

Shandong Chenming Paper Holdings Limited

Environmental, Social and Governance Report





Introduction

Shangdong Chenming Paper Holdings Limited (the "Company") and its subsidiaries (the "Group") is the leading enterprise in Chinese papermaking industry. With over half year century of innovation and entrepreneurship, the Group has involved in 5 major sectors in paper, finance, yarn, forestry and real estate. The Group has developed in utilities sector by investing in mining, energy logistics, construction materials and hotel business. It is the only paper making enterprise which comprise of finance services and financial leasing. The Company is the one and only listed company in PRC simultaneously listed on A, B and H stock market. The total assets of the group have reached RMB 90 billion. With the production sites in Shangdon, Guangdong, Huibei, Jiangxi, Jilin, the annual paper pulp capacity can reach 8.5 million tones. Our economic efficiency is leading in the industry for 20 consecutive years. The Group is ranked 234 in the China Enterprise 500, the top revenue 100 listed enterprises and the first 50 most competitive blue chip company.

The Group has now own the world greatest paper pulp production sites and dozens of advanced production lines. We have 5 categories of paper products including printing paper, packaging paper, office paper, industrial paper. With the advanced technology, we have developed high grade paper such as cultural paper, white cardboard, newsprint, light coated paper, copy paper, industrial paper, specialty paper, life paper. The Group has technology centre at country standard, postdoctoral scientific research workstation and China National Accreditation Service for Conformity Assessment pulp and paper testing centre and other research institutions. It has been awarded over 150 items for the Chinese authorizes patent, including 9 invention patents, 7 products are rated as "national new product", 29 products fill the domestic blank, won 21 science and technology projects and 26 projects for provincial technology innovation. We are the first enterprise to have been awarded certification in Quality Management System ISO 9001, Environmental Management System ISO 14001 and FSC Chain of Custody (License code: FSC-C020261). The Group has won the



National 1st May Workmanship Award, China Enterprise Outstanding Management Award, the Advanced Spiritual Civilization national and provincial honorary title for over 200 items.

Looking forward, the Group will maintain the stability, green, low carbon, recycle and sustainability in our management approach. We will base on the "China 2025 Manufacturing structure" for our future development. With the science based development to improve quality, speed up the combination of manufacturing and financial service. Together with the industrialization and intelligent to improve quality, management, technology, brand image to build the world first class enterprise, we strive to gain profit beyond ten billion during the "Thirteen Five" Period and to become a first tier enterprise in the world.





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About This Report

Report Scope

This report covers the environmental protection, social and governance measures of the Company and the following subsidiaries are responsible for the major production process of the Group .

- Jiangxi Chenming Paper Co. Ltd. ("Jianxi Chenming")
- Zhanjiang Chenming Pulp & Paper Co., Ltd.
- Jilin Chenming Paper Co., Ltd.
- Wuhan Chenming Hanyang Paper Holdings Co., Ltd.

Report Period

This report covers the data from 1 January 2016 to 31 December 2016. Historical data is also introduced where applicable.

Report Standard

The contents of this report is prepared in accordance with the 'Comply or Explain' of the Environmental, Social and Governance Report Guide, Appendix 27 issued by the Hong Kong Stock Exchange. The Group expects to disclose more environmental, social and governance measures in the future.

Your feedback

Valuable opinions from stakeholders will help us continue to improve on environment, society and governance performance. Please feel free to contact us for any comment.

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Stakeholders Participation

We are fully aware of the importance of communicating with our stakeholders, therefore various channels are used to find out their expectation. Our stakeholders include employees, investors, suppliers, clients of the Group and the government, whose opinions are important to our daily operation. For different stakeholders, we have established different channels and frequency for engagement in order to improve management and efficiency.

Major	Communication Approaches	
Stakeholders		
Employees	Workers' Congress, Mutual Benefit Association, Workers Union, Chenming	
	Newspaper, Notice Board	
Investors	Annual Meeting, Results Announcements, Annual Report, General Meeting (see	
	'Communication with Shareholders' sections in Annual Report 2016)	
Clients	Email, Conference, Customer Satisfaction Survey, Group Website, Customer Service	
	Hotline	
Suppliers	Conference, Workshop, Telephone, Email	
Government	Conferences, Seminars, Reports	



Investor – Visiting Chenming Paper



National Paper Trading Exhibition

Dealer Conference



Environmental Protection – Building a Green Industry

China has become a major producer in recent years. With rapid economic growth, the problem of pollutant emission has also become serious. Both of these issues are addressed by different countries. The Chinese government has therefore implemented the new Environmental Protection Law in 2015. The act has substantially increased penalties and enforcement. China's industries must consider green production to comply with the act. Our Environmental Protection Management System is formulated in accordance with the Environment Protection Law. The industrial development relies on the resources of the country. The Group treats environmental governance as core principle. With the spirit of 'Scale Expanding, Environment Advancing', the Group implements the concept into practice by integrating environmental protection into every part of the Group.



