Heaven

Heaven, with its glittery stars spanning the universe, rotates in infinite cycles.

Earth, ho
mountain
waters and
life, aboun
endless bea

Harmony among heaven

Harmony among heaven, earth and mankind, including comprehensive harmony with the environment, represents the ultimate cultural essence of traditional Chinese philosophy and the very core of Chinese civilization. Respecting and living in harmony with nature while fully implementing the green cycle are corporate missions that APP-China delivers by adopting modern sustainable business models with the "Integration of Plantations, Pulp, and Paper."

Harmony i diversity

Harmony invo
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uniformity for l
work together
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diverse. Thus, w
"Appreciate the
beauty of other
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through innovat
collaboration to
better life for all.

Message from the Chairman

The year 2017 witnessed the successful convening of the 19th CPC National Congress and marked a key phase in the implementation of the 13th Five-Year Plan and a new era for China' s economic and social development. 2017 also presented the papermaking industry with both opportunities and challenges. The people's need for a better life, the advancement of supply-side reform, increasingly higher environmental standards, and the growing cost of upstream materials and labor all contributed to a growing mismatch between the old development model and reality. The papermaking industry is faced with pressing challenges such as how to turn various forms of pressure into a driving force for growth, how to enhance competitiveness, how to provide more innovative quality products, and how to more fully advance toward a green future. These issues now demand our most urgent attention.

A quarter century has passed since APP entered China. All this time, APP-China has strictly adhered to the "Integration of Plantation-Pulp-Paper" model. We have also been a driving force for innovation, and transformation of China's papermaking industry, leading a revolution from old traditional to modern industry in this area and driving upgrades from manual labor to intelligent industry. In this way, APP-China has been making a continuous e□ort to help China achieve cooperation and development on a global scale, moving from the old way of "every man for himself" to a new paradigm of "win-win worldwide."

Guided by the call of the new era and new journey, we continue to champion and implement the sustainable green industry chain, and join hands with our value chain partners to carry forward the time-honored glory of China's papermaking technology in a responsible manner.

We hone our expertise by providing quality paper products to improve the quality of life.

With the increasingly higher living standards, consumers have a much greater demand for diversified, customized, and function-oriented paper products. Meanwhile, new business models such as online shopping became new drivers for consumption growth. To meet consumers' di□erentiated demands, we are fully involved in areas such as household paper, cultural paper, and industrial paper production, and make an intensified e□ort to pursue R&D and product enhancements, explore intelligent production and logistics, and provide a more diverse and higher-quality line of paper products and services. We comply with relevant product criteria related to environmental protection, safety and health to ensure a worry-free user experience.

We integrate forest and paper and contribute to industry sustainability through green operations.

A sound ecological environment is central to realizing sustainable development, and lays the foundation for sustainable development of the papermaking industry. As a leading papermaking company, we have pioneered the "Integration of Plantation-Pulp-Paper" model in China to foster ecological forestry, help eliminate outdated capacity, and improve resource efficiency, thus contributing to energy conservation and emissions reduction. We continue to intensify supplier and safety management, and strive to create a "zero accident" production environment.

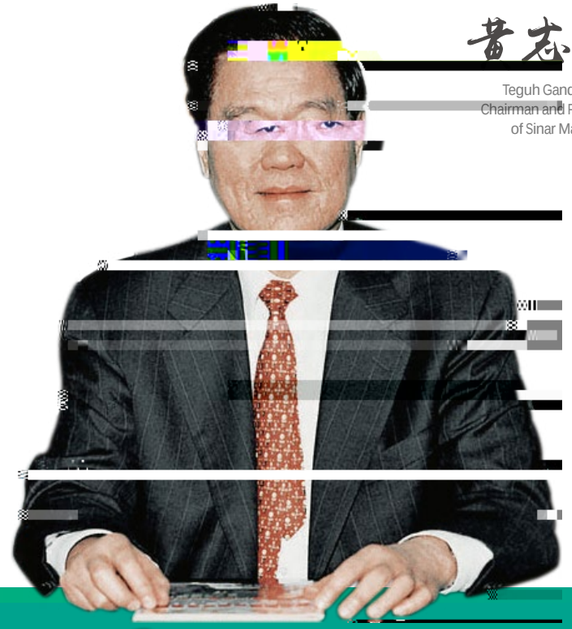
We value talent and improve employee well-being through shared growth.

Thanks to its rich reserve of talent, China has strengthened its technological innovation capacity remarkably in recent years. Likewise, a high caliber of talent helps companies remain competitive in the marketplace. We attach great importance to our human resources, and provide robust remuneration and benefit plans to facilitate the employees' career development. We pay attention to fostering an innovative corporate culture, and care for the well-being of our employees, ensure their work-life balance, and make them feel respected, supported, and motivated to work as part of the team.

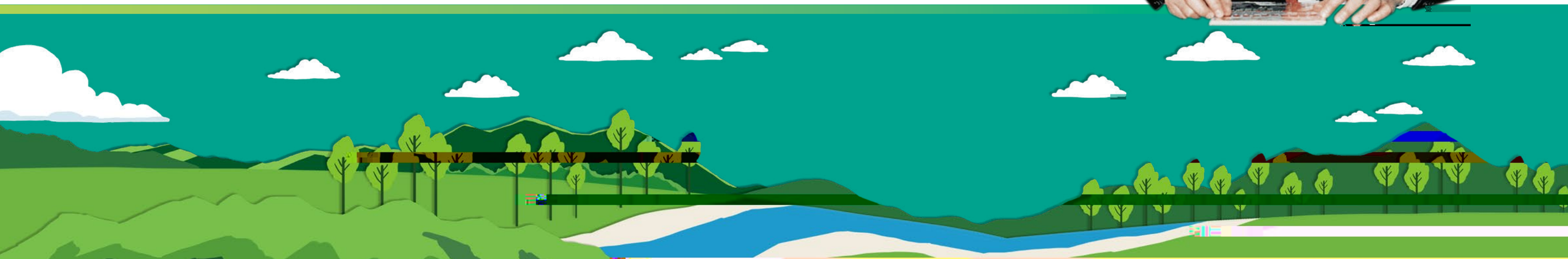
We care about the community and fulfill our role in public welfare by acting in a responsible manner.

