



山東晨鳴紙業集團股份有限公司

SHANDONG CHENMING PAPER HOLDINGS LIMITED*

(a joint stock company incorporated in the People's Republic of China with limited liability)

Stock Code: 1812

2021

ENVIRONMENTAL,
SOCIAL AND
GOVERNANCE REPORT



* For identification purposes only

Shandong Chenming Paper Holdings Limited

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT 2021

Stock Code : 01812

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ABOUT THIS REPORT

WELCOME TO THE 2021 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT OF SHANDONG CHENMING PAPER HOLDINGS LIMITED

This is the Environmental, Social and Governance Report (the “Report”) for 2021 issued by Shandong Chenming Paper Holdings Limited (the “Company” or “Chenming Paper”). The Report better acquaints each stakeholder with the commitment and actions relevant to the Environmental, Social and Governance by reporting the Company’s policies, measures and performance in terms of the Environmental, Social and Governance. The Report is prepared in Chinese and English, and has been published on the websites of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”) (www.hkexnews.hk/) and the Company (<http://www.chenmingpaper.com/>) .

This year is the first year of the strategic plans of National 14th Five-Year Plan, it is also a year with loads of challenges and opportunities. The Company endlessly considers revitalising the national pulp and paper industry as its responsibility, and consistently develops the primary business by upholding green, low-carbon, circular and sustainable development principles. The Company regards environmental protection engineering as “life engineering” of corporate’s development, fully implement clean production, energy-saving, carbon reduction and resources circularity. The Company adheres to the direction - scientific development to enhance efficiency and to improve corporate management level and operation quality. The strategic development, forestry-pulp-paper integration, facilitate establishment of Hubei Huanggang Chenming Pulp & Paper, alongside with Shouguang Main Site in the Northern China, and Zhanjiang Chenming Pulp & Paper in the Southern China, forming three pillars of principle production sites. This can strengthen collaborations and introduce new era of high-quality development, and perform social responsibility to achieve win-win situation of the economy, society, and ecological benefits.

The Environmental, Social and Governance Report 2021 records the changes in the operating environment over the past year, and for the first time, identified the important issues in our sustainability performance, and discussed the prioritization of such issues. The discussions on the risks and opportunities relevant to climate change follow more closely the suggestions of the Task Force on Climate-related Financial Disclosure (TCFD). The Group will also continue to disclose key performance indicators, management policy and performance related to the environmental and social aspects specified on the reporting guideline by the Stock Exchange.

REPORT FRAMEWORK AND CONTENT INDEX

The Company performs its duties and updates its working methods relevant to the Environmental, Social and Governance based on the reporting standards and framework of the Stock Exchange.

The Environmental, Social and Governance (ESG) Reporting Guide of HKEX

Chenming Paper started to adopt the revised version of the Environmental, Social and Governance Reporting Guide (the “Reporting Guide”) set out in Appendix 27 on the preparation of annual report and environmental, social and governance report since the reporting year of 2021. It is worth noting that, the Group made a specific announcement in the roles and responsibilities of directors and management in managing related issues, and set short-term and medium-term targets relevant to different environmental indicators. The materiality assessment outlined under the mandatory disclosure requirements has also been used to determine the priority of Chenming Paper’s responses to the “Comply or Explain” provision on environmental and social aspects.

Overview of the Board Statement on Governance

Goals and Commitments on Environment and Climate

COMPANY INFORMATION AND BUSINESS OVERVIEW

Shandong Chenming Paper Holdings Limited is a leading papermaking enterprise in the People's Republic of China ("China"), a top 10 in the world paper industry, and a top 500 Chinese enterprise. The Company is a large conglomerate mainly engaged in pulping and papermaking.

SCOPE OF REPORTING

The Report discloses the sustainable development performance of the Group for the year ended 31 December 2021, and covers pulp production of printing paper, packaging paper, office paper, industrial paper and household paper (major products) and papermaking (core business). The pulp and paper manufacturing business is financially and environmentally significant to the Company, hence, this report merely covers the above-mentioned pulp and paper manufacturing business, and includes their environmental, social, and corporate governance performance of the Company and its six operating sites as set out below:

1. Shandong Chenming Paper Holdings Limited Shouguang Main Site (Shouguang Main Site) ^① ;
2. Jiangxi Chenming Paper Co. Ltd. ("Jiangxi Chenming Paper") ;
3. Zhanjiang Chenming Pulp & Paper Co., Ltd. ("Zhanjiang Chenming Pulp & Paper") ;
4. Jilin Chenming Paper Co., Ltd. ("Jilin Chenming Paper") ;
5. Wuhan Chenming Hanyang Paper Holdings Co., Ltd. ("Wuhan Chenming Hanyang") ; and
6. Huanggang Chenming Pulp & Paper Co., Ltd. ("Huanggang Chenming Pulp & Paper") .

The scope of reporting operations and entities is consistent with the reporting scope of previous years ^②. The last Environmental, Social and Governance Report of the Company was published in June 2021.

Chenming Paper regularly reviews the scope of the report to ensure that significant impacts to the Group's overall business portfolio are covered.

^① Shouguang Main site includes Shouguang Meilun Paper Co., Ltd.

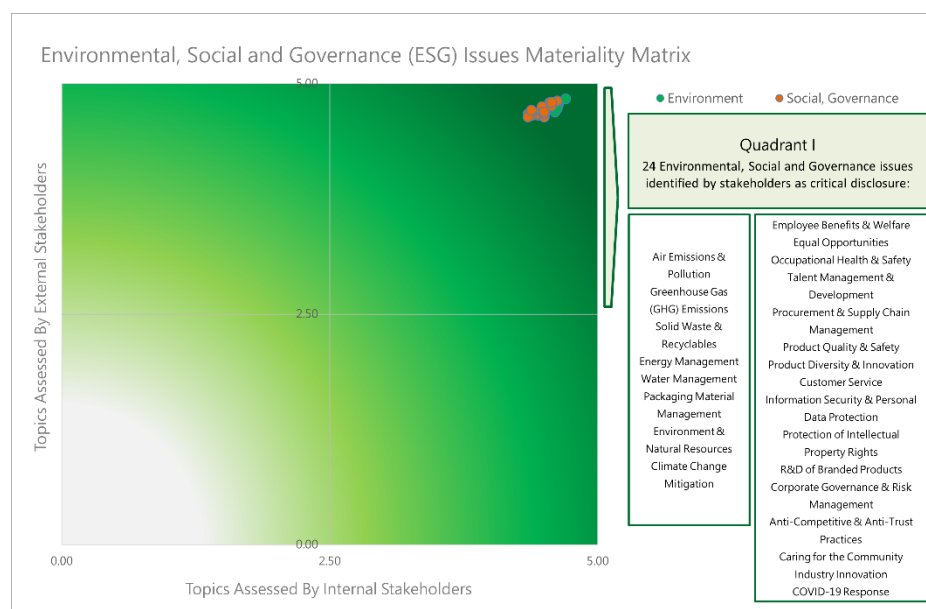
^② Shanghai Chenming Industry Co., Ltd. is providing Real Estate Trust services, of which the impact to the Company is less significant. Therefore, it has been excluded from the reporting scope since 2020.



REPORTING PRINCIPLES

The Report is prepared based on four reporting principles (i.e. **Materiality**, **Quantitative**, **Balance**, and **Consistency**).

Materiality : Chenming Paper is eager to meet the demands and expectations of shareholders while developing its business, with a view to achieving balanced and satisfactory results. Of course, the Company understands that different stakeholders have different expectations of and demands from the Company. As such, in order to fully understand the stakeholders' concerns about the Company's business, environmental, social and corporate governance practices, the Company has identified external and internal stakeholders and via open and effective communication channels, to help identify major issues, so as to develop long-term development objectives. During the year, We also paid attention to the internal and external Environmental, Social and Governance performance and challenges of the Company, and employed external professional consultants to cooperate with the Company to conduct a one-off stakeholder survey on Environmental, Social and Governance issues to understand how important sustainable development is to our business and the stakeholders.



After the survey, we have come up with a more up-to-dated and accurate stakeholder survey result and materiality analysis. The result showed that 24 material issues were deemed critical, and all the environmental and social issues specified in "Comply or Explain" provisions set out in the Reporting Guide of the Stock Exchange were determined to be critical disclosures due to materiality.

Materiality Assessment

We use the materiality matrix as an analytical tool to identify the priorities of internal and external issues. All topics formulated are located in quadrant (I) of the materiality matrix.

Quantitative : The Company prepares all specific key performance indicators (KPIs) and methods of computation in compliance with the guidelines of the "How to prepare an ESG Report", "Appendix 2: Reporting Guidance on Environmental KPIs", and "Appendix 3: Reporting Guidance on Social KPIs" issued by the Stock Exchange, and other national and industry information. We review the performance of the Company according to key performance indicators. All information in the Report is quantified, where appropriate, and is attached with statement, explanation and comparative analysis.

- **Environmental Performance** : The performance in the environmental aspect is mainly reported in accordance with the "How to prepare an ESG Report", "Appendix 2: Reporting Guidance on Environmental

KPIs" issued by the Stock Exchange. Considering the industry and location where it operates in, we rely on the guidelines of the IPCC Fifth Assessment Report, IPCC Guidelines for National Greenhouse Gas Inventories, Carbon Management Committee of China, U.S. Department of Energy, U.S. Environmental Protection Agency, International Energy Agency, and research publications from the international pulp industry. References include data classification, computation methods, emission factors, conversion factors, etc.

Balance : The Company complies with this reporting principle in preparing the Report, and impartially discloses the Company's performance during the reporting period. If necessary, appropriate presentation, pictures and charts are used in the Report to present the performance of the Company to avoid misleading or affecting the readers' decision or judgment.

Consistency : The Company certifies that the preparation method of the Environmental, Social and Governance Report is same as that of the previous year. The Company uses consistent methodologies to summarize the environmental and social performance of the Year from its official documents, statistics, as well as management and operation data collected in accordance with its system.

MATERIALITY ASSESSMENT

The key disclosure topics covered in the Report are determined by the results of a materiality assessment in the fourth quarter of 2021 (the "Assessment"). The Assessment abides by the four reporting principles applied to the preparation of report contents.

ISSUES IDENTIFIED WITH INTERNAL AND EXTERNAL STAKEHOLDERS

The Company's operations are affected by various aspects such as macro environmental and national policies, and market supply and demand, so it expects investors can understand the decision-making in terms of business strategies and dividends to be distributed. During the year, Chenming Paper employed external professional consultants to cooperate with the Company to hold an interview with the board of directors in regard to the Environmental, Social and Governance issues and conduct a one-off stakeholder survey (the "Survey"), with a view of demonstrating independence and confidentiality to our stakeholders. In the initial stage, we reviewed the Company's sustainable development policy, learned about the operations of relevant groups, and disclosed key reports as required by the Stock Exchange, and thereby sorted out a total of 24 important topics for deliberation and prioritization – the primary objective of the Survey.