The Group developed rapidly in its early stage, and did not pay attention to the environmental pollution caused by the facilities of the Group. As the industry developed, we eliminated the old machinery and introduced high-performance equipment in order to conserve energy and reduce emission. We have accumulated our investment in environmental protection for over RMB 3 billion. Advanced equipment cannot fully meet the needs of environmental production. We are actively identifying other solutions to promote clean production.



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Environment Protection Department has been established and is responsible for monitor and update the laws and regulation, also to ensure the emission of each production plants meet the criteria and comply with the legal requirements. Each production plant has environmental protection division with environmental inspectors. Their duties are clearly defined and reported to the Environmental Protection Department when necessary.



Leading company in the paper manufacturing Industry achieved ISO 14001 certification

Emissions are monitored throughout the production process. If pollutants exceed the standard, production must be suspended until improvement plan is implemented. Production can only resume until the emission meets the requirement. In addition, each production plant is required to participate in the examination by the Environmental Protection Department of the government. For any penalty imposed on the excess emission, the production manager must report to the management of the Group in accordance with the procedure. Some of the online monitoring facilities are managed by the Government Environment Bureau, and others are handling by professional contractors. Data from each monitoring station are compared quarterly. The emission information is published onto the Government Environment Department to increase transparency. The unstable operation of the environment discharge facility in Jiangxi Chenming has resulted in fluctuate emission data in sewage and air emission in 2016. Save for the aforesaid, the Group has no other excess of emission data or violation of the environmental law.





Jiangxi Chenming actively implemented the below improvement plan:

1. For the sewage issue, the following are implemented:

- Environmental protection team has been formed to identify issues and monitor the water usage for daily life

-Redefine the water emission level for each production department. Filters have been installed at the water discharge to reduce impurities.

- Water coolers have been installed at all production department. All water from the water coolers is reused. 90% of the water is reused from the paper manufacturing process. Invest RMB 3.5 million had been invested on a newly built sand filter system. It could provide 6000m³ recycled water, retain the lost of fibre by 95% with the system. The sewage discharge and treatment are reduced by cutting down wastage from the source.

 For the odour issue, RMB 3.8 million is invested for an odour control system. The system has started to operate stably. The functional department increased the monitoring of the sewage treatment. Controlling the emission by tracking the production process.



Low Carbon Production

In the initial stage of business development, the Group purchased electricity from power suppliers. With the increase in scale, the electricity purchased was unable to meet the production needs. To ensure production stability, the Group has set up thermal power plant for its own power supply. The red exhaust gas treatment tower is the highlight in Shouguang plant. The treatment tower processes exhausts dust, sulphur dioxide and nitrogen oxides and therefore we have adopted dust removal and desulphurisation technology to reduce nitrogen oxide dust and sulphur dioxide by 30 - 75%. Biological deodorisation equipment is used to eliminate the ashes produced from the boiler. The smoke is sealed and collected in a hanging membrane and fibre-reinforced plastics before centralised processing. This ensures that the exhaust emission of the production base meets the national standards.







Water Resource Utilisation

The paper making industry is highly dependent on water. Water resources in northern China are severed. The Group has built a circulate water-purification system for cost reduction and effective use of resources. At present, about 40% of the used water is recycled, while the non-reusable wastewater is discharged after treatment.



Sewage recycling system

The Group's thermal power plant achieves zero sewage discharge. Production lines use the remaining cooled water from the power plant. The discharge of dark wastewater continuously flows into a wastewater treatment pool and it becomes clear after multi-layered filter treatment. There should be no slurry, coating, waste, coal ash, lime, etc. in the discharge pipe to ensure the quality of the discharged water. The water is closely monitored before reused in the production line.



Groundwater plays an important role in paper making. Excessive exploitation of groundwater may lead to land subsidence and affects community water supply. To avoid this, the Group invests to construct a water diversion pathway, where surface water is used, replacing the groundwater accumulated by rain and snow.