Active communication acts as the bridge for companies to gain social support, and giving back to society is a way for companies to respond to such support. We take community engagement as a key priority in our daily operations, and have established sound communication channels to ensure timely dialogue and mutual respect with the community. We leverage our strengths as a papermaking company to organize paper culture events and promote low carbon awareness and practice. We continue to support public welfare and deliver distinctive public welfare concepts and innovative ideas and volunteer e□orts.

2018 is the first year for implementing the spirit of the 19th CPC National Congress and marks the 40th anniversary of China's reform and opening-up. Responding to China' s domestic and overseas strategic layout, the needs of the people, and a new round of reform and upgrading in management, technology, and industry, we look forward to joining hands with our stakeholders to explore sustainability throughout the entire papermaking industrial chain. In doing so, we expect to fulfill the significant historic mission that our time has bestowed on us by helping to upgrade China from paper manufacturing focused on quantity to paper manufacturing focused on quality, and further enabling a happy life for the people in harmony with a healthy environment.



Teguh Ganda Wijaya
Chairman and President
of Sinar Mas Group



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Achievements and Honors

APP-China

Honors & Awards	Issuers
Responsible Enterprise of 2017	*China Newsweek*, China News Service
2017 Best Practices Award on Sustainable Development Goals for Chinese Enterprises	Global Compact Network China
Responsible Enterprise of Green Development	*China Green Times*
2017 Green Exemplary Annual Award	The 7th China Charity Festival

Gold East Paper

Top 500 Enterprises of China, and Top 500 Manufacturers of China	China Enterprise Confederation/China Enterprise Directors Association
Certificate for China Environmental Labelling (Type II)	China Environmental United Certification Centre (Beijing)
Top 10 Papermaking Enterprises of Light Industry in China	China Light Industry Council and China Paper Association
Products of Green Raw & Auxiliary Materials	China Association for Printing Technologies
High-tech Enterprise	Science and Technology Department of Jiangsu Province, Department of Finance of Jiangsu Province, Jiangsu Provincial State Administration of Taxation, and Jiangsu Province Local Taxation Bureau
First Batch of Water Efficiency Leaders of Jiangsu Province	Jiangsu Economic And Information Technology Commission, Department of Finance of Jiangsu Province, Department of Housing and Urban-Rural Development of Jiangsu Province, Jiangsu Provincial Quality and Technology Supervision Bureau, Jiangsu Provincial Government Offices Administration, and Jiangsu Provincial Bureau of Energy
2017-2019 World-renowned Brand of Jiangsu Province: "Space Shuttle"	Department of Commerce of Jiangsu Province
Famous Trademark of Jiangsu Province: "NEVIA"	Jiangsu Provincial Administration for Industry and Commerce
2017 Jiangsu "Double Hundred Brand" Product	Jiangsu Promotion Commission for Famous Brand Strategy
Zhenjiang Charity Award	Zhenjiang Municipal People' s Government
Top Ten Model Employees' Homes	Zhenjiang General Labor Union

Hainan Jinhai Pulp & Paper

Water Efficiency Leader of Key Water Use Enterprises	Ministry of Industry and Information Technology, Ministry of Water Resources, National Development and Reform Commission and General Administration of Quality Supervision, Inspection And Quarantine
Top 100 Enterprises of Hainan	Hainan Province Enterprise Confederation and Hainan Province Enterprise Directors Association

Gold Huasheng Paper

Products of Green Raw & Auxiliary Materials	China Association for Printing Technologies
Certificate for China Environmental Labelling (Type II)	China Environmental United Certification Centre
Provincial Level First Batch of Water Efficiency Leaders	Jiangsu Economic and Information Technology Commission, Department of Finance of Jiangsu Province, Department of Housing and Urban-Rural Development of Jiangsu Province, Jiangsu Provincial Quality and Technology Supervision Bureau, Jiangsu Provincial Government Offices Administration and Jiangsu Provincial Bureau of Energy
2017-2019 Jiangsu Province Key Brand for Cultivation and Development (Global)	Department of Commerce of Jiangsu Province
The 1st "Water Efficiency Leader" of Suzhou	Suzhou Water Resources Bureau, Suzhou Municipal Development & Reform Commission, Suzhou Economic & Information Technology Commission, Suzhou Finance Bureau, and The Bureau of Quality and Technical Supervision of Suzhou
First Batch of Suzhou Industrial Park Teenager Extra-school Education Bases	Suzhou Industrial Park Education Bureau

Ningbo Zhonghua

Honors & Awards	Issuers
Brand Products of Zhejiang Province	Zhejiang Provincial Administration of Quality and Technology Supervision
Comprehensive Top 100 Enterprise of Ningbo, and Top 100 Manufacturers of Ningbo	Ningbo Municipal Enterprise Confederation and Ningbo Municipal Commission of Commerce
Authorized Economic Operator	Ningbo Customs District

Ningbo Asia

Ningbo Demonstration Enterprise for Innovative Development of Processing Trade	Ningbo Municipal Enterprise Confederation and Ningbo Municipal Commission of Commerce
Authorized Economic Operator	Ningbo Customs District
Individual Champion Nurturing Enterprise of the Manufacturing Industry of Ningbo	Ningbo Municipal Economic and Information Technology Committee
Outstanding Contributor of Foreign Investment in Zhejiang	Department of Commerce of Zhejiang Province

Suzhou Gold Hongye

2017-2019 World-renowned Brand of Jiangsu Province: "Breeze"	Department of Commerce of Jiangsu Province

