



SUSTAINABILITY REPORT

2017

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Asia Pulp & Paper Indonesia

External frameworks

The content and quality Standards of this report is guided by the Global Reporting Initiative (GRI) Standards.

The report had been externally assured to the internationally recognised AA1000(AS) and meets the requirements of Core Level. Our intention is to continue to seek external assurance for future sustainability reports and respond as appropriate to any areas of improvement identified in the assurance statements.

The assurance statement covering this report is presented on page 129.

SUSTAINABILITY REPORT

2017

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Chairman's Statement

Sustainability remains at the core of our business and we continue to benchmark ourselves against global standards and performance indicators across all aspects of our business. We made notable progress against our commitments that were made in 2012 through our Sustainability Roadmap Vision 2020, which include significant reduction in carbon, energy, water and waste intensities.

The journey was far from smooth sailing as there were many times we were faced with a variety of obstacles. It was a steep learning curve for us with no one to guide us most of the time. We were however fortunate and grateful to also find ourselves partners who helped and supported us along the way.

Considering the pace at which consumer interest in issues such as plastic waste have heightened, coupled with strong indicators that the health of our planet is in crisis, it is clear that we may be facing an uncertain future.

It is clear to me that, on a global scale, APP has the opportunity to play a major role in addressing some of today's most pressing challenges. For example in relation to the need to reduce consumption and pollution arising from single use plastics, our products, based on renewable and recyclable materials, provide our customers and ultimately consumers around the world with sustainable solutions.

As a nation, Indonesia has the opportunity to play a critical role in reducing global greenhouse gas emissions. At APP we are working hard with our mill operations, fibre suppliers and technical partners to understand all opportunities to contribute to reducing greenhouse gas emissions. We are working with scientific experts to produce a clear account of our contribution to Indonesia's national commitment to reduce emissions by 29 percent by 2030.

Our focus goes beyond carbon as we are also considering the bigger picture. As part of our commitment to preserving natural forests, we have mapped 2.5 million hectares of land cover, to enable greater accuracy of legal boundaries, land classifications, plantation ages, improve the maturity of management plans, and hydrology. The risk of forest degradation and biodiversity loss are global issues that draw attention to how vital natural capital assets are managed.

Managed well, forestry in Indonesia can provide livelihoods, support industry and conservation objectives. Finding and maintaining the balance is indeed a challenge, but it is one that APP is committed to supporting. Our Integrated Forestry and Farming System (IFFS), aims to improve livelihoods of local communities by providing them with alternative options and decreasing their dependency on forests, while reducing the use of fire for land clearance. Through the IFFS programme, we also aim to improve food security while encouraging stronger involvement of communities in APP supply chain as well as stronger engagement and collaboration with national and local government, academics, civil society and private sector.

Meanwhile, our mills continue a drive towards greater efficiency with our OKI mill, for starters, setting new standards for clean production while employing the latest technology in its processes. The power boilers at the OKI mill run on 89 percent biofuel, optimising the waste material from the pulping process while significantly reducing the carbon intensity of its operations. We are also working hard to establish third party relationships to process other waste streams, which has been a challenge in the early stages of the mill's development, to secure the necessary licenses for waste handling. Our goal is a zero waste to landfill site, with all waste reused or recycled.

We also secured the Sustainable Business Award in the Energy Management category, awarded by Global Initiatives, partly for our Clean Manufacturing Programme in Pindo Deli Karawang mill, in collaboration with IDH The Sustainable Trade Initiative.

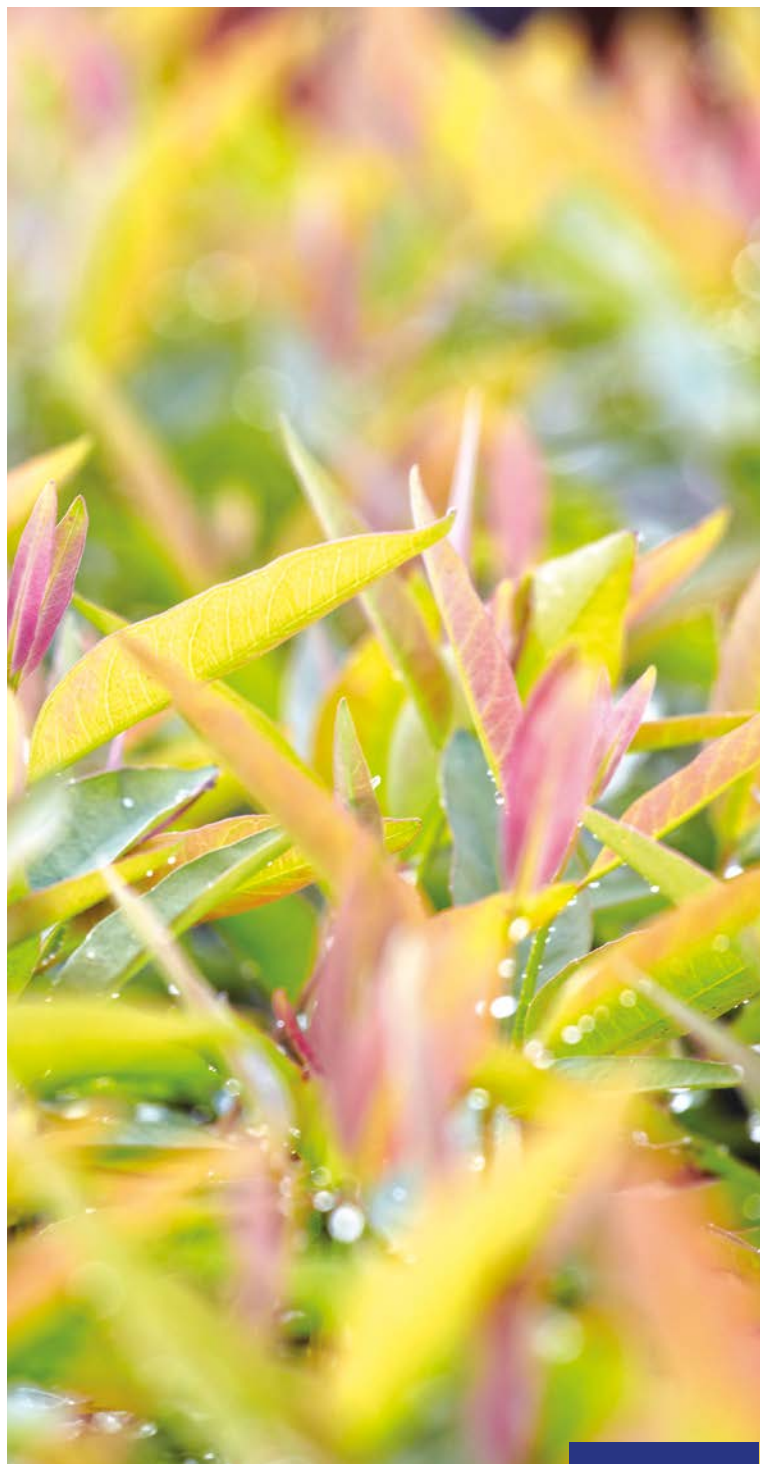
We remain committed to recruiting and retaining a high skilled workforce. The APP Academy is a Group-wide training and development programme to build a world-class workforce, retain talent and deliver the commercial aim of the organisation. Following a hugely successful pilot programme, we have scaled up coverage and will continue to further expand the scope through 2018.

APP's Safety Culture Programme continued in 2017, reinforcing to all employees and contractors the importance of possessing a safety mindset at work. The annual APP OHS Conference once again brought together all Safety Managers across our organisation to share best practice and experiences in implementing the range of different programmes we have in place at each mill to drive forward improvements in our health and safety performance.

As I look into 2018 and beyond, I expect to see a marked improvement in our safety performance, following the steps we have taken over the past two years to put the right management systems in place and make gradual shifts in our safety culture. Our commitment to sustainable forest management practices of our fibre suppliers, through our Forest Conservation Policy remains steadfast, and I fully support work to increase the transparency of our relationships with fibre suppliers. In particular I expect to see renewed progress in best practice peatland management, as the regulatory changes take effect in 2018.



Teguh Ganda Wijaya



Statement from the Director of Sustainability & Stakeholder Engagement

As I look back on 2017 at both the progress and challenges we have faced at Asia Pulp & Paper, I am immensely proud of our achievements and the mindset we embraced in demonstrating our response to those challenges. The inception of our Vision 2020 Roadmap in 2012 and the establishment of the Forest Conservation Policy in 2013, paved the path of our sustainable journey, and since then, not only we remain committed to it, but strive to ensure progress year after year.

One of most successful initiatives to date which great impact on ground is the Integrated Forestry and Farming System (IFFS). The initiative was designed to reduce the risk of fire by working together with the local communities within our forestry supply chain to develop alternative livelihoods that reduce dependency on forests. We now have 178 villages in the programme, a marked step towards our goal of 500. We are pleased that our efforts have helped to significantly reduce the incidence of forest fires, with fires no larger than 2 ha reported in 2017.

2017 saw a number of key changes to the Government of Indonesia's peatland regulations. We worked closely with multiple stakeholder groups in reaching a consensus on issues such as appropriate land use and peatland management techniques, including alternative species. As a result of the work we have carried out to date in understanding and developing best management practices on peatland we have been privileged to share this depth of experience, most notably the LiDAR mapping data gathered, to bring highly valuable insight to the revised regulations. As I look forward to final consensus being reached in 2018 and picking up the pace again on our peatland management approach, our first priority will be to engage our regional ISFMP (Integrated Sustainable Forest Management Plan) Task Force with the revised spatial analyses that underpin each Plan, once it has been approved.

ISFMPs are a core mechanism for APP in delivering against our Forest Conservation Policy commitments and although we completed all ISFMPs in 2016, we are constantly updating each plan in response to input from stakeholders, which we did throughout 2017.

Speaking of the FCP now brings us to the effective tool we put in place - Supplier Evaluation and Risk Assessment tool (SERA). With SERA in place, we were able to successfully screen and accept two new pulpwood suppliers, while delisting one existing pulpwood supplier for non-compliance. I believe this demonstrates a clear commitment from APP in taking a robust approach in maintaining 100% plantation free from deforestation.

APP also continues to contribute to the Belantara Foundation, the grant-making institution formed with the goal of delivering wide ranging community and conservation protection in Indonesia. The year 2017 saw a focus on planning two main programmes; eco-tourism in South Sumatra and an education park in Riau province, which will be initiated in 2018. With activities picking up pace, we hope the foundation will continue to drive interest and grow its partnership base.

This report is the first to include full coverage of our OKI Pulp and Paper mill. Employing some of the world's most efficient technology in pulp production, the mill will drive up the operating efficiency of our group. Despite still being in the roll out phase, we are already improving fibre efficiency – producing more pulp with lower fibre requirements, and will continue to drive forward these efficiency gains over the coming years. For the fibre supply, we are working closely with The Forest Trust on delivering the ISFMP for the concessions that supply OKI. We are committed to delivering on our pledge – OKI mill will operate using only sustainably sourced fibre, with no adverse impact on our FCP commitments.

Although mill efficiency across APP has improved in 2017, we ensured there was no compromise from an environmental perspective as we continue to identify ways to reduce our impact, benchmarking ourselves to others in the industry with the goal of world class production efficiency. This has enabled us to reduce both carbon emissions and water intensity by 14% and 11% in 2017, against a 2012 and 2013 baseline respectively.

As health and safety performance continues to be one of my areas of concern, I am encouraged to see the bold steps we took back in 2016 in the way we manage health and safety performance starting to have a noticeable impact. In particular our Contractor Management System has made accountability for contractor safety clearer and we are driving forward a change in mindset towards safe working practices.

Moving ahead, we will release our revised set of commitments - Vision 2030, in the first quarter of 2019. Following an extensive stakeholder consultation around the drafts of these new commitments, with input from our management team, we are revising our commitments to better reflect changing societal expectations, which have shifted since we developed Vision 2020 back in 2012. Vision 2030 will strengthen our sustainability commitments, which we are resolutely focussed on delivering; in fact Vision 2030 will push us even further. I look forward to sharing more details of our renewed approach, focus areas and commitments later in the near future.



Elim Sritaba



Ch.

01

Who We Are





About Us

As one of the world's largest pulp and paper companies, Asia Pulp and Paper Group (APP) is responsible for delivering quality products to meet the growing global demand for paper, tissue, and packaging. On any given day, our products find their way into the hands of consumers in various branded forms from all over the world.

Started in 1972 with Tjiwi Kimia producing caustic soda, now we run operations across Indonesia and China¹ with an annual combined pulp, paper, packaging product and converting capacity of over 19 million tonnes per annum. Today, APP markets its products in more than 150 countries across six continents.

Over the years, we have expanded our operations significantly through the acquisition and expansion of several of our pulp and paper mills. It's our commitment to customer satisfaction that enables us to grow our share in paper sales worldwide and broaden our presence through offices in many countries. We believe 'tradition and modernity go hand in hand', which means we value long term relationships as part of our Eastern traditions, while we also are eager to embrace the modern values of innovation and efficiency.

