

Embracing ESG and Starting a New Journey

APP China ESG Feature Report 2021





Preface

As a "golden key" to overcoming today's global challenges, sustainability has been front and center in countless discussions the world over. 2021 marks the first year of the 14th Five-Year Plan (the "14th FYP") in China. It is a year when the national carbon peaking and carbon neutrality goals (the "30-60 Goals") and a growing awareness of ESG (Environmental, Social, and Governance) catalyzed an accelerated sustainability drive across sectors. The Ministry of Industry and Information Technology and the United Nations Global Compact cohosted the International Forum on Corporate Social Responsibility of Industry and Information Technology in November 2021, where the *2021 Sustainable Development Report of China's Industry and Information Technology* was released. This was an active effort aimed at promoting ESG-oriented industrial and financial cooperation and dialogue between industry and IT enterprises and a reflection of the high importance China attaches to corporate efforts in implementing ESG management and practices and working towards a sustainable industry chain.

Papermaking companies have a key role to play in advancing the achievement of the national 30-60 Goals, and their successful transition to green and high-quality growth would depend to a large extent on how well they can integrate ESG considerations into company development. In 2021, we extensively researched and had internal and external discussions on ESG-related concepts and trends and

worked to integrate ESG into the Company's sustainability strategy framework. We intended to first obtain an objective assessment of our sustainability management and practices, including through ESG capacity building and alignment with international ESG assessment systems. We will then use such knowledge to drive better performance in key ESG areas, so as to create more value for our stakeholders.

A pivotal year for the 14th FYP, 2022 will also be a critical year for China's papermaking industry as it transitions to high-quality development and collectively builds a new development pattern. It will coincidentally be the 30th year since APP entered China. Placing the green transformation and digital and intelligent transformation strategies at the heart of company development, we will work together with our stakeholders to create a sustainable future while exploring ESG management and practices in the papermaking industry.

Contents

Preface

Sustainability/ESG Strategy

04

Addressing Climate Challenges and Seizing Innovation Opportunities 06

3 subsidiaries were recognized as National Green Factories

Proportion of renewable energy: **26.65%**, up **44.12%** year on year

Solar power generation: **24,406.6** MWh

Breeze and EMPORIA products were among the first tissue products in China to obtain the **China Green Product Certification**

Launched "**carbon neutral**" tissue product series

Offering Green, Safe, and Quality Paper Products 09

Annual R&D investment: RMB **2.436** billion

Cumulative number of validly authorized patents: **992**

Participated in the development of the **first** standard for water-based coated paper products in China

EPP paper obtained DIN CERTCO and European Bioplastics Association Industrial Composting certificates

Tapping Water Saving Potential to Conserve Water 13

Average industrial water reuse rate: **95.74%**

Living in Harmony with Forests and Nature 11

Cumulative carbon sequestration capacity of plantations: **42.395** million tons (as of the end of 2020)

Total area of CFCC/PEFC-FM-certified plantations: **246,257** hectares, accounting for **90.9%** of total plantations

Percentage of HCV-assessed plantations: **54%**

Percentage of ISO 14001-certified plantations: **67%**

Percentage of CFCC/PEFC-FM-certified raw wood materials supplied by our plantations to APP China's pulp mills: **100%**

Strengthening "Three Wastes" Management and Building a Solid Foundation for Pollution Prevention and Control 14

Comprehensive utilization rate of non-hazardous solid waste: **99.25%**

Performance indicators of our mills in terms of wastewater discharge per ton of paper produced and per ton of pulp produced, COD emissions per ton of paper produced and per ton of pulp produced, etc. were well within the national standard limits.

Putting People First and Safeguarding Worker Safety and Health 18

Total safety training hours: **450,918**

Number of emergency drills: **500+**

Percentage of workers covered by Occupational Health and Safety Management System: **100%**

Average hazard correction rate: **98.87%**

Incidents of occupational diseases: **0**

Growing with Employees and Supporting Their Career Aspirations 16

Percentage of female employees: **23.27%**

Percentage of female employees in management: **18.62%**

Total employee training investment: over RMB **5.62** million

Total employee training hours: **753,012**

Nearly **70** positions provided for people with disabilities

Participating in Charity to Build Better Communities 20

Charitable giving: RMB **46.763** million

Cumulative charitable giving: close to RMB **1.2** billion

Number of projects carried out by the Foundation in 2021: **24**

Employee volunteer hours: **16,532**

Upholding Integrity and Compliance 22

Coverage of employee anti-corruption training: **100%**

During 2021 Sunshine Integrity Month, some **25,000** employees signed the pledge of integrity, and **2,000+** copies of the APP China integrity policy brochure were distributed to suppliers

Percentage of suppliers to whom anti-corruption policies were communicated: **100%**

Building a Responsible Supply Chain 24

Proportion of woodchips sourced from certified forests: **21.13%**

Proportion of wood pulp sourced from certified forests: **17.96%**

Sustainability/ESG Strategy

In 2021, APP China developed the 2030 Sustainability Strategy Framework and defined a three-year ESG roadmap under it. APP released the "Sustainability Roadmap: Vision 2030" ("SRV 2030") in 2020, specifying three major sustainability focuses for the next decade: energy saving and emission reduction, forest conservation, and community development. To APP China, the SRV 2030 has been an important guidance for developing its sustainability strategy. By incorporating ESG factors into the sustainability strategy, APP China seeks to advance management practices in the focus areas of the papermaking industry to continuously improve our sustainability performance.

APP's 2030 Sustainability Goals

| Energy saving and emission reduction | Forest conservation | Community development |
|--------------------------------------|---|-------------------------------|
| 30% reduction in carbon footprint | Over half a million hectares of natural forests conserved | Improve the lives of millions |

APP China's 2030 Sustainability Framework



APP China's Strategic Direction

Green transformation and digital and intelligent transformation are APP China's core development strategies at present. We hope that in the three years implementing our ESG roadmap, we will gradually align the Company's overall sustainability management with international ESG assessment and management systems. In addition to a clearer self-evaluation, this will also pinpoint areas where our management can be further improved to help bring our development strategy to fruition.

"Two Transformations and One Exceptional"



Addressing Climate Challenges and Seizing Innovation Opportunities



Why is it important to us?

Climate change is a major challenge facing all humanity today. In-time and in-depth decarbonization efforts on a global scale have taken on a renewed sense of urgency in order to prevent more irreversible disasters from occurring. The announcement of the 30-60 Goals has accelerated the green and low-carbon transition in China, fueling a strong push across sectors to explore energy saving and carbon reduction solutions. For papermaking companies, the green and low-carbon transition is not only a prerequisite for meeting challenges of our time, but also a historical opportunity to reshape their core competitiveness.



Setting Up a Climate Governance System

APP China's Board of Directors and management team make it a top priority in our green transformation strategy to realize the "carbon neutrality" goal. A Carbon Neutral Working Group was set up that spanned our Paper BU, Tissue BU, Forestry

BU, and all the headquarters departments, each assigning a team leader and several members. The team assessed the core modules of climate-related work and plans to work out the "carbon neutral" strategic roadmap by 2022.