Guangxi Jingui Pulp & Paper

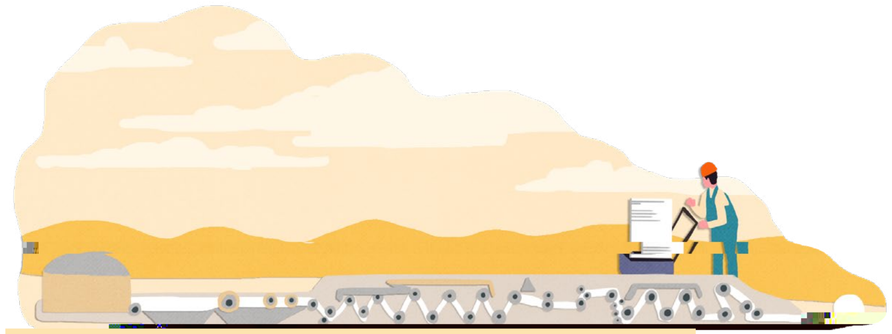
Vice-president Unit of Guangxi Paper Association	Guangxi Paper Association
Hi-Tech Enterprise	Guangxi Science and Technology Department, Department of Finance of Guangxi, Guangxi Taxation Bureau, and Guangxi Local Taxation Bureau
Leading Enterprise of Modern Forestry Industry of Guangxi	Department of Forestry of Guangxi Zhuang Autonomous Region
Award for Extraordinary Science and Technology Contribution of Qinzhou	Qinzhou Municipal Science and Technology Bureau

Hainan Gold Hongye

Authorized Economic Operator	Haikou Customs District
Top 100 Enterprises of Hainan	Hainan Province Enterprise Confederation and Hainan Province Enterprise Directors Association
Integrity Demonstration Enterprise of Hainan Province	Association for Credit Construction and Promotion of Hainan Province

Focus

Papermaking throughout History



Carrier of Ancient Civilization

From the ancient use of knotted ropes for record keeping to the legend of Cangjie for inventing Chinese characters, and to the birth and evolution of modern characters, every single character leaves an indelible mark on the long history of mankind.

From pottery and tortoise shell to silk and bamboo slips, and to the advent of paper, every carrier of information has provided splendid depictions of ancestral wisdom and cultural heritage.

Thanks to paper, we can travel through time and space and experience every spectacular event throughout thousands of years of the ups and downs of history by quietly immersing ourselves in a book.

This is the miracle paper creates in the history of human civilization.

The story of paper dates back to the early Western Han Dynasty. Inspired by the formation of □akes from □ying catkins, people invented paper. Later in the Eastern Han Dynasty, Cai Lun improved papermaking by introducing materials like bark, hemp, silk, and fishing net, as recorded in *Heavenly Creations*, a publication from the Ming Dynasty. Papermaking was later acclaimed as one of the four great inventions by ancient Chinese people.

Improved papermaking has resulted in significant cost savings and facilitated the popularization and inheritance of cultural knowledge, thus playing a unique role in the development of world civilization. Papermaking has also gradually gained prosperity as an industry, continuously propelling human civilization forward.

Necessity for Modern Life

Tissues, white, soft and pliable, wipe away stains and leave behind cleanliness. Sheets of paper, blank but full of possibility for imagination, invite the most unconstrained drawings. Packing paper, delicately designed, is loaded with best wishes to our loved ones. ……

Since the advent of paper more than two thousand years ago, the papermaking industry has continued to advance. The traditional way of papermaking by hand has gradually been replaced by mechanical production. As consumers' attitudes towards paper products continue to evolve, paper products of all types find ever-broader use in our daily life and work, encompassing areas like painting, catering, packaging, printing, and accommodation, and have become a necessity that is portable and elegant.

In modern times, the consumption level of paper and cardboard is often an important indicator of a country's level of modernization and civilization, and a telling witness of people' s pursuit of a beautiful and healthy life. The rich variety of paper products has made people' s lives happier, and re□ects sustained economic growth and marked improvement in people's lives. China currently boasts the world's largest volume of total paper and cardboard consumption. While the per capita consumption of 78 kilograms is higher than the global average, there is still much room for growth compared with that of developed countries, which stands at over 200 kilograms.

The aging population and the general longing for a quality life create a growing demand in China for paper products in areas closely related with the quality of life such as elder care and medical care. This presents the papermaking business with both a significant array of challenges and a unique range of market opportunities, and requires companies to adapt to the diversified market needs through continuous exploration of new technologies and products.

Since entering China, APP-China has always adhered to the "Integration of Plantation-Pulp-Paper" model to implement a green papermaking approach. Every piece of paper is produced incorporating the concept of sustainability and the wisdom of the craftsmen to be safer, more competitive and environmentally friendly.

APP-China Paper Products

Household Paper	Toilet paper, tissues, wipes, etc.
Industrial Paper	A range of high-grade coated ivory boards, coated paper, white boards, specialty poker paper, etc.
Cultural Paper	Coated paper, two-sided o□set paper, digital paper, handbag paper, office paper, carbonless copy paper, etc.
Other	Electrostatic copy paper, computer report paper, high gloss photo paper, engineering copy paper, color inkjet printer paper, all sorts of thin notebooks and food packaging paper, etc.

Driving Transformation and Upgrading of Papermaking Industry

The report to the 19th CPC National Congress calls for "working faster to build China into a manufacturer of quality" and "supporting traditional industries in upgrading themselves" . This sets a strategic direction for the sustainable development of the papermaking industry in China. In response to the "new goals" and "new journey" set forth, APP-China stays true to its original aspirations and strives to grow into a modernized pulp and paper company committed to all-round innovation and upgrading through active exploration of papermaking technologies, corporate governance, environmental protection, and other areas.