In order to highlight the issuer's full compliance with the "Comply or Explain" disclosure obligations, and to ensure consistency with the reporting structure of the Guide issued by the Stock Exchange, we have mapped the identified key disclosure issues with the relevant environmental and social aspects in the table below:

Identified Issues		Reporting Aspects as Required by HKEX		
Air Emissions and Pollution	廢氣排放	A1	Emissions	排放物
Greenhouse Gas (GHG) Emissions	溫室氣體排放			
Solid Waste and Recyclables	廢棄物及回收物料管理			
Energy Management	能源效益管理	A2	Use of Resources	資源使用
Water Management	用水管理			
Packaging Material Management	包裝物料管理			
Environment and Natural Resources	環境及天然資源	A3	Environment and Natural Resources	環境及天然資源
Climate Change Mitigation	減緩氣候變化	A4	Climate Change	氣候變化
Employee Benefits and Welfare	員工福利及待遇	B1	Employment	僱傭
Equal Opportunities	平等機會	B4	Labour Standards	勞工準則

Occupational Health and Safety	職業健康和安全	B2	Health and Safety	健康與安全
Talent Management & Development	人才管理與培訓發展	B3	Development and Training	發展與培訓
Procurement & Supply Chain Management	採購與供應鏈管理	B5	Supply Chain Management	供應鏈管理
Product Quality and Safety	產品質量與安全	B6	Product Responsibility	產品責任
Product Diversity and Innovation	產品多樣性與創新			
Customer Service	客戶服務			
Information Security and Personal Data Protection	資訊安全及個人資料保護			
Protection of Intellectual Property Rights	保障知識產權			
Research & Development of Branded Product	研發自家品牌產品			
Corporate Governance and Risk Management	企業管治及風險管理	B7	Anti-corruption	反貪污
Anti-Competitive & Anti-Trust Practices	反競爭行爲			
Caring for the Community	關愛社區	B8	Community Investment	社區投資

In addition, based on the consideration of the development trends of other countries and the industry, two more issues concerned have been included:

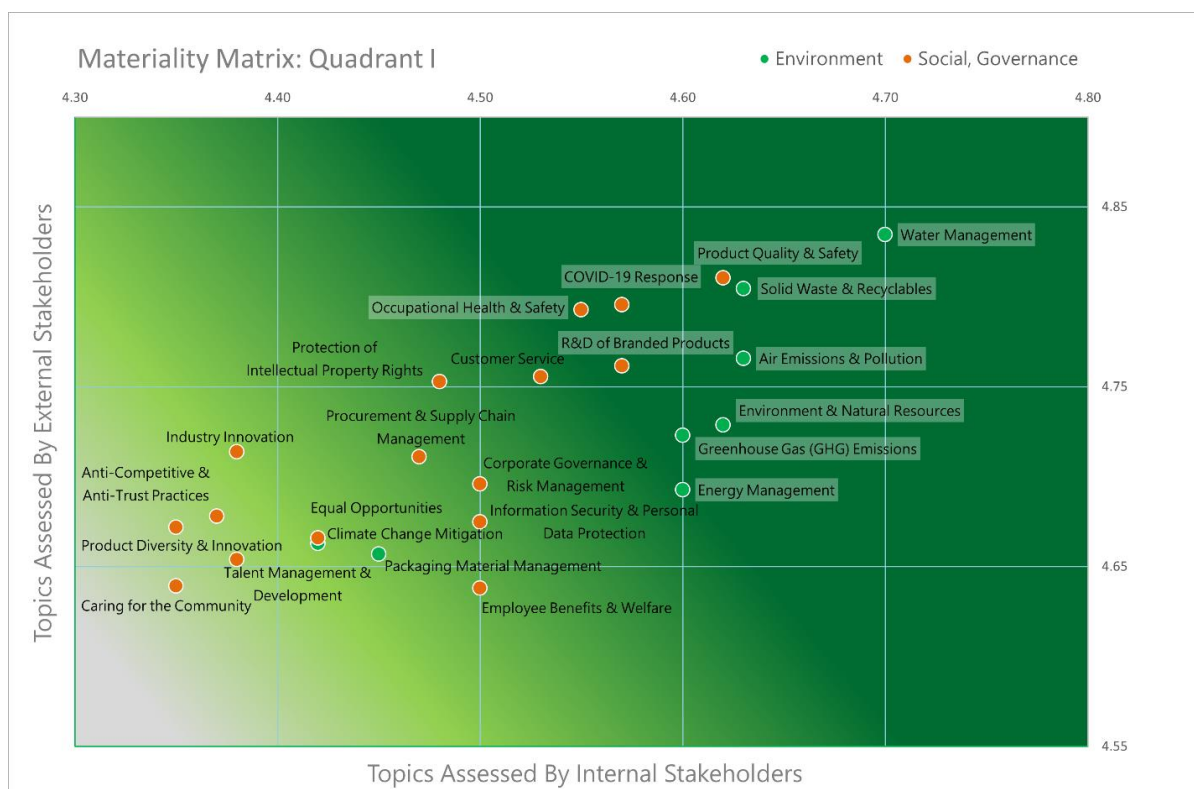
Key Disclosure Issues		Issue Descriptions
Industry Innovation	行業創新	Chenming Paper's participation and contribution to industry innovation.
COVID-19 Response	疫情反應	Chenming Paper's assurance and assistance to stakeholders' interests and concerns during the COVID-19 pandemic.

The Survey was open for the stakeholders to participate in the Survey online for three weeks. The Survey was not only supported by sufficient resources, but representative in terms of stakeholder groups engaged and sample numbers. We conducted an online survey and invited a total of 230 representatives of internal and external stakeholders to give feedback on the correlation between different sustainable development issues and the Group's operations, and to rate each relevant identified issue.

We selected 100 customers and 50 suppliers as the representatives of external stakeholder based on long-term partnerships and far-reaching business impact, that included the Company's top five customers and top ten suppliers. For the year ended 31 December 2021, the combined sales value of the company's top five customers accounted for 15.93% of the total annual sales, of which approximately 4.07% came from merchandise sales to the largest customer. The proportions of goods purchased by the Company's largest supplier and five largest suppliers were 9.57% and 18.60% respectively.

PRIORITIZATION OF IMPORTANT ISSUES

As a result, a total of 215 internal and external stakeholders participated in the Survey, that including 80 employees, 90 customers and 45 suppliers. The total feedback rate was 78%. All 24 identified issues were determined key disclosures based on materiality scores. With using the materiality matrix as an analytical tool, we have identified the prioritized issues which located in Quadrant (1), that providing a reliable knowledge base for future implementation of Environmental, Social and Governance strategy optimization and risk reduction:



Among them, the top ten topics are ordered as follows: Water Management, Solid Waste and Recyclables, Product Quality and Safety, Air Emissions and Pollution, COVID-19 Response, Environment and Natural Resources, Occupational Health and Safety, Research & Development of Branded Product, Greenhouse Gas (GHG) Emissions, Energy Management.

SUSTAINABILITY GOVERNANCE

OVERVIEW OF THE BOARD STATEMENT ON GOVERNANCE

During the annual board meeting, the Board reviews the performance and reporting results of sustainable development, and discusses the progress and goals of Environmental, Social and Governance issues, including climate-related issues, in the coming year. The Board is responsible for determining the objectives of emission control as well as resource, energy and water management, negotiating the compensation and benefits of the senior management who are responsible for sustainable development performance, reviewing the performance of stakeholder engagement and materiality assessment results, and cooperating with relevant professional departments to budget for the sustainability policy of Chenming Paper. The members of the Board have studied and self-examined the policies and performance of anti-corruption in accordance with the requirements of the Stock Exchange, and have played a supervisory role within the Group.

The Environmental, Social and Governance Committee (the "Committee") supports the governance of the Board. The Committee is responsible for planning the increasing use of renewable energy, setting up sustainable production lines (such as the use of energy-saving, resource-saving technologies), and developing new products that improve green procurement or environmentally-friendly formulations. The Board is the final decision maker for ESG-related policies and strategies.

CORPORATE GOVERNANCE AND RISK MANAGEMENT

Board members hope to identify the potential impact of issues on the Company's business model and associated risks, and to improve board-level oversight through the annual reporting process. Environmental and social risks to be identified and managed include: the environmental policies and performance of the Company, compliance of the Company, and the impact of climate-related risks on the business. To ensure alignment with the expectations and requirements of the investors and regulators, directors regularly review performance indicators and discuss with the Committee on the achievement of Environmental, Social and Governance objectives. In the coming year, we want to ensure that ESG issues, including climate-related issues, are integrated into the major governance process. Starting from 2022, we plan to integrate ESG issues into the governance process and structure.

STRATEGIC DIRECTIONS, CHALLENGES AND OPPORTUNITIES

The rising cost of living standards of employees caused by the epidemic and the recovery of the economy after the containment of the epidemic, the effect of geopolitics on the supply of raw materials and transportation costs, and the construction progress of the phase II project of Huanggang Chenming have all affected the Group's strategy in this reporting year. The Committee, with the support of management, closely monitors the evolving situation and issues related to sustainable development.

In recent years, the Company and its subsidiaries have invested more than RMB 8 billion to build pollution control facilities such as the construction of alkali collection system, middle water treatment system, greywater, freshwater as well as wastewater collection and treatment system, that making various environmental protection indicators of the Company outperformed national and international standard. even the forefront of the world. The management of the Company which is the major pollutant discharging company stipulated by China's environmental protection authorities, is responsible for the approval and implementation of the investment in environmental protection

equipment to ensure that the discharge meets the standards, so as to fulfil the social responsibility of the Company, and get close to the development direction of the industry.

Wood pulp and wood chips are the major raw materials of the Company, in which, the price of wood pulp fluctuates on international market. In order to minimize the reliance on imported wood chips, the Company strives to implement the development strategy of pulp and paper integration. At present, the Company has 3 large chemical pulp production lines in Shouguang, Zhanjiang and Huanggang. Looking forward, the Company will focus on the construction of Hubei Huanggang Production Base in Central China, aiming to further optimise the industry chain of the integrated pulp and paper project of Huanggang Chenming, create the strategic layout of three major product bases for pulp and paper integration in Shandong, Zhanjiang and Huanggang, fully exploit the advantages of full industry chain, get rid of the restrictions brought by raw materials on the Company, and strengthen the core competitiveness of the Company.

LOOKING BACK ON THE YEAR

During the reporting year, the operations of Chenming Paper's papermaking and pulping businesses reflected the Company's priority in Environmental, Social and Governance areas. The major achievements included:

1. The Company carried out carbon sink development and replaced high energy-consuming equipment and other measures through the construction of photovoltaic power generation projects and waste heat power generation projects, that reducing carbon emissions by 600,000 tons of carbon dioxide equivalent year-on-year.
2. The Company continuously made efforts and fulfilled its duties in good faith in terms of shareholders' benefits, staff interests, environmental protection, aid and poverty alleviation and so on, and was highly praised by all sectors of society. The Company has successively been on the list of "2021 Shandong Social Responsibility Enterprise" and "2021 Top 500 Chinese Enterprises for Philanthropy", and was awarded the honorary titles of "National Model Workers' Home", "The Seventh Shandong Charity Award Shandong Province Worker Pioneer" and other honorary titles.
3. The Company actively applied for municipal-level charitable disability assistance, charitable medical care and other relief funds for employees who became impoverished due to illness, used the Company's mutual aid funds to help them get rid of poverty.
4. The Company actively carried out the "Daily Donation with Compassion" activity, donated a total of RMB 1 million to the Charity Federation of Shouguang City, and set up documentation in respect of the donation. It interviewed 429 registered households alleviated from poverty in Mazhang Town, monitored and consolidated the results of poverty alleviation work, consolidated and expanded the achievements of poverty alleviation, and promoted rural revitalization.

The Company hopes to set up a dedicated team to deal with challenges and opportunities, regularly review and revise the Company's sustainable development policy in the coming year, and research and develop high-end paper production lines and product lines.