¹ Not in scope of this report. See About This Report section on page 111

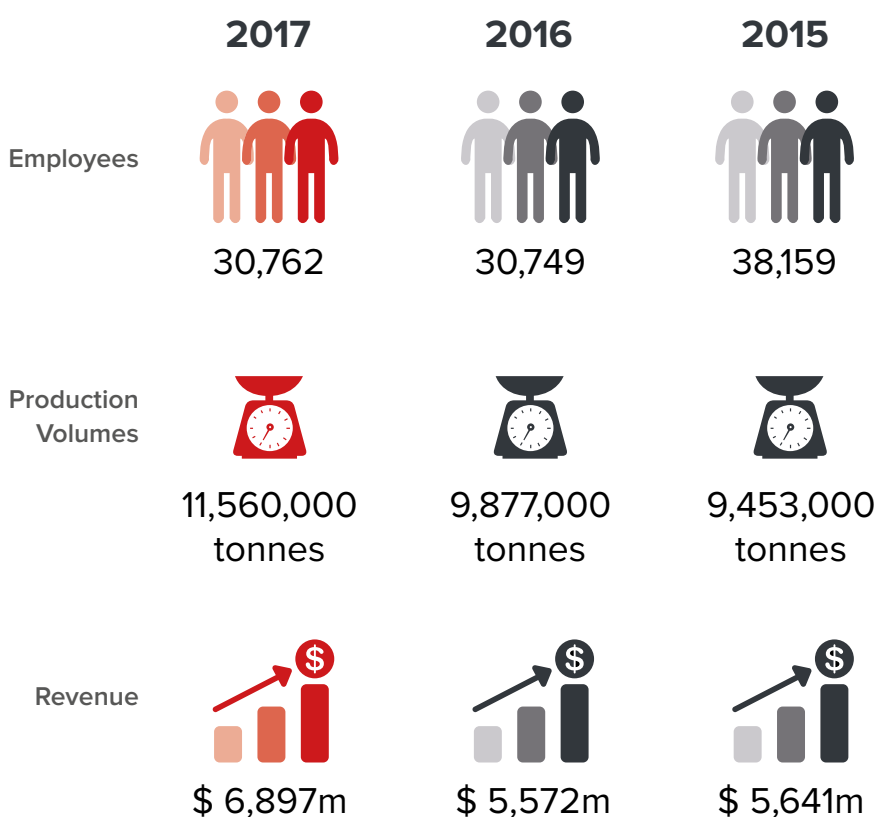
Our Vision

Our vision is to become a leading and respected global pulp-and-paper company that provides superior values to our customers, community, employees and shareholders – responsibly and sustainably.

We value:

- Our employees who are integral to APP's success
- The environment, as we depend on it to ensure we can run our operations sustainably
- Our customers and suppliers who keep our business going at both ends of the supply chain
- Our shareholders, and the community at large to whom we are accountable for all that we do
- The principles of good governance as we continue to build a sustainable business

APP Indonesia – key figures



Financial Performance (in \$000)

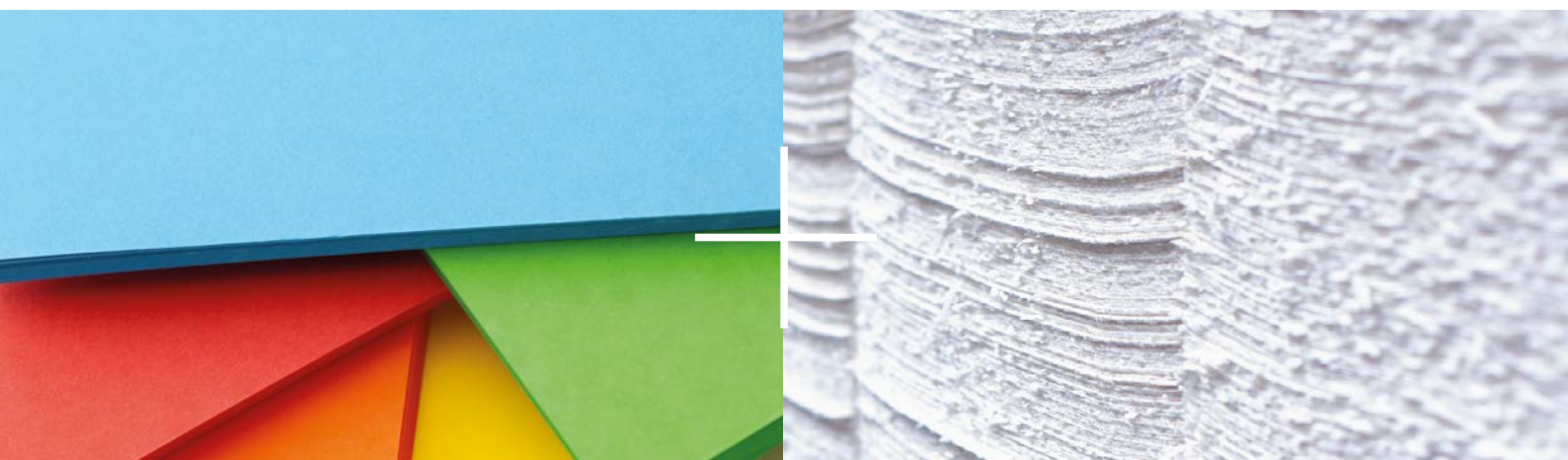
	2017	2016	2015
Operating costs ²	4,780,779	4,155,160	4,390,695
Community investments	6,205	13,350	3,347
Payments to providers of capital	398,675	241,172	233,398
Employee compensation	343,044	351,097	272,922
Retained earnings	2,003,433	1,381,384	1,052,099
Payments to governments	21,053	30,868	9,151



² Operating cost calculated as Cost of Goods Sold (COGS).

Our History

In 1930, Eka Tjipta Widjaja migrated from Fujian, China to Makassar, Indonesia. When he was as young as 15 years old, Eka Tjipta worked tirelessly to help his parents to sell biscuits and candies from door to door. His hard work paid off when he eventually could afford to establish a small trading company called CV Sinar Mas in the 1960 which focused on exporting natural resources and importing textiles. Then in 1972, he ventured into a caustic soda manufacturing business by establishing PT. Tjiwi Kimia, which later became PT. Pabrik Kertas Tjiwi Kimia Tbk., in Mojokerto, East Java. From these humble beginnings, APP has emerged into an industry leader with an integrated pulp, paper and packaging grade capacity in Indonesia of more than 19 million tonnes per year. As APP expands, the company has taken steps to reinforce and build on its regional market position through the introduction of higher quality products and enhancements, investments in new technology as well as improving processes and productivity. As a paper products company, sustainability is intrinsically linked to the products we sell. Based on responsibly sourced recyclable and renewable fibre, applying innovative design and manufactured in well managed mills we directly support our customers' sustainability goals.



Our Products



To view our latest products categories and brands, see the [Our Products](#) section of our website. As part of our continued effort to ensure our customers are satisfied by our products and services we have developed a customer complaint and claims index. We monitor quality complaints by sales volume at a product and mill level, across our entire sales network. The results are captured real time and made accessible through a dedicated online platform.

Mills & Product Certification

	Indah Kiat Perawang	Indah Kiat Serang	Indah Kiat Tangerang	Pindo Deli Karawang	Pindo Deli Perawang
Quality	ISO 9001	ISO 9001	ISO 9001	ISO 9001	ISO 9001
Product Quality	ISO 9706		ISO 9706	ISO 9706	
	Halal	Halal	Halal	Halal	Halal
				Environmental Choice - New Zealand Ecolabel	Environmental Choice - New Zealand Ecolabel
	Ecolabel – Indonesian Standard			Ecolabel – Indonesian Standard	
				Ecolabel – EU Standard	
	SNI 8126:2014			SNI 7274:2008	
PROPER	Blue	n/a ³	Blue	Blue (PD1) n/a ⁴ (PD2)	n/a ⁵
Environment	ISO 14001	ISO 14001	ISO 14001	ISO 14001	ISO 14001
	ISO50001	ISO 50001	ISO50001	ISO50001	ISO50001
Health & Safety	SMK3	SMK3	SMK3	SMK3	SMK3
	OHSAS 18001	OHSAS 18001	OHSAS 18001	OHSAS 18001	OHSAS 18001
Chain of Custody	PEFC	PEFC	PEFC	PEFC	PEFC
	LEI			LEI	LEI
	SVLK	SVLK	SVLK	SVLK	SVLK
Product Specific	RoHS	RoHS	RoHS	RoHS	
	REACH/SVHC Screening	REACH	SVHC Screening	SVHC Screening	SVHC Screening
		Food Packaging Direct Contact – FDA USA		Food Grade Paper/Board – FDA USA & Germany Recommendation XXXVI	Food Contact Safety Grade for Paper & Paperboard – FDA USA & Germany Recommendation XXXVI
	ASTM and EN71 Part 3 & 9	ASTM and EN71 Part 1, 2, 3, 9	EN71 Part 3	Robinson Test	
		ISO 22000		ISO 22000	
		ISPM (Phytosanitary)	ISPM (Phytosanitary)	ISPM (Phytosanitary)	ISPM (Phytosanitary)
Others				ISO 17025	

³ Subject to special environmental audit.

⁴ Results not announced.

	Lontar Papyrus	Tjiwi Kimia	Ekamas Fortuna	Univenus Perawang
Quality	ISO 9001	ISO 9001	ISO 9001	ISO 9001
Product Quality	ISO 9706			
	Halal	Halal		Halal
	Ecolabel – Indonesian Standard			
	Green Seal			
				SNI Tissue
PROPER	Blue	Blue	Blue	n/a ⁵
Environment	ISO 14001	ISO 14001	ISO 14001	
	ISO50001	ISO50001		
Health & Safety	SMK3	SMK3	SMK3	
	OHSAS 18001	OHSAS 18001	OHSAS 18001	
Chain of Custody	PEFC	PEFC		PEFC
	LEI	LEI		
	SVLK	SVLK	SVLK	SVLK
Product Specific	RoHS			
	Food Grade Paper/ Board – FDA USA & Germany Recommendation XXXVI			
	ISPM (Phytosanitary)			

⁵ Scope included in Indah Kiat Perawang's assessment



Our Mills

1. Indah Kiat Perawang

Employees	:	6,677
Production capacity	:	2,593,021 tonnes pulp/year 2,403,248 tonnes paper/year ⁶
Production lines	:	4 pulp lines, 9 paper machines
Key products	:	LKBB (pulp), wood free printing, writing, copier and coated papers

Indah Kiat Pulp & Paper Perawang Mill is strategically located in Perawang, on the island of Sumatra. With the Siak River as a major transportation link, the mill also benefits from local pulpwood plantations for raw materials. The mill uses renewable biofuel, a waste product from the pulping process for 50% of its energy needs. The mill focusses CSR activities on empowerment, stimulating economic development and improving the livelihoods of the local community. The well-established microfinancing model will evolve into a cooperative model in 2018, and will be directly managed by the communities for whom it benefits.

⁶ Paper production and converting

2 Pindo Deli Perawang

Employees	:	1,875
Production capacity	:	413,000 tonnes of tissue/year
Production lines	:	22 tissue machines and 23 tissue converting machines
Key products	:	tissue and converted tissue products

Located in Riau Province, Pindo Deli Perawang focuses on the production of tissue for the converting market. In 2017 the mill helped to establish a local SME, responsible for utilising wood container waste for the production of furniture and handicraft. The project reduced mill waste to landfill and provided local economic empowerment.

3 Univenus Perawang

Employees	:	42
Production capacity	:	18,000 tonnes tissue/year
Production lines	:	1 tissue machine
Key products	:	tissue

Univenus Perawang is a small tissue mill. It is located adjacent to Indah Kiat Perawang and Pindo Deli Perawang, importing energy and water from the former.

4 Lontar Papyrus

Employees	:	1,777
Production capacity	:	1,022,000 tonnes pulp/year 274,000 tonnes tissue/year
Production lines	:	2 pulp lines, 8 tissue machines
Key products	:	LBKP (pulp) and tissue

One of the world's largest vertically integrated pulp and tissues mills, Lontar Papyrus exports its products around the world, from China to Taiwan, South Korea, Japan, Southeast Asia, extending to the Middle East, Africa, and Europe. The mill was established in 1992, starting production of pulp in 1994 and tissue in 1998. As an integrated mill, Lontar Papyrus can use waste products from the pulping process as an energy source, providing 44% of the mills requirements in 2017. In support of APP's Group-wide commitment to the UN CEO Water Mandate and in response to the needs identified through a local social impact assessment, the mill has supported the development infrastructure to provide clean water via two community clean water systems.



5.

Indah Kiat Serang

Employees	:	4,060
Production capacity	:	2,627,500 tonnes paper/year
Production lines	:	6 paper machines
Key products	:	coated boxboards, test linerboards, corrugating medium, corrugated cartons

Indah Kiat Serang is one of the biggest paper packaging companies located in Serang, Banten Province, Indonesia. The 550-hectare facility is strategically located near a port and is unique amongst APP's mills, sourcing 82% of its raw material from post-consumer waste, which is supplemented by virgin fibre to improve the strength of the paper products. Working together with the local community, 100,000 mangrove trees have been planted since 2010, with the aim of reducing coastal erosion and the need to excavate sand for protection. In 2017 the programme developed an eco-tourism element, stimulating local economic development and raising awareness of climate change.

6.

Indah Kiat Tangerang

Employees	:	922
Production capacity	:	532,840 tonnes paper/year
Production lines	:	3 paper machines
Key products	:	coloured printing, writing and copier, computer and duplicator paper

Indah Kiat Tangerang specialises in the production of coloured paper grades and is now one of the world's largest in this product segment. Its raw material sourcing includes both pre-consumer waste and purchased pulp and it exports 85% of its products to a global client base. The mill promotes economic empowerment through a range of programmes that support, mentor and train the local community in aquaculture techniques, with products being sold to local cooperatives, restaurants and mill employees.