Green Paper

The raw material of paper is wood. It has become the Group's concern to link paper making with environmental protection. We are committed to turn paper making into "green" product by starting with the raw material. The high-quality paper is produced through the transformation of existing technology.

Wheat straw pulping is highly dependent on the early development in our industry. High-temperature environment in the process does not only consume energy but also produces black liquid which damage the environment. The Group takes the lead to eliminate wheat straw pulping by replacing wood pulp. Wood pulp is mostly imported at a higher cost. Despite the cost concern, it has reduced the pollution.

In consideration of the cost and exhaust gases generated during transportation, the Group has developed forestry in Guangdong, Hubei, Jiangxi and other places with a view to reduce the risk of dependence on raw materials. Waste paper recycling facilities are developed in which the recycled paper is put into production again, thus reducing waste and bring economic benefit.



The Group owns 200 yards of woodland

Animals have lost their home because of over harvest in the woodland for economy development in the early days. The over harvest also affects the food chain. The carbon dioxide released during deforestation is greater than the emission from the production, causing a greater damage to the environment. Forest Stewardship Council ("FSC") certification awakens the awareness of the sustainable forestry. It ensures the wood is harvest from an ecological, social and economic managed forest.

The Group has obtained FSC Chain of Custody



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Waste Disposal

A large amount of waste residue, exhaust gas and sludge are produced in the industry. Better use of such waste can reduce problems of the waste but also benefit the economy. The Group has followed this direction and implemented the following two projects:

Project 1: Convert the coal ash, cinder and other waste generated from the thermal power station into cement and building materials in our invested cement and building material plant.



Project 2. The sludge produced during the paper-making are processed with the heat in generator for electricity, which is a process of materialization.

"造纸废弃物-发电"循环链	43	
"Paper-making Waste		
Breeding and Power Generation"	Circular Chain	

Although we have tried our best to make full use of the waste, it is unavoidable that some of the waste cannot be effectively treated. Wastes are divided into two categories, solid waste and poisonous waste. Solid wastes are collected in the plant and handled by the recycler. Chemicals must be stored indoor to prevent from toxic released and flow into the water source. The storage containers must be covered and clearly marked in the factory plan.

Caring our staff

We cannot miss out the effort of our staff for the Group's success today. The Group has put together the Human Resource Management Manual with reference to the national and local laws and regulations. The manual has detailed define the human resources guidance. We have enhanced the development of ability and knowledge for our staff and improve the working environment to fully implement the principle of 'develop people, introduce people, recruit suitable people and retain people'.

Labour Standards

Unlawful acts are forbidden in the Group. Child labour is prohibited. Identification documents are verified during interview to confirm the employee has met the statutory age requirement for their work. We are a fair employer. Age, gender and other criteria are not considered for their application. To cope with the production schedule, employees may be required to work on shifts or perform overtime work. We do not force to work overtime. Overtime allowance is paid according to the statutory requirement. We also guarantee overtime will not exceed the labour laws. There are no complaints relating to discrimination or child labour during the reporting year.

Salary and Benefits

The Group has always regarded employees as important asset. We thereby consider our staff physical and mental development with great importance. The Group is conscious of various sides of the present and future employees. Prospective employees are benefited from the Group's enhanced recruitment strategy, while the current employees can benefit from salaries that are beyond the regulated national remuneration.

To strengthen team spirit and motivation the Group rewards employees with bonus based on staff and department performance. Pension, medical insurance, unemployment insurance, maternity cover, employment injury insurance and a housing fund are provided in accordance with the government proposal to guarantee future living.

We are aware that apart from wages, working environment and benefits are also concern of our staff. We cannot neglect the young people who have just joined the labour market. We opt to provide our workforce with a safe and comfortable working environment. Staff forum is held to understand the needs and concern of our staff. To enrich the work-life balance, the Group organized basketball, table tennis, badminton competition and culture performance events. We visit retired staff and staff with families with difficulties. Benefits are distributed each quarter and custom made birthday cakes are provided to our staff birthday.







Spring Festival Gala Dinner



Birthday cake to our staff



Speech competition to celebrate National Day





Competition among departments

Staff participate in the outward bound competition



Staff dormitory





Occupational Health and Safety

Occupational health and safety have drawn the Group's attention. The Group has tried its best to minimize hazards and injuries at work to protect our staff. We fully comply with the national and regional laws and regulations. The Safety and Fire Prevention Management Committee (the "Committee") has been established for safety management and fire prevention. The Committee comprises of varies department heads and is chaired by the Chairman of the Company. They are responsible for organizing, coordinating, instructing and supervising the Group's safety issues. Under the Committee, a safety production office has been set up to implement and monitor the safety issues of all production plants. It regularly reports to the Committee, proposes improvement plans, feasible safety measures and supervises the improvement of safety facilities.