MAJOR SUSTAINABILITY AWARDS AND MANAGEMENT CERTIFICATIONS

2021 China Top 500 Enterprises in Charity
Shandong Chenming Paper Holdings Limited
China Enterprise Philanthropy Forum Organizing Committee

Unit with Outstanding Performance in Ecological and Environmental Protection
Shouguang Main Site
Municipal Government of Shouguang

Water Saving Enterprise
Zhanjiang Chenming Pulp & Paper
Zhanjiang Water Affairs Bureau

High-tech Enterprise Certification
Shandong Chenming Paper Holdings Limited, Shouguang Main Site
Department of Science and Technology of Shandong Province, Department of Finance of Shandong Province,
Shandong Provincial Office of the State Administration of Taxation

High-tech Enterprise Certification
Zhanjiang Chenming Pulp & Paper
Department of Science and Technology of Guangdong Province, Department of Finance of Guangdong Province,
Guangdong Provincial Office of the State Administration of Taxation

High-tech Enterprise Certification
Huanggang Chenming Pulp & Paper, Wuhan Chenming Hanyang
Department of Science and Technology of Hubei Province, Department of Finance of Hubei Province, Hubei Provincial
Office of the State Administration of Taxation

High-tech Enterprise Certification
Jiangxi Chenming Paper
Department of Science and Technology of Jiangxi Province, Department of Finance of Jiangxi Province, Jiangxi
Provincial Office of the State Administration of Taxation

High-tech Enterprise Certification
Jilin Chenming Paper
Department of Science and Technology of Jilin Province, Department of Finance of Jilin Province, Jilin Provincial Office
of the State Administration of Taxation

Excellent Supply Chain Finance Cooperative Enterprise
Zhanjiang Chenming Pulp & Paper
Agricultural Bank of China

China Environmental Labeling Certification (Type II)
Wuhan Chenming Hanyang
China Environmental United (Beijing) Certification Center

Forest Stewardship Council Chain-of-Custody Certification
(SGSHK-COC-01085)
Wuhan Chenming Hanyang
SGS Hong Kong Limited

ISO 9001 Certification
Shandong Chenming Paper Holdings Limited

ISO 14001 Certification
Shandong Chenming Paper Holdings Limited

ISO 45001 Certification
Shandong Chenming Paper Holdings Limited

ISO 50001 Certification
Shandong Chenming Paper Holdings Limited



LOW CARBON PRODUCTION

ENVIRONMENTAL MANAGEMENT

The Company has committed itself to implementing a pulp and paper integration strategy. Adhering to the concept of “placing green development and environmental protection as its priority”, the Company has actively promoted clean production and vigorously carried out energy conservation and emission reduction, aiming to be a resource-saving and environmentally friendly model enterprise. The Company and its subsidiaries have invested over RMB 8 billion for the construction of the pollution treatment facilities including the alkali recovery system, middle water treatment system, middle water reuse system, white water recovery system and black liquor comprehensive utilisation system. The environmental indicators of the Company rank high in the country and in the world. The management of the Company is responsible for approving the construction of environmental protection projects, and the person in charge of the specific project is responsible for the implementation of the project.

Environmentally automated measurements : The Company has strictly complied with self-monitoring laws and regulations and conducted self-monitoring in accordance with environmental protection requirements to establish and perfect the corporate environmental management ledgers and materials. At present, self-monitoring is a combination of manual monitoring and automatic monitoring. At the same time, qualified units are engaged to conduct regular monitoring. Automatic monitoring projects include:

- total wastewater discharge (i.e. Chemical Oxygen Demand (COD), Ammonia nitrogen, flow rate, total phosphorus, total nitrogen and PH) ;
- power plant, Alkali recovered furnace, and lime kiln exhaust emission (Sulphur dioxide, Nitrogen oxide, Smoke) °

Manually monitored items include :



- Daily monitoring of COD, Ammonia nitrogen, SS (i.e. Suspended Solids) , chroma, pH, total phosphorus, and total nitrogen indicators ;
- Sewage and other monitoring items, unorganised exhaust emission, solid waste, and noise at the plant boundary, are monitored on a monthly or quarterly basis by qualified units engaged in accordance with the local environmental protection requirements in relation to each subsidiary.

Online monitoring system : The organised emission outlets of the six subsidiaries are equipped with an

online monitoring system for real-time monitoring. All subsidiaries have their own power plants. Each self-owned plant has its own environmental protection facilities for de-dusting, desulphurisation and denitrification. Denitrification is conducted through SCR (Selective Catalytic Reduction) or SNCR (Selective Non-Catalytic Reduction) , while desulphurisation is primarily conducted through gypsum desulphurisation (ammonia desulphurisation is adopted in the self-owned plant of Jiangxi Chenming). Substantially all of the emissions indicators outperform the national and local execution standards. Other alkali recovery boilers and lime kilns are also in compliance with the emission standards.

The self-monitoring data and environmental monitoring programmes for pollutants discharge of various subsidiaries are published on the national key pollution source information disclosure website and the provincial key pollution

source information disclosure website. Other environmental protection related information is announced at the section “自測公示” on the Company’s website.

GOALS AND COMMITMENTS ON ENVIRONMENT AND CLIMATE

During the year, to reduce the carbon footprint of our direct operations, we have decided to set measurable and directional targets for environmental management to demonstrate our commitment to environmental protection and climate change mitigation:

Implementation of Measures	Targets/ Direction	Measurable Targets		Operations and Equipment Involved
Adoption of water recycling equipment	To adopt the world's most advanced osmosis and filtration technology and design in building the largest infrastructure for wastewater reusing treatment; wastewater processed up to standard at the sewage treatment plant is transported to the membrane wastewater treatment production line for treatment then reuse in each production line	The wastewater reusing treatment has a maximum handling capacity of 170,000 m ³ /day		Sewage treatment plant in Shouguang, Huanggang and Zhangjiang; associated pulp and paper production lines
Reduction of wastewater discharge		Progress in 2021	Volume (m ³ /day) of wastewater reused Shouguang Main Site : 56,000 Huanggang Chenming Pulp & Paper : 42,000 Zhanjiang Chenming Pulp & Paper : 22,000 Total : 120,000	
Increase of emission (greenhouse gases or pollution) reduction-related investments	Enhance the sealing of the pool; divert exhaust gases to the alkaline washing spray tower by using fans, and discharge at high altitude after washing and spraying to reduce the concentration of fugitive emissions	Odour concentration index reduced to 80%		Sewage treatment plant in Shouguang, odor gas collection and centralised alkaline washing

Meanwhile, the Company needs to reduce waste at source to reduce waste generation. The Company advocates electronic archiving and making good use of electronic communications such as email, WeChat and QQ to send documents, with a view to reducing paper consumption and the use of ink cartridges. Over the years, the Company has implemented various waste reduction measures to raise the awareness of waste reduction among employees and encourage them to reduce waste at source and live a green life. For example, we set up waste paper collection bins in the office; advocate double- sided printing and reuse of used paper for printing; reuse old file folders; and engage professional agencies to recycle printer ink cartridges. The Company reuses the collected wastepaper for paper production to reduce the input of raw materials.

GREENHOUSE GAS (GHG) EMISSIONS

Top 10 Concerns of Stakeholders

The Company has actively upheld the concept of “lucid waters and lush mountains are invaluable assets”, adhered to the development idea of “placing green development and environmental protection as its priority”, always regarded environmental protection as the “life project”, clung to the green development model of clean production and resource recycling, and earnestly shoulder the corporate responsibility of environmental protection. In recent years,



the Company and its subsidiaries have constructed the pollution treatment facilities including the alkali recovery system, middle water treatment system, middle water reuse system, white water recovery system and black liquor comprehensive utilisation system. The environmental indicators of the Company rank high in the country and in the world.

The Company has always been adhering to the principle of environmental protection, thoroughly implementing the national energy conservation and environmental protection policies, and unswervingly following the path of a green, low-carbon and recycling development. As for production process, the Company takes planned

management as the focus and implements a hierarchical planned management model for the Group, the Company, factories and workshops. Its production volume is determined based on the sales, its production is arranged scientifically, and its inventories are under strict control. The Group has set up a production scheduling centre at the office building of Chenming Paper which located in Nongsheng Road East, Shouguang City, to monitor the operation of the production lines of each subsidiary around the clock on a real-time basis, so as to ensure normal production. It has actively built and promoted the MES (Manufacturing Execution System) management system, and realised the timely information transfer between the management and the production control unit through bridging the gap between the ERP (Enterprise Resource Planning) and DCS (Distributed Control System) .

Power plant : The time-consuming pulping and papermaking processes involve the use of high-power production equipment, which consumes a lot of energy and emits large amounts of greenhouse gases. In view of this, the Company has built thermal power plants in the operating sites in Shandong, Jilin, Wuhan, Jiangxi and Zhanjiang. These plants not only supply power and heat to production factories to reduce the power load of these factories, but also make good use of energy by recycling the waste heat generated by the plants themselves. For the new operating site in Huanggang Chenming Pulp & Paper which just commenced operation in the 4th quarter in 2018, the thermal power plant construction has completed and self-provided the electricity generation. Nevertheless, the power supply to the operating sites by the thermal power plants alone is not enough to meet the daily electricity demand, so the Company strives to explore more energy generation modes. For example, we are using various renewable energy (e.g. adopting ethanol, and biomass biodiesel) to lower carbon emission.

2021

Cases of violations of laws and regulations related to greenhouse gas emissions

Number of Cases

0

The amount of administrative penalties caused by violations of relevant laws and regulations

Amount of Penalty (RMB)	0
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AIR EMISSIONS AND POLLUTION

Top 10 Concerns of Stakeholders

The Company is well aware that it cannot ignore the air pollution problems caused by the treatment towers and incinerators of the thermal power plants. As such, the Company has invested resources to upgrade dust removal and desulphurisation systems in order to meet the national ultra-low emission standards for sulphur dioxide and dust emissions. The fumes in boilers are sealed with hanging film and glass fibre reinforced plastics and collected in biological deodorisation devices for central treatment, and are never disposed indiscriminately.

In terms of controlling emissions, the Company conducts regular spot checks on the emission concentration of exhaust pipes and appoints external agencies to conduct annual inspections of the treatment towers and incinerators of thermal power plants, so as to ensure that exhaust emissions meet national standards. The Company has also installed a real-time monitoring system at each production base. The system, which is connected with the environmental protection bureau, is designed to closely monitor pollutant emissions to ensure that the emission limits required by local laws and regulations are not breached. Government departments can directly access relevant emission data through the system. In order to improve indoor air quality and protect the health of staff, the Company has installed ventilation systems to enhance air circulation and clean the production areas on a regular basis.

During the reporting period, the Company did not commit any other acts of excessive exhaust emissions or violation of environmental laws and regulations.

Construction and operation of pollution prevention facilities : The listed Company and its subsidiaries are listed as key pollutant discharge units according to the list released by the environmental protection authorities of the People's Republic of China. The Company and its subsidiaries strictly comply with laws, regulations and relevant rules regarding environmental protection of the central and local government. The construction of projects strictly adheres to the "three simultaneities" on environmental protection. In order to ensure pollutants are discharged strictly in accordance with the requirements under laws and regulations and disposed properly, production and operation strictly comply with the national Law on the Prevention and Control of Environmental Pollution, Law on the Prevention and Control of Water Pollution, Law on the Prevention and Control of Air Pollution, Action Plan for Prevention and Control of Water Pollution and Law on the Prevention and Control of Environmental Pollution by Solid Waste and other laws.

	2021	2020
<i>Cases of violations of laws and regulations related to exhaust emissions</i>		
Number of Cases	0	0
<i>The amount of administrative penalties caused by violations of relevant laws and regulations</i>		
Amount of Penalty (RMB)	0	0

ENERGY MANAGEMENT

Top 10 Concerns of Stakeholders

In addition to the use of high-performance, low-pollution equipment in the production process, the Company also implements energy conservation and emission reduction measures in day-to-day operations to enhance its energy conservation performance and improve environmental quality. For example, the Company has put up energy-saving reminders at the operating sites to remind employees to turn off the lights and air conditioning before leaving and maintain the indoor air conditioning temperature between 24 and 26 °C. The Company also encourages employees to use public transport as much as possible and to give preference to video or teleconferencing over business trips, so as to reduce greenhouse gas and air pollutant emissions. In addition, the Company's production facilities have gradually been replaced, electric vehicles and Euro-5 vehicles are used to reduce fuel consumption, and traditional lighting systems have been phased out and replaced with energy-efficient T5 tubes or LED lights.