APP China's Governance System for Addressing Climate Change

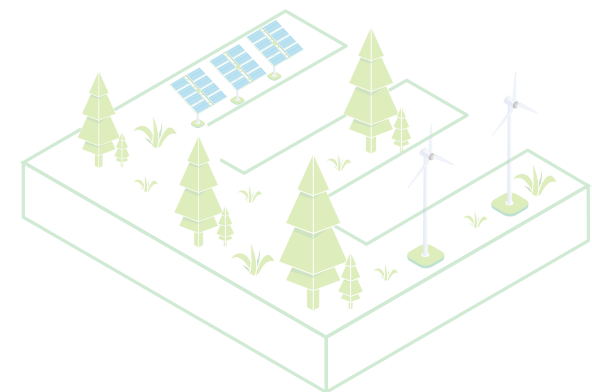
| | |
|--|--|
| Board of Directors | Set the strategic direction of the Company's green transformation. |
| Sustainability Department | Develop a localized 2030 sustainability roadmap (including addressing climate change) both consistent with APP's SRV 2030 and customized to China's specific contexts. |
| Carbon Neutral Working Group | Lead and oversee the overall advancement of APP China's green transformation efforts. |
| Strategic Planning Department | Lead the development of APP China's low-carbon transition strategy and establish specific targets and action pathways for realizing "carbon neutrality". |
| BUs (including the production bases) and headquarters departments | Carry out carbon neutral capacity building, carbon accounting, carbon emission quota trading, product carbon footprint accounting, energy saving and carbon reduction, carbon asset development, green financial product development, etc. |

Strengthening Energy Management

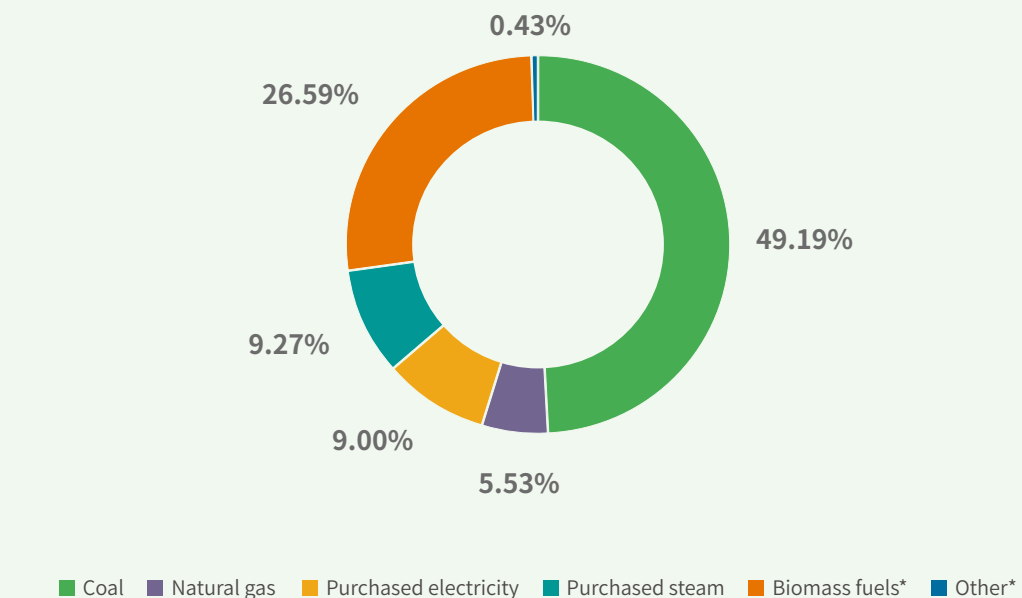
In 2021, we began stepping up efforts to advance energy saving and carbon reduction programs at the Group level, implementing a variety of energy efficiency upgrades at our mills. They included process optimization, equipment renovation, broader uptake of low-carbon technologies, etc. Among these efforts, the application of magnetic levitation fans, lithium bromide absorption chillers, the multi-effect evaporation technology, magnetic-levitation vacuum pumps, and lithium bromide absorption heat pumps stands to considerably reduce carbon emissions.

Under the Group's guidance, our mills also started to initiate or expand rooftop photovoltaic (PV) projects. Gold East Paper has completed its Phase-I 20-MW and Phase-II 10-MW rooftop PV power generation projects in 2016 and 2017. The third phase of the 20-MW PV power project under construction is expected to be completed and put into operation by the end of 2022. Hainan Jinhai Pulp & Paper and Ningbo Asia are also planning to launch PV power projects, while other mills have all completed the assessment of available PV area.

Meanwhile, the mills actively promote the application of biomass as an energy source, increasing the proportion of biomass fuels in the overall energy mix. At Hainan Jinhai Pulp & Paper, biomass fuels such as black liquor, bark, and woodchips accounted for 59.9% of the energy mix. Ningbo Asia has been experimenting with the use of fuels derived from non-hazardous industrial solid waste for power generation. In the future, we will continue to increase the use of biomass fuels and plan to start using those from our own plantations. In addition, Rudong Base is currently exploring the application of offshore wind power and coastal mudflats PV power, among other types of clean energy.

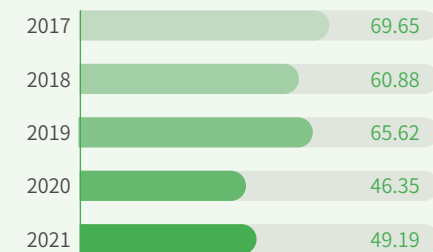


2021 Energy Mix of Mills Within Reporting Scope

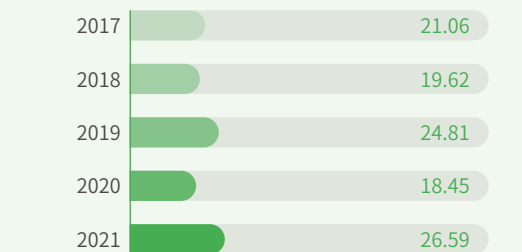


* Biomass fuels include black liquor (accounting for approximately 93%), wood chips, etc.; other energy sources include gasoline, diesel, fuel oil, Liquefied Petroleum Gas (LPG), kerosene, and solar energy.

Proportion of Coal in the Energy Mix (%)



Proportion of Biomass Fuels in the Energy Mix (%)



Leveraging the Synergy of Digital and Intelligent Transformation

We continued to pursue digital development. Starting from the planning stage, Rudong Base had put digital development at a predominant position. Real-time data tracking and monitoring at this stage empowers our mills to perform accurate energy and resource management, which has led to notable reductions in the use of electricity and water, paper loss ratio, and unplanned equipment downtime.

Exploring More Innovation Opportunities

In recent years, we are placing a growing focus on forest carbon sink and have completed an accounting of the cumulative carbon sink of our plantations as of the end of 2020. In 2021, APP China Forestry took our carbon sink efforts to the next level. The company conducted exhaustive research on national and local policies on carbon trading, carbon sinks, and carbon inclusion before communicating them at all of our forest areas through study sessions and discussions. It went on to formulate proposals for several carbon sink projects, making full preparation for undertaking plantation-based CCER projects in the future.

APP China launched a "carbon neutral" tissue series in 2021 and plans to embed this concept into more product categories in the future to help direct people towards green consumption and a low-carbon lifestyle.

We are currently working with financial institutions to explore the opportunities to develop the issuance of green bonds focusing on "carbon neutrality". We hope to leverage the Group's ability to allocate green resources and support the implementation of green projects that contribute to decarbonization.

Adapting to Climate Change

The intensifying climate change has been fueling extreme weather events, thus causing increasing disturbances to forest management. In response, we continue to strengthen disaster emergency management and attach great importance to the research and development of seedling strains that are resistant to wind, frost, drought, or insect pests to increase the resilience of our plantations to climate change and other changes in the natural environment.

Since August 2020, APP China Forestry has been working with Hainan Jinhai Pulp & Paper and the Eucalyptus Center to conduct research related to the pulp cooking performance of different eucalyptus varieties, completing a series of pulp yield tests on new strains in 2021. Such research has helped to find ways to improve pulp production quality so that forest resources can be more efficiently utilized.