7. Pindo Deli Karawang

Employees	:	4,414
Production capacity	:	1,123,500 tonnes paper/year 90,000 tonnes tissue/year
Production lines	:	14 paper machines, 3 tissue machines, 1 chipboard machine
Key products	:	writing, printing, copier, pre-print and other premium wood-free papers, cast-coated paper, paperboards, carbon-less, thermal and art paper and tissue

Comprised of three mills, Pindo Deli Karawang produces paper from purchased pulp. Products produced include paper, tissue and packaging products largely for export. The mill supports a Eco-Village and Waste Management Programme, encouraging the communities around the mill to collect, segregate and manage waste with the support of a local NGO. The programme provides training in waste management, equipment and technical support, with future plans to expand to additional villages in 2018 with the support of the local government.

8. Tjiwi Kimia

Employees	:	7,819
Production capacity	:	2,239,614 tonnes paper/year
Production lines	:	13 paper machines
Key products	:	printing, writing, copier, carbon-less, exercise books, writing pads, envelopes, computer forms, and gift wrapping paper

Tjiwi Kimia is located in Sidoarjo, near Surabaya in East Java. The mill which started as a caustic soda plant, now boasts many state-of-the-art paper and converting machines, making it one of the world's largest stationery manufacturers. The mill commenced production in 1978 with an annual paper production capacity of 12,000 tons. Today the mill produces value-added products such as coated art, cast coated, specialty paper, carbonless paper and huge range of school and office stationery. Exercise books, pads, spirals, hardback books, drawing books, shopping bags, stationery, envelopes, continuous forms, file folders and others make up the range of converted stationery products. In partnership with the NGO Habitat for Humanity Indonesia, the mill has worked collaboratively to improve sanitation and hygiene conditions and awareness for neighbouring communities.

9. Ekamas Fortuna

Employees	:	672
Production capacity	:	323,080 tonnes converted products/year
Production lines	:	2 paper machines
Key products	:	corrugated medium, wrapping papers, chipboard, core board, kraft liner, paper core, paper tube, paper sheet and heavy board

Ekamas Fortuna is situated in Malang, East Java, producing base and converted paper that utilises post-consumer waste as a raw material. Products are largely sold to the Indonesian domestic market, with 3% exported to more than 10 countries worldwide. A zero waste to landfill site, the mill recycles and reuses all waste streams either on site or via licensed third parties. The mill supports a local 'Green Village' programme, bringing together a range of stakeholders to cooperate in establishing a waste bank, community biogas project, catfish farming and creating green spaces within the community.

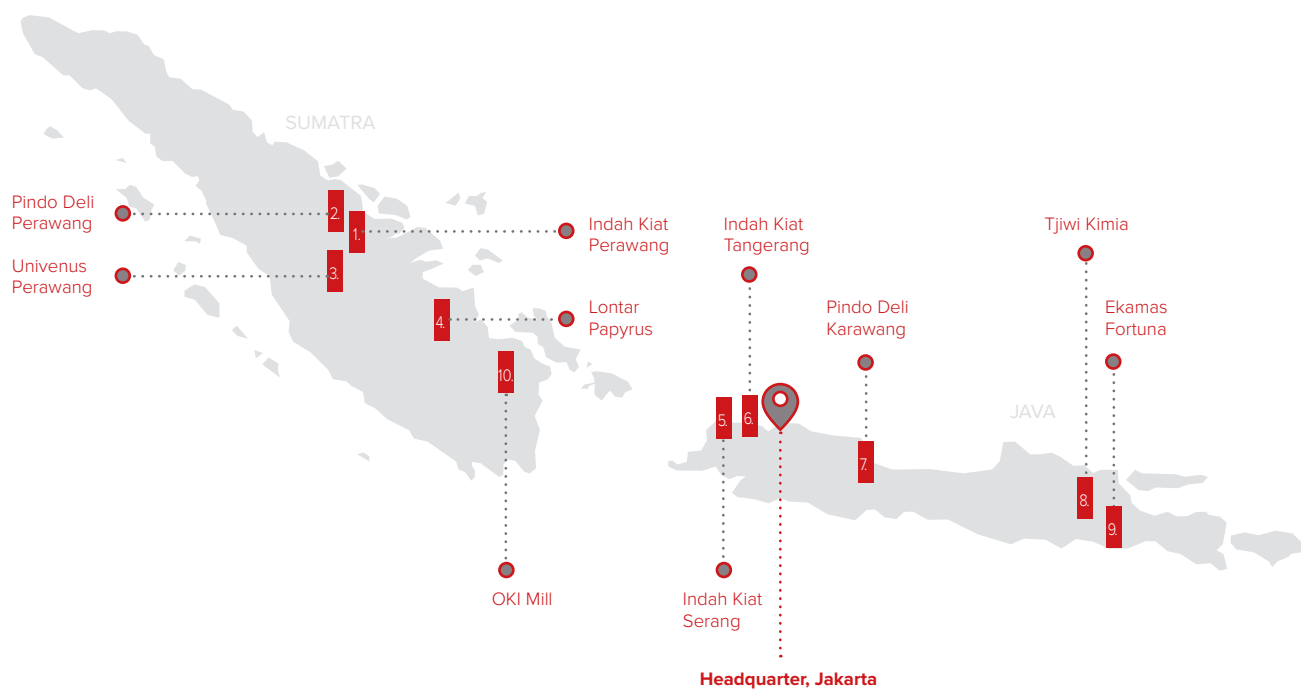
10.

OKI

Employees	:	2,504
Production capacity	:	2,500,000 tonnes pulp/year
Production lines	:	2 pulp lines
Key products	:	ECF Pulp

OKI is located near Palembang, South Sumatra, is equipped with the most advanced environmental technology currently available. The mill will be powered by clean and self-sufficient energy generated from the pulp production process and wood bark gasification. The OKI mill is designed to achieve the highest industry standards on emissions, meeting the criteria of the European Union's Integrated Pollution and Prevention Control (IPCC) Directive. It will also create around 10,000 jobs, both directly and indirectly.

APP Map of Operations



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02

Sustainability Strategy
& Governance



Sustainability Roadmap Vision 2020

Vision 2020, launched in 2012 is APP's comprehensive sustainability strategy. It describes how we monitor and manage ten key issue areas relevant to our stakeholders across our business and wider supply chain. Under each element we set one or more ambitious targets and have disclosed progress in our Sustainability Reports each year since introducing the strategy. In this section of the report we explain the governance mechanism and corporate policies that underpin Vision 2020, before introducing the next iteration of our strategy; Vision 2030.

Vision 2020 Element	Target		Progress in 2017
Fibre Sourcing	100% independent third party verification for pulpwood legality	Achieved	Accelerated progress and achieved by end 2012.
	100% sustainable plantation wood for pulp by 2015	Achieved	All conversion of natural forest was halted in 2013.
	100% Sustainable Forest Management (SFM) certified pulpwood	Achieved	100%
	Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre	On track	In 2017 36% of our fibre was from recycled sources.
	Develop and implement Integrated Sustainable Forest Management Plans (ISFMPs)	On track	ISFMPs are now completed for all 38 pulpwood suppliers' concessions and implementation began in 2017.
Reforestation	Support the national target to preserve designated protected and conservation areas	On track	APP continued its commitment through supporting the protection and restoration of natural forest inside APP pulpwood suppliers' concession and outside concession through various programmes.
Conservation & Biodiversity	Zero fibre from non-productive areas of High Conservation Value Forest	Achieved	Following the completion of ISFMPs across all concessions, no fibre is sourced from areas designated for protection.
	Support the national target to increase by 10% the population of 25 specified endangered species	On track	Dedicated conservation programmes focussed on 'umbrella species' of orangutan, elephant and tiger conservation continue, with the support of NGOs and conservation specialists.
Human Rights & Indigenous People	Adopt international guidelines for the protection of indigenous people's customary rights in the forest	Achieved	Free Prior Informed Consent (FPIC) model was applied successfully in the development of OKI mill and built into our Standard Operating Procedures for all new developments.

Vision 2020 Element	Target		Progress in 2017
Community Empowerment	Increase welfare of indigenous & local communities and maintain good relations	On track	Integrated Forest and Farming System (IFFS)/Desa Makmur Peduli Api (DMPA) programme aiming to benefit 500 villages in the next five years. 178 villages were included into the programme at the end of 2017.
Climate Change	Implement Peatland Best Practice Management Programme	On track	ISFMPs are now completed for all 38 pulpwood suppliers' concessions. In 2017 we began the implementation stage.
Emissions	10% reduction in carbon intensity by 2020, based on 2012 baseline	On track	Carbon Intensity decreased 14% in 2017 compared to 2012.
	10% reduction in energy intensity by 2020, based on 2012 baseline	On track	Energy intensity decreased 6% in 2017 compared to 2012.
	10% below national and/or regional limits for annual SO _x and NO _x	On track	All mills achieved in 2017.
Water Management	Achieve 10% reduction in water intensity by 2020, based on 2013 baseline	On track	Water intensity decreased 11% in 2017 compared to 2013.
	10% below national and/or regional limits for COD and BOD	On track	All mills achieved in 2017.
	Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	On track	Water footprint completed in all mills.
Solid Waste	25% reduction in solid waste to landfill, based on 2010 baseline	Ahead	63% reduction achieved in 2017 compared to 2010.
Employee Welfare	Zero employee and contractor fatalities, major fire incidents and traffic accidents on site	Behind	Not achieved in 2017.

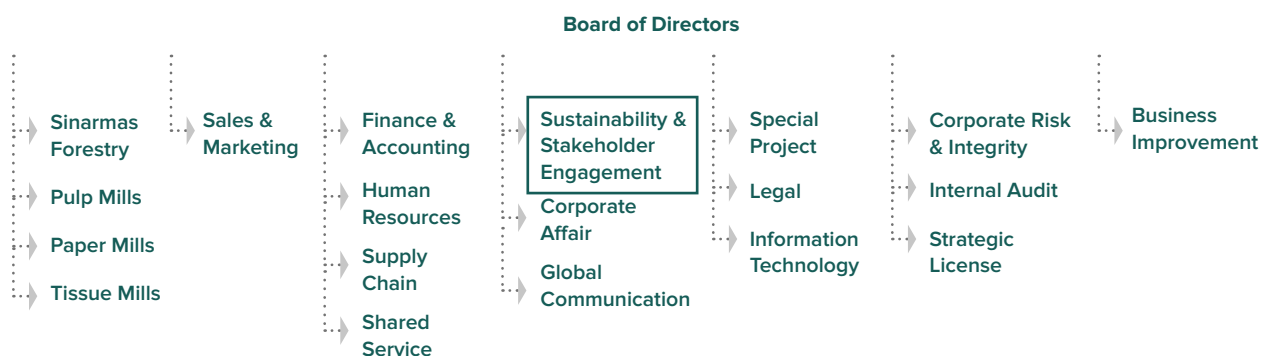
Governance

APP's core principles of transparency, accountability, responsibility, independency and fairness are represented in our approach to sustainability governance. In 2017 we focussed on developing new working arrangements and organisational structures to strengthen our approach to conducting business ethically. Our newly formed Corporate Risk and Integrity team hold a broad remit across both our own business and the relationships we have with suppliers and customers to ensure we conduct business in a responsible way.

APP's CEO holds ultimate responsibility for the management and delivery of APP's sustainability strategy, the Vision 2020 Roadmap. Elim Sritaba, Director of Sustainability and Stakeholder Engagement reports directly to the CEO and is responsible for day to day management and stakeholder engagement. Each manufacturing unit reports through mill management to the CEO and is responsible for the performance of their own unit. Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and publish their own governance structure each year in their Annual Reports, available [here](#).

Our mill KPI scorecard (see page 73) helps to track performance against Vision 2020 targets with a culture of sharing good practice and highlighting areas of poor performance where further improvement is required. Our Environmental Committee, headed by the Director of Sustainability and Stakeholder Engagement provides the mechanism to continuously monitor the progress against Vision 2020, in addition to the wider responsibilities of ensuring compliance with environmental legislation, building capacity to meet global standards for environmental management and recommending investments in new technology.

Sinar Mas Forestry is a division within APP and is responsible for the management of supply of wood fibre to all APP mills, again with their own governance structure representative of their own organisation.





The Nomination and Remuneration Committee support the Board of Commissioners in conducting performance evaluation of the Board of Commissioners and Directors, making recommendations for additional training as required and recommend nominations to the boards. Individual salaries are not reported, as per Indonesian capital market regulations (see our Annual Reports). The Independent Audit Committee (IAC), with an independent chair, oversees internal auditing, establish action plans based on the results of audits and progress monitoring. The committee holds monthly meetings and reports quarterly directly to the Board of Commissioners. The Internal Audit team are responsible for conducting the audits, overseen by the IAC. Their focus areas adopt in response to business needs, these included preventing misconduct and ensuring our comprehensive Group-wide Standard Operating Procedures are followed correctly.

Policies that support us by guiding employees and setting out clear expectations to our stakeholders underpin our Vision 2020 commitments include:

- Corporate Social Responsibility Policy
- Environmental Stewardship Policy
- Forest Conservation Policy
- Responsible Fibre Procurement & Processing Policy
- Procurement Policy on Chemical Substances and Articles
- Employee Welfare Policy

For a full list of company policies please refer to the [Policies & Reports](#) section of our website.





Business Ethics and Risk Management

In 2017 we introduced a new Corporate Risk and Integrity (CRI) division, stepping up our management approach to maintaining high ethical standards and integrity in the way in which we do business. The division is responsible for issues which sustainability forms a key aspect: anti-fraud and corruption, business resilience, security, ethics and compliance. Oversight for risk management consisting of the Global Head of CRI, representation from CRI in Indonesia and China, and Internal Audit.