ENVIRONMENT AND NATURAL RESOURCES

Top 10 Concerns of Stakeholders

Closely centring on the pulp and paper integration strategy, the Company has integrated resources and established its production bases in the core target market to achieve coordinated development. Currently, the Company has six production bases in Shandong, Guangdong, Hubei, Jiangxi, Jilin and other places. With all products sold at close distances, the Company overcomes the transportation radius restriction. The swift and efficient delivery services drastically reduce production costs and improve market radiating capacity of its products.

Meanwhile, the Company has innovated an integrated use of resources and a circular industrial development mode, and an "ecological chain" featuring resources, products and recycled resources has been established, that :

- 1) The black liquor produced in the pulping tower is evaporated and put to the alkali recovery boiler for combustion, and the steam generated is transported to the power plant to generate electricity for use in various production units. We took the lead in exploring black liquor recycling technology, developed the largest alkali recovery project among domestic paper industry. We were the pioneer in generating power with steam generated from alkali boilers in China. The alkali recovery rate is 99.8%, saving up to 750,000 tons of standard coal consumption every year, that leading to a reduction of coal usage and carbon dioxide emissions.
- 2) Introduced the first biomass gasification furnace in China, which uses the bark and sawdust of the raw material field to burn to produce methane and other combustible gases, that are to replace heavy oil and transported to the lime kiln for burning lime.
- 3) The integrated utilisation of waste is realised by using the boiler ash and slime from the combustion of the boiler in the thermal power plant and gypsum brick produced by flue gas desulfurisation.
- 4) Two sludge drying production lines were built to dry the sludge produced by the sewage treatment plant and transport it into the boiler of the thermal power plant for combustion, which not only solved the problem of sludge disposal, but also reduced the consumption of coal.
- 5) The company adopts the world's most advanced osmosis and filtration technology to develop the greywater reusing treatment. The wastewater that has been treated by the sewage treatment plant up to the standard is transported to the membrane wastewater treatment production line for treatment and reused in each production line. We have the largest water reusing project among the domestic paper industry. The water reusing rate reaches over 75%, and the reused water quality reaches the quality standard for human consumption, that saving 170,000 m³ of clean water every day. It not only reduces the discharge of wastewater, but also saves the use of water.

- 6) Actively develop clean energy, Shouguang Chenming is planning to implement a 33 MW photovoltaic power generation projects, and Zhanjiang Chenming implements a 24 MW photovoltaic power generation projects, that will reduce carbon emissions by about 34 tons every year after they are put into operation.
- 7) Constructed Shouguang Chemical Pulp, Huanggang Chenming and Zhanjiang Chenming waste heat power generation energy recycling projects, and connected to Chenming's internal power grid nearby, with net power generation capacity of 2,400 KW per hour, to reduce part of coal consumption.

Environmental impact assessment of construction project and other administrative licenses regarding environmental protection : The Company has strictly complied with the environmental laws and regulations all along to carry out environmental impact assessment of construction projects. The construction projects are all subject to environmental impact assessment. During the construction process, a reasonable environmental protection project construction plan is formulated and strictly implemented. The environmental protection facilities and the main project are designed, constructed and put into operation at the same time. At present, all construction projects put into production have obtained environmental impact assessment approvals and acceptance approvals. Taking into account the environmental factors and impacts of the assessment, the Company has conducted an environmental assessment of the site and future operations of each planned construction project according to the stage of development.

In June 2017, the Company and its subsidiaries completed the formalities for new discharge permits in accordance with the Measures for the Administration of Pollutant Discharge Permits of the Ministry of Environmental Protection, and the discharge permits of the new projects were renewed according to the environmental protection requirements in a timely manner.

Odour Management

The production of pulp inevitably entails chemicals, resulting in odour emissions. To deal with the odour released during operation of pulping and papermaking process, the Company employs the biofilter-based biological deodorisation process. Moreover, the Company films the aeration tank in the sewage treatment process, introduces waste gas into the odour treatment system, and removes odour through alkali washing and biological deodorisation.

As a result, the Company installs odour treatment plants in each site. The odour will be collected centrally and pumped to the treatment plant so to remove the odour, and eventually discharged legally. The emission is, therefore, far behind the emission cap. The treatment technology is a bit different among operating sites, for example:

- biological de-odorisation is adopted in Wuhan Chenming Hanyang, it works by pumping the odour with a centrifugal fan through the collection pipe to an integrated biofilter deodorising device for deodorisation treatment. ;
- anaerobic and aerobic or even closed management to dissolve odour in Jiangxi Chenming Paper ;
- deodorizers are adopted in emission sources in Huanggang Chenming Pulp & Paper.

For the odour emitted from the wastewater treatment plant of Shouguang Main Site, given that the aeration and sludge tank have already proceeded a closed management, the Company further invests 1,200 thousand to upgrade three sedimentation tanks as well as catchment wells of treatment plants as closed management. The project has completed and commenced into operation since March 2018. This new treatment plant is expected to treat 110,000 cubic meters of odour per hour. The emission is better than emission standards specified in the Smelly Odour Pollutants Emission Standard (GB14554-93) and Air Pollutants Emission Standard (GB16297-1996).

Huanggang Chenming Pulp & Paper adopts different approaches to remove odour. 1) change scrubbers' position of pulp workshops from release to the air to absorb by alkali bath; 2) connect the exhaust of the workshops to DNCG washing tower and then pump to furnaces to burn; 3) adjust the pH values of the furnaces automatically and controlled by computer to keep the values above 8, so to avoid odour release; 4) place deodorant directly into the odour source; 5) adopt closed management to control odour; and 6) utilise technology to monitor odour release.

In addition, there are task forces formed in each operating site to patrol every odour source under supervision of senior management. Any abnormality will be investigated the causes and correct it accordingly. Meanwhile, each operating site will inspect more frequently and install an alarming system to ensure the release complies with regulations. Other than that, the Company did not commit any other acts of excessive odour emissions or violation of environmental laws and regulations.

WATER MANAGEMENT

Top 10 Concerns of Stakeholders

The papermaking process consumes a large amount of water from the early pulping and papermaking processes to the later bleaching and dyeing processes. The company has not encountered any problems in obtaining suitable water sources.

In terms of sewage treatment, each production base of the Company has a sewage recycling system where all sewage must be treated and purified by processes including inclined sifting, primary sedimentation tank, oxygen aeration tank, secondary sedimentation tank and Fenton method before being discharged. Some purified water will even be reused for production. The sediments and sludge produced by the sedimentation tank will be drained and put back into the thermal power plant for burning treatment. This move can reduce approximately 93% of suspended solids (SS) and 80% of ammonia and nitrogen. In this way, more than 95.45 million m³ of sewage can be treated in a year. The Company also conducts regular testing of sewage to check the chemical oxygen demand (COD), biochemical oxygen demand (BOD), ammonia, nitrogen, SS, pH and other sewage indicators, in order to ensure that the sewage meets and is better than the discharge standards specified in the Discharge Standards for Water Pollutants in Pulping and Papermaking Industry (GB3544-2008) before being discharged. In order to monitor the Company's water consumption in real time, the relevant government department has installed an online monitoring system in each production base of the Company, so that the discharge data will be uploaded directly to the monitoring department. In addition, the operating sites have set up systems for diversion of rain and sewage and reuse of rainwater to collect rainwater for use in greening, landscaping and waterscape fountain systems, thus making good use of resources.

Greywater recycling system can lower the water consumption further. As a result, Shouguang Main Site spent four hundred million in Shandong to build a system to handle greywater. The system currently is using osmosis and filtration technology to recycle greywater. The conversion rate can up to 75% or above. The standard of treated greywater is up to drinking water standard. The system is expected to provide additional 1,904 thousand of industrial water every year to Shouguang Main Site. The system has in operation since May 2019.



Administrative penalties due to wastewater treatment : On 17 December 2020, the Nanchang Municipal Ecological Environment Bureau, together with the Northern Jiangxi Commissioner's Office and the Environmental Information Center, inspected the wastewater station of Jiangxi Chenming and found that there were some operation and maintenance and management irregularities in respect of the wastewater online monitoring equipment. Although the normal operation of the monitoring equipment was not guaranteed, no environmental pollution was caused as a result. The Nanchang Municipal Ecological Environment Bureau imposed an administrative penalty of a fine RMB21,000 on Jiangxi Chenming in accordance with the law^③. In response to the foregoing issues, Jiangxi Chenming immediately organised the rectification of online facilities, strengthened the operation and maintenance management of online devices, and regularly conducted comparison to ensure the normal operation of the monitoring equipment. In the circumstances, the Nanchang Municipal Bureau of Ecology and Environment determined that the wastewater Jiangxi Chenming discharged exceeded the standard (SS index) and the rectification was in place.

			2021
<i>Cases of violations of laws and regulations related to wastewater and sludge treatment</i>	Number of Cases		1
<i>The amount of administrative penalties caused by violations of relevant laws and regulations</i>	Amount of Penalty (RMB)		2.1

SOLID WASTE AND RECYCLABLES

Top 10 Concerns of Stakeholders

The Company is well aware that proper waste management measures can help reduce the load on landfills and incinerators while promoting the use of resources. The Company requires the wastes be stored in two categories, recyclable and non-recyclable, and actively searches for upgrading and recycling methods according to different fibre components in hope of recycling and reusing wastes as much as possible. For example, the waste paper collected, after being crushed, decoloured and pulped, is converted into recycled paper to reduce the felling of trees; sludge

^③ The fact of being fined were first disclosed in the interim report of 2021.

collected in the papermaking process, after removal of harmful substances and high-temperature treatment, is converted into organic fertiliser for use in farmland to provide nutrients for crops; grey powdered coal ash and cinder generated from high-temperature combustion at thermal power plants are processed and remade into building material such as cement, gypsum board and bricks. These measures not only make the best use of resources, but also bring economic benefits to the Company. The Company will continue to develop more recycling methods for waste paper to enable it to be widely recycled. As there is recovery value in wastepaper pulp and waste wood chips, Jiangxi Chenming Paper has always recycled such items as valuable by-products and thus registered them with the solid waste platform.

As for hazardous waste, the Company classifies the waste according to the National Catalogue of Hazardous Waste and has the waste collected and managed by different departments. The disposal procedures are carried out according to the Catalogue. There are a series of management procedures from storage, transfer, warehousing and selection of contractors. Hazardous waste will be temporarily stored in covered containers in suitable sites at the operating sites and ultimately be transported and disposed of by qualified contractors, so as to ensure effective disposal of hazardous waste and avoid secondary environmental pollution. Meanwhile, the Company also attaches great importance to the qualifications of contractors and requires that to become a qualified contractor of the Company, a contractor handling hazardous waste must have a Hazardous Waste Disposal Permit and a Road Transport Permit issued by the competent government agencies and have experience in handling hazardous waste. During the reporting period, the Company did not record any other incidents related to waste disposal in violation of environmental laws and regulations.

PACKAGING MATERIAL MANAGEMENT

In order to avoid damage to the finished products in the transportation process, paper packaging materials are inevitably used to wrap the finished products in advance, thus generating packaging waste. Each year, large amounts of packaging materials are consumed, which increases the load on landfills and incinerators. As such, the Company strives to reuse packaging materials and reduce disposal.

CLIMATE CHANGE

The Company is active in combating climate change. It will continue to adopt all current energy-saving and emission-reduction measures, continue to quantify carbon emissions, pay close attention to the latest emission reduction technologies, and minimize unnecessary transportation needs, thereby controlling greenhouse gas emissions.