Offering Green, Safe, and Quality Paper Products

Why is it important to us?

As sustainability becomes an increasing global focus, green and healthy have become important labels for sustainable paper products. This unprecedented "green revolution" presents an opportunity for the pulp and paper industry to work together in shaping the ecological landscape of our planet while also pinpointing important areas of future commitments – ride the wave and innovate, and strive to produce green, safe, and quality paper products for customers and consumers.



Strengthening R&D and Innovation Management

APP China highly values R&D and innovation and fosters a strong atmosphere of technology and innovation inside the Company by constantly improving the R&D management

system, increasing investment and support in R&D, and establishing an incentive system for R&D and innovation.

APP China Forestry has partnered with Guangdong Eco-Engineering Polytechnic to build a doctoral workstation and partnered with the Research Institute of Tropical Forestry of the Chinese Academy of Forestry to build a science and technology demonstration base. They are to establish close cooperation in the R&D and innovation of seedling strains, the implementation of research findings, and the research on the environmental impact of plantations.

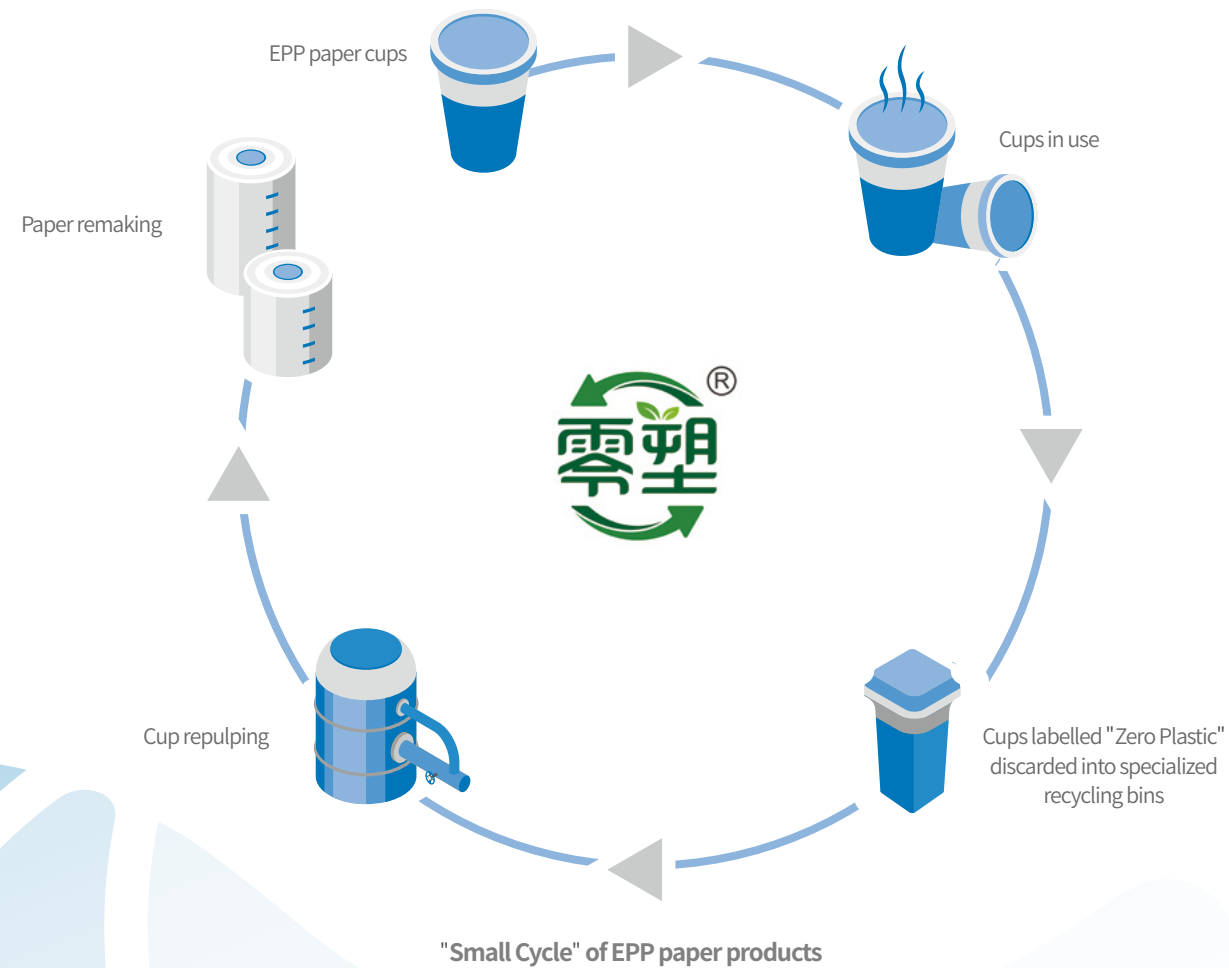
Bohui Paper collaborated with Tianjin University of Science and Technology and the Institute of Chemical Industry of Forest Products of the Chinese Academy of Forestry respectively to research and develop new technologies in chemi-mechanical pulping. Once applied, the new technologies will help improve product quality while considerably increasing the utilization rate of wood raw materials and reducing energy and resource consumption in the production process.



Developing Environmentally Friendly Products

APP China has been investing to develop and optimize its high-bulk and ultrahigh-bulk paper product series in recent years to harness the growing popularity of lightweight paper products. We have also launched an array of paper-based packaging products, such as "Zero Plastic" cup paper (EPP), "Zero Plastic" oil-proof food-grade board (OPB), antibacterial fresh produce wrapping paper (OPBs), straw base paper (WXS),

lamination-free kraft paper and base paper. All the paper cups, paper bags, lunch boxes, etc. made from our "Zero Plastic" paper series are capable of being recycled, repulped, and re-papered or composted for degradation, providing the pulp and paper industry with another pathway to carbon neutrality and carbon reduction.



Contributing to Plastic Pollution Treatment

In 2020, Ningbo Asia developed and introduced the "Zero Plastic" cup paper (EPP paper). Packaging products made of EPP paper are recyclable, 100% industrially degradable, repulpable, and compostable. In May 2021, APP China's EPP paper was granted the DIN CERTCO by the third-party testing and certification service provider TÜV Rheinland Group and received the European Bioplastics Association Industrial Composting certificate. Our "Zero Plastic" series were now granted all relevant domestic and international certifications.

To promote the unification of industry standards for EPP paper and finished cups, Ningbo Asia actively participated in the development of the group standard for *Water-Based Coated Cups (Water-Based Coated Cup Paper Included)*. The standard was officially released by China Paper Association in December 2021. It is China's first standard for water-based coated paper products and includes the first set of rules for the recyclability of water-based coated paper products. Its release gave a major push to regulatory efforts by papermaking companies to make environmentally friendly products.



Living in Harmony with Forests and Nature



Why is it important to us?

As one of the most vibrant ecosystems on earth, the forest ecosystem provides many unique environmental benefits – preventing soil erosion, improving climate cycles, conserving biodiversity, etc. In the "Integration of Plantation-Pulp-Paper" industry model, scientific forest management contributes positively to biodiversity conservation and the sustainable use of forest resources, providing a solid foundation for creating a green and circular industry.



Continuously Strengthening Internal and External Audits

With sustainability at the heart of its management approach, APP China Forestry works to deliver balanced social, economic, and ecological benefits through scientific management of plantations. In 2021, 12 forestry companies under APP China Forestry carried out the CFCC/PEFC-FM forestry certification, and six went through the ISO 14001 Environmental Management System certification process. By continuously strengthening internal and external audits, they completed a comprehensive review of the current sustainability management system in terms of compliance, legality, appropriateness, and effectiveness.