The change in organisational structure followed the roll out of APP's Business Code of Conduct, which covers issues including employee diversity and non-discrimination, human rights, workplace safety and our Health, Safety & Environment Policy. The code also sets out guidance on business practices, including gifts and entertainment (including instructions on how to use our Gift and Entertainment registering portal), political activity, conflicts of interest and money laundering. Separate sections dedicated to dealing with business partners, third parties and shareholders set out specific approaches for the parts of our business at greater risk of non-compliance.

Business Code of Conduct training continued in 2017, building upon the roll out training conducted in 2016. We conducted 13 roadshows at our Head Office, 17 at mill sites, 38 throughout our global sales offices, covering a total of 4,008 employees and 90 external companies. Over 5,500 people also participated in an online test.

The CRI team will establish new KPIs to enable APP to measure how awareness and cultural behaviours are improving in response to our focus on business ethics. The training we conducted in 2017 will enable us to understand the baseline across our business and develop these metrics. In addition to bespoke training we also use multiple communications channels to remind employees through messaging in the workplace, found on posters, screensavers and business cards for example. The Business Code of Conduct and practical guidance on how to apply it is a compulsory part of induction training for all new employees.

An area of risk we have identified in our operations is corruption through personal relationships between suppliers and employees. Every year each employee has to make a declaration concerning any potential conflict of interest, for example a family member working in other APP departments or for a supplier. In some high risk areas we have compulsory job rotation in place.

A critical component of our approach to Business Ethics is ability for all employees and external stakeholders to report concerns anonymously. We provide an Ethics Call Centre as a means of raising any concerns they have. Issues can be raised by email, a dedicated website, phonenumber or through a colleague or superior. We remind employees of the service through training and visual reminders in our offices and mills, company intranet and our business cards.

In 2017, we verified 114 cases through our Ethics Call Centre, 86% were reported internally and 14% externally. Through our whistle-blower programme in 2017, 83 cases resulted a formal written warning and 68 resulted in the dismissal of an employee.

Looking forward to 2018, the CRI team will work on updating the APP corporate wide risk management policy, aligned to ISO 31000, alongside a new interactive e-learning course to continue to build awareness.

Stakeholder Engagement

Stakeholder Engagement is a fundamental part of our sustainability strategy in terms of setting our long term strategic commitments and providing the communications and engagement mechanisms to hear our stakeholders concerns and respond accordingly. With such a diverse range of stakeholders, who we identify as any group whom express an interest in APP's operations and/or our impacts, our challenge is to provide the most appropriate means of listening and responding.

Our twice-yearly Stakeholder Advisory Forum, introduced in 2015, provides the opportunity for any stakeholder with an interest in attending to engage directly with us in an open and interactive forum, hear our latest updates and voice their opinion. We publish the notes and material for each forum online on our FCP Monitoring Dashboard.

We communicate to our stakeholders through our Sustainability Reports, our website, FCP Monitoring Dashboard and issue specific briefings and press releases. When specific issues arise, or stakeholders require a dedicated response we handle these on a case by case basis through our global stakeholder engagement team. Focus groups (see page 60) are found in specific regions within our supplier's concessions, providing stakeholder engagement mechanisms to deal with specific issues and challenges.

In 2017 we made an effort to increase commercial stakeholder engagement, seeking opportunities to engage with key customers, sector peers, global sustainability leaders and support the Government of Indonesia at global events such as COP and The World Economic Forum. We follow global sustainability trends and ensure APP plays its part in the most current topics. We are closely following the task Force on Climate-related Financial Disclosures (TCFD) in the development of voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders, for example.

On the forestry side, where a more bespoke approach is required we widened our stakeholder engagement reach through a 'change agent' programme. Collaborating with the Ministry of Village Affairs, local communities and our pulpwood suppliers we further empowered the Village Owned Enterprise (BUMDes) model. In 2018 we envisage being able to expand this approach to an additional 100 village communities. Regional Social Working Groups (SWGs) help to address and resolve conflicts with local communities, bringing together local stakeholders to learn from case study success stories.

Stakeholder Group	Engagement Mechanism	Frequency	Issues Raised
Employees	Satisfaction surveys, i-suggest portal, bipartite meetings	Annually and case by case as required	<ul style="list-style-type: none"> • Health and safety • Diversity and equal opportunities • Business ethics
Contractors	Direct engagement by mill procurement teams	Case by case as required	<ul style="list-style-type: none"> • Health and safety • Business ethics
Suppliers	<p>Direct engagement by Sinar Mas Forestry and APP's Forestry & Chain of Custody Certification team for forestry products</p> <p>Direct engagement by APP's Procurement function for non-forestry related products and services</p>	Day to day and case by case as required	<ul style="list-style-type: none"> • Forest management practices • Third party certification • Supplier assessments
Customers	Direct engagement by global sales team and Stakeholder Engagement team, FCP monitoring dashboard	Day to day and case by case as required	<ul style="list-style-type: none"> • Forest management practices • Product sustainability • Product carbon intensity
Government	<p>Direct engagement with APP Sustainability and Stakeholder Engagement team</p> <p>Engagement through associations such as Indonesia Pulp & Paper Association</p>	Case by case as required	<ul style="list-style-type: none"> • Pulpwood supplier management • Compliance • Environmental performance • Economic impacts
Local communities	Direct outreach from local CSR teams, communication forums between mills and local community representatives, FPIC processes, conflict management	Day to day Annually and case by case as required	<ul style="list-style-type: none"> • Employment opportunities • CSR programmes • Mills environmental impacts • Indirect economic impacts
NGOs	Focused Groups Discussion, FCP update meetings and events, conflict resolution efforts, FCP monitoring dashboard	Day to day and case by case as required	<ul style="list-style-type: none"> • Forest management practices • Human rights • Conflict resolution



Materiality

To define and prioritise our Sustainability Report content we have aligned our materiality process with the development of our sustainability strategy, Vision 2030 (see page 35). Our approach is guided by the Global Reporting Initiative (GRI) and updated annually. We drew upon the work conducted last year to develop our materiality matrix in addition to considering stakeholder feedback from the latest Stakeholder Advisory Forum, reviewed peers and other related industry sectors and the feedback from our assurance provider to revise our materiality matrix. Overall, we simplified and consolidated a number of terms and re-prioritised a number of issues. The most notable changes compared to last year were:

- Redefining 'Product Labelling and Certification' as an issue that now falls under 'Product Sustainability', moved to high importance to APP and stakeholders
- Redefining 'Marketing' as an issue that now falls under 'Product Sustainability'
- 'Biodiversity protection and conservation' is increased to 'high' importance to stakeholders

Importance to stakeholders	High		Biodiversity protection and conservation Business ethics	Climate change Peatland management Sustainable forest management Human rights Forest fires Product sustainability Community engagement
	Medium	Diversity and equal opportunities	Energy use Indirect economic impacts Transport Waste Water use and discharge Air emissions Health & Safety	Financial Performance
	Low	Local recruitment Talent retention Corporate governance	Employee welfare	
		Low	Medium	High
Importance to APP (current or potential impact on our business)				



Vision 2030

We recognise the shift in stakeholder concerns set in the wider context of developing global sustainability trends requires organisations to constantly adopt and respond responsively. Originally established in 2012, Vision 2020 has helped guide APP through a period of immense change, deliver achievements we are proud of and highlight areas of challenge. Through 2017 and into 2018 we are working with our stakeholders and management teams across our business to improve our commitments, recognising that some of our targets already achieved are no longer stretch targets, and our response to new global sustainability issues and trends should be strengthened. The development of the new strategy is currently ongoing and will be publicly released in 2019, with full reporting against the revised targets in our next Sustainability Report, published in 2019.

Ch.

03 FORESTS



In this Section

We explain how we are managing our forestry supply chain.

Progress Headlines

In 2017 we improved how we monitor changes in forest cover, we expanded our agro-forestry programme to more villages, we engaged more local stakeholders on conflict resolution and we started using our new integrated fire management approach.

The Issues

APP's 38 forestry concessions in Indonesia are coordinated by Sinar Mas Forestry (SMF). APP recognises that risk of forest degradation and biodiversity loss are global issues that draw attention to how vital natural capital assets are managed.

Some markets are reviewing policies to tackle “imported deforestation”. CDP estimates that more than one billion people depend directly on forests for their basic livelihoods and that “deforestation and forest degradation account for approximately 10-15% of the world's greenhouse gas emissions”, and that “addressing deforestation is therefore critical for meeting international ambitions to prevent dangerous climate change”⁷.

We also face challenges that include overlapping concession boundaries, unclear forest boundaries, illegal logging and forest fires within some of the world's most sensitive ecosystems.

Sustainable supply chain management can have “the most positive environmental, social and economic impacts possible across the entire life cycle”⁸, and particularly in the forestry sector. In 2017 our pulpwood suppliers managed 38 forestry plantation concessions in Indonesia, of which nine are directly owned by APP. We also purchase imported pulp from external third party suppliers and pulpwood from approved four community forest groups.

⁷ <https://www.cdp.net/en/forests>

⁸ ISO 20400:2017 Sustainable procurement — Guidance, p6

Our Response

Vision 2020 element	Target		Progress in 2017
Fibre Sourcing	100% independent third party verification for pulpwood legality	Achieved	Accelerated progress and achieved by end 2012.
	100% sustainable plantation wood for pulp by 2015	Achieved	All conversion of natural forest was halted in 2013.
	100% Sustainable Forest Management (SFM) certified pulpwood	Achieved	100%
	Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre	On track	In 2017 36% of our fibre was from recycled sources.
	Develop and implement Integrated Sustainable Forest Management Plans (ISFMPs)	On track	ISFMPs are now completed for all 38 pulpwood suppliers' concessions and implementation began in 2017.
Reforestation	Support the national target to preserve designated protected and conservation areas	On track	APP continued our commitment through supporting the protection and restoration of natural forest inside APP pulpwood suppliers' concession and outside concession.
Conservation & Biodiversity	Zero fibre from non-production areas of High Conservation Value Forest	Achieved	Following the completion of IFSMPs across all concessions, no fibre is sourced from areas designated for protection.
	Support the national target to increase by 10% the population of 25 specified endangered species	On track	Dedicated conservation programmes focussed on 'umbrella species' of orangutan, elephant and tiger conservation continue, with the support of NGOs and conservation specialists.
Human Rights & Indigenous People	Adopt international guidelines for the protection of indigenous people's customary rights in the forest	Achieved	Free Prior Informed Consent (FPIC) model was applied successfully in the development of OKI mill and built into our Standard Operating Procedures for all new developments.
Community Empowerment	Increase welfare of indigenous & local communities and maintain good relations	On track	Desa Makmur Peduli Api (DMPA) programme aiming to benefit 500 villages in the next five years. 178 villages were included into the programme at the end of 2017.

Vision 2020 targets guide us on progress and any required change in action on the ground.

Our management approach to forest risk is based on stakeholder input on priority issues which help formulate our policies, SOPs, staff training and community socialisation, which together forms our Forest Conservation Plan (FCP). We deploy specific projects on the ground that contribute to progress on the Vision 2020 strategy, for instance, dedicated conservation programmes with NGOs for orangutan, elephant and tiger conservation.

The overarching purpose is to drive our policy principles into our daily operations: this means that each decision-maker at every level is expected to uphold APP's sustainability policy goals.

Our Stakeholder Advisory Forum (SAF) provides vital feedback and visibility of our approach. Stakeholders can raise issues with us directly. Please see our FCP Monitoring Dashboard for detail on the most recent SAF.





Policy and Sustainable Forestry

APP's **Forest Conservation Policy**, now in its fifth year, covers Indonesia and China where our operations are located. It aims to protect natural forest by committing us and our suppliers to develop non-forested areas only. These are determined using High Conservation Value (HCV) and High Carbon Stock (HCS) assessments. Our FCP five-year progress report due later in 2018 will demonstrate our responsiveness to the impacts and the stakeholder feedback received. All APP suppliers are prohibited from developing areas that are forested, as identified through HCV and HCS studies.



Attributes of each FMU area, such as biodiversity, peat forest, carbon, conflict risk, productivity and compliance, are at the core of tailored Integrated Sustainable Forest Management Plans (ISFMPs). Whilst we acknowledge the practical challenges of activating the plans on the ground, we are committed to them as the core mechanism for delivering our Forest Conservation Policy (FCP). They are also 'live', accounting for ongoing input from relevant stakeholders including local communities, government, academia and civil society organisations. Some of these become Independent Observers who we invite when required to participate in our Independent Observer Monitoring Programme, launched in 2017.

ISFMPs need to adapt to real-world changes. For example, some Plans are now embracing the recent Indonesian peatland protection regulations, the evolving requirements of which will need to be accommodated in our Plans.



What is in an ISFMP?