Key Factors	Areas Targeted to Tackle by Chenming Paper
<i>Management</i>	Sustainability Governance
<i>Risk Management</i>	Risk Management - How to Identify, Assess and Manage Climate Change Risks
<i>Indicator and Target</i>	Targets for and Commitment to Environment and Climate

RISK MANAGEMENT - HOW TO IDENTIFY, ASSESS AND MANAGE CLIMATE CHANGE RISKS

The Company's success depends on its ability to purchase high-quality, low-cost materials, water and energy in a timely manner to meet the needs of the business and operations of its manufacturing bases which mainly located in Southern China, Central China, Eastern China and Northeastern China. The Company identifies risks through an annual reporting process and evaluates them in the short term (<2 years), medium term (3-5 years), medium to long term (5-10 years) and long term (>10 years). During the reporting year, the Company's softwood pulp sourcing business was affected by extreme weather in Canada. The extreme weather in Canada led to poor transportation, which affected the supply of international softwood pulp, resulting in an increase in the price of softwood pulp, that indirectly leading to an increase in the Company's costs. The Company is considering to incorporate sustainable development indicators into its operating strategies, and further incorporate Environmental, Social and Governance risks into its existing risk management and internal control systems from the coming year. The Company has initially identified a number of climate-related risks and opportunities relevant to its major assets or operations. While currently, these risks are not significantly impacting the business, we intend to pursue better expertise, organise training and seek advisory services in relation to monitoring and assessment in the future, in order to ensure the necessary climate-related expertise is in place, and enhance the transparency and reliability of our disclosures.

The following table lists the transition and actual risks posed by climate change:

Risk Types	Risk Rating	Possible Cases	Associated Situations, Properties or Operations
Acute risks	<i>Not relevant</i>	–	–
Long term risks	<i>Medium-term</i>	The factories are located in the areas which are exposed in water shortage or drought, that poses a threat to the manufacturing	Does not concern any current assets/operations
		Infrastructure in areas threatened by rising sea levels due to climate change	Does not concern any current assets/operations
Regulatory risks	<i>Medium-term</i>		Increased costs in emissions and waste release of factories
		National, provincial environmental policies and amendments to laws, such as the tightening up of environmental monitoring and law enforcement; the comprehensive implementation of carbon reduction policies in the papermaking and manufacturing industry	More time, resources and skilled talents are allocated to ensure compliance to regulations
Technological risks	<i>Not relevant</i>	–	–

Market fluctuation risks	Not relevant	–	–
Reputational risks	Not relevant	–	–

PREVENTION OF ACTUAL RISKS FROM CLIMATE CHANGE

Measures taken by Chenming Paper in regard to the risks :

Emergency plan for emergency environmental incidents : The Company has strictly implemented emergency regulations for emergency environmental incidents, and formulated various emergency plans for emergency environmental incidents according to the technical requirements in the “Technical Guidelines for Emergency Environmental Pollution Accidents”. The plans are reviewed by and filed with the Environmental Protection Bureau, and regular emergency training and emergency drills are conducted. Emergency measures in relation to dangerous chemicals are formulated in accordance with the environmental protection requirements. At the same time, necessary emergency supplies are provided with regular inspections and updates.

KEY INDICATORS OF ENVIRONMENTAL PERFORMANCE

Environmental Performance	Data	Unit
Basic Information		
Gross Area	3,397,399.35	m ³
Sales Revenue	38,308,647,556.06	RMB
Total production (paper, pulp)	8,697,160.00	ton
Air Emissions		
Total nitrogen oxides	14,343,617.30	kg
Total sulfur oxides	372,728.06	kg
Total respirable suspended particulates	209,119.02	kg
Nitrogen oxides from factories	3,000,930.90	kg
Nitrogen oxides from other operations	11,342,686.40	kg
Sulfur oxides from factories	316,065.00	kg
Sulfur oxides from other operations	56,663.06	kg
Suspended particulates from factories	209,070.00	kg

Environmental Performance	Data	Unit
Suspended particulates from other operations	49.02	kg
Greenhouse Gas (GHG) Emissions		
Scope 1	8,812,096.04	tCO ₂ e
Newly planted trees minus greenhouse gas	14,340.50	tCO ₂ e
Scope 2	1,898,792.01	tCO ₂ e
Total greenhouse gas emissions	10,710,888.05	tCO ₂ e
Total greenhouse gas emission intensity (per unit of production)	1.23	tCO ₂ e /ton
Waste		
Hazardous waste	Such as waste oil, waste packaging barrels, waste packaging, laboratory waste liquid	
Total hazardous waste	843.81	ton
Hazardous waste density (per unit of production)	0.000097	ton / ton
Non-hazardous waste	Such as general domestic solid waste, pulp slag, coal ash, slag, sludge, green mud, lime slag	
Total non-hazardous waste	1,458,530.94	ton
Non-hazardous waste density (per unit of production)	0.168	ton / ton
Sewage	Such as domestic water, water that supplied to different units	
Total sewage	104,261,929.00	m ³
Energy Consumption		
Non-renewable fuels (direct)		
Kerosene	1,351.01	MWh ('000 kWh)
Natural gas	869,940.99	MWh
Liquefied petroleum gas	17.04	MWh
Acetylene	7.68	MWh
Diesel	155,955.54	MWh
Gasoline	47.80	MWh
Self-produced energy (direct)		
Self-produced heating	7,479,371.49	MWh

Environmental Performance	Data	Unit
Steam generated	7,830,386.59	MWh
Self-produced electricity	3,266,497.22	MWh
Renewable Energy (direct)		
Fuel ethanol	599.44	MWh
Biodiesel	1,583,352.87	MWh
Liquid Biofuel (Black Liquor)	8,694.07	MWh
Purchased energy (indirect)		
Purchased electricity	2,189,931.13	MWh
Total consumption		
Total consumption of energy	23,386,152.87	MWh
Energy density (per unit of production)	2.69	MWh / ton
Freshwater		
Total consumption	74,621,258.00	m ³
Water consumption density (per unit of production)	8.58	m ³ / ton
Packaging Materials for Finished Products		
Plastic	583.78	ton
Paper	59.71	ton
Timber	19,347.51	ton
Total consumption	19,991.00	ton
The total consumption density of packaging materials (per unit of production)	0.0023	ton / ton

SOCIAL IMPACT

The Company is always committed to taking its corporate social responsibilities. 2021 is the opening year of China's 14th Five-Year Plan and the national economy maintain its steady and sound growth momentum. The Company takes "revitalising the Chinese papermaking industry" as its mission and adheres to the general keynote of a green, low-carbon, recycling and sustainable development, persistently deepening and focusing on the development of its principal activities to continuously increase its profitability level. With high-quality development, the Company always strives to capitalise on its development results to benefit the communities, actively fulfil its social responsibilities, and continue to make efforts in areas such as shareholders' equity, employee rights, environmental protection and poverty alleviation. The Company performs these responsibilities with integrity in a pragmatic and efficient manner in order to achieve a "win-win" situation between economic, social and ecological benefits.

EMPLOYMENT POLICY

Employees are the assets of the Company and serve as the driving force to create value for the Company. For a long time, the Company has been adhering to the principle of people orientation, cherishing the value of its employees, focusing on employee growth, continuously enhancing the professional standard of its employees, improving the working environment of its employees, and fully protecting the legitimate rights and interests of its employees. In December 2020, the Company has been awarded the honorary title of National Model Workers' Home. During the reporting period, no major violations of laws relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare occurred or were found in the Company.

Recruitment

The Company adheres to the philosophy of discovering able people and putting them at suitable posts and strives to build professional and efficient teams for the Company according to its long-term development objectives. The Company hires and promotes employees in strict compliance with national laws, and set qualifications and requirements for different posts according to business needs. We also have standard recruitment procedures, and the personnel department takes charge of all recruitment work to achieve the principle of fair and open recruitment. All job applicants and employees enjoy equal opportunities for employment and promotion. Employment will only be based on the education background, experience and capabilities of job applicants and the job requirements, regardless of nationality, ethnicity, race, gender, religious belief and cultural background. In order to facilitate the long-term development of the Company and cultivate talents for the development of the industry, the Company carries out campus recruitment each year to provide internships and employment opportunities for the younger generation and offer appropriate training to outstanding students. During the training, experienced staff will help students accumulate work experience and select high-potential talents among them to provide career development opportunities, in the hope that they can showcase their strengths and lead the Company to open a new chapter someday.

Promotion of Staff and Appraisals

All employees are subject to annual appraisal for the assessment of their performance, whereby the high-performing, high-potential employees will be promoted. Promotion will be based on the results of the annual appraisal and conditional on the performance and capabilities of employees. The Company also conducts annual reviews of the compensation system and employee benefits in a drive to provide competitive compensation packages and retain talents.

Employee Benefits

Chenming Paper makes contributions to the five major social insurance schemes (i.e. pension insurance, medical insurance, unemployment insurance, work injury insurance and maternity insurance) and housing provident fund for its employees in accordance with national regulations. Employees are also entitled to statutory holidays and personal and family-related holidays such as marriage leave, honeymoon leave, maternity leave and breastfeeding leave. The bonuses, allowances, subsidies and benefits of employees are distributed in accordance with relevant requirements of the state and the Company. The Company values the opinions of employees and has set up communication channels including bulletin boards, monthly meetings and emails to collect employees' opinions on the environmental, social and governance affairs, in an effort to promote communication with employees, follow up their concerns and make improvements.



The Chenming Group Employee Mutual Aid Foundation (the "Foundation") is established to promote the spirit of solidarity and mutual assistance among employees, and rely on collective strength to solve the special difficulties and significant losses of members which cause a difficulty to them, such as heavy losses caused by serious illness, crash accident, death of immediate family members. During the reporting period, through the Foundation, it had helped more than 200 employees in need. Hence, our employees were gathering their endogenous motivation in happiness in realising an organic unity of employee development and corporate vision. The Company has also established trade unions in the hope of better understanding employees' demands and opinions. In addition, to increase employee happiness and cohesion, the Company implemented free on-the-job dining for in-service employees, and carried out half-day or one-day activities on six production bases such as billiard games, fun sports games and cool summer games.



KEY PERFORMANCE INDICATORS OF EMPLOYMENT

Employment Performance	Data	
Employee category	Total number of employees by category	Employee turnover rate by category (%)

	(person)	
Total number of employees	9,895	24.2%
Gender		
Male	7,396	25.4%
Female	2,499	20.5%
Employment type		
Full time	9,758	N/A
Part time	0	
Contract based	2	
Temporary	15	
Apprentices and trainees	120	
Age		
16-24	1,072	65.2%
25-34	3,113	32.6%
35-44	3,723	13.5%
45-54	1,548	8.3%
55-64	439	10.0%
>65	0	0%
Region		
Shandong	4,698	22.9%
Jiangxi	960	26.1%
Zhangjiang	2,685	23.1%
Jilin	623	12.8%
Wuhan	384	28.1%
Huanggang	545	46.8%
Position		
Senior management	125	12.0%
Middle management	650	8.3%
Supervisor	211	9.0%
General staff	8,909	25.8%

OCCUPATIONAL HEALTH AND SAFETY

Top 10 Concerns of Stakeholders

Putting safety first is the operating principle of the Company. It is our responsibility to ensure that employees work in a safe environment. As such, the Company has set up a safety committee to be responsible for coordinating, directing



and supervising the implementation of safety, fire protection and labour protection work. The Company requires its operating sites to implement the 5S methodology and clearly divide the areas for placement of hazardous chemicals and raw materials for production with clear and lucid signs and labels, so as to prevent the leakage and reaction of chemicals due to misuse or human errors. In the bleaching process, the Company has installed level gauges and an alarm system to prevent the escape of acidic corrosive chemicals. The Company has also installed a ventilation system and regularly cleans the production

areas to maintain good air quality.