In addition, APP China Forestry engaged the sustainability team of each company in an in-depth study session where the new standard *Forest Certification in China – Forest Management* (revised version, GB/T 28951-2021) was interpreted and communicated. It also developed training materials that used real-life forestry operations to help employees clearly see the differences between the old and the new standards while getting prepared for the new version of CFCC/PEFC-FM forest certification in 2022.



External experts conducted an audit for the CFCC/PEFC forest certification

High Conservation Value Monitoring

High conservation value (HCV) forests are forests that are important because of their high environmental, social, economic, biodiversity, or landscape values. Over the years, APP China Forestry has closely monitored the existence of HCV in our plantations, with regulations and SOPs in place for its identification, monitoring, and protection, which helps ensure effective management is implemented whenever HCV is detected.

As of the end of 2021, 54% of our plantations had completed an HCV assessment. The protected species *Alsophila spinulosa* was found in our Lancang and Hainan plantations. Our staff have marked those areas, implemented protective measures, and conducted proper monitoring and documentation in subsequent patrols.

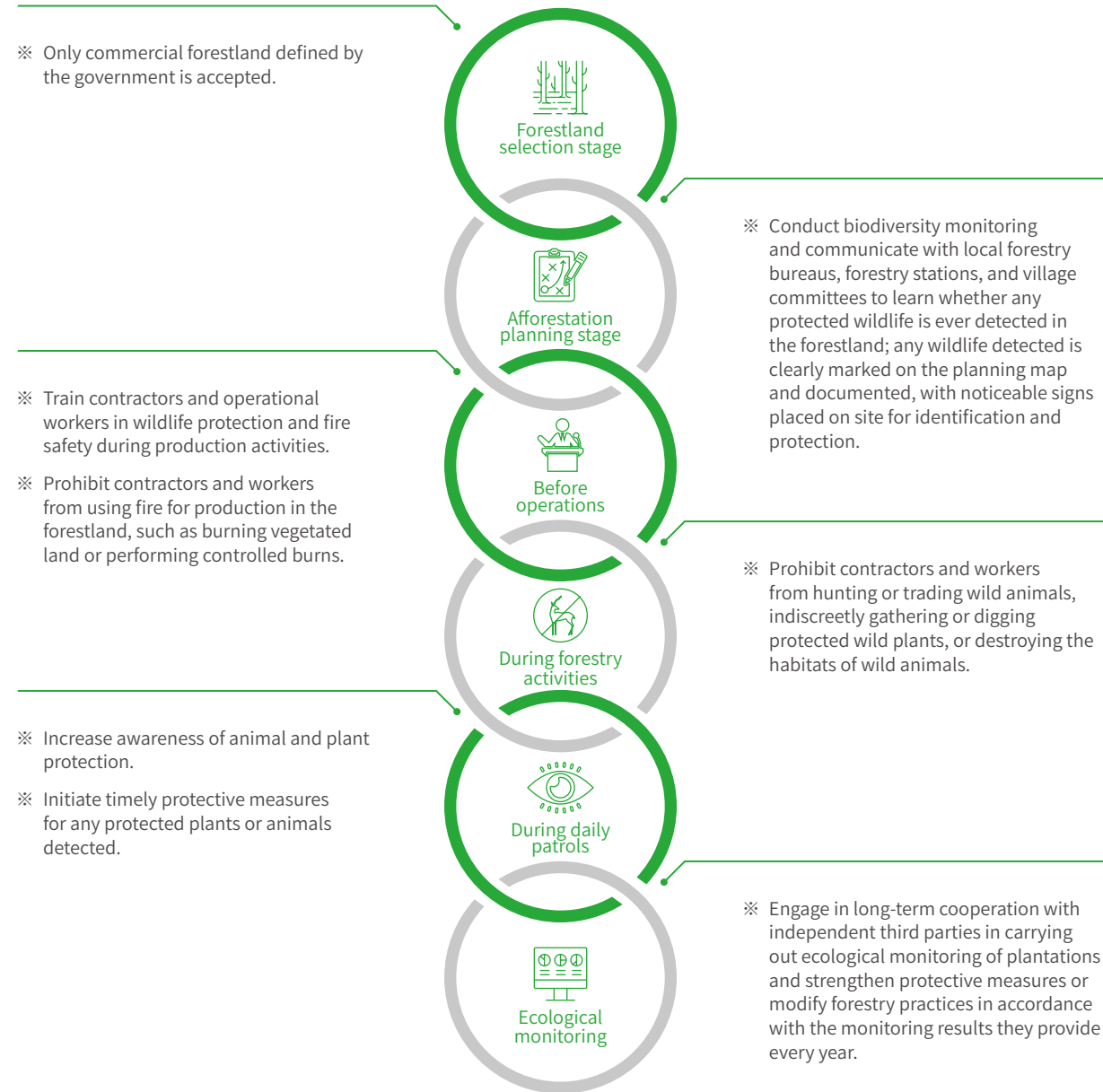
Increased Attention to Biodiversity Conservation

Forests are home to many species, and their ecosystems play an important role in the global ecosystem. With a long-standing commitment to protecting biodiversity, we continuously work to raise awareness of plant and animal conservation and carry out joint monitoring of plantations through sustained cooperation with third-party institutions. In 2021, APP China Forestry joined hands with a number of colleges, universities, and research institutes, such as Guangxi Academy of Sciences, Hainan University, and Guangdong Eco-Engineering Polytechnic, in carrying out projects on ecological monitoring, plant diversity monitoring, etc. In addition, APP China Forestry has incorporated relevant parameters for measuring biodiversity conservation and the maintenance of ecosystem stability into its annual environmental target indicator system and conducts continuous performance tracking.



Conducted ecological survey and monitoring with researchers

APP China Forestry's Key Biodiversity Conservation Measures



Tapping Water Saving Potential to Conserve Water



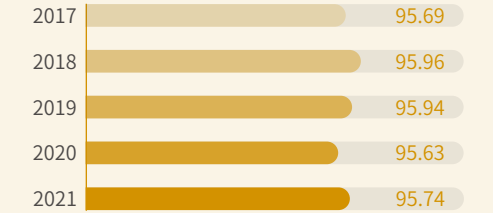
Why is it important to us?

Water is the most precious resource for human beings. The growing population and worsening global climate change are making water scarcity an increasingly pressing challenge of our time. The *World Water Development Report 2021* issued by the United Nations Educational, Scientific and Cultural Organization (UNESCO) on "Valuing Water" puts the spotlight on the value of water and underscores the deep significance of raising people's awareness of water resources for resolving the water crisis. For pulp and paper companies, water is one of the most vital productive resources. Strengthening water demand and process management and promoting sustainable water use are therefore crucial aspects of their environmental responsibility.



APP China mills work diligently to optimize their water management mechanisms and continue to improve water use efficiency by conducting water-saving technology upgrades, scaling up water reuse, recycling rainwater, etc. Over the years, the average industrial water reuse rate of APP China mills remains above 95%. The figure reached 95.74% in 2021.

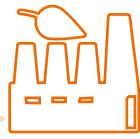
Average Industrial Water Reuse Rate of APP China Mills Within Reporting Scope in 2018-2021



Through measures like water use management, technology and equipment upgrades, and industry benchmarking management of water consumption indicators, Ningbo Asia developed industry-leading water-saving practices and was named a "2021 Provincial Water-Saving Benchmark of Zhejiang". Its water-saving initiatives in 2021 could save 8.774 million tons of water per year, equivalent to RMB13.16 million in economic benefits. Its outstanding water-saving performance is estimated to translate into RMB5.4 million in water cost savings between 2022 and 2024.