Integrated Sustainable Forest Management Plans.
Each Plan accounts for the following:

HCV and HCS assessments	Harvesting
Silviculture	Conflict resolution mechanisms
Protection of rare and endangered species	Peatland best practice management
Social impact assesment	Environmental management

What is the ISFMP process? There are three key steps:



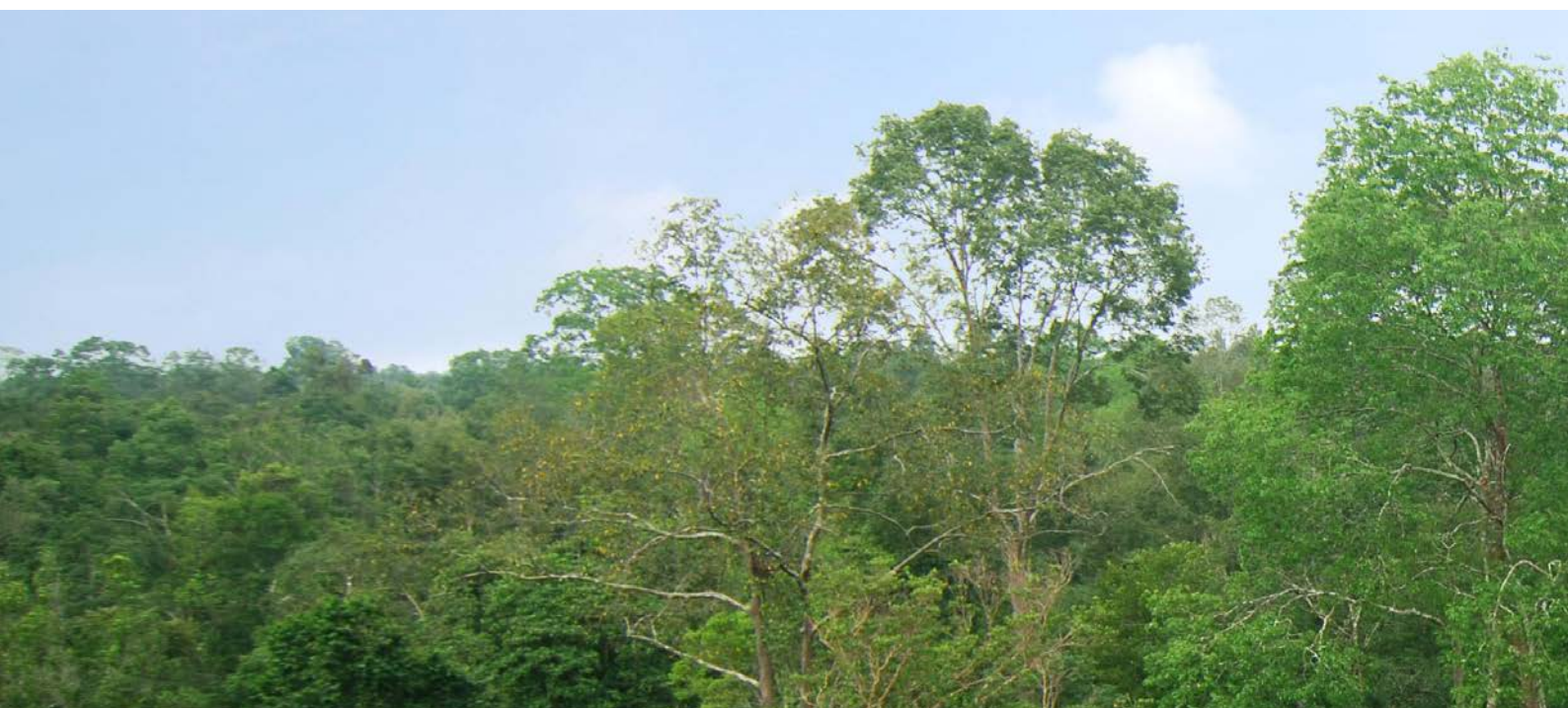
Certification

To demonstrate legal compliance and provide our customers with the reassurance that we are managing economic, environmental and social impacts responsibly, we use a range of third party certification. Please see page 14 for the extent of compliance to each certification scheme.

Additionally, in order to ensure we can meet customer demands on quality and to deliver our Forest Conservation Policy (using ISFMPs, audits and assessments) we need to ensure all suppliers meet certain requirements.

Supply Chain Management

All Pulpwood suppliers must meet our [Responsible Procurement Policy](#), while all new suppliers must pass our Supplier Evaluation and Risk Assessment (SERA), a tool that is also used annually to assess our entire forest products supply base. Any high risk new suppliers are requested to carry out corrective actions to bring them into compliance within an agreed period. Currently SERA work is focusing on updating our procedures, public consultation and supplier engagement, for example with community forest groups, alongside our 38 concession suppliers. In addition, APP works with The Forest Trust (TFT) to assess how well pulpwood suppliers are implementing sustainable forestry management practices. The resulting Scorecard allows us to gauge compliance with our Responsible Procurement Policy and our Forest Conservation Policy, as well as readiness for third party certification.



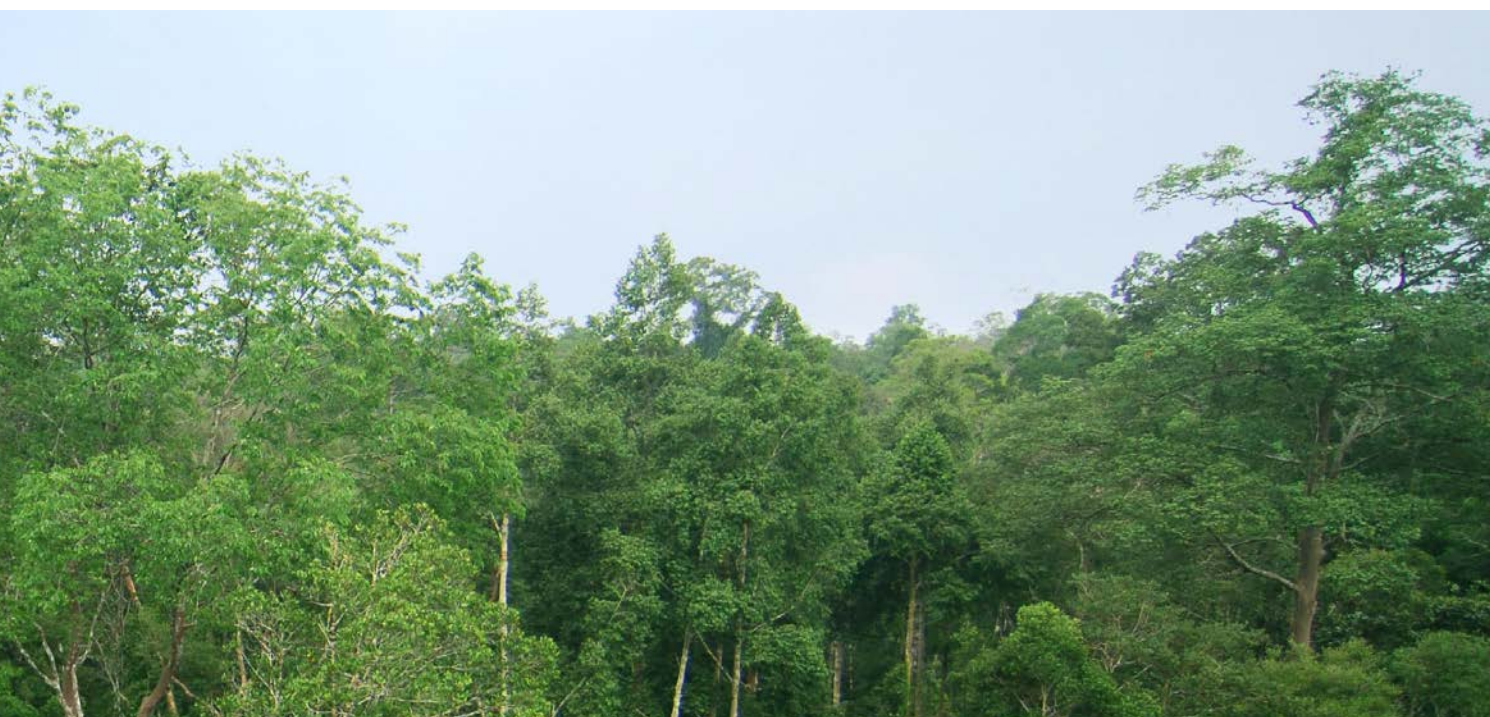
Fire Management

APP's strict 'No Burn Policy' remains in force across all pulpwood suppliers. Burning as a method of forest clearance is not economically viable in our industry. We maintain our Integrated Fire Management (IFM) approach introduced in 2016 which includes 4 linked programmes of prevention, preparation, early detection and rapid response. We have a significant investment in equipment and training that is linked to the IFM programme.

Our Integrated Forestry and Farming System (IFFS/DMPA), also called the forest prosperity programme, helps reduce fire risk by supporting communities to develop alternative livelihoods that avoid dependency on forests and the need for clearing land using fire.

Although climatic conditions do play a major role in determining fire risk, illegal encroachment, land clearing, cropping practices and the traditional slash and burn practices are among the causes of fires. So, vital to fire mitigation is working together with others to deliver a shared commitment. No one land manager can resolve every challenge in isolation, but regardless of differing capacities or motivations to cooperate, everyone must play a part.

APP seeks to maintain its current record of 'near-zero hectares' affected by fire within supplier concessions, on a year-on-year basis (measured against an average over 2016 to 2030).



Performance

Protecting Natural Forests

Through our ISFMP process, we commit to protect natural forests (and peatland, see below), to build trust, and to implement FCP commitments on the ground.



What is the impact of our FCP?

In 2017, APP established 600 sampling plots across 38 concessions to monitor High Carbon Stock (HCS) changes. As required by the government, each concession must set aside 10% of protected areas inside the concession, but we will be going beyond compliance. Currently we set aside a total of 613,997 ha of HCS including protected areas, delivered by ISFMPs.

Naturally a journey of this kind involves challenges along the way :

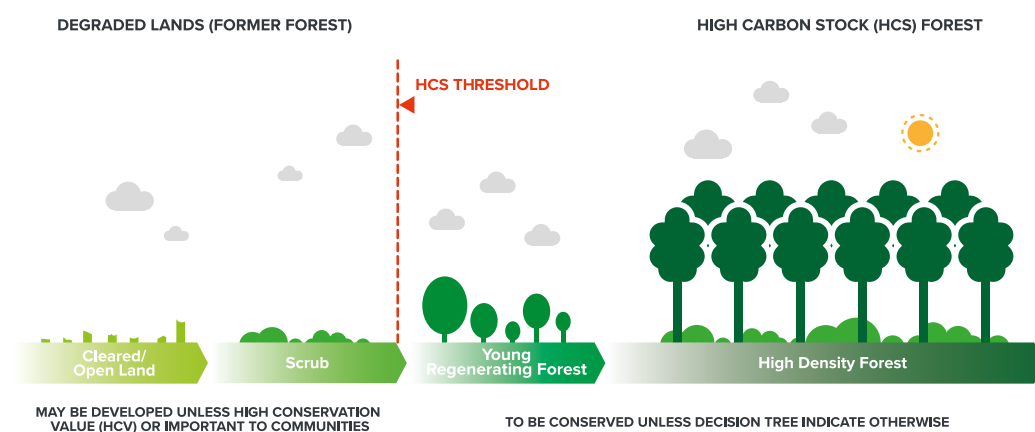
- In 2017 our stakeholders noted that whilst APP is pushing forward with policy implementation we need to improve the accessibility of detailed information on the public dashboard. We are reviewing the content accordingly, aiming for greater transparency.
- Furthermore, given the new peatland regulations in Indonesia, we are working on aligning our ISFMPs with legal status of the land and with our operating licenses in each province. APP is closely coordinating with the Ministry of Environment and Forestry on this matter. Further, APP is planning to engage our regional ISFMP Task Force when the revised spatial analyses that underpin each Plan have been approved. While we do this we are pressing on with Plans in locations with mineral soils (rather than peat) and feeding back on progress there.
- Additionally, we are discussing with stakeholders (via our SAF process) how to include security vendors in the implementation process of the FCP in forestry areas. The program was finalised in December 2017, with findings due to be reported in 2018. In May 2017 we implemented new Forest Protection procedures and training in all APP supplier concessions to accompany the recent Security Vendor Monitoring & Evaluation process installed at the close of 2016.

See our FCP Monitoring dashboard for ISFMP updates and HCV and HCS assessment data.

See more on our Integrated Forestry & Farming System (IFFS) to engage indigenous and local communities on page 98.

High Carbon Stock helps categorise different land cover

To manage an FMU sustainably we require clear mapping of land categories. These include Cleared/Open Land, Scrub, through to Young Regenerating Forest, and High Density Forest. Any cover defined as Young Regenerating Forest to High Density Forest is earmarked for conservation activities. APP worked with other companies and NGOs in the High Carbon Stock Approach Steering Group to produce the HCS Approach Toolkit, a common methodology for undertaking integrated HCS and HCV assessments.



All forestry suppliers are monitored for compliance with the FCP and we investigate breaches immediately. In 2017 two new suppliers were risk-assessed using SERA (see above), and an existing supplier was delisted, their response to the issues raised by APP was found to be inadequate. Currently, our SERA work is focusing on updating our procedures, public consultation and supplier engagement, for example with community forest groups, alongside our 38 concession suppliers.

Consequently, we are confident that natural forest areas in our supply chain remain protected, and that we are maintaining HCV areas with significant biological, ecological, social or cultural assets. Also in 2017 we collected further data on the carbon footprint of forestry operations.

How effective is our HCV monitoring? FMUs identify areas of HCV, as part of managing the asset and maintaining productive value. We use a specialist Forest Alert Service to track changes in forest cover within our suppliers' concessions. The technology detects forestry change accurate to five metres by using Synthetic Aperture Radar (SAR) imagery from RADARSAT-2 satellites. It is near real-time geospatial information on the exact location and estimated size of changes, helping us to monitor areas that are difficult to access. We then work to verify the cause of changes on the ground, this can of course be very challenging.

What is an HCV assessment?