The Group is engaged in a wide range of businesses. All sites need to strictly follow the safety guidelines strictly. Each production site has established its own health and safety department with safety supervisors to make sure the practices are implemented. According to the safety inspection guideline, the personnel in charged the safety departments and the production line is responsible for safety inspections and determine the inspection frequency based on its relevant risk and priority. The inspectors must notify the safety departments within the specified time when accident happens. Production will be immediately suspended for any serious safety concern.

The most effective way to prevent accident is to improve the awareness of staff safety. Personal protection equipment is provided based on job nature of the staff. The Group will also offer relevant safety training. Insurance is provided for all employees according to the regional laws to protect our staff. Newly joined staff is required to join the safety training with assessment when he is on board. Industrial accidents can cause serious injuries. Employees' must be aware of emergencies with a decisive and functional manner to protect the safety of their own and others. Every department manager will remind employees the safety precautions before work every day and conduct regular safety training.



Free physical check up for employees



Safety facilities inspection



Safety reminder at the production sites



Staff with personal protection equipment

To minimize the risk of accident, we have identified the risk level. Corresponding procedures are adopted during emergency. For any incidence and in case of fire, the department manager needs to report to the plant safety department. In the event of serious accident, it must be reported to the Group within a specified time. Investigation and analysed are carried out to avoid similar accidents.

Development and Training

The Group has set priorities on staff training and development. Our corporate philosophy "learning, exceeding, leading" and 'train people, introduce people, assign people and retain people' as our human resource principle to identify, coach, train and develop our workforce a career development platform for them to shine like a star. We continue to refine our human resources policy to form the Chenming Culture and develop a system by to ensure having the right person in the correct position, eager to promote and to use suitable personnel.



With the rapid changes in science and technology nowadays and the improved techniques in the paper making industry, we provide various types of trainings for employees to enhance competitive and broaden their horizons to cope with industry change. Training management guideline is established. All employees need to fulfill the required training hours each year. Each subsidiary can make adjustments based on staff needs.

For better understanding and adapting the culture of the Group, newly joined staff is required to take part in orientation training and pass the assessment. Other than that, a mentorship scheme has been developed where the junior staff is led by a senior staff on their job duties and about Chenming cultures. The Group provides trainee positions for university students each year. Students are guided by tutors on their work. The trainee programme does not only cultivate talent for the country, but also allows students to begin their career planning.

To encourage employees to strive for the next level in their career, the Group select potential staff for focused trainings. The selected personnel are assigned to work in different departments to gain experiences, thus meet the future needs and development of the Group. Current employees are given the priority when there are vacancies for relocation or promotion. The employees can apply for transfer and the Group will take it into consideration in feasible situations. Recruitment will be only processed when internal staff is not able meet the specification.



Employee Training Courses



Outward Bounds Courses



Operating Practices

Supplier Management

Apart from the effort of our staff, cooperation with suppliers is essential to our business development. We start from raw material to ensure quality by selecting high standard suppliers. The Group has established supplier management system. Potential suppliers must be examined before joining our qualified supplier list. The examination does not only review product quality and delivery schedule but also reviews operation philosophy, occupational health and safety and service. Suppliers need to undergo annual review to confirm their qualification. The results of the review are recorded in the system for future reference.

For effective control on the production schedule, inspections are carried out by the purchase department and technicians before delivery to avoid delay and quality issue. The purchasing officers are in close contact with the suppliers to understand the production situation in advance and make suitable decision when necessary. Third-party certification agencies are invited to examine the goods when necessary to avoid delays in production. If quality problems are encountered after the procured materials are used in the production, the production department will submit a letter of opinion to the procurement department, which will appoint the person in charge of the procurement immediately to claim against the suppliers pursuant to the contract.

The Group uses futures and spot purchases to purchase raw materials directly from producers of wood pulp. Bulk purchase of raw materials can obtain lower purchase price from the suppliers as well as to ensure stable supply and quality. Raw materials of production include wood pulp, waste paper, chemicals and other accessories. Except for wood pulp, most of the raw materials are produced by the Company. The Group purchases from both overseas and domestic suppliers. Domestic suppliers comprise of 60% of the Group's suppliers. Overseas procurements are mainly from big scale suppliers in the United States of America, Canada, Chile, Indonesia etc. During the period of 2016, the Group's procurement ratio for each supplier did not exceed 10% of the total purchase amount.