Guangxi Jingui Pulp & Paper's alkali recovery plant managed to keep its seal water flowing without being discharged by using independent seal water return pipes etc., recycling around 2,000 cubic meters of seal water per day and generating RMB2.6 million in annual economic benefits; to realize 100% seal water recycling and reuse across the mill, the company organized a study tour to demonstrate to the various departments how the alkali recovery plant recycled and reused seal water. As of the end of 2021, 11 plants had completed a seal water reuse retrofit, increasing the mill's total recycled seal water to about 4,000 cubic meters per day, attaining a 70% reuse rate.

Strengthening "Three Wastes" Management and Building a Solid Foundation for Pollution Prevention and Control



Why is it important to us?

For the manufacturing sector, the comprehensive management of wastewater, air pollutants, and solid waste is the foundation for promoting green development and winning the battle for pollution prevention and control and a critical part of building a green production approach and a circular economy. Continuously strengthening the management of "three wastes" and reducing the environmental impact of the industry chain through the adoption of low-consumption and cleaner production methods are important avenues for the manufacturing sector to achieve green and low-carbon development goals.



Wastewater and Air Pollution Treatment

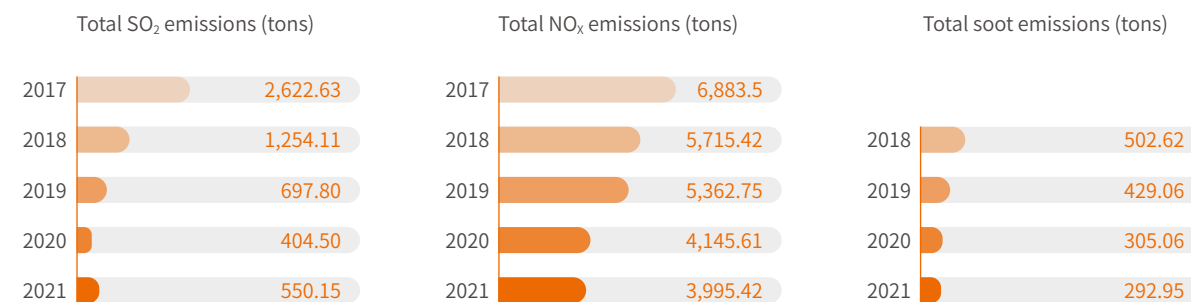
In the treatment of wastewater and air pollution, APP China mills follow the management concept of "reduction at the source, control through the process, and end-of-pipe treatment" and the principle of "scientific pollution treatment and compliant emissions". We closely monitor and voluntarily disclose the various pollutant indicators and periodically have them audited by accredited third parties.

We also undertake a series of wastewater infrastructure retrofits such as wastewater treatment system optimization and wastewater treatment capacity enhancement to improve the overall performance. Thanks to its outstanding emissions compliance performance, Guangxi Jingui Pulp & Paper received approximately RMB1.127 million in environmental tax cuts in 2021.

| Indicators | Unit | 2021 | 2020 | 2019 | 2018 | 2017 |
|--|------|-------|-------|-------|-------|-------|
| Wastewater discharge per ton of paper produced (National standard* limit: 20 tons) | tons | 5.88 | 6.20 | 6.37 | 6.79 | 6.35 |
| Wastewater discharge per ton of pulp produced (National standard limit for pulp companies: 50 tons; national standard limit for pulp & paper companies: 40 tons) | tons | 12.46 | 12.50 | 11.62 | 12.68 | 13.90 |
| COD emissions per ton of paper produced (National standard limit: 1.6kg) | kg | 0.24 | 0.22 | 0.29 | 0.23 | 0.26 |
| COD emissions per ton of pulp produced (National standard limit for pulp companies: 5kg; national standard limit for pulp & paper companies: 3.6kg) | kg | 0.86 | 0.85 | 0.63 | 0.94 | 1.99 |

* Discharge Standard of Water Pollutants for Pulp and Paper Industry (GB3544-2008)

Air Pollutant Emissions of APP China Within Reporting Scope in 2017-2021

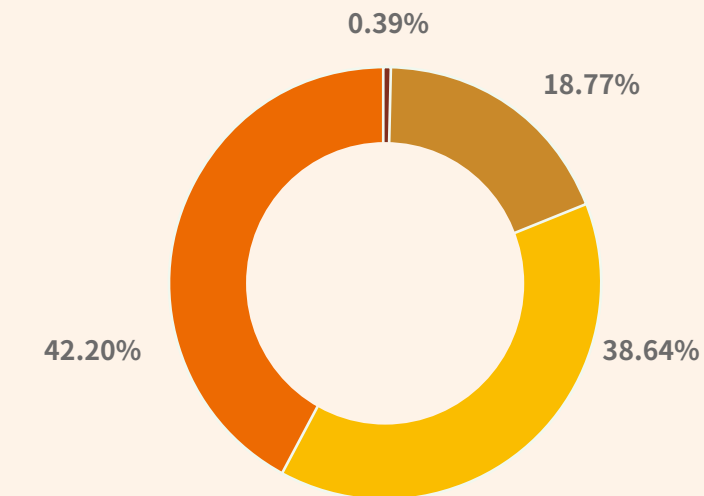


Solid Waste Management

As to solid waste, our mills have established management procedures for non-hazardous industrial solid waste and hazardous waste. The non-hazardous industrial solid waste generated during the manufacturing process includes fly ash, slag, sludge, lime sludge, gypsum, woodchips, slurry, etc., which the mills recycle and comprehensively utilize by selling

to external parties for reuse or through internal reuse, among other methods. For hazardous waste, the mills strictly follow the national hazardous waste list and identification standards and commission qualified third parties to dispose of in a legal and compliant manner.

Methods of Solid Waste Disposal at Mills Within Reporting Scope in 2021



■ Recycling and reuse ■ Incineration ■ Selling to external parties for reuse ■ Other

In 2021, the comprehensive utilization rate of non-hazardous waste at APP China mills within the scope of reporting reached **99.25%**.

Promoting Comprehensive Utilization of Wastewater Sludge

Ningbo Asia has two bubbling fluidized bed (BFB) incinerators with a design sludge processing capacity of 1,600 tons/day. They mainly burn wastewater sludge, blended with raw coal and biomass fuels at a certain ratio to maintain stable combustion. The biogas produced during wastewater treatment is also transferred to the incinerators for combustion, which reduces the amount of raw coal and biomass fuels used. The company also supports the local community by assisting to incinerate the wastewater sludge produced by other companies in the neighborhood, generating considerable social benefits.

In 2021, the company incinerated 335,921 tons of sludge, including 17,250 tons of sludge produced by external companies, and burned 805,318 cubic meters of biogas produced during wastewater treatment, equivalent to saving 572 tons of standard coal. From 2018 to the end of 2021, the company cumulatively burned 6.55 million cubic meters of biogas, generating over RMB3.1 million in total economic benefits. Its chemi-mechanical pulp (CMP) project with an annual production capacity of 300,000 tons was put into operation in the second half of 2021, and the biogas generated therein started to be transferred to the sludge incinerators in December 2021 for co-firing. This is expected to double the amount of biogas use in the future.

Growing with Employees and Supporting Their Career Aspirations



Why is it important to us?

Talent is a company's most valuable asset and a pivotal driver of business development. China's transitioning from high-speed growth to high-quality development would entail building strong human capital and a robust talent pipeline. As major participants of micro-economic activities, it is of high significance for companies to continuously create a more enabling work environment and encourage workplace innovation in order to realize high-quality development and help employees realize their career aspirations.