Becoming a More Innovative Industry

Industry 4.0 | **A+ Project** | **Responding to "Belt and Road"**

Intelligent manufacturing through transformation and upgrading

We have established our own Industry 4.0 roadmap, which identifies automation transformation as a focus area and aims to replace part of the manual labor in manufacturing with machines by promoting transformation and upgrading of papermaking facilities, to gradually unify all data systems, step up artificial intelligence applications, and push towards intelligent manufacturing.

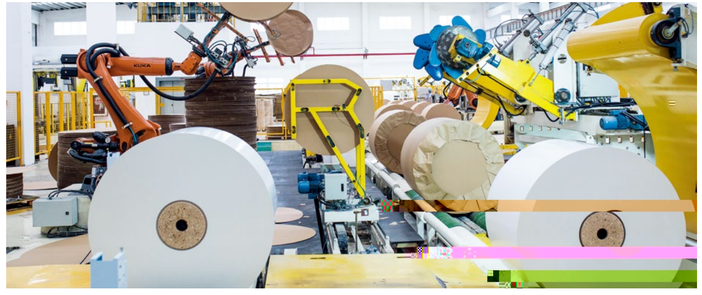
We have signed major project investment agreements with Nantong and Yancheng, Jiangsu Province respectively, and will build the world's largest APP household paper production and R&D base in Nantong and the world' s largest production and R&D base for industrial paper and viscose fiber in Yancheng by adopting the most advanced "Industry 4.0 + Artificial Intelligence" technology. In doing so, we aim to lead the market in circular economy and promote the development of China' s pulp and paper industry as a whole.

Information-led global management

The rapid development of the Company produces an urgent need for us to e□ectively integrate a scientific management approach with our information system to continuously improve the management model. We have partnered with IBM to launch the A+ project, which will adjust and reform the system on all fronts to cover all our business processes worldwide. The project is scheduled to be first launched in China in 2018 and gradually expanded globally to help achieve our strategic vision and value.

Stepping up global strategic planning

Together with our parent company, we continue to promote industrial upgrading and invest heavily in building industrial bases both at home and abroad. Moreover, we will capitalize on the strengths of "Belt and Road" countries and realize mutual benefit with neighboring countries through the import of raw materials and export of finished products.



Hoffmann, Friedrich Wilhelm

Die Gesundheit

Friedrich Wilhelm Hoffmann

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Original from Harvard University

01 Tracing the Life Cycle of Paper

Sustainable Development Background

The sustainable development of companies is closely tied to their responsibility performance in the industry chain. For pulp and paper companies, their environmental and social performance in the entire product life cycle, from forestry to raw material procurement, and to pulp and paper production, is becoming a matter of ever-greater national and public concern. Fulfilling the responsibilities involved in all those stages is paramount for realizing sustainability of the "Integration of Plantation-Pulp-Paper" model, and defines the direction for the long-term development of the pulp and paper industry.

Management Approach

As the first company in China to propose the "Integration of Plantation-Pulp-Paper" industry model, APP-China adheres to strict management throughout the industry chain to promote sustainable development in the Company's production and operations. We attach great importance to sustainable development of our own forestland, and actively carry out CFCC/PEFC green forest certification to drive forward the construction of green product label certification systems in China. We have rigid supplier screening and raw material quality control mechanisms in place to guarantee the traceability and quality of raw materials. We have built sound environmental management systems to constantly bolster management and performance in terms of water resources, energy, exhaust gas, waste and other environmental issues. We make a continuous e□ort to improve the safe production management system to keep pushing towards the "zero accident" goal during production.

Alignment with SDGs

15 LIFE ON LAND

- Formulating Forest Conservation Policy to standardize forestry work
- Conducting forest High Conservation Value (HCV) evaluation and environmental monitoring, highlighting biodiversity and water and soil conservation
- Continuing to carry out CFCC/PEFC forest certification

CFCC/PEFC certification rate of self-managed forests
88.36
%

Total area of forest certification
254,660.01
hectares

7 AFFORDABLE AND CLEAN ENERGY
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION

- Driving up the use of clean energy such as biomass energy and solar energy
- Minimizing use of clean water through reuse of reclaimed water and water saving measures, etc.
- Continuing to intensify sewage treatment, with several mills obtaining the new pollution discharge license
- Renovating boilers to have ultra-low emissions
- Exploring innovation in waste recycling and reuse

Water reuse rate
95.69
%

Sewage discharge per ton of paper produced
6.35
tons

Sewage discharge per ton of pulp produced
13.9
tons

COD emissions per ton of paper produced
0.26
kg

COD emissions per ton of pulp produced
1.99
kg

Lower than the national standard limit by a broad margin

Annual generation of photovoltaic power
23.56
million kWh

Sustainable Forestry

Not only are forests an integral part of the ecosystem, but they also provide mankind with invaluable natural resources and contribute to the legacy of human civilization. As a step towards the vision of "building the world's largest and most robust green cycle industry through Integration of Plantation-Pulp-Paper", APP released the Forest Conservation Policy (FCP) in 2013. The Company committed itself to taking such measures as implementing High Conservation Value forests and High Carbon Stock assessments, reducing GHG emissions, and practicing responsible supply chain and procurement. To facilitate the implementation of the Forest Conservation Policy measures, APP-China Forestry formulated the Sustainable Development Policy, Social Employment Policy, and Environmental Policy with the assistance of The Forest Trust (TFT).

As trees grow, they are moved from seedling nurseries to forestland. APP-China owns two large seedling nurseries in Hainan and Guangxi, with an annual seedling output of 60 million and 30 million respectively. APP-China Forestry made a handsome investment in building a modern R&D center in the seedling nurseries where research on forest breeding, forestry diseases and insects, and soil and fertilizer is carried out, and quality breeding lines suitable for making paper and pulp are collected, explored and developed. All those are done to promote scientific forestry and guarantee the growth quality of planted trees. Moreover, the Company has formulated a complete sustainability-based forestry management system and standard operating procedures for the whole forestry process from logging, plantation, and planting with green fertilizers to forestry safety, and introduced the Forestry Management System (PMS) back in 2009 to realize efficient management and remote monitoring of forestry.