Since its development in the late 1990s, the High Conservation Value (HCV) approach is used for protecting important environmental and social value in production landscapes. HCV includes not only biodiversity value but also local socio-economic value too. A recognised framework, led by the HCV Network, guides these people how it is done. Community relations are part of HCV management and at the core of building trust and consent. Each HCV team has a formal dialogue process with relevant stakeholders about HCV land management, including monitoring on wildlife, signage, borders, and any disturbances. Crucial stages are team selection, information collection, public consultation, site data collection, draft HCV findings, peer review, and final HCV report.

APP Process : Restoration and enrichment in protected/HCS area



Key actions in 2017 comprised marking out HCV/HCS areas for restoration, rehabilitation and enrichment, followed by managing water levels for any peatland habitats included. People are vital in this work, from raising awareness, training monitoring techniques, collaborating with institutions and guiding on patrols (to minimise disturbance of protected areas).

Case study :

Measuring forest contribution to climate change mitigation

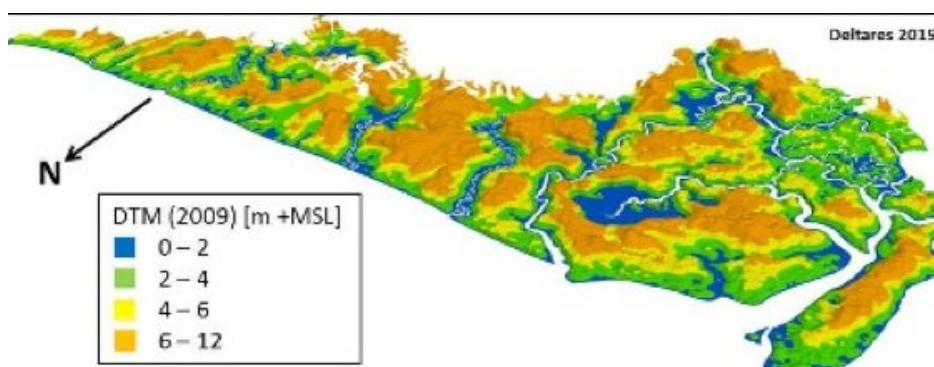
We are evaluating the carbon footprint of our forestry operations with a specialist partner Ata Marie.

Our HCS assessments have identified the scope for their carbon emissions calculations. Our management programmes for peatland, integrated fire management also feed into the project.

Ata Marie are combining forestry and peatland data to produce a clear account of our contribution to Indonesia's national commitment to reduce emissions by 29% by 2030. The key challenge has been mapping 2.6 million hectares of land cover over a 16 year period while aiming for greater accuracy of legal boundaries, land classifications, plantation ages, the maturity of management plans, and hydrology.

A project design document assessing the impact of APP's FCP on carbon emissions was finalised in the end of 2017. This project aligns with Indonesian government methods under INCAS, uses a comprehensive method in line with international best practice, and brings together five international experts for peer review. It will calculate APP current emissions from peatland and forestry, and make a projection up to 2040.

Crucially we are using LiDAR data collected before and after the haze episode in 2015. The 'deep terrain modelling' (DTM) data, validated by our external technical partner Bandung Institute of Technology, allow us to track peat loss from burning, to improve the accuracy of peat dome mapping and inform peatland water management.



“I think the peatland studies, the land cover assessment programs, and HCV/HCS programs give the company a very strong technical base on which to conduct sustainable land management.” (George Kuru, Ata Marie, 2018)

Traceability through Certification

The integrity of our pulpwood chain of custody is assured using third-party certification. The process ultimately assures us that the fibre used in our products is traceable back to a well-managed source. We are on track to meet our target of all suppliers being third party certified by 2020.

Percentage certified (of a total concession area of 2,587,224 hectares)		Goal
IFCC (Indonesian Forestry Certification Cooperation) certified	89%	Meet requirements of Forest Law Enforcement, Governance and Trade (FLEGT) EU import license. The Indonesian arm of PEFC.
LEI SFM certified	83%	Assures sustainable forest management practices production, environment/ecology and social.
PHPL-VLK certified (SVLK, Timber Legality Assurance System)	100%	Timber legality, removes the requirement for our customers to carry out due diligence for fibre traceability.

How does certification help our customers? An example is one enquiry in 2017 about pulpwood sourcing by APP mills. The IFCC welcomed the enquiry, and was able to respond in a way that satisfied the customer. Other stakeholders have also sought information from the certifier. The integrity of the process is intact, which is an impressive achievement with 3.8 million hectares certified by IFCC across Indonesia.

“While naturally noting areas for improvement, IFCC commends APP on its extensive investment, effort and networking done to address issues raised by external stakeholders.” (Mr. Dradjad Wibowo, Board Chairman, IFCC, in March 2018)

Our roadmap to re-associate with FSC is underway, in a process exhibiting trust and collaboration. A series of meetings with specialist external stakeholders has led to a conditionally approved way forward. It will be externally verified upon approval of the FSC Board. Please check the latest progress at the [FSC website](#).



Conservation : Belantara Foundation

In 2014, APP committed to support the protection, restoration and development of social forestry across one million hectares of Indonesia forest. Ten priority areas were identified for the initiative. In 2015 APP supported through seed funding the Belantara Foundation⁹, a grant-making body of APP, to fund projects outside concessions that deliver the biodiversity commitments and forest restoration of the FCP, with due regard for local economic opportunities, human empowerment and social cohesion.

What is the impact so far? Assessments using KPIs and baselines developed by our partner TFT will provide data on hectare restored and protected by 2019. KPIs are being tested on current restoration, protection and social forestry initiatives. Projected impacts are 80,000 ha from ongoing initiatives and 720,000 ha from proposed initiatives.

⁹ APP have been the major sponsor of its operations to date; noting co-financing with others, the projects funded by Belantara up to 2018 are the result of cooperation with APP to expand the impact of our commitment to sustainable landscapes beyond our concessions.



The Foundation proposes initiatives across ten critical areas in which are found industrial and smallholder scale production of coffee, cacao, rubber, coconut and palm oil. Belantara engages with global partners to invest in co-financing of projects that improve yields per hectare. We anticipate this to be a fairly radical step forward since the partners involved are essentially improving supply chain sustainability for all, in a precompetitive manner.

Much progress has been made in 2017 in planning two key programs: eco-tourism in South Sumatra and a primary forest education park in Riau, both driven by Belantara. Belantara's strategic key performance indicators for 2020-2022 were agreed, operating plans were formalised, and fourteen agreements (memoranda of understanding) were also signed in 2017, with activity on the ground commencing around one month afterwards.

Achievements in 2017:

- Engagement for mutual understanding with local universities, NGOs, and the DG of Natural Resources and Ecosystem Conservation of MoEF.
- 33 NGO-Belantara partnerships in place.
- Financing a joint project with PT. GAL concession and Forest Carbon to deliver a REDD+ project in Merang's peat dome (21,778 ha, with 1 million tCO₂e/year of carbon emission reduction). Belantara's role is risk assessment and mitigation.
- Team structure complete: conservation officers and strategy team recruited.
- Collaborative conservation plans complete in Riau, seven NGO partner proposals approved. This sets the operational model for other provinces.
- Clarity on challenges, such as projects operating in isolation from one another. And whilst we recorded no tiger-related fatalities, we recognise the complexity of tiger conflict management.
- Planning Belantara's new Learning Centre, due to open in 2018 in Riau.



Species Conservation

APP's conservation programme focuses on three priority species of fauna: Sumatran tiger, Sumatran elephant, orangutan and one species of flora: Ramin. Specific objectives are to maintain the existence of wild population of the species within all pulpwood supplier concession through counting minimum population numbers, mapping the distribution, minimising human-wildlife conflict, establishing ecological corridors within/between concessions and ultimately grow the species populations.

Sumatran tiger conservation update

With several partners in 2017 we have improved tiger habitat, run camera trap surveys, relocated an individual prone to conflict. We also established a specialist team to manage human-tiger conflict mitigation, part of their work is sensitising field workers and communities. Our partners in this work include, for example, the government, the Sumatran Tiger Conservation Foundation (Forum HarimauKita) and ZSL Indonesia.

Sumatran elephant conservation update

In 2017 we improved habitats, set up feeding stations within concessions and expanded the monitoring of population movements. We established a specialist team to manage human-elephant conflict, sensitised communities and continued to run anti-poaching patrols, using non-violent and educational methods. Our partners in this include, for example, the government, the Indonesian Elephant Conservation Forum (Forum Konservasi Gajah Indonesia) and the Belantara Foundation.

Orangutan conservation update

In 2007 the Government of Indonesia committed to a ten year plan to stabilise wild orangutan populations. The Indonesian Orangutan Conservation Strategy and Action Plan 2007-2017 comprised a set of Best Management Practices which have in turn informed our new guidelines for orangutan conservation in forestry concessions. Also, 2017 saw a focus on distribution data of orangutans in Kalimantan and on improving habitat (as a result of High Conservation Value management at concessions). We support measures to reduce human-orangutan conflict and continue to raise awareness to help enforce APP's zero tolerance policy on harming endangered species. See our Red List briefing [here](#). Partners include Natural Resources Conservation Agency – East Kalimantan, Kutai National Park, and the Orangutan Foundation International.

Ramin conservation update

Our ramin tree conservation programme is delivered through direct support from the support Centre for Forest Biotechnology and Tree Improvement (run by the Ministry of Environment and Forestry). The programme has collected genetic material and grown thousands of plants in extensive nurseries, 500 of which have been planted in concession areas at PT Arara Abadi in Riau.



Biosphere Reserve Partnership

APP-SMF is working with public sector agencies on a pioneering Giam Siak Kecil - Bukit Batu Biosphere Reserve¹⁰ covering 705,271 ha in Riau. It aims to move communities from subsistence methods to sustainable livelihoods.

In 2017 the key milestone was that 30 more villages benefit from the Community Empowerment Programs (CEP), to follow the twelve in 2016. This was achieved in 2017; the plan up to 2020 is for all villages in the Reserve to be part of the CEP, that the Partnership Fund is established, that zero illegal activities occur (Core area, Buffer Zone), and that the APP ISFMP is implemented).



¹⁰ The first co-managed Biosphere Reserve initiative in the world, involving public and private sectors - the Indonesian UNESCO MAB National Committee, Indonesian Institute of Sciences (LIPI), Ministry of Forestry, Local Governments of Riau Province, Sinar Mas Forestry and Partners, and other cooperating parties.

Report Feature: OKI Mill Fibre Sourcing

Our stakeholders have repeatedly raised concerns about the sustainable sourcing of fibre for the OKI mill. In 2016, TFT independently confirmed that APP can meet the needs of the mill as FMU yields improve, supplemented as required with imported pulp. APP and TFT have agreed to monitor and review, on a regular basis, the company's production and pulpwood supply to ensure that APP regulates pulp production according to plantation pulpwood availability, considering that there are many factors affecting the wood supply including government regulation or climate change. Our FCP commitments apply to all wood suppliers, and OKI too.

We are committed to delivering the ISFMPs for the concessions that supply OKI and foresee no impact on forest protection from the additional capacity the mill brings to APP.

OKI mill achieved PEFC certification in April 2017, the process was smooth and greatly aided by colleagues who achieved the certification at Indah Kiat mill. Also, LiDAR mapping has been used extensively at OKI to identify best flood management options (under Phase 2 of the Peatland Best Practice Management Plan).

To read about our fibre efficiency programmes at OKI mill, which play a part in improving yield from raw material supply, please see our mill's performance section on page 81.

Integrated Fire Management

Fires are complex and fighting them requires not only courageous teams and serious equipment but also a multi-stakeholder approach. The Indonesian government places great emphasis on fire and haze control. Consequently we have placed great emphasis on working closely with our suppliers, local communities and other relevant stakeholders. The Integrated Fire Management (IFM) strategy brings together all of our initiatives, and aims to equip us and our partners with the skills, knowledge and infrastructure to prevent fires and to put them out more quickly when they occur.

Weather conditions in 2017 were slightly drier than 2016, but fewer hectares were burned in areas under APP control year-on-year. And as a comparison year on year our team's performance improved in 2017, and we operated within our near-zero, wet year benchmark of 2016. However, success is not just down to favourable weather, we must maintain the focus and standards we have set and continuously improve.

In 2017 the total area affected by fire in APP supplier concession areas amounted to about 0.01% of the total supplier concession area. The success of the Indonesian effort to combat forest fire is evident. We recorded other improvements too: stakeholder cooperation expanded, and new MoUs were signed. Experience shows that the key to fire mitigation is changing people's behaviour. These same teams note that from field experience changing people behaviour is quite challenging and fire itself is relatively straightforward to control.

Prevention and Preparation

APP's prevention program includes training and equipment. We had a commitment budget of USD 100m for 2016-2017 and whilst no major capital spend took place in 2017, we have to maintain the levels of equipment and people, for example helicopters, truck and pump maintenance or replacement, and we are boosting the capacity and ability of our teams of people through continuous and upgrading training. APP Integrated Fire Management has been strengthened thus:

- ▶ Fire control technical training: around 2,700 people have undergone training. The target for 2018 is 3,600 people. Many people are now undertaking refresher training as well as upgrade training to the next level.
- ▶ Rapid Response Teams: We are establishing four rapid response teams, capable of deployment to a fire by helicopter. This requires very high levels of training and safety management to ensure safe work practices. We rolled out these teams in Sumatra including one at OKI, in September 2017.
- ▶ Physical training for our rapid response teams: fire managers and fire fighters face arduous conditions, demanding high levels of mental resolve and physical fitness and are trained with these requirements in mind.
- ▶ New investment in 2017:
 - Three large water bombing helicopters were contracted and the first rapid response team established.
 - Use of mini satellites to increase our remote area detection capabilities and aid a faster and more accurate fire detection.
 - Operational testing of two separate systems of thermal camera detection including staff training on use of the equipment.
- ▶ We conducted assessments to identify high fire risk areas using past fire data up to March 2017 overlaid with a map of conflict and encroachment areas. Initial results indicate that upward of 80% of fires originated from areas where land is being opened up for agriculture purposes.