Corporate Culture Leads the Way

We use corporate culture to guide the Company's development and endorse benchmarking and a go-getter spirit among employees. In 2016, we systematically consolidated our unique MBOS (Management by Olympic System), code of integrity and ethics, core values, vision, and mission into our corporate culture system. In the past five years, we have made our corporate culture "publicized, imprinted, embraced, and applied" through initiatives like awareness campaigns and the Culture Ambassador Contest, taking it from stage 1.0 to 2.0.

As we pivoted to build Corporate Culture 2.0 in 2021, we put "people" and "innovation" at the core and advanced the organizational transformation through initiatives like Managers as Cultural Navigators, demonstration of Culture Ambassadors/Hard-Worker Models, the construction of big cultural teams, strategic change communication, the digitalization of cultural platforms, and new APP cultural creations.

APP China's Corporate Culture Building Highlights in 2021

Managers as Cultural Navigators initiatives: We formed action guidelines and also hosted a multitude of meaningful activities such as the Cultural Workshop for Managers, cultural interviews for managers, learning experience essay contest, and the Iron Army Spirit examination. Those activities helped the managers tie in their management and business practices with the corporate culture in a systematic way, thus enabling them to solve work problems at the root and become the true navigators of our culture.

Culture Ambassador Contest: Over 30,000 employees across the Group went through rounds of selection, and 28 culture ambassadors and nominees were picked out in the end.

APP Culture Voice mobile communication platform: The platform consists of six content modules such as knowledge acquisition, communication and sharing, and interest-based interaction, with the latest relevant news reports updated throughout the year. The platform is not only an innovation of APP Corporate Culture 2.0 construction but also an important facilitator of internal communication and learning among employees.

Human Resource Management

We have devised an evolving talent development strategy aligned with our transformation needs and keep improving our talent development and management mechanism, including by regularly assessing the workforce structure, identifying potential talent loss risks, and building a comprehensive talent pool. We have combined our Company-wide performance-based bonus system with a number of schemes specially designed for key positions and high-potential employees, such as the Talent Retention Plan, the Successor Plan, and the Talent Retention Special Fund. In a planned fashion, we have rolled out the plans in relevant departments and subsidiaries so that we can retain and bring out the best in our top talent.

In 2021, Hainan Jinhai Pulp & Paper, Guangxi Jingui Pulp & Paper, Rudong Base, Gold East Paper, Ningbo Asia, and APP China Forestry all implemented an internal job rotation program to help employees identify the career choices that best suited their competencies and interests. A total of 2,341 positions were opened up throughout the year, with 45% filled by internal hires and transfers.

Boosting Employee Engagement and Communication

APP China's BUs carry out an array of activities such as Improvement Proposal Competition, MBOS Competition, MBOS Conference, and regular achievement sharing sessions every year. Those activities allow employees to share outstanding experiences and cases and contribute ideas to help move the organization forward. We use formal talks, satisfaction surveys, etc. to give voice to our employees' opinions and concerns and encourage proactive employee input on the Company's policy and strategy development.

Enhancing Talent Development

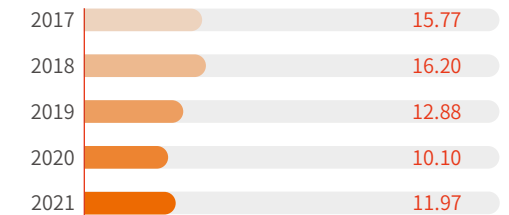
We offer a systematic suite of training programs tailored to the varied career development needs of employees at all levels and in different lines of business. We have been expanding the management trainee program across the Group in recent years, and developed a detailed training plan and a dedicated training system for management trainees. We also have a mentorship program where senior employees are matched with trainees to help them learn about their jobs and adapt to the new environment.

APP Learning and Development Center began to offer special training programs within the Group in 2020. In 2021, it organized the Executive Leadership Development Program, the 2021 APP Case Competition, and the Coaching and Guidance Techniques Workshop. For employees in professional and technical functions, APP China mills continue to offer professional skills training for employees in manufacturing jobs and role-based competency model assessment and certification while creating incentives to stimulate employee participation in professional title evaluation.

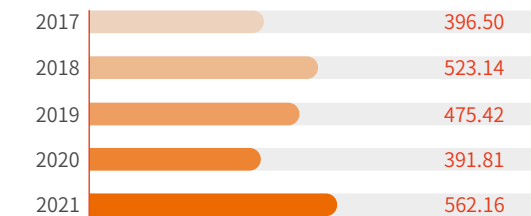
Improving Employee Benefits

We protect the legitimate rights and interests of employees, and continue to optimize our compensation and benefits plan. Our mills provide a rich assortment of perks and benefits befitting their own conditions such as meal allowances, high temperature allowances, commercial insurances, employee dormitories, prenatal care leave, elder care leave for only children, and scholarships for employees' children. Employees can also enjoy an array of fun activities on a regular basis such as sports games, group birthday parties, and reading sharing sessions, which bring them closer together and greatly boost team morale.

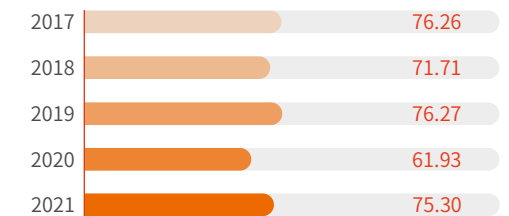
Employee Turnover Rate (%)



Total Investment in Employee Training (RMB10,000)



Total Employee Training Hours (10,000 hours)



Putting People First and Safeguarding Worker Safety and Health



Why is it important to us?

Workplace safety is about protecting people's lives, and creating a safe and healthful work environment should always remain a top business priority. The revised *Law of the People's Republic of China on Work Safety* underlines the establishment of a company-wide work safety accountability system and the prevention and resolution of major safety risks at the source; it also legally requires employers to establish a dual prevention mechanism consisting of risk classification and control and hazard detection and elimination and to advance workplace safety standardization. Those requirements are intended to further formalize employers' accountability for workplace safety, and for their people-centric nature, should be the fundamental guidelines for companies' workplace safety efforts.

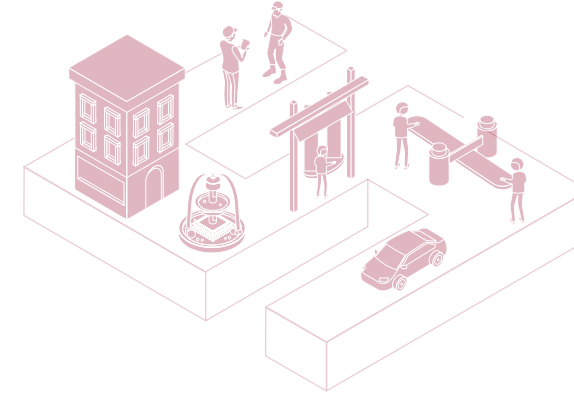


Safety Risk Management

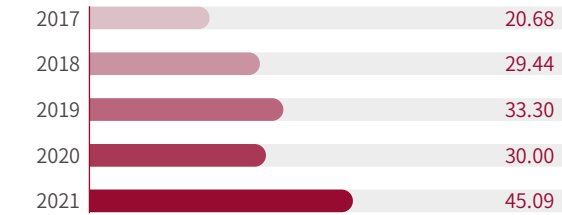
Consistent with the "safety first, prevention-centered, and comprehensive management" safety approach, APP China has established a unified and Group-wide Safety, Health, and Environment (SHE) management system that covers all workers, facilities, and worksites. This system, together with the SHE corporate standard management system and the emergency management system, among others, serves to drive effective safety accountability across the Group.

