會協議的查證範圍包括：

1. 本查證作業範圍與正隆股份有限公司 2021 年永續報告書揭露之報告範圍一致。
2. 依照 AA1000 保證標準 V3 的第 1 應用類型評估正隆遵循 AA1000 當責性原則(2018)的本質和程度，不包括對於報告書揭露的資訊/數據之可信賴度的查證。

本聲明書以英文作成並已翻譯為中文以供參考。

意見聲明

我們總結正隆股份有限公司 2021 年永續報告書內容，對於正隆之相關運作與永續績效則提供了一個公平的觀點。基於保證範圍限制事項、正隆所提供資訊與數據以及抽樣之測試，此報告書並無重大之不實陳述。我們相信有關正隆的環境、社會及治理等績效資訊是被正確無誤地呈現。報告書所揭露之永續績效資訊展現了正隆對識別利害關係人的努力。

我們的工作是由一組具有依據 AA1000 保證標準 V3 查證能力之團隊執行，以及策劃和執行這部分的工作，以獲得必要之訊息資料及說明。我們認為就正隆所提供之足夠證據，表明其符合 AA1000 保證標準 V3 的報告方法與自我聲明依據 GRI 永續性報導準則核心選項係屬公允的。

查證方法

為了收集與作成結論有關的證據，我們執行了以下工作：

- 對來自外部團體的議題相關於正隆政策進行訪談，以確認本報告書中聲明書的合適性
- 與管理者討論有關利害關係人參與的方式，然而，我們並未直接接觸外部利害關係人
- 訪談 14 位與永續性管理、報告書編製及資訊提供有關的員工
- 審查有關組織的關鍵性發展
- 審查內部稽核的發現
- 審查報告書中所作宣告的支持性證據
- 針對公司報告書及其相關 AA1000 當責性原則(2018)中有關包容性、重大性、回應性及衝擊性原則之流程管理進行審查

結論

針對 AA1000 當責性原則(2018)之包容性、重大性、回應性及衝擊性與 GRI 永續性報導準則的詳細審查結果如下：

包容性

2021 年報告書反映出正隆已持續尋求利害關係人之參與，並建立重大永續主題，以發展及達成對永續具有責任且策略性的回應。報告書中已公正地報告與揭露環境、社會及治理的訊息，足以支持適當的計畫與目標設定。以我們的專業意見而言，這份報告書涵蓋了正隆之包容性議題。

重大性

正隆公布對組織及其利害關係人之評估、決策、行動和績效會產生實質性影響與衝擊之重大主題。永續性資訊揭露使利害關係人得以對公司之管理與績效進行判斷。以我們的專業意見而言，這份報告書適切地涵蓋了正隆之重大性議題。

回應性

正隆執行來自利害關係人的期待與看法之回應。正隆已發展相關道德政策，作為提供進一步回應利害關係人的機會，並能對利害關係人所關切之議題作出及時性回應。以我們的專業意見而言，這份報告書涵蓋了正隆之回應性議題。

衝擊性

正隆已識別並以平衡和有效之量測及揭露方式公正展現其衝擊。正隆已建立監督、量測、評估和管理衝擊之流程，從而在組織內實現更有效之決策和結果管理。以我們的專業意見而言，這份報告書涵蓋了正隆之衝擊性議題。

GRI 永續性報導準則

正隆提供有關依據 GRI 永續性報導準則之自我宣告，與相當於“核心選項”(每個涵蓋特定主題 GRI 準則之重大主題，至少一個特定主題的揭露項目依據其全部的報導要求)的相關資料。基於審查的結果，我們確認報告書中參照 GRI 永續性報導準則的永續發展相關揭露項目已被報告，部分報告或省略。以我們的專業意見而言，此自我宣告涵蓋了正隆的永續性主題。

保證等級

依據 AA1000 保證標準 V3 我們審查本聲明書為中度保證等級，如同本聲明書中所描述之範圍與方法。

責任

這份永續報告書所屬責任，如同責任信中所宣稱，為正隆負責人所有。我們的責任為基於所描述之範圍與方法，提供專業意見並提供利害關係人一個獨立的保證意見聲明書。

能力與獨立性

英國標準協會於 1901 年成立，為全球標準與驗證的領導者。本查證團隊係由其專業背景，且接受過如 AA1000AS、ISO 14001、ISO 45001、ISO 14064 及 ISO 9001 之一系列永續性、環境及社會等管理標準的訓練，具有主導稽核員資格之成員組成。本保證係依據 BSI 公平交易準則執行。

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan

AA1000
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Statement No: SRA-TW-2021020
2022-05-04

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Assurance Statement



INDEPENDENT ASSURANCE OPINION STATEMENT

CHENG LOONG CORPORATION 2021 Sustainability Report

The British Standards Institution is independent to CHENG LOONG CORPORATION (hereafter referred to as CHENG LOONG in this statement) and has no financial interest in the operation of CHENG LOONG other than for the assessment and verification of the sustainability statements contained in this report.

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

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

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

Scope

The scope of engagement agreed upon with CHENG LOONG includes the followings:

1. The assurance scope is consistent with the description of CHENG LOONG CORPORATION 2021 Sustainability Report.
2. The evaluation of the nature and extent of the CHENG LOONG's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000AS v3 sustainability assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process. This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the CHENG LOONG CORPORATION 2021 Sustainability Report provides a fair view of the CHENG LOONG sustainability programmes and performances during 2021. The sustainability report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the CHENG LOONG and the sample taken. We believe that the performance information of Environment, Social and Governance (ESG) are fairly represented. The sustainability performance information disclosed in the report demonstrate CHENG LOONG's efforts recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurers in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that CHENG LOONG's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards. Core option were fairly stated.

Methodology

- Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:
- a review of issues raised by external parties that could be relevant to CHENG LOONG's policies to provide a check on the appropriateness of statements made in the report.
 - discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
 - 14 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
 - review of key organizational developments.
 - review of the findings of internal audits.
 - review of supporting evidence for claims made in the reports.
 - an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

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

Inclusivity

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

Materiality

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

Responsiveness

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

Impact

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

GRI Sustainability Reporting Standards (GRI Standards)

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

Assurance level

The moderate level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

Responsibility

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

Competency and Independence

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

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan



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