Regarding suspicion of the negative impacts caused by planted eucalyptus forests on the environment, we believe that besides developing technologies to enable sustainable management of planted forests, measures should also be taken to promote sustainable land utilization and ecological preservation in clear keeping with the positive and negative environmental impacts of large-scale planted eucalyptus forests and to minimize the negative impacts, thus creating a genuinely ecological industry.

We invite professional organizations, including the Research Institute of Tropical Forestry, Chinese Academy of Forestry (RITF, CAF), to regularly conduct monitoring of the ecological and environmental impact of planted eucalyptus forests so as to detect and address the environmental issues in forestry in a timely manner. Additionally, we provide employees and contractors with training in several forms including training on eco-protection to continuously raise their awareness of forest and environmental protection and minimize the impact of forestry operations on the environment.

Picking out buds and placing them in culture medium to form root groups for cultivation

Transplanting young plants from rooting bottles to fertile soil

Seedling management

Local workers grading seedlings

Places of origin for APP-China' s pulp procurement

f

g

i

s

r

b y

t o

W w a a

A P P

In 2017, Guangxi Jingui Pulp & Paper, Hainan Jinhai Pulp & Paper, Gold East Paper, Hainan Gold Hongye, Hainan Gold Shengpu and other mills obtained the new pollutant discharge permit issued by the Ministry of Environmental Protection. Unlike the previous permit, the new permit requires information disclosure. The public can easily access the national pollutant permit information platform by scanning the QR code on the website and the permit, where the companies' pollutant outlets can be clearly viewed on the satellite map. The platform also provides information on the types of major pollutants such as exhaust gas and sewage, corporate self-monitoring, execution reports, information disclosure, and environmental management accounting records, etc. The new permit imposes higher requirements on companies, which in some way plays a positive role in helping our mills further improve their environmental management.

Hainan Jinhai Pulp & Paper Selected as the 2017 Water Efficiency Leader of Key Water Use Enterprises

In 2017, Hainan Jinhai Pulp & Paper was recognized as the Water Efficiency Leader of Key Water Use Enterprises for its innovative water-saving management system and technology. In terms of water-saving management system, the Company allocates water-saving targets every year based on the key performance indicator tracking system, and each department makes annual water-saving plans to achieve the targets assigned to them. In addition, the Company has established a mill water metering network to implement segmented water consumption management. In terms of water-saving technology, the Company adopted clean condensate water reuse for pulping, intermediate condensate water reuse, domestic white water reuse after air □oatation, household paper reclaimed water reuse, raw water plant backwash drainage reuse, pure water plant recycling conventional well-□ushing renovation and other actions.

Total Reuse of Recycled Water of APP-China Mills

ton

	2015	2016	2017
Gold East Paper	488,100,000	283,152,000	283,152,000
Hainan Jinhai Pulp & Paper	908,608,007	1,210,049,099	1,046,378,081
Ningbo Zhonghua	129,942,465	134,535,550	135,358,599
Ningbo Asia	254,805,840	220,452,737	219,904,179
Gold Huasheng *	259,164,007	240,569,716	368,663,480
Guangxi Jingui Pulp & Paper	451,802,163	489,439,287	445,290,787
Hainan Gold Hongye	71,687,661	64,712,622	65,982,500
Hainan Gold Shengpu	64,178,333	57,168,302	56,721,070

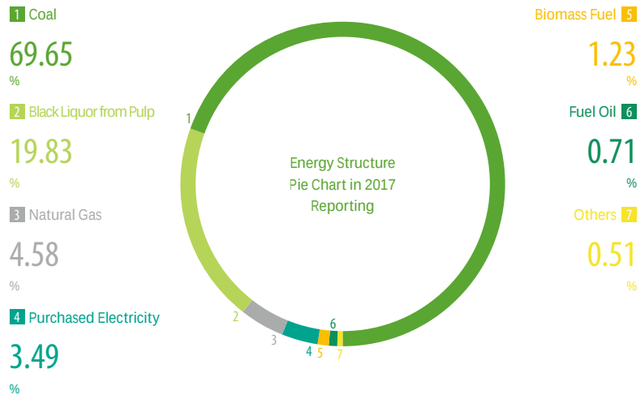
Note: *Gold Huasheng' s total reuse of recycled water includes that of Suzhou Gold Hongye.

A corner of Gold East Paper mill. The water in the pond is treated sewage and has been used for fish farming for many years.

Addressing Climate Change

Climate change has become one of the most severe challenges facing the human society. To address climate change, China has been strengthening energy conservation and emission reduction, optimizing energy structure, encouraging clean energy use, and reducing greenhouse gas emissions.
APP-China continues to improve its energy management system, reaching energy-saving targets by strengthening energy measurement and statistics, regularly analyzing energy consumption data, conducting energy-saving education and promoting energy efficiency. The Company commits itself to reducing the use of fossil fuels and promoting the use of new energy sources such as biomass and solar energy. Mills such as Hainan Jinhai Pulp & Paper, Gold East Paper, Ningbo Asia, and Guangxi Jingui Pulp & Paper have developed sludge drying equipment, which significantly reduces coal use by utilizing the residual heat from steam turbine to dry and burn sludge.

APP-China mills actively cooperate with the government to carry out greenhouse gas emission reviews. In 2017, Guangxi Jingui Pulp & Paper audited its energy use of 2016. The greenhouse gas emissions in 2016 and 2017 were calculated in accordance with requirements, and the emissions report passed the on-site third-party audit. Gold East Paper participated in training sessions on carbon trading, prepared greenhouse gas emission reports according to requirements, and also passed on-site third-party audit. In addition, Gold East Paper discloses information every year on the greenhouse gas emissions in its manufacturing process to overseas customers and third-party organizations in need of such information.