Safe Production Month

During the reporting period, the Company adhered to the “safety first and prevention first” policy. Centred on the theme of “eliminating hidden dangers of accidents and strengthening safety lines of defence”, the Company carried out activities such as safe production month and accident emergency drills, organised hidden danger investigation and management, and strengthened the work safety awareness of its employees to ensure their health and safety.



Each production base of the Company has a safety department to implement occupational safety measures in accordance with the guidelines of the safety committee. The safety department also has close communication with the safety committee, regularly inspects the work environment and supervises the implementation of safety work to ensure the safe operation of the Company. Moreover, the safety department will identify risky work procedures, develop safety guidelines and provide employees with appropriate personal protective equipment (PPE) and tools. For example, for employees working at sewage treatment ponds, the Company not only sets up fences around sewage treatment ponds, but also have them equipped with lifebuoys and life jackets. Emergency relief supplies are also available in the sewage treatment workshops. All employees are provided with gloves, safety helmets, protective goggles, dust masks and protective gowns, with a view to protecting their occupational safety and health. The Company provides physical examination for each employee. In case of abnormal health status, the Company will make appropriate work arrangements as needed. Employees are also protected by the insurance purchased by the Company for them.

Each production base conducts routine safety inspections and detection of occupational hazards (if applicable) on a regular basis, and the inspection and detection results will be submitted to the safety committee. Where safety hazards are found, the safety committee and the production base will take immediate rectification actions, and work out feasible preventive measures together to prevent possible accidents. In the event of a fire, the heads of production departments must report it to the Company according to the established management mechanism, and thoroughly investigate the cause of the incident to prevent similar incidents from happening again.

In addition to having clear policies and a good work environment, appropriate occupational health and safety training also plays an important role in raising employees' safety awareness. Accordingly, the Company requires that all new employees must receive safety training and pass the safety examination. The safety departments often conduct occupational safety training on different topics to help employees safeguard the safety of themselves and others. Every day before work, each department will hold a briefing to remind employees of the work instructions.

		2021	2020	2019
<i>Cases of violations of laws and regulations related to occupational health and safety</i>	Number of Cases	0	0	0
<i>The amount of administrative penalties caused by violations of relevant laws and regulations</i>	Amount of Penalty (RMB)	0	0	0
<i>Work-related fatalities</i>	Persons	0	0	0
	Percentage (%)	0%	0%	0%
<i>Number of lost days due to work-related injury and number of days absent</i>	Days	7,229	20,620	4,332

COVID-19 RESPONSE

Top 10 Concerns of Stakeholders

In the first half of 2021, in the face of a complex and ever changing domestic and external environment, the whole nation conscientiously implemented the decisions and deployments of the Central Committee of the Communist Party and the State Council, and continued to consolidate and expand on the basis of the results of epidemic prevention and control as well as the economic and social development. China's economy continued to recover steadily, and production demand continued to rebound. The Company seized the opportunity of economic recovery after the easing of pandemic. It increased its exports in response to the increase in foreign demand, that leading to a progressive resuming of export to the foreign market that had shrunk due to the pandemic. Supplies of raw materials for pulping and papermaking have been affected by the pandemic, especially the wood chips. As a result of the deterioration of the pandemic, the purchase and transportation of domestic wood chips have been seriously hindered. Measures have been taken to replace domestic wood chips by increasing the proportion of imported wood chips from Southeast Asia and Australia.

The Administration Department, Enterprise Management Department and the Human Resources Department immediately established a prevention and control management team, in order to strengthen epidemic prevention and control scientifically and accurately, protect the physical and mental health of employees effectively, and improve capabilities of rapid response to emergency. The team's responsibilities include timely dissemination of relevant

notices and requirements from the government in relation to epidemic prevention, and implement them well. The Company keeps record of the information of people who have recently come to and leave from the Company or key areas, and sent such information to governmental departments on time. It supervises the implementation of epidemic prevention and control measures in each unit, and report to the management.



The detailed measures to strengthen epidemic prevention and control management are as follows:

- 1) Body temperature measurement: The security guards of the Company are equipped with thermometers. Those who come to the factory/office area must measure their body temperature, wear masks and show their health code, and leave a body temperature registration form and save it for future reference. Outsiders/ drivers of vehicles must provide information such as their health code, itinerary and PCR test negative report before entering the factory. In case staff is aware of any suspicious situations, they will report to the prevention and control management team.
- 2) Disinfection and ventilation: All units should keep their working place clean, assign responsible staff to regularly clean and disinfect the main activity places and maintain ventilation, keep disinfection/ventilation records.
- 3) log records: It is strictly forbidden for employees to go to areas with medium and high risks of the epidemic. Employees who have to go to the area for work or other emergencies must report to the epidemic prevention and control team and the community in advance, and get to know the epidemic prevention and control policies of the areas they are going to, and take good care of personal protection and health. Staff should cut down non-essential travels and avoid going to areas outside Shouguang. If staff needs to go to the area, precautions and monitoring on their own health should be taken.
- 4) People from key areas: Before returning to Shouguang, people from key areas of the epidemic must report their personal itinerary and arrival date to the company they work for, the community and village committee in advance, hold a PCR test prove as required, and fulfil the requirement of higher-level governmental departments on undertaking PCR test and isolation.
- 5) Persons stationed abroad: Before those who stationed abroad returning to Shouguang, they should report their itinerary and arrival date to the company they work for and the community as soon as possible, and undertake the PCR test immediately after returning. They will come back to the office building only when they are tested negative.

- 6) Gathering arrangements: All units basically do not hold any events such as gathering, dinner gathering, training, large meeting. Meanwhile, employees are required to avoid participating in gatherings, dinner gathering and other crowded activities.
- 7) Epidemic prevention emergency plan: Each unit establishes an epidemic prevention emergency plan to improve the ability to respond to and deal with accidents, and minimise the impact of accidents.

All employees should respond to the epidemic with scientific sense. Employees are advised to protect their personal health, monitor the health between staff members, not to fabricate, believe in, or spread rumors, and jointly maintain a good internet environment. All units must attach great importance to and promote prevention of virus, actively implement various epidemic prevention and control measures, and make good preparations for epidemic prevention materials. Moreover, if there are acts such as misrepresentation and concealment of facts and refusing to report actual health condition, it will be immediately reported to the judicial authority for legal responsibility, and their employment contract with the Company will be terminated.



TALENT MANAGEMENT & DEVELOPMENT

Chenming Paper upholds the personnel management policy of "cultivating, introducing, deploying and retaining talents" and puts into practice the corporate spirit of "learning, transcending and leading". We provide various types of training sessions for employees to enhance their personal capabilities and professional know-how. The Company prepares annual training plans for employees according to their needs, covering training in professional skills and management capabilities. The Company is keenly aware that learning new knowledge and skills will help employees enhance their competitiveness to cope with the fast-changing market environment. As such, we are willing to sponsor employees to take courses, acquire new knowledge, and master new technologies in the market. Employees who have completed their studies can share what they have learned with their colleagues during in-house training sessions of the Company, which will benefit both teaching and learning. After training session, a questionnaire survey will be conducted to refine future training content and plans.

The Company has paid attention to the construction of a talent reserve cultivation mechanism. With advanced business concepts and enormous development space, the Company has attracted an array of high-calibre professionals and improved the level of talent pool, so as to render strong support for the Company to maintain its long-term sustainability. As such, technical know-how and business information training offered to frontline

employees; team management and execution training offered to middle management; leadership training offered to top management. By doing so, talented teams of the Company can be built. Likewise, the Company also attaches great importance to the training of new employees in order to help them integrate into and adapt to the Company's culture. New employees are required to sign up for a mentoring scheme where senior employees will guide them as to the operations and responsibilities of their positions and the Company's culture. Employees can also review their own performance and express their career expectations in the annual appraisal, which serves as a good platform for employees and their superiors to discuss their future development directions and training needs and for superiors to promote capable personnel and assign them suitable positions.

In the reporting year, we advocated innovative learning forms, committed to building a practical online learning platform, improved the evaluation mechanism and performance appraisal system, carried out multi-level vocational training through online learning platforms and cadre teaching, and established training courses for specific groups to actively create a "dedicating, motivating and progressive" working atmosphere.



KEY INDICATORS OF DEVELOPMENT AND TRAINING PERFORMANCE

Number of Employees Being Trained

Performance in Development and Training	Data
Employee Category	Number of Employees Being Trained (%)

Total Employees	9,935 (100%)
Gender	
Male	75.0%
Female	25.0%
Position	
Senior Management	1.6%
Middle Management	8.4%
Supervisor	3.7%
General Staff	86.8%

Average Hours of Training Completed

Performance in Development and Training	Data
Employee Category	Average Training Hours (Hour)
Total Employees	91.2
Gender	
Male	89.9
Female	94.8
Position	
Senior Management	55.1
Middle Management	64.3
Supervisor	96.1
General Staff	40.8
Training theme ^④	
Occupational Safety and Health	16.1
Environmental Protection	16.1
Product Knowledge	16.1
Technical Knowledge	16.1

^④ Used the total number of employees as the denominator.

Performance in Development and Training	Data
Information Security	5.3
Soft Skills and Other Knowledge	5.3

LABOUR STANDARDS

The Company strictly abides by national and local labour laws to ensure that all employees are treated fairly. The Company strictly prohibits the employment of child labour and opposes all forms of forced and compulsory labour. Once such case is found, the Company will issue warnings or even dismiss the personnel involved. In order to avoid the above situations, job applicants are required to bring their identity documents including identity card, graduation certificate, employment reference, military service certificate and medical examination report, or even a Certificate of No Criminal Record for the verification of their age, nationality and identity, so as to comply with the laws and regulations on recruitment. Where a child labour case is found, the Company will invite relevant agencies to assist in following up the case, in an effort to support physical and mental development of children. If necessary, the Company will also provide tuition and living assistance for the children involved so that they can enjoy their childhood and grow up without worries.

In addition, the Company is fully aware of the importance of work-life balance. Long working hours will reduce productivity and increase the risk of accidents. However, due to the business nature, some work processes require long operating time, and so it is inevitable that some employees need to work on shift or overtime. In view of this, all employees are entitled to have rest days and compensatory leave in accordance with national regulations, and the Company will not force employees to work overtime and will arrange sufficient time for rest for employees and lunch during working hours. Employees will also receive overtime allowances according to statutory requirements, and their overtime hours will not exceed the statutory limit. If needed, employees can file complaints with the Company through different channels. During the reporting period, the Company did not identify any cases of child labour and forced labour, nor did it receive any major complaints about labour practices.

PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

Procurement

The procurement department is responsible for making all purchases of the Company through a standard tendering process. All procurement projects are subject to open tendering where suppliers are required to provide detailed quotations for comparison among more than two suppliers, with a view to preventing transfer of benefits and corruption. In the course of operations, the Company needs to cooperate with different suppliers and establish long-term and solid partnerships with them, which is beneficial for the Company to provide stable, long-term and reliable services. The Company seeks sources and high-quality suppliers through industry exhibitions, on-site inspections and competitive factory research to strengthen procurement at source and reduce procurement costs; introduces a supplier competition mechanism by establishing a three-level joint review mechanism for suppliers and implementing a system of eliminating substandard suppliers, so as to improve supply quality; and actively optimises raw material pricing against price risks using futures tools, realising futures pricing benefits. The Company actively cooperates with financial institutions and external factories in the supply chain financial business, and fully utilises the

funds from contributing parties to lower procurement costs, deepen strategic cooperation and enhance supply chain competitiveness.