APP China mills have all set up a Safety Management Committee led by the general managers and formulated a set of policies and systems, including workplace safety rules

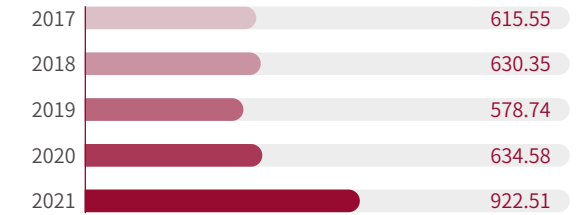
and regulations, job-specific operational safety rules, and the workplace safety reward and punishment system, among others. The mills have also established policies and processes around hazard identification and risk assessment, safety risk classification and control, hazard detection and elimination system, safety education and training, major accident handling, work-related accident management, etc., making an all-out effort to prevent workplace accidents and minimize the impact they may bring.



Employee Safety Training Hours (10,000 hours)



Total Investment in Protective Gears (RMB10,000)



Contractor Safety Management

The high mobility of contractors and the great variations in their safety awareness and operational standards are among the uncertainties that make them a stakeholder group with considerable safety risks. For this reason, the Company included contractors into the Group's SHE management system, holding them to the same safety standards as our own employees. In 2021, APP China Headquarters set out detailed requirements regulating contractor management at our mills, which cover ten areas including qualification review, the signing of safety management agreements, the establishment of a contractor directory, safety training and notice, contractor meetings, safety inspections and hazard elimination, safety performance review, accident reporting, etc.

Occupational Health Management

We are committed to keeping our workers safe and make a point of preventing, controlling, and eliminating occupational hazards at the source. In compliance with the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, the Company implements a management system consisting of "oversight by headquarters, accountability by facilities, and management at different levels".

Each mill has an Occupational Health and Safety Committee, along with a set of management measures for protecting against occupational diseases. Those procedures are the basis on which we carry out systematic safety work ranging from occupational hazard prevention and health checks to workplace management and occupational health education and training. In 2021, our mills hosted a variety of activities, such as training, lectures, online quizzes, videos about typical cases of occupational diseases to further increase their health awareness at work.

Participating in Charity to Build Better Communities



Why is it important to us?

The convergence of the COVID-19 pandemic, worsening climate change, and other public crises in recent years has awakened people to the intricate interconnectedness of individuals, businesses, and society. The current ESG megatrend also pushes companies to be more socially responsible. To be actively engaged in charitable and philanthropic causes so as to strengthen communication and collaboration with communities and external organizations and contribute to social progress and common prosperity is an important pathway to corporate sustainability.



APP Charity Journey

APP China has been committed to the principle of "giving back to society what society has given us" and actively involved in charitable causes. We have built up a four-pronged CSR system consisting of national public

emergencies, culture, sports, and education, community development, and rural revitalization. As of the end of 2021, APP China had donated close to RMB1.2 billion in charitable giving in China.

• Public Emergencies

At APP China, we have a dedicated CSR emergency response mechanism. Our move to digital in the past few years has brought about continuous optimization in our collaboration system, which enables our mills to quickly mobilize resources and logistics to provide relief

to the affected areas when disasters occur. We have been an active part of the response and relief efforts in public emergencies such as the COVID-19 pandemic and natural disasters, continuing to fulfill our duties as a responsible corporate citizen.

- In July 2021, Henan Province was hit by extreme rainfall, which caused massive flooding in Zhengzhou, Xinxiang, Weihui, and some other cities. Responding to the call of the Shanghai Federation of Returned Overseas Chinese for disaster relief, APP China promptly donated RMB10 million worth of supplies through the Shanghai Overseas Chinese Foundation to affected areas in Henan Province, including tissues, disinfecting wipes, sanitary napkins, and other daily necessities. We were the first overseas Chinese company to make a donation to help victims of this flooding in Henan Province.
- Following the Shanxi flooding in October 2021, Gold Hongye Paper immediately gathered RMB600,000 worth of tissues and hygiene products and donated them to the affected areas through the China Soong Ching Ling Foundation to help local people get back on their feet soon. When Yangzhou faced a fresh outbreak of COVID-19 in August 2021, Gold Hongye Paper donated RMB1.4 million worth of tissues and hygiene products.

• Culture, Sports, and Education

Since entering China in 1992, APP China has been actively involved in promoting the cultural and sports development in China. In 2008, we donated RMB100 million to support the construction of the Water Cube, an Olympic venue in Beijing, making us the first overseas Chinese company to make such donations; donated RMB15 million in 2010 in support of the construction of the China Pavilion at the Expo Shanghai 2010; donated RMB20 million in 2018 to Rangtang County, Aba Prefecture, Sichuan Province to fund the construction of the Juenang Cultural Center; and donated RMB20 million in 2021 to support the construction of the Overseas Chinese Ice-Snow Museum, the first Beijing Winter Olympics themed museum.

In 2018, we launched the Dream Plan program targeting aspiring students from remote areas. We set up joint classes and offered pulp-making and papermaking courses collaboratively with vocational colleges. The students enrolled in the program will be offered a full tuition and accommodation fee waiver and a partial remission of the living and transportation expenses. APP China also provides employment opportunities for the students upon graduation. In 2021, we added a new site in Zibo, Shandong Province, for the 4th Dream Plan. As of the end of 2021, 236 students were enrolled in the Dream Plan; by September 2021, 42 students had secured formal employment and another 42 were taking an internship.

• Community Development and Rural Revitalization

By investing to expand our network of services and promote innovation-driven growth, APP China strives to boost local economy and employment and help create an environment that rewards hard work, promotes equal opportunity, and affords everyone a chance to realize their dreams. We also actively assist in poverty alleviation and offer help to those in need, doing our part to promote social stability and common prosperity. During day-to-day operations, our BUs also maintain an active dialogue with the communities we operate in. We seek to understand the specific needs of local residents and do our utmost to support the elderly and the vulnerable and help strengthen community development.



Ningbo Asia donated RMB600,000 to the "Common Prosperity and Happy Homeland" Charity Fund



Students were experiencing hand-papermaking at the Green Paper Culture Center

Foundation: A Deep Commitment to Sustainable Philanthropy

Guided by its mission to "support the development of philanthropy in China, help the frail, the needy, the elderly, and the young, and build a harmonious society", the Huang Yicong Foundation (hereinafter referred to as "the Foundation") has devised the SPIC (Sustainable, Participation, Innovation, and Care) development strategy. In 2021, the Foundation implemented 24 programs designed to promote equity in education, support youth development, assist research advancement, etc., with a total donation of around RMB46.763 million.

With a long-standing commitment to education, the Foundation has developed a diverse range of influential programs spreading across different regions over the years. The Foundation extended its focus to the medical field in 2021 and will work with hospitals and medical experts to help defray the medical expenses for patients from remote areas and use digital means to improve the public's healthcare knowledge.



Scan the QR code to see more of the Foundation's practices

Enhancing Community Engagement

APP China mills maintain a regular dialogue with surrounding communities, welcome their supervision, and act swiftly to verify or address the problems they raise. On a random basis, our mills host an Open Mill Day inviting neighboring communities, schools, and media to come in for a guided tour. Ningbo Asia's Green Paper Culture Center opened to the public in April 2021. As of the end of 2021, the Green Paper Culture Center had hosted 84 visits totaling over 900 visitors.

Upholding Integrity and Compliance



Why is it important to us?

Companies play an important role in promoting economic development, creating jobs, and driving technological advancement. The establishment of a sound corporate governance structure, risk management system, and business ethics management mechanism lays the groundwork for robust business operations and contributes to both business longevity and enduring economic and social development.