Gold Huasheng Promoting Biomass Power Generation

Following the energy policy of "optimizing energy structure, rationalizing resource use, developing circular economy, and achieving sustainable development" , Gold Huasheng has determined its annual target of "saving total coal consumption" . The Company strictly controlled coal consumption by replacing coal with biomass fuel, increasing coal calorific value, purchasing municipal electricity to reduce self-generated power, and appropriately reducing production by paper machines. As a result, the coal consumption decreased from 691,000 tons in 2016 to 654,000 tons in 2017, with a total reduction of 37,000 tons, achieving both economic and environmental benefits.

Gold East Paper Promoting Photovoltaic Power Generation

In response to the national policy of accelerating the development of new energy industry, Gold East Paper vigorously promoted energy conservation and emission reduction measures, and built large-scale solar power demonstration plants by taking full advantage of its high-quality roof resources. The project adopted the scheme of continuous construction and simultaneous grid connection, where all electricity was spontaneous and used for self-consumption and residual electricity was connected to the power grid. The 1st phase project of the 20MW rooftop photovoltaic power station and 2nd phase project of the 10MW rooftop photovoltaic power station have been completed and put into operations in June 2016 and November 2017 respectively. The average annual on-grid power is expected to reach 20 million kWh.

Air Pollutants Emission Reduction

Air pollution has caused increasingly significant negative impacts on human health. The regulatory authorities have continuously raised the requirements on manufacturing enterprises for the concentration of air pollutants. "To make the skies blue again" requires companies to work together to e□ectively reduce the total amount and concentration of air pollutants by optimizing the incs-7pu(ec)-12.9 sour,djncing empry7pu(ec)3.9 soure, and

Air Pollutant Emissions of APP-China ton

Total Annual Emissions of SO_2

Total Annual Emissions of NO_x

Ultra-Low Emission Project of Ningbo Asia Pulp & Paper Thermal Power Plant Completed

Adhering to national and municipal policies of ultra-low emission and energy saving renovation on coal-fired power plants, Ningbo Asia implemented upgrades for the ultra-low emission of nitrogen oxides and particulate matter from boilers in 2017. Before the upgrade, the boiler □ue gas was treated by electrostatic dust removal, limestone injection into furnace, and ammonia desulfurization outside the furnace, etc., and the emission concentration of sulfur dioxide already met the ultra-low emission requirements. The two renovated boilers further reduced the concentration of □ue gas emissions from thermal power plants by a great deal and contributed substantially to the treatment of air pollutants. The concentration of smoke and dust emission has been lowered from less than 20mg/Nm^3 to less than 5mg/Nm^3 so far.

Exploring Waste Reuse

Based on the principle of "Reduce, Reuse, Recycle" , APP-China disposes of wastes generated from manufacturing in a scientific and e□ective manner and maximizes the reuse of wastes to turn them into useful resources. APP-China mills have been actively seeking possible ways of waste reuse, such as making bricks using the ash and slag generated from boilers, incinerating and composting by sludge from sewage treatment, and putting marble waste residue into the boilers of the self-supplied power plants for □ue gas desulfurization, which has not only reduced the use of industrial raw materials, but also mitigated environmental pollution from solid waste.

Gold East Paper Actively Implementing Comprehensive Use of Waste

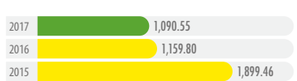
Solid waste generated from the production of Gold East Paper includes sludge cake from the sewage plant and ash from the power plant, etc. Through comprehensive e□orts and shared responsibility, the Company's total use rate of solid waste has reached 99.8%.

The Company uses primary sludge from sewage treatment as the raw material for producing paper covers, which contributes to waste recycling and reuse and a reduction in solid waste generation and resource use. The production line of sludge paper covers has an annual sludge treatment capacity of 3,000 tons and COD treatment capacity of 25 tons, and monthly paper cover production of 40,000, which represents RMB1.2million in cost savings per year.

In order to control the dust concentration of fugitive emissions, the Company directly transported the ash generated from the production by closed tankers to professional ash utilization companies to produce block bricks. The product has passed the evaluation of provincial experts and been awarded as a key recommended product by the Zhenjiang Wall Materials Reform Office.

Staying Vigilant to Improve Safety Management

Lost Hours per Million Working Hours of APP-China hour



Safety is a key management priority for a manufacturer. APP-China implements the "people-oriented" safety management concept, and strives to create a "zero accident" production environment. We have the OHSAS18001-based safety management system and a progressive safe production responsibility system in place to continue to intensify safety control.

We take each and every work-related injury seriously, and follow up with a meticulous investigation and cause analysis to implement timely rectifications. We incorporate the analysis and lessons in subsequent safety training to prevent similar incidents from happening again. Injured employees are immediately sent to the medical office or hospital for treatment, and are provided with work injury identification and insurance payment. In 2017, the number of work-related injuries in the mills and units within the reporting scope totaled 79 incidents, and there was one work-related death.

Intensifying Safety Management

In 2017, APP-China continued to intensify e□orts to enhance safety management system construction and potential risk identification. The mills summarized and improved their organizational framework for safety management according to their own business operations, and followed up and promoted safety implementation term by term to ensure all sections of dangerous operations are covered to enhance rectification of potential risks.

On the contractor front, we fulfilled our responsibility for safety supervision, management, and guidance, and formulated the *Regulations for Contractor Safety Management* to enforce more strict supervision and management regarding the safe production of contractors and minimize safety incidents. We perform on-site inspection of the contractors' own production facilities and safe production behaviors and a monthly appraisal of their safe production behavior and safety performance. We also push for full compliance with the safe production provisions and engage our contractors in thorough communication on safety technologies prior to operations, all in an e□ort to help them improve capacity for safe production management.