Supplier Management and Evaluation Systems

The Company has established a supply chain management centre which adopts a supply chain management model of "centralised procurement by the Group, source as the first priority, hierarchical separation and one-vote veto". Through continuous improvement of the procurement information system, the Company has fully realised machine control management, and optimised the authorisation approval process, effectively establishing a standardised procurement management system. By establishing supplier management and evaluation systems, which require that to become qualified suppliers, suppliers must meet the requirements and standards of the Company in terms of quality management, business philosophy, environmental management, occupational health and safety and service performance.

The Company always prefer to select suppliers who share the same commitment we have with safety, responsibility and sustainability. During evaluation, the Company will randomly inspect the samples of suppliers' products and present them to the Company's pulp & paper testing centre approved by the state for inspection. If necessary, the Company will also require suppliers to produce relevant permits, certificates and test reports. Only after passing the inspection will a supplier be included in the list of qualified suppliers of the Company. The Company also conducts annual supplier evaluation exercises in accordance with its management measures. If needed, the Company will require the problematic suppliers to make corrections and perform relevant obligations based on the evaluation results. If the case is serious, the Company will consider terminating the cooperation with the supplier concerned and remove it from the supplier list.

In addition to strict supplier quality management, the quality of suppliers' products is also closely related to the Company's service quality. The Company will carry out stringent quality control and conduct acceptance inspection of products in accordance with the laws, regulations and industry standards applicable to the procurement projects. Only up-to-standard products will be accepted and used by the Company. Our laboratories will also inspect the raw materials on a batch-by-batch basis and conduct statistical analysis on the inspection results to ensure that the products are qualified to be put on the market. All approval documents and acceptance inspection reports are properly kept in the internal system for future inspection and follow-up.

For information on supply chain management and response under the pandemic, please refer to the section "COVID-19 Response".

Identification of Supply Chain Risks and Environmentally Friendly Procurement

The Company currently entered into a procurement contract with suppliers in relation to environmental protection. Terms of the contract is relevant to the obtainment of relevant qualifications for hazardous waste disposal, transportation of hazardous waste by dedicated vehicles, and the compliance with requirements of environmental protection on disposal process. We require the external companies to dispose of solid waste in accordance with environmental protection requirements throughout the entire process. Before environmental examination, we require the units being examined to sample and test in accordance with the specifications, and issue the testing report in a timely and standardized manner. In order to avoid the impact of on the environment due to non-compliance with the standards, we employ external company to test for wastewater, waste gas, noise, etc.

In addition, we are encouraging suppliers to adopt environmentally preferable products and services along the supply chain, for instance, giving priority to the products and services of local suppliers/contractors (such as property management companies and rental agencies). In the tendering process, suppliers/contracts with excellent environmental performance or products with environmental management system certification (e.g. ISO 14001 Environmental Management System and ISO 9001 Quality Management System) and/or environmental labels will be given extra credit/preference. The Company also specifies in tendering document, encouraging suppliers adopt products with ecolabels or environmentally friendly products. This helps reducing the Company's carbon footprint and promote local economic activities.

Green Supply Chain

Green supply chain is the general direction of the Company's steady development the years. As one of the key papermaking enterprises in China, Chenming Paper is actively developing the concept of circular development with "forestry-pulp-paper" integration, shouldering the responsibility of afforestation and solving the problem of raw material wood supply. The Company is also committed to developing ecological papermaking and promoting the sustainable development of papermaking enterprises and the papermaking industry, so as to becoming an eco-friendly corporate.

In order to implement the Company's development strategy of "forestry-pulp-paper" integration, as early as December 2005, a number of large-scale raw material forest bases have been established, which are mainly responsible for the construction of raw material forest bases for the Company's pulp and paper projects. It has successively established 8 raw material forest production bases in Ganzhou, Nanchang, Meixian, Chaozhou, Wuhua, Yangjiang, Chenzhou and Xiushui, to integrate seedling cultivation, forest production and timber development. As of 2021, the Company owns more than 800,000 acres of forest land, and has invested nearly RMB1.7 billion in total, providing a large number of employment opportunities for local farmers in the process of afforestation and fertilization. The Company is currently cooperating with professional institutions to develop Verified Carbon Standard (VCS).

In order to further develop ecological papermaking, the Company's operating sites in Shandong, Jilin, Wuhan and Jiangxi have obtained the Forest Stewardship Council (FSC) Chain of Custody (CoC) certification, an international recognition. The FSC CoC certification is to pre-approve, monitor and certify the chain of custody from raw material procurement and storage to production and sales in the papermaking industry, and to certify whether raw material wood in the Company's operating sites come from forests that have obtained FSC forest management certification. The certification is conducted annually by a third-party certification agency.

Selection of High-tech Equipment of Environmental Protection process

The Company highly values the introduction and upgrades of technical equipment and boasts the largest and most advanced pulping and paper making production line in the world. The Company's major production equipment has been imported from internationally renowned manufacturers, including Metso and Valmet of Finland, Voith of Germany, Andritz of Austria, etc. and reached the advanced international level. The newly completed pulping production line in Huanggang has introduced the environmentally friendly ozone-based and chlorine-free bleaching process with low- solids continuous cooking from above-mentioned factories. This is a highly automated process with low energy consumption and low water consumption. The biogas, wood chips and bark produced in the process will be sent into the alkali furnace for combustion and into the biomass gasifier for generation of methane to replace heavy oil as fuel for combustion in lime kilns. The white mud produced by alkali recovery causticisation is fully recycled and reused after calcination in a lime kiln. All solid wastes are comprehensively used without any discharge of solid wastes, thus achieving efficient use and recycling of resources.



KEY PERFORMANCE INDICATORS OF SUPPLY CHAIN MANAGEMENT

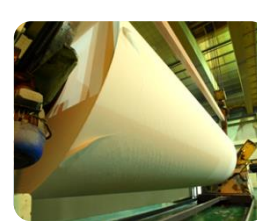
Performance in Supply Chain Management	Data
	Number of Suppliers
Total	1,923
By region	
Hong Kong	10
Mainland China	1,867
Asia (except for China)	17
America	3

Performance in Supply Chain Management	Data
Europe	25
Australia	1
Africa	0
Assessment standard	
Number of new suppliers/ service providers	33
Number of new suppliers/ service providers being assessed	5
Number of existing suppliers/ service providers being assessed	1,771
Number of suppliers/ service providers being assessed in relation to environmental performance	2
Number of suppliers/ service providers obtaining environmental certificates	796
Being a supplier of environmental materials (such as FSC)	7

PRODUCT QUALITY AND SAFETY

Top 10 Concerns of Stakeholders

The Company boasts the largest and most advanced pulping and papermaking production lines in the world, with products covering more than 200 types in seven series under five major categories, including high-end offset paper, white paper board, coated paper, light-weight coated paper, household paper, electrostatic copy paper and thermal paper. The Company owns "CHENMING BIYUNTIAN", "GOLDEN MINGYANG", "CHENMING CLOUDY MIRROR", "CHENMING CLOUDLY LION", "CHENMING SNOW SHARK", "CHENMING EAGLE", "CHENMING GONGHAO", "XINGZHILIAN", "FOREST LOVE" and other brands, with each major product ranking among the highest in terms of market share in China.



Marketing

The Company has a relatively mature sales network, and has set up specialised sales companies responsible for the development of domestic and overseas markets, product sales, and formulation of sales policies. The sales companies' management systems are divided into product lines, product companies, management areas, and branches to achieve matrix management. The Company established a "sales information management SOP" and set up an information department, specified duties to handle, predict and analysis of product quality, customers satisfaction, competitors' information and etc., with the aim of updating departments about the latest market news by weekly and monthly. The company implements a three-level scheduling mechanism. Branch companies, administrative districts, and sales companies schedule the major task indicators every day, such as arranging delivery and payment on schedule, to ensure every level of staff get to know the process of scheduling mechanism, and effective implementation of the mechanism.

Customers' Needs and Expectations

The Company realises customers' feedback can help us improve service quality, therefore, a "comprehensive, face-to-face, peer to peer, professionalism" strategy has been adopted in full to understand customers' needs and expectations. The strategy includes a customer visit standard operating procedure (SOP) which sticks to a "four-level visit mechanism". Employees are divided by four categories and each category has their own visit combination and frequency. A visit report will be submitted for top management and quality department to follow up.

Primary Visit	Secondary Visit	Tertiary Visit	Senior Visit
Leading by the Company's leader of sale manager, employees of quality, technical supports and production department will visit Type A customers annually.	Leading by the Company's leader of sale manager or deputy sales managers, each sales and marketing department will visit key customers quarterly with the aim of exchanging the latest market news and also get to know their opinions.	Leading by the Company's product director, managers of each operating site will visit general customer monthly, to understand their opinions of product.	Leading by the Company's regional or site directors, the business manager will participate in visits every month to visit regional customers once to two times. In order to understand their opinions of product.

After-sales Services

Chenming Paper is committed to providing reliable and prompt after-sales services for customers. The Company has not only set up an after-sale department, but also established customer complaint handling procedures to handle every complaint in good faith without delay. The Company has an effective Customer Complaint Handling System. The professional complaint specialists are stationed all over the country, which can solve the problems raised by customers in the first time, improve customer satisfaction, and enhance the Company's ability of management. We currently have 56 offices and nine service regions in China and has 43 employees are based overseas and to offer an after-sales service all over the world, The services reach out to Asia, Middle-East, America, Europe and etc. The Company's service personnel continuously communicate with customers and offer supports if applicable to gain trust of customers and build a long-term relationship.

The Company regularly conducts customer satisfaction surveys through the product information platform on the Company's official website to learn about the service quality of the Company, so as to seek improvements on a continuous basis. A customer satisfaction survey is conducted once a quarter according to product line, about 100 items are selected for research in average. The major customer satisfaction indicators are quality, price, service, packaging, and timeliness of supply. Our customer satisfaction has generally reached more than 90% of the indicator requirements. Meanwhile, there are also customer service hotlines and mailboxes for customers to express their opinions.

The Company stipulates that once a customer complaint is received, the customer service team should investigate the complaint and reply to the customer on the same day, and the complaint handling cycle must not exceed seven days. Moreover, the Company has formulated after-sales service policies, covering return and exchange of goods and compensation, to protect the interests of the parties concerned, in the hope that good after-sales services can win the trust and support of customers for the Company. Moreover, services personnel always visit customers to get to know their needs and feedback. During the reporting period, the Company did not receive any complaints or compensation claims that seriously affected the operations of the Company.

During the reporting period, there were no major incidents in which the Company was fined or punished by government departments or subject to product recalls due to major quality problems or health and safety reasons.

	2021	
<i>Products subject to recall for safety and health reasons</i>	Number of Items	0
<i>Complaints about products and services</i>	Number of Complaints	38
<i>Satisfaction rate of complaints solved about products and services</i>	%	100%

Quality Control

On the basis of introducing internationally advanced pulp and paper production lines and advanced technologies, the Company has made technological improvements and re-innovations, and established new standards for processes and product quality, forming distinctive core technologies. Each production base and its quality assurance department are jointly responsible for testing and monitoring product quality from product design to production process, so as to ensure that the quality of finished products can meet the relevant standards. The quality assurance department will develop testing methods and determine sampling quantities according to the contract signed with each customer and international standards. The production base will conduct spot checks of finished products in the production process using the testing methods determined by the quality assurance department to ensure product quality.

Where there are any problems with the Company's products, quality control and product recall procedures will be initiated. The relevant salesperson will arrive at the site to inspect the defective products and mail a sample of the products with the relevant certificate of quality and a quality problem feedback card to the quality inspection department of the Company. The quality inspection department will complete the testing of the sample within two days and present the testing results to the after-sales management department of the marketing division of the Company. If necessary, the Company will proceed in accordance with established procedures to recall the substandard products.