Economic Empowerment for Fire Prevention

Following the logic that prosperity leads to forest protection, we have in place two tiers of programme. Firstly, Integrated Forestry and Farming System (IFFS) which is also known as Desa Makmur Peduli Api (DMPA), aims to support 500 villages in 5 provinces in and surrounding our forest concession area over a 5 year period (2016-2020). The IFFS is part of the Prevention part of the Integrated Fire Management Program. Villagers in the DMPA program receive training and capacity building in agroforestry, horticultural cultivation, food crops, livestock, fisheries and processed foods. APP facilitates upstream and downstream activities: from the provision of tools, seeds, assistance, to helping market the product.

“With this program, we no longer need to look for jobs in the city, because we already have income in the village,” said Toyo, a goat farmer in Mekar Jaya Village. Born in 1971, Toyo formed and now heads the Budi Dharma Farmer Group which has 10 members. This farmer group has received the initial seeds in the form of 20 goats in March 2017 with a rolling system.

Our DMPA programme has been established across 178 villages in 2017 against a 2020 target of 500, in and around our concession areas in five provinces.

The outcomes of this fire prevention and local economic empowerment programme are:

- Stronger involvement of communities in APP supply chain
- Advantages for less resilient economic areas
- Stronger collaboration between parties e.g districts, government, universities
- Socialisation ‘village to village’
- Village Owned Enterprise (BUMDes)
- Prioritisation of women’s empowerment, 24 women’s groups out of a total of 572, in 2017.

Secondly, SIGAHKAR (Siaga Cegah Kebakaran Lahan dan Hutan – Forest Fire Prevention Alert Program) for community-based fire prevention. In 2017, we selected 65 villages exhibiting a higher risk of fires for a prevention programme comprising (i) community engagement and incentivisation, and (ii) monitoring posts and patrols. During the critical dry season, from June – September 2017, we established:

- Mechanical land clearance support (tractors and herbicides);
- Village-level teams and community training on patrolling and fire protection;
- Financial rewards for villages that remain free of fire during the dry season.

The aim is that local “graduates” from SIGAHKAR to become more aware and supportive to the fire prevention actions, and will integrate with the DMPA programme.



DMPA technical site visit by APP/SMF, Nov 2017, Riau

“The DMPA programme enables APP to help empower local communities while combining it with environmental conservation efforts, in line with APP forest protection commitment in the Forest Conservation Policy.” (Suhendra Wiriadinata, Director of APP).

Social Conflict Resolution

Our Forest Conservation Policy aims to deliver community development, transparent conflict resolution and Free, Prior and Informed Consent (FPIC). Land conflict is a major driver of deforestation so we focus on resolving it in and around our concessions. Social conflict mapping of all APP pulpwood supplier concessions helps tailor action plans on resolving any ongoing or emergent disputes. We incorporate resolution action planning into professional performance indicators of site managers.



Our IFFS programme, and improved security practices help reduce forest clearance and related conflict.

By end of 2017, 45% of conflicts were resolved. Our conflict resolution process is supported by stakeholders at regional level and based on MoUs. The process is measurable with four phases of resolution:

Type	Phase	% of cases
1	Mapped out and resolution has been drafted	28
2	Implementation of strategy	26
3	Conflict has reached agreement between two parties (ie, 'resolved')	20
4	MOU realised	25

Four phases of conflict resolution as of end 2017

Most disputes relate to old villages within concessions while others concern villages that crop up after a license to manage concession is granted. Other conflicts may involve customary land rights, access for livelihoods, illegal land trade and speculation, land use without permission, or concession overlaps.

APP's grievance mechanism is available to all stakeholders, although some cases are not processed through it. Ultimately, the grievance process is used to manage recurring, less significant issues that no longer warrant an MoU. And since the grievance process was launched in 2013, new conflicts have not been significant.

How to accelerate conflict resolution?

We work with Eco Nusantara across three regions in Riau, Jambi and South Sumatra to set up a credible Social Working Group (SWG) to address priority conflicts. So far, results are encouraging. Equitable partnership rather than pure sponsorship enables the communities to take a longer term view. And members of the SWG can propose how to reach resolution rather than rely on external parties such as local NGOs. Initial distrust at APP's working groups will hopefully dissolve once empowerment is realised.

Local communities are informed on progress, and the SWG (composed of government especially from forestry agency, NGOs, company representatives, and academics for example) are briefed based on stakeholder availability and urgency of the issue. The ideal outcome is increased transparency and trust in APP to foster further collaboration and reduce potential future conflicts.

Examples of cases handled through the SWG mechanism:

Case	Update 2017
Danau Lamo Village	The land use conflict dates back to 2010. In 2012 and 2013 activities to understand the prevalent issue were carried out by the District Forest Service and an independent community counseling body. Analysis of the land use under dispute was made in 2015, facilitated by the Provincial Forestry Office, with the results communicated to the Ministry of Environment and Forestry. During 2017 APP initiated the SWG mechanism. The small and dynamic group successfully achieved a signed Memorandum of Understanding over the areas of conflict by October 2017.
Bujang Hitam	One of our priority cases, we initiated a small working group (ad hoc team) which reached consensus over a land use conflict. A Memorandum of Understanding was signed in 2017.
Terjun Gajah Village	A small focus group consisting of community and APP pulpwood suppliers representatives continue to work through a structured approach to conflict resolution with the aim of reaching consensus during 2018.



Ch.

04

PEATLANDS



In this Section

We explain how we are managing how our fibre suppliers protect and conserve peatland forests in Indonesia.

Progress Headlines

Our principal progress is in strengthening peatland mapping, consultation and compliance with the Government of Indonesia's revised long term plan for peatland in Indonesia, and consolidating our new, proprietary water management system – a core component of Best Practice Peatland Management.

The Issues

Peatlands are critical for maintaining biodiversity and climate regulation but they are also used by a number of stakeholders such as government, local communities and agri-business. A recent study by the National University of Singapore¹¹ concluded that by 2015, in a study area of 15.7m ha, 29% of peatlands remain covered by peat swamp forest (2007: 41% and in 1990: 76%). Managed land cover types (industrial plantations and smallholders) cover 50% of all peatlands. Industrial plantations of all types have nearly doubled their extent since 2007: the majority of these are oil palm plantations (73%) while nearly all of the remainder are pulpwood plantations.

We recognise the long-term management timescale, as well as the complexities of peatland preservation goals conflicting with community needs. Competing demands can lead to degradation and the release of large stocks of carbon dioxide into the atmosphere. Clearance by burning is an annual risk and we share the view of our stakeholders that the transboundary haze in 2015, for example, was exacerbated by the drainage of peat forests for agriculture.

¹¹ Miettinen, Jukka & Shi, Chenghua & Liew, Soo Chin. (2016). Land cover distribution in the peatlands of Peninsular Malaysia, Sumatra and Borneo in 2015 with changes since 1990. Global Ecology and Conservation.

New government regulation has stimulated collaborative and systematic thinking about managing competing requirements of business and other parties. For example, stakeholders in Indonesia and around the world agree that a crucial first step is to map peatlands accurately. Once we can measure them, we can manage them. Effective management of peatland will be determined using peer reviewed studies with the scientific community and repeat mapping. A notable challenge to mapping peatland is their extensive geographic scale. There are no authoritative maps that delineate peatlands from other areas, so consequently, they have been incorporated into commercial concessions such as plantations and mining.

Critical for APP is protecting the availability of productive land - against sea-level rise or illegal clearance for example - while delivering our sustainability commitments. APP is a significant contributor to discussions on forest protection and peatland policy in SE Asia.



Our Response

Central to our strategy is to use all land responsibly. Some of APP's pulpwood suppliers' concessions are in peat landscapes; such ecosystems demand careful management using sustainable forest practices.

Currently APP is working to deliver the commitments in our FCP by determining clear baseline data on geography, elevation, water table, vegetation cover and fire risk. LiDAR is a relatively new remote sensing technology which we have used since 2016.

Careful management of peatland contributes to our Vision 2020 target on climate change (as well as on sustainable forest management, reforestation, biodiversity and human rights). We share with our stakeholders the progress of our IFFS program, and from our peatland carbon footprint for APP operations (the work with Ata Marie).

APP's peatland management programme:

1. Mapping and assessment of peatland cover – understanding water table depth, land cover and fire risks
2. Peat dome mapping – using LiDAR technology to carry out elevation mapping, peat thickness studies and carbon stock management
3. Subsidence and emissions projection and monitoring – developing surface subsidence modelling and relevant standard operating procedures for pulpwood suppliers
4. Water management for peat ecosystem conservations – analysing water tables, rainfall data and combining with field survey data to development water management plans and guidance for pulpwood suppliers
5. Investigating into current and future flood risks – investigating tidal dynamics, mapping flood risks and pilot water management intervention methods
6. Design of methods and pilots for flood-tolerant alternative crops -research into alternative species
7. Design of methods and pilots for rehabilitation of peatland ecosystem to a natural state
8. Principle definition and zoning – initial assessment of conservation priorities and peatland concession zoning plan

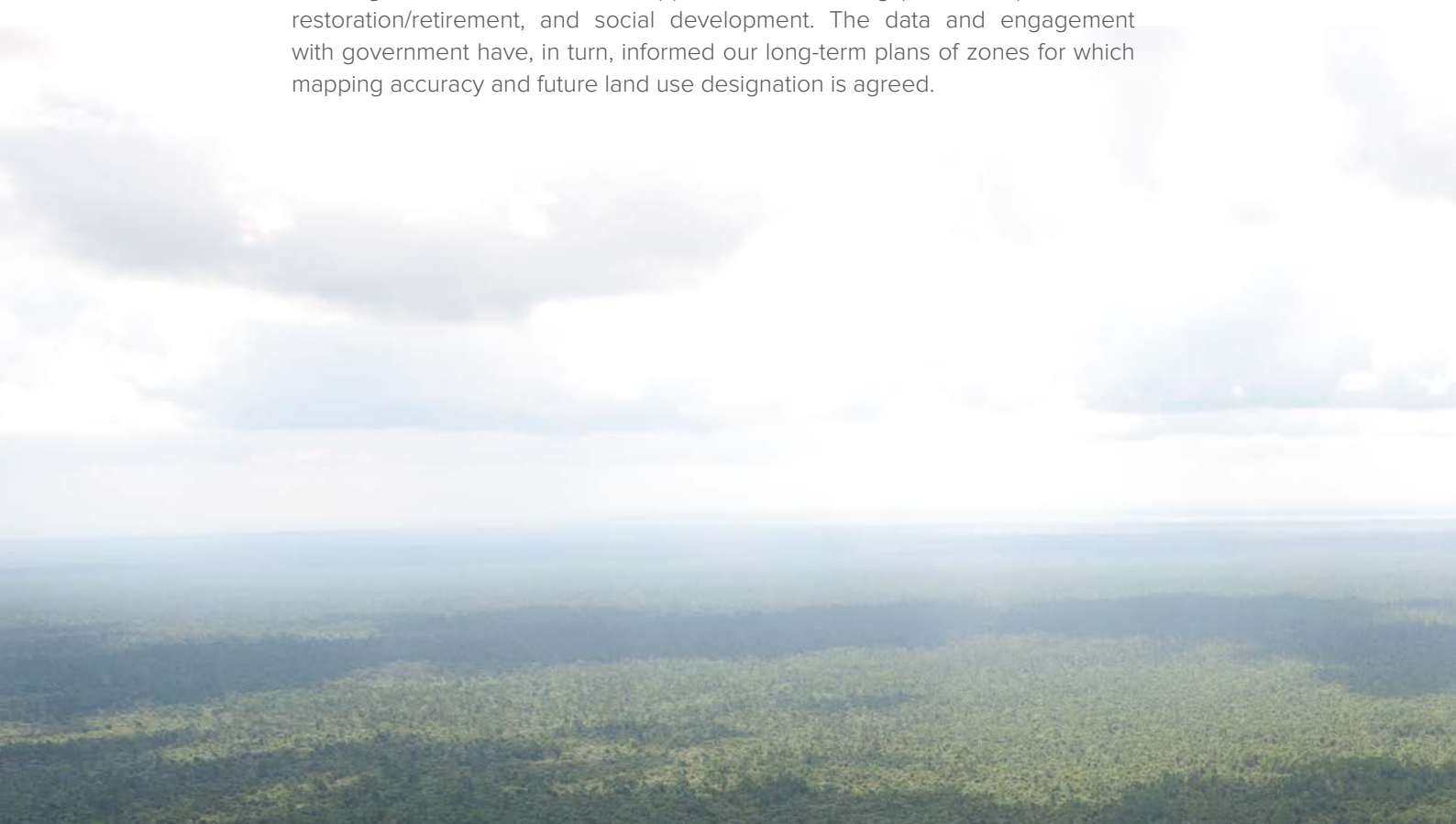
Performance

- Throughout 2017 we consulted with the Government of Indonesia and other stakeholders in revising the long term plan for sustainable forest management of peatland in Indonesia
- Continue to increase the resolution of our LiDAR mapping technique, including coverage of all our concessions perimeter canals
- Working with our partners, Deltares, to improve water management and monitoring in our suppliers' concessions
- Completed perimeter canal blocking (approximately 5,000 control points are now in place) as planned.