Product Responsibility

It is the Group's responsibility to provide high-quality, green products and services. The raw material for paper is wood, and productions involve a large amount of water and energy. Some of the finished products that fail to meet the specifications may not be able to recycle or remake. The remaking process also consumes resources, adding burden to the environment. We have established inspection criteria for different products and process. The quality assurance department examines the finished goods by random inspection in accordance with the standards specified in customer contracts and international standards. The Group has achieved the ISO9001 Quality Management Certification. Our high-quality product requirement can be shown through the high efficient quality management system.



The marketing management department of the Company is responsible for maintenance and after-sales services, and quality management department, production management department, storage and transportation department and other departments will cooperate accordingly. The Group has formulated the after-sales service management approach to specify clear handling procedures for the return, replacement, compensation, etc. In accordance with the provisions of the Group, the marketing management department carries out the works, coordinate the relevant departments, and arrange staff to ensure that sales maintenance and after-sales service system perform effectively.

Anti-Corruption

The Group adopts zero tolerance policy for bribery, extortion, fraud and money laundering. There were no identified corruptions within the reporting period. In order to ensure effective and uncorrupted operation, the Group has established working instructions and management procedures. Risk-management and internal-control department are set up to monitor the situation. The corporate governance practices are under the supervision of the board of directors of the Company.



The Group has implemented separation of duties and hierarchical management in procurement to avoid conflict of interest. The procurement process is subject to a multi-level approval. Separation of duties means the different departments or hierarchy are responsible for the execution and approval. For example, purchase request must not be raised by the purchase department, which will contact the suppliers; the procurement department does not involve in material inspections; financial records must not be handled by the procurement, storage and production departments.

The requirements and regulations regarding bribery, extortion and fraud are listed in the employee handbook. When employees and suppliers come across with any bribery, extortion or fraud, complaints or reports can be made via phone.



Community Investment

The Group's achievement today is dependent on national resources. We never forget our corporate responsibility during business expansion. We contribute to society using our existing strengths and resources. The Group provides support in various areas in the past. We try our best to assist when disaster occurs. The Group and its subsidiaries held fund-raising events for the disaster-stricken areas. Employees fully support the donation activities and make generous contributions. A total of RMB 1 million was donated to the Shouguang Charity Fund in 2016. The Group also supports the development of young people. We have provided the young people with venture capital funds. In cooperating with future business development, the Group devotes resources in public welfare, disaster relief and education and to implement its social responsibilities







Staff participating in the 2016 Donation Day







HKEx ESG Reporting

Guidelines Index

Aspect and General Disclosure	Description	Disclosure Chapter
A. Environment		
Aspect A1. Emissions		
General Disclosure	Information on:	Environmental Protection –
	(a) the policies; and	Building a Green Industry
	(b) compliance with relevant laws and	
	regulations that have a significant	
	impact on the issuer	
Aspect A2. Use of Resources	·	·
General Disclosure	Policies on effective use of resources	Environmental Protection –
	(including energies, water and other raw	Building a Green Industry
	materials).	
Aspect A3. Environment and N	Natural Resources	
General Disclosure	Policies on minimizing the issuer's	Environmental Protection –
	significant impact on the environment	Building a Green Industry
	and natural resources	

B. Society Employment a	and Labor Practices	
Aspect B1. Employment		
General Disclosure	Information on:	Caring Our Staff
	(a) the policies; and	
	(b) compliance with relevant laws and	
	regulations that have a significant	
	impact on the issuer	
Aspect B2. Healthy and S	Security	
General Disclosure	General Disclosure B2 Information on:	Caring Our Staff
	(a) the policies; and	
	(b) compliance with relevant laws and	
	regulations that have a significant	
	impact on the issuer	





Aspect B3. Development	and Training	
General Disclosure	Policies on improving employees' knowledge and skills for performing duties and work. Description on training activities	Caring Our Staff
Aspect B4. Labor Standa	ırds	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Caring Our Staff
Aspect B5. Supply Chain	Management	·
General Disclosure	Policies on managing environmental and social risks of the supply chain	Operating Practices
Aspect B6. Product Resp	onsibility	
General Disclosure	 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer 	Operating Practices
Aspect B7. Anti-corrupti	on	·
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Operating Practices
Aspect B8. Community I	nvestment	
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities takes communities' interests into consideration	Community Investment