Quality control method		Principle
1	Acceptance of raw materials	Acceptance criteria are set based on the characteristics of different raw materials. Raw materials that do not meet the quality requirements will be replaced.
2	Quality monitoring in the production process	Inspections are carried out in accordance with the Company's standards for various production steps to detect potential problems as early as possible. Random samples are taken from various production lines to the technical quality assurance department for testing of physical indicators, appearance quality, etc. on a weekly basis.
3	Quality analysis meeting	At the monthly meeting, the sales department will prepare a summary and report customers' feedback on product quality, and the quality and technology departments will make suggestions on product quality improvement, present quality analysis results, and put forward methods to improve product quality.

RESEARCH & DEVELOPMENT OF BRANDED PRODUCT

Top 10 Concerns of Stakeholders

The Company proactively carries out technical cooperation with academic institutions, research institutes and international advanced enterprises, and applies for patents on proprietary products and technologies with commercial value. The Company is market-oriented, and innovation is its driving force. It highly values technological R&D, and has formed a variety of R&D modes such as independent R&D, technology introduction, and industry-university-research cooperation.

Academic Research : "Key Technology and Industrialization of Mixed High-yield Clean Pulping" Project

Aiming at the three problems of "resources, environment and structure" that restrict the development of the papermaking industry, Chenming Group cooperated with the China Forestry Science Academy Linchan Chemistry Industry Institute to innovatively carry out technological research work and creation of core equipment, such as homogeneous softening treatment of mixed materials, low-temperature directional dissociation of fibers, chemical reduction, water treatment and reuse, to provide strong support for the realization of low-carbon, green and sustainable development of the papermaking industry. Focus on tackling key problems in dipping and softening, energy-saving refining, cleaning and high-efficiency bleaching, and core pulping equipment. The

Industrial Innovation : "Key Technologies and Industrialisation of Green Preparation and High-value Utilisation of High-Performance Wood Chemical Pulp" Project

The mechanism of bio-chemical synergistic bleaching and fiber purification was systematically explained, a new theory of synergistic dissolution of lignin was proposed, and a super-large-scale short-process bleaching technology system with an annual output of 1 million tons containing O₃ was constructed, which significantly reduced the use of ClO₂. It has greatly improved the biochemical properties of bleaching wastewater, and prepared high-performance pulp fibers, realizing green environmental protection, energy saving and emission reduction in the bleaching process of wood chemical pulp; innovating new technologies for green preparation of paper-based materials, and researching and

automated high-yield pulping technology and equipment broke the long-term monopoly of core technology and equipment by foreign countries, and achieved the goal of high-value utilisation of low-quality raw materials. The papermaking industry is changing to a sustainable development mode featuring resource conservation, environmental friendliness and reasonable product structure.

Won the second prize of the National Science and Technology Progress Award 2019

developing pulp gradient beating technology and self-adding technology further improve the quality of traditional paper and paper-based materials, and realise the upgrade of traditional paper products; innovate pulp purification and fiber modification technology, and developed a series of new products such as transfer printing paper, paper-based transparent membrane materials, that have realised the highly value-added utilisation of pulp fibers.

Won the second prize of the National Science and Technology Progress Award 2020

As a leading player in the papermaking industry of China, the Company attaches great importance to technology research and development and brand benefits. It has scientific research institutions including the national enterprise technology centre, the post-doctoral working station, the state certified CNAS pulp and paper testing centre, Shandong Pulp and Paper Making Laboratory, and the Guangdong Pulp and Paper Production Technology Research Center. The Company also works hard on the following aspects: carrying out academic research with colleges and universities and R&D institutions such as Qilu University of Technology, Qingdao University of Science and Technology, Tianjin University of Science and Technology, and Institute of Chemical Industry of Forest Products of the Chinese Academy of Forestry, introducing, digesting and absorbing scientific research and innovation achievements, accelerating the industrialisation of new and high technologies, optimising product mix, and improving the competitiveness of its products in the market.



PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

The Company has great respect for intellectual property rights, and is keenly aware that the development of products and advancement of new production technologies are resource and time intensive, which have far-reaching implications for the uniqueness, competitiveness and profitability of the Company. As at the end of the reporting year, the Company has obtained 374 national patents including 31 patents for invention, with 7 products selected as national new products. The Company has obtained 15 science and technology progress awards above the provincial

level and undertaken five national science and technology projects and 64 provincial technological innovation projects.

<p>Introduction of Innovative Project : Technical Development of Engineering Blueprints</p> <p>"Technical Development of Engineering Blueprints" was selected as a technological innovation project in Shandong. As a kind of chemical coating processing paper, blueprints are specially used for multiple engineering design and machinery manufacturing. The Company has carried out technical research on engineering blueprints. This project develops fiber matching technology, blueprint surface treatment technology, special filling technology for base paper as well as other technologies, and develops high-grade paper with uniform and fine quality and high opacity, which can meet the printing needs of various engineering drawings, that enriching the product structure of the Company, thereby widely accepted by customers after being put into the market.</p>	<p>Introduction of Innovative Project : Technical Development of Super High Bulk Art Paper for Children's Picture Album</p> <p>"Technical Development of Super High Bulk Art Paper for Children's Picture Album" was selected as a technological innovation project in Shandong. With commercial softwood pulp, hardwood pulp and self-made mechanical pulp, advanced beating technology, sizing control technology, and wet end filler particle size increasing technology, and printing-friendly papermaking technology were developed. The coating formulation is safe and pollution-free, free of heavy metal and harmful substances such as lead. The paper surface is mild and not dazzling, and the printing color is realistic. Compared with the existing products of the same thickness, the base paper weight is reduced by 8-10g, which reduces the consumption of wooden materials significantly that enabling the products with a strong competitive advantage in terms of cost and quality.</p> <p>Won the Excellent New Product of 2020 Shandong Technological Innovation Award and the First Prize of Excellent New Achievement</p>	<p>Industrial Innovation : Technological Development of Coated Paper for High-end Books and Periodicals</p> <p>With the improvement of living standards, high-end printing paper is entering the field of consumption by the general public. For example, high-end color prints such as high-end picture albums, books, high-end impurity covers and color trademarks require smooth, whitening, glossy, high opacity on both sides. the pattern effect of colour printing is bright, and the colour level is outstanding. Especially the demand of new generation for intuitive vision is getting higher, the requirement of quality on high -end readings (such as the depiction of scenic spots in high-end publications, the depiction of human figures, and the expression of subtle expressions) is high. In response to market demand, the Company develops high-grade coated paper for books and periodicals, which further improves the strength and surface performance of the finished paper, ensures the layering and color expression after ink printing, and the outline of printed graphics is clearer. The new products have high promotion value and can effectively improve the market competitiveness of the Company's products.</p>
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INFORMATION SECURITY AND PERSONAL DATA PROTECTION

Automated production is a major trend in the manufacturing industry. In recent years, there has been a digital revolution, under which the public is increasingly concerned about the protection of confidentiality and privacy of personal data. Although automated production and data management can help the Company improve its management standards, accelerate the upgrading and transformation of the Company, and improve efficiency and quality, any inadvertent data leakage will damage the Company's reputation and ruin the trust of customers.

As computer systems are required for automated production and data management, the Company has formulated a system maintenance policy and strict rules governing the use of computers by employees to educate and regulate them in this regard. The rules stipulate that all confidential information and documents with personal data must be destroyed before being discarded. The Company also installs anti-virus software on all computers and online platforms and regularly updates the software to prevent virus infection. Moreover, the Company backs up and encrypts internal documents on a regular basis to prevent data leakage. In addition, the Company restricts employees' access to the personal data of customers and gives access rights to designated employees only. On the date of assumption of duty, each employee is required to sign and strictly abide by a confidentiality undertaking, pursuant to which they must not disclose any confidential and personal data of a customer to any external parties without the consent of the customer. Once such case is found, the employee concerned will be impartially handed over to the police for investigation without tolerance.

In the reporting period, there were no non-compliance relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.

CORPORATE GOVERNANCE, RISK MANAGEMENT AND ANTI-COMPETITIVE CONDUCT



The integrity and good corporate governance of the Company are embodied in its brand image and performance. The Company always strictly complies with relevant laws and regulations and prohibits any acts of bribery, extortion, fraud and money laundering within the Company. An audit committee has been established in the governance structure to formulate, review and supervise business management policies and practices. An effective internal monitoring system has also been set up to constantly enhance internal management. In addition, the Company has formulated anti-corruption policies and rules for departments with a higher risk of conflict of interest, including sales, finance, procurement and audit

departments, with an aim to deter corruption. The audit department of the Company conducts annual audits and visits each subsidiary for audit purposes. In addition, as some tendering projects involve huge financial benefits, all tendering documents are published on the Company's website while the identity of bidders is kept confidential, so as to enhance the transparency and fairness of the tendering process.

The Company operates with high ethical standards and professional integrity, and constantly reminds employees of relevant regulations to avoid conflict of interest. We also set out our code of conduct in the labour contract and the staff handbook, and formulate binding measures against illegal or unethical acts. Employees can also report suspected illegal or fraudulent activities. The legal department regularly offers law courses on anti-corruption for

employees involved in corruption-prone work areas to raise their integrity awareness and reduce the occurrence of illegal activities. During the reporting period, 159,515 training hours were offered to 9,935 employees, so to refresh their awareness of anti-corruption matters. During the reporting period, no cases of bribery, extortion, fraud or money laundering were found within the Company.

	2021	2020
<i>Concluded legal cases regarding corrupt practices brought against the issuer</i>	0	0

CARING FOR THE COMMUNITY

While standardising operations, paying taxes according to law, and creating economic value, the Company actively participates in social welfare undertakings, fulfils social responsibilities, and creates social value. During the reporting year, the Company raised a total of RMB12.003 million in charitable donations. Wuhan Chenming Labour Union held two charity events on Hanzhi Road West, and raised RMB 3,000 to support two students in need.

In the first half of 2021, the Company continued to support charitable projects such as "Sunrise Aid for Education", "Sunset Assistance to Elderly" and "Rehabilitation and Medical Assistance", and actively took the lead in participating in the "Daily Donation with Compassion" activity in Shouguang. In order to support the benevolent quality of the traditional virtues of the Chinese nation, The Company, as a leading large enterprise in Shouguang, donated RMB1 million on 8 July through Shouguang Federation of Trade Unions for the Daily Donation with Compassion Fund, that the Company took a lead as a leading enterprise to contribute to the society. Meanwhile, the Company did its best to fight against the pandemic and alleviate poverty, for example, Zhanjiang Chenming Pulp & Paper donated 40 tons of disinfectant to the Wuchuan Municipal Government for the front-line personnel at the centralised PCR test station and key areas which is set for taking up virus prevention work, in order to help Wuchuan fight the pandemic. The Company also actively participated in the "Guangdong Poverty Alleviation Day" activity and donated a total of RMB11 million, making positive contributions to the targeted poverty alleviation work. After taking training courses for management, special training courses, video training sessions on poverty prevention dynamic monitoring and assistance work, and attending meeting for targeted poverty alleviation operation for four months, onsite investigation was carried out. The Company visited 429 registered households alleviated from poverty in Mazhang Town, Zhanjiang and fully supported the rural revitalization.



In the second half of 2021, in response to the appeal from Shouguang City on "Emergency Blood Bank", the department of the Group and local employees of Shouguang took the initiative to form a blood donation volunteer team. Until the morning of 25 August, a total of 30 employees signed up to participate in the voluntary blood donation activity. This blood donation activity conveyed love, rekindled hope for more lives, and fully demonstrated the volunteers' dedication and sense of belonging. After the event, the labour union of the Group prepared milk, bread, eggs and other nutritional products for the volunteers as a demonstrate of appreciation.



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