Reinforcing Risk Management System

APP China has established the "Three Lines of Defense for Internal Control" management system to continuously strengthen risk identification and management, laying the groundwork for maintaining robust operations and sustainable development. We will continue to process

digitalization and use the big data generated during Digital 2.0 to empower better risk identification and analysis on issues such as abnormal transactions, fraud, and lack of workflows and systems in sales, procurement, production, logistics, and other business processes.

Business Ethics

APP China is committed to the set of moral values built on the cornerstones of "Integrity and Commitment" and conducts business in compliance with all applicable national laws and regulations. We have instituted a set of rules and policies, such as the *Business Code of Integrity and Ethics* and the *Employee Code of Ethics*, and a Company-wide integrity management framework as well as a compliance management mechanism.

We implement and constantly communicate our *Encouraging Reports of Fraud Within the Group and the Reward Plan* to

all stakeholders, including our employees, to report, in good faith, any improper conduct occurring within the organization. We provide a number of whistleblowing channels including an email address (GRW@app.com.cn), a 24/7 reporting hotline (021-22839763), etc. Such improper conduct may include, but is not limited to, corruption, fraud, commercial bribery, sexual harassment, abuse of power, conflict of interest, and theft. We also have an interdepartmental whistleblowing mechanism to ensure a timely and proper handling of violations.



Building a Culture of Integrity and Compliance

APP China actively engages employees in integrity and compliance training and activities to cultivate an increased understanding and awareness and weave the culture of compliance deeply into every aspect of our business.

The 2021 Sunshine Integrity Month included a rich variety of cultural and educational activities such as integrity pledge, seminars, case studies, online declaration of conflicts of interest, prize quizzes, and integrity awareness tests to reinforce employee risk and integrity awareness.

- Special Compliance Training: we require all new employees to complete a module on integrity, compliance, and business ethics during induction and provide special compliance training for particular lines of business, including procurement, real estate and project implementation, and key departments.
- Sunshine Integrity Month: we hold this Group-wide event every year, to ensure our employees uphold ethical conduct in their day-to-day activities in line with our values and code of integrity.



2021 Sunshine Integrity Month events



Employees took the Integrity Pledge

Building a Responsible Supply Chain



Why is it important to us?

The sustainability trend increasingly highlights the impact of the supply chain. Integrating ESG factors into the supply chain strategy helps companies identify and manage potential risks in the supply chain in a timely manner and drives progress in the ESG performance of industry chain partners. It thus contributes positively to the green, healthy, and sustainable development of industries and simultaneously benefits the economic, social, and environmental bottom lines.



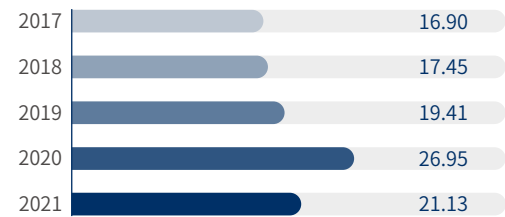
APP China continues to improve the supplier management mechanism to reduce supply chain risks while ensuring that our suppliers fulfill their responsibilities. With a commitment to responsible sourcing, we take steps to incorporate sustainability into procurement management and work to ensure our suppliers adhere to responsible business practices

by evaluating their performance against a set of criteria including business ethics, labor rights, occupational safety, environmental protection, etc. All suppliers are required to sign the *Partner Pledge on Business Compliance and Integrity* and the *Corporate Social Responsibility Statement and Pledge*.

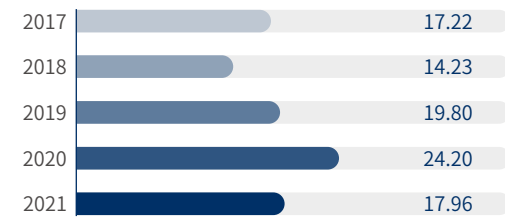
• APP China's Requirements for Pulp and Wood Fiber Suppliers

- Suppliers are required to maintain valid records to demonstrate the origin of the source of raw materials (e.g., plantations), and to be able to demonstrate in general how the suppliers of wood fiber obtained their raw materials.
- Suppliers and their upstream suppliers must comply with the laws and regulations of the countries in which they operate, including laws and regulations on environmental protection.
- Suppliers shall guarantee that all wood chips come from plantation forests.
- Suppliers shall take proactive actions to improve their own sustainability management mechanisms, including strengthening the procurement of raw materials from plantation forests.
- Suppliers shall comply with the Responsible Fiber Procurement & Processing Policy (RFPPP) of APP China's pulp and paper businesses, guaranteeing to provide:
 - only timber that has been properly inspected and certified as legally sourced and traced through the chain of custody;
 - no timber harvested in violation of tradition and civil rights;
 - protection of HCV through appropriate forest management activities in source forests of timber where HCV forests are identified;
 - only waste and wood residues that comply with national regulations and are not on the list of regulated species of the International Union for Conservation of Nature (IUCN) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix I;
 - no genetically modified trees for reforestation unless it is assessed as in compliance with best-practice standards; and
 - timber harvested in compliance with the Fundamental Conventions of the International Labour Organization (ILO).

Proportion of Woodchips Sourced from Certified Forests (%)



Proportion of Wood Pulp Sourced from Certified Forests (%)



About APP China

Sinar Mas Group was founded by the prominent Indonesian Chinese Mr. Eka Tjipta Widjaja in 1938, with investments spanning continents like Asia, North America, Europe, and Australia today. Based on years of innovation-driven development, the Group has built seven business pillars: Pulp & Paper, Financial Services, Agri-Business & Food, Real Estate, Energy & Infrastructure, Telecommunications, and Healthcare.

Asia Pulp & Paper Co., Ltd. (APP), a pulp and paper subsidiary of Sinar Mas Group, was founded in 1972 and has grown into a world leader in papermaking through decades of dedicated work. APP has dozens of pulp and paper companies and over one million hectares of fast-growing plantations in Indonesia, China, etc. APP's products and business spread across the globe, with businesses ranging from plantations and pulp to industrial paper, cultural paper, tissues, and various types of paper products.

APP China is short for Sinar Mas Paper (China) Investment Co., Ltd. and the group of companies under its direct investment in China. **Since its entry into China in 1992, the Company has been committed to a sustainable development strategy and worked to establish a green cycle by operationalizing the "Integration of Plantation-Pulp-Paper" approach.** APP China has set up multiple functional units within the Company such as Forestry Business Unit, Pulp Business Unit, Paper Business Unit, and Tissue Business Unit.

Sinar Mas Paper (China) Investment Co., Ltd. acquired a 100% equity interest in Bohui Paper in 2020. The acquisition helps optimize the scale and resource allocation of APP China while promoting the high-quality development of the Company and the wider paper industry in China.

APP China and its parent company Sinar Mas Group are also engaged in the development of sustainable urban complexes and technology parks to diversify the allocation of resources. So far, the Company has developed two large-scale urban complexes in Shanghai: the Sinar Mas Plaza and the Shanghai Arch.

Note: Unless otherwise specified, the APP China performance data included in this report are as of December 31, 2021. The reporting scope of data included aligns with that of in APP China sustainability/ESG reports.



Products marketed in over **160** countries/regions
 across **6** continents
 RMB **246.5** billion in total assets
 RMB **97.3** billion in annual sales revenue



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Printing paper for cover pages: CFCC/PEFC-certified Ningbo Asia *Caidie* 250g/m² double coated copper plate

Printing paper for body pages: CFCC/PEFC-certified Gold East Paper *Space Shuttle* 128g/m² double coated matte paper



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