Gold Huasheng Establishes a Comprehensive Safety Management System

Since adopting the OHSAS18001 system back in 2006, Gold Huasheng has established a comprehensive safety management system and passed the CQC (Care Quality Commission) audit certification. In line with increasingly higher requirements for safe production, Gold Huasheng updated its safety management organizational framework in 2017 to begin implementing the dual management mode of function-based supervision and regional self-management, where safety routines are to be followed up and implemented term by term.

The Company improved its capacity for safety management by designing a progressive safe production responsibility system that specifies role-based responsibilities, and by organizing a rich variety of safety awareness-raising events. Moreover, the Company signed the *Management Agreement on Safe Production* with all contractors that requires them to attend a monthly safety meeting, thus taking their work under our scope of safety management. The Company also invited a number of experts to provide contractors with training on safety education, and conducted in-depth communication on the improvement of safety.

All those e□orts and measures helped Gold Huasheng avoid any serious work-related injuries or death in 2017, and reduced the number of minor injuries to 5, down 55% compared with the previous year. There were zero fires and zero occurrences of occupational disease in 2017.

Safety Education and Training

APP-China provided a wide array of safety training and education activities that covered industrial safety, occupational health and fire control, etc., with a view to enhancing the safety awareness of all employees and contractors. The mills organized daily "safety morning meetings" and routine safety meetings and hosted many safety activities to deeply ingrain safety into the minds of employees and contractors.

Ningbo Asia Hosting "Safety Management Reinforcement Training for Leaders"

The ability and awareness of leaders in safety management is key to the safety of their teams. For this reason, Ningbo Asia invited experts from a third-party agency to give safety management training to 240 leaders in 2017. Citing common safety management problems, the experts expounded the safety issues by introducing the latest government laws and regulations, safe production provisions of Zhejiang province, case studies on major safety incidents, prevention and treatment of occupational diseases, and other areas. The leaders who participated all spoke highly of the training, saying that they learned a great deal from it and will put it to practice to improve their level of safe production and management.

Gold Huasheng Hosting Various Safety Activities

Gold Huasheng hosted various safety activities in 2017, including 43 activities in the Safety Month, such as the safety knowledge contests and the fire control techniques contests, to delve deeply into the potential causes of safety incidents. During this process, employees joined hands with contractors and discovered 125 potential safety problems through brainstorming. 20 suggestions for improvement have been selected for successful implementation. Those activities played an important role in improving the safety knowledge and skills of the employees and contractors.

Fire drills

Joining Hands to Create a Happy Future

People are the cornerstone of a business, and one of the core resources fueling business development. A high caliber of talent helps companies remain competitive in the marketplace.

Alignment with SDGs

- Starting planning the construction of corporate university
- Adopting post-based skill and ability model; undertaking vocational training; encouraging employees to participate in skills competitions
- Promoting corporate culture system, taking diverse measures to ingrain corporate values into employees

Employee training investment

3.97

million yuan

Employee training time

762,556.9

hours

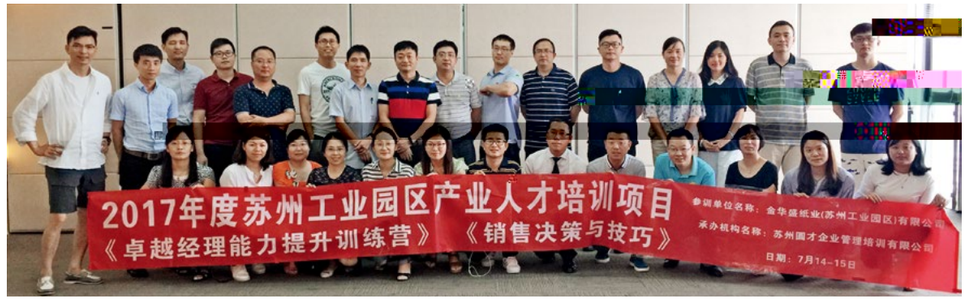
- Providing employees with competitive remuneration
- Having a multi-channel communication mechanism in place to encourage employees to voice their opinions
- Caring for employees and their families; organizing rich recreational activities; sending wishes and greetings on holidays and festivals

Number of employees in China

30,862

Gold Huasheng Supports Employees' Career Advancement

In 2017, Gold Huasheng invited professors from Nanjing Forestry University to host a training and communication event on paper production and papermaking technologies targeting R&D personnel and front line supervisors. The event effectively enhanced their ability to solve work problems in a scientific way. The Company has successfully registered with Suzhou Industrial Park for the Training Scheme for Professionals in Short Supply. Employees were offered a series of choice courses including *Financial Management for Non-financial Manager* and *Public Speaking and Presentation Skills for Managers*, etc. In addition, the Company entered employees in the "Jinji Lake Entrepreneurship Mentoring Service Program – A Trip of Leading Enterprises to Shenzhen" organized by the Park. During the trip, employees studied the philosophy and approach underpinning Tencent' s continuous creation of successful products and how Huawei builds a customer-centric management system based on processes, systems and culture.



Training on paper production and papermaking technologies organized by Gold Huasheng

Competitions for Employees

Vocational skills competitions are an important form of technical talent training and cultivation and play a unique role in talent team building. Many mills and units under APP-China actively implement the MBOS spirit of "comparing, learning, advancing, helping and outperforming" , and make a point of using competitions for improving skills and training management to provide employees with a sound platform for growth.

APP-China Forestry organized a series of MBOS-centered competitions such as the SDA Competition, the Specialty Experience Sharing Competition, the Outstanding Forestry Farm and Forestry Station Experience Sharing competitions, and the Outstanding Strivers' Competition, etc. Gold East Paper hosted the Fitters' Skills Competition and the Production Skills Competition, and entered into the 9th Joint Port Mechanical Skills Competition. Gold Huasheng hosted a variety of competitions including the Paper Sorting and Selection Competition for paper grade and defect assessment, the in-house R&D Competition that encourages innovation, and the Forklift Pallet Competition focused on skills enhancement. Guangxi Jingui Pulp & Paper organized 45 skills competitions and events covering woodchip sample moisture detection, visual assessment of pulp whiteness, changing of packaging paper, Siemens Variable-frequency Drive (VFD) parameters setting and motor debugging, and other areas.

1 APP-China Forestry MBOS Conference 2 Gold East Paper Fitters' Skills Competition 3 Gold Huasheng Paper Sorting and Selection Competition

Engaging Employees to Create an Inclusive Environment

Conveying Corporate Culture

The sustainable development of a company is rooted in an excellent corporate culture, inseparable from the joint efforts of all employees. Based on the new APP-China corporate culture system, we expect every employee to abide by the moral standards of "Integrity and Commitment" and act in line with the action guidance of "Customer Focus, Acting like Owners, Results Orientation, and Continuous Improvement. " By implementing its original Management by Olympic System(MBOS), APP-China encourages employees to shoulder the mission of "implementing green cycle-based development, advancing papermaking civilization, and improving quality of life" to materialize the vision of "continuously being the world' s premier, fully-integrated green-cycle plantation, pulp and paper conglomerate. " Toward these ends, we carried out a variety of cultural communication activities in 2017, laying a sound basis for the implementation and materialization of our cultural concepts.

Stepped up building a culture of customer-centricity, innovation, and integrity; built a strivers' platform to host experience sharing and exchange events.

Internally, communicated corporate culture to employees via WeChat subscription account, cultural columns, and communication mailbox, etc.; externally, conveyed the Company' s mission and values to the public and other stakeholders through the stories of APP people.

Themed culture construction → **Cultural training** → **Building internal and external communication platforms** → **Popular employee engagement activities**

60 trainers passed corporate culture certification by the end of 2017; provided managers and junior-level employees with cultural training and online learning and test; achieved 100% participation and pass rates.

A rich variety of inspirational cultural activities were organized at different mills to make employees truly perceive the close connection between corporate culture and personal development.

Boosting Employee Communication

APP-China makes a continued effort to improve the employee communication mechanism and build a sound complaint and supervision system. The Company has various channels in place to ensure that employees' most relevant life and work concerns are heard and addressed, including employee representative meetings and whistleblower mailbox, etc.

1 Guangxi Jingui Pulp & Paper Department employee exchange meeting
2 Gold East Paper employee symposium

Building Sound Employee Communication Channels

APP-China mills organize diversified employee exchange events on a regular basis to safeguard employees' legitimate rights. They provide employees with the opportunity to have their voice heard and strive to make them feel supported for contributing to the Company' s democratic systems.

In 2017, 105 employee representatives from Ningbo Asia attended the employee representative meeting, where they engaged in thorough communication with senior leaders, and received detailed replies for each of their wide-ranging proposals.

Guangxi Jingui Pulp & Paper uses multiple means to communicate with employees, such as employee communication meetings, performance talks, and complaint boxes. The human resource department collects questions from employees on a quarterly basis and requires relevant departments to implement improvements. The results for improvement are published on the Company' s internal website after being reviewed by the management.

At Gold East Paper, the senior management and Party organization representatives sat down with over 100 employee representatives and heard their comments on production, maintenance, safety, remuneration, benefits, logistics support, and other areas. Every question was given a complete and detailed reply.

Delivering Care to Enable a Balanced Life

We pay close attention to our employees' personal needs and strive to create a relaxing and open work environment that fosters employee engagement. We encourage employees to participate in recreational activities, and hosted a series of billiards, table tennis, and badminton friendlies that deepened communication among employees and enriched their lives.

A number of APP-China mills implemented the "Scholarships and Grants for Employees' Children" event to reward academic achievers. Moreover, the Company visits employees on a regular basis and provides those in difficulty with needed material and spiritual support.

Gold East Paper: Making the Company a Home to Employees

Scholarships and Grants for Employees' Children

The program rewarded 112 children in 2017, and has benefitted nearly 300 students since its inception in 2012, totaling over RMB350,000 in investment.

Employee Family Open Day

The Company invited employees and their families, 97 in total, to participate in the Gold East Paper Employee Family Open Day to help them learn more about the Company at a close range.

Visiting employees in difficulty

The Deputy General Manager and Chairman of the Labor Union visited 43 employees at their homes shortly before the 2017 Spring Festival, and brought gifts and financial aid to families in difficulty.

1 Employees and their kids playing games at the award ceremony 2 Company leader paying employee home visit

Ningbo Asia: Addressing Employees' Difficulty with Their Children' s Schooling

Children' s schooling is a top priority for every family. The migrant employees at Ningbo Asia are no exception. Despite their wish to have their children live with them, it is not always easy for their children to receive school education locally due to particular local requirements.

In order to provide those employees with needed assistance regarding this issue, the Company invited experts from the Qijiashan Sub-district Office to give a lecture on local schooling policies for migrant workers' children so as to equip those employees with knowledge necessary for making timely plans, thus e□ectively addressing their difficulty and worries.

Employees listening intently to the lecture

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External donation	Volunteer service time
18.69 million yuan	26,645 hours

- Formulating the *Regulations for Community Communication Management* and *Regulations for Management of Complaints and Disputes* to regulate community communication and dispute handling

APP
亚浆旭日东升，共谱和谐新风

Heaven

Heaven, with its glittery stars spanning the universe, rotates in infinite cycles.

Earth, ho
mountain
waters and
life, aboun
endless bea

Harmony among heaven

Harmony among heaven, earth and mankind, including comprehensive harmony with the environment, represents the ultimate cultural essence of traditional Chinese philosophy and the very core of Chinese civilization. Respecting and living in harmony with nature while fully implementing the green cycle are corporate missions that APP-China delivers by adopting modern sustainable business models with the "Integration of Plantations, Pulp, and Paper."

Harmony i diversity

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