Working with Government, Suppliers, Technical Partners

In 2017 we continued to evolve our action planning to ensure we meet the requirements of the Government of Indonesia, which underwent a period of stakeholder consultation in order to revise the long term plan for peatland forestry in Indonesia.

Since peatlands provide resources for different stakeholders, the competing demands of whom can lead to unsustainable outcomes, APP has provided our mapping data gathered over recent years in order to inform the deliberations of the government on the best approach to balancing plantation production, restoration/retirement, and social development. The data and engagement with government have, in turn, informed our long-term plans of zones for which mapping accuracy and future land use designation is agreed.



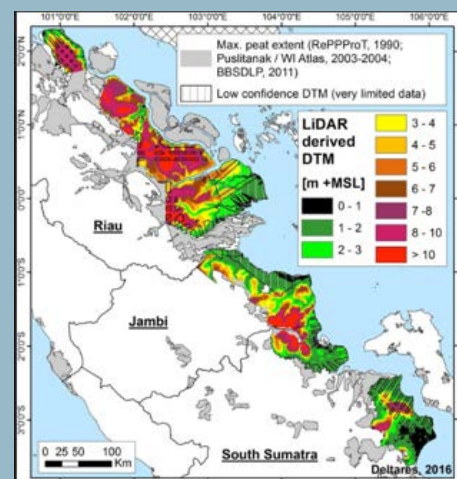
Peatland Mapping

In 2017 we improved how we monitor current peatland coverage and any subsequent change. Indeed a significant phase of LiDAR mapping was completed in November 2017, including a clear focus on our supplier concessions who are supplying OKI mill and on flood control management.

APP's LiDAR maps and data are high quality and cross-referenced against direct (ground-truth) mapping of peat thickness.

LiDAR Mapping

Light detection and ranging (LiDAR), also known as airborne laser scanning (ALS), is an emerging remote sensing technology which helps the mapping, monitoring, and assessment of forest resources. Compared to traditional analogue or other digital remote sensing, LiDAR offers nearly perfect registration of spatial data and the ability to penetrate the vertical profile of a forest canopy and quantify its structure.



Remote sensing of APP's supplier concessions

2015 – First LiDAR mapping (completed before 2015's significant haze episode)

2016 – Continue LiDAR data collection

2017 – Share LiDAR results with the Government of Indonesia to support the regulatory development process

Our peatland management techniques can provide deep-terrain digital data to allow forecasts of peat subsidence and sea level rise. The data helps to visualise local conditions, predict flooding, maintain target water table and inform where canal blocking is needed. Importantly, such data can inform multi-stakeholder deliberations and policy development regarding future designation of peatland for retirement (reforestation or alternative crops). APP has identified peat domes (and any peatland losses) using high resolution LiDAR data which have been validated by the Bandung Institute of Technology. Repeat remote sensing flights to improve resolution and capture perimeter canals continued through 2017.

Specific attention is given to forested peat domes (peat swamp forests) which, in the humid tropics, exhibit delicate hydrological self-regulation mechanisms which present challenging implications for their management and restoration. The Indonesian government is clear that existing peat domes should be conserved. APP applies diligent and permitted management of plantations on peatland landscapes which do not exhibit the full set of peat dome characteristics. LiDAR data support this management approach.

Peatland Water Tables

Our pulpwood suppliers are adopting an over-arching Operational Water Management System (OWMS) for which good quality mapping is vital. The main elements of the water management system are dams, channels, rainfall monitoring, field surveys and flood risk control guidance for pulpwood suppliers. APP has been testing mapping data to help build a monitoring database of peatland and other landscapes which would support the OWMS as well as our Fire Management System. We plan to make data from OWMS available via a smartphone app for expert peatland management teams on the ground.

In 2017 our principal progress was working with our partner Deltares to improve the management, maintenance, and monitoring of water levels in production forests and protected areas. Constructing and maintaining dams and channels are vital to achieving this in peatland areas. In 2017, we completed a multi-year work programme to stabilise all canals, now totalling approximately 5,000 dams and gates in perimeter canals. We are now looking at non-perimeter canal dams to enhance water level maintenance, a new plan for which is developed in consultation with the government. Also, working with the government using good quality data has led to our pulpwood suppliers retiring and rewetting some 7,000ha (70 km²). This also contributes to our Forest Conservation Policy objectives (to protect high conservation value areas).

We also improved our regulatory compliance: aligning our operations with governmental zoning of peatlands. Specifically, our strong LiDAR data helped substantially to improve the mapping of hydrological zones.

Case Study

Working with satellite imagery experts MDA, we are developing improved methods for monitoring and detecting forest damage, which will initially focus on conservation areas. Using the latest RADARSAT-2 technology images penetrate clouds and precipitation and are sensitive down to 5m resolution, allowing selective logging to be detected. Once fully implemented, the latest satellite imagery will be thoroughly analysed and any areas of concern relayed back to APP within three days of the satellite pass.



Ch.

05

SUSTAINABLE
OPERATIONS & PRODUCTS

In this Section

We explain how we are doing on managing the environmental impacts of our mill operations, where we process pulp into paper and tissue products, as well as the sustainability attributes of our products.

Progress Headlines

In 2017 we reduced carbon and energy intensity 14% and 6% respectively (2012 baseline). Water intensity decreased 14% (2013 baseline). We exceeded our Vision 2020 commitment for waste, reducing waste to landfill by 63%, compared to a 2010 baseline. We met the government requirements for wastewater and air emissions, with the exception of two isolated incidents at our Pindo Deli Karawang mill (see page 80).

The Issues

Our pulp and paper mills are exposed to risk of predominantly negative impacts on the environment.

Direct impacts arise from water consumption and waste. Withdrawal of water can affect competing users' abilities to access safe water and meet social development needs. Industrial wastes, if left unmanaged, along with accidental spills and leaks, can affect air quality, pollute community water supplies, and weaken the natural ecosystems that support human health, food production and biodiversity. Non-timber supply chains will also be exposed to environmental risk which procurement practices and engagement can help to manage.

Energy generation using fossil fuel contributes to direct and indirect greenhouse gas emissions. Indirect environmental impacts result from the choice of fuel to power mill boilers and from procurement practices. Whilst energy self-sufficiency is a key issue at mill level, particularly in paper mills with no pulp operations on site, we recognise our reliance on fossil fuels (such as coal) in our fuel supply chain and how using them contributes to national carbon emissions. It is widely accepted¹² that increased emissions contribute to global warming, physical risk exposure for business and more volatile weather events.

Product design and innovation play an important part in mitigating negative impacts and capitalising on positive attributes. Certification can help customers who seek to meet certain responsible sourcing obligations and targets. Recent focus on plastic waste in the oceans is evidence of the importance of consumer behaviour (single-use coffee cups, for example) and product design, because more recycled, recyclable and biodegradable products are marketed around the world.

¹² In 2014, The Intergovernmental Panel on Climate Change's 5th Assessment Report stated that the increase in greenhouse gas concentrations (carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆)) over the past 100 years has predominantly been caused by human activities.

Our Response

National regulations and permits set environmental standards. APP's risk management and capital investment help us to improve environmental management and performance. Process efficiency in milling and transport means lower costs while helping us manage environmental impacts.

APP's Vision 2020 drives change in mill operations and is underpinned by the APP Responsible & Sustainable Business Declaration and our Environment Stewardship Policy. Non-timber procurement practice is guided by our Chemical Substance and Articles Procurement Policy, and other environmental quality standards. Non-fibre supplier compliance audits take place annually in line with procurement policy, accompanied by engagement throughout the year during seminars and individual consultations.

These Policies direct our management approach, the overarching purpose of which is to achieve regulatory compliance and drive policy principles throughout our mill operations to create positive change.

Vision 2020 element	Target		Progress in 2017
Emissions	10% reduction in carbon intensity by 2020, based on 2012 baseline	Ahead	Carbon Intensity decreased 14% in 2017, compared to a 2012 baseline.
	10% reduction in energy intensity by 2020, based on 2012 baseline	On Track	Energy intensity decreased 6% in 2017, compared to a 2012 baseline.
	10% below national and/or regional limits for annual SO _x and NO _x	On Track	All mills achieved in 2017.
Water Management	Achieve 10% reduction in water intensity by 2020, based on 2013 baseline	On track	Water intensity decreased 11% in 2017 compared to 2013 baseline.
	10% below national and/or regional limits for COD and BOD	On Track	All mills achieved in 2017.
	Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	On Track	Water footprint completed in all mills.
Solid Waste	25% reduction in solid waste to landfill, based on 2010 baseline	Ahead	63% reduction achieved in 2017, compared to a 2010 baseline.

APP's mill scorecard and sustainability KPI monitoring allow us to track performance towards Vision 2020 Roadmap targets, as well as performance to sustainability standards (ISO 14001, ISO 50001), PROPER (a government environmental evaluation programme) and the UN CEO Water Mandate. To improve data collection, mill equipment performance is tracked at one site using QR codes (a type of barcode) to allow more precise data to guide action to improve efficiency over time.

Product sustainability and innovation is directed by customer expectation and market trends. Many brands are looking for ways to create a more sustainable package not only to serve consumer demand, but to protect the future of their product. Customers want details of our product stewardship initiatives and certification, they will seek packaging products based on alternative fibre, free of polyethylene (PE) coatings or plastics, and that are more bio-degradable. APP is well positioned to meet these demands.

Our management approach on product sustainability aims to meet customer requirements while seeking to create value from the 'plastics to paper' opportunity, through research and development. Our product teams understand the importance of pulping and mill efficiency, they recognise the use of certification and labels, and acknowledge the broader importance of sustainable forestry and CSR projects.

Performance

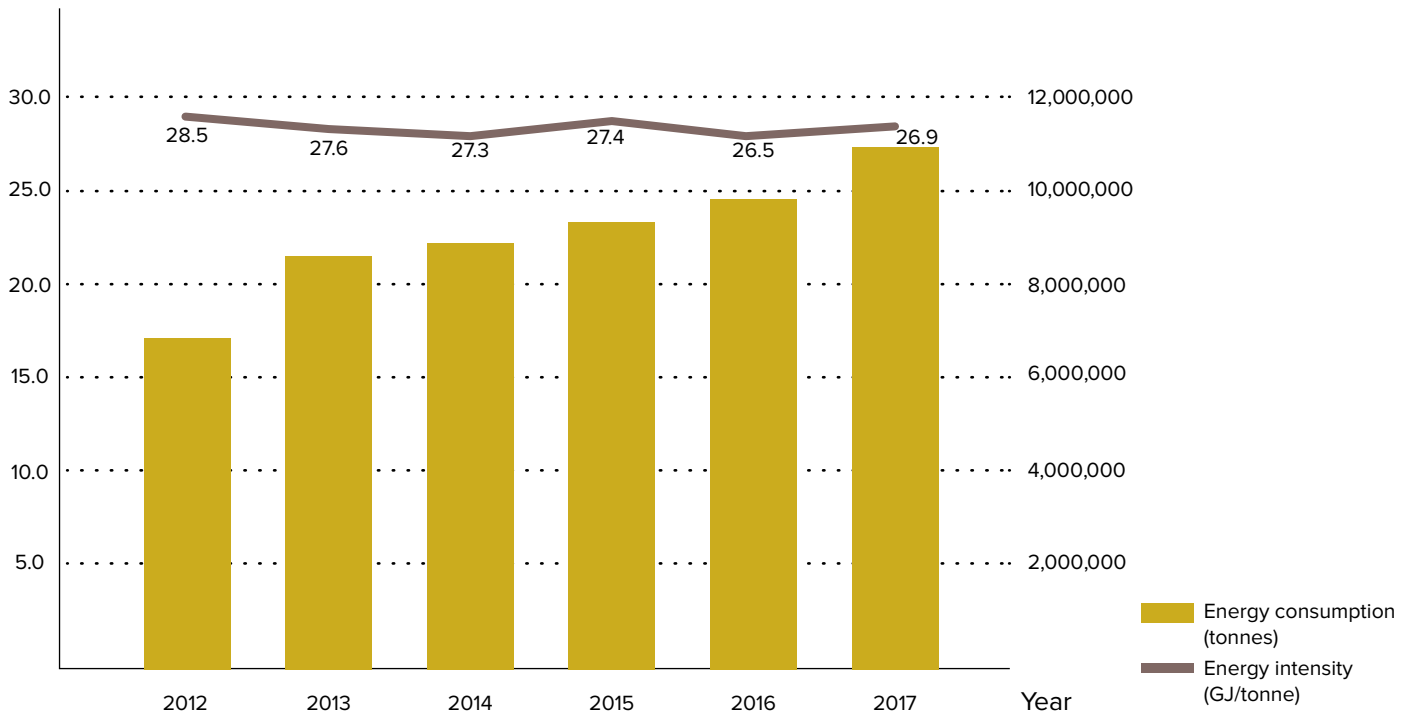
Energy and Carbon

Energy efficiency has always been vital in our mills, from a sustainability perspective and a commercial one. We continue to invest in process efficiency, to share best practice and to identify improvements.

In 2017 our energy intensity increased slightly compared to the previous year, mainly as a result of unplanned power plant shutdowns at Lontar Papyrus mill which led to inefficiencies as a result of machine start-up and shutdown cycles. The chart below shows a 6.4% improvement since 2012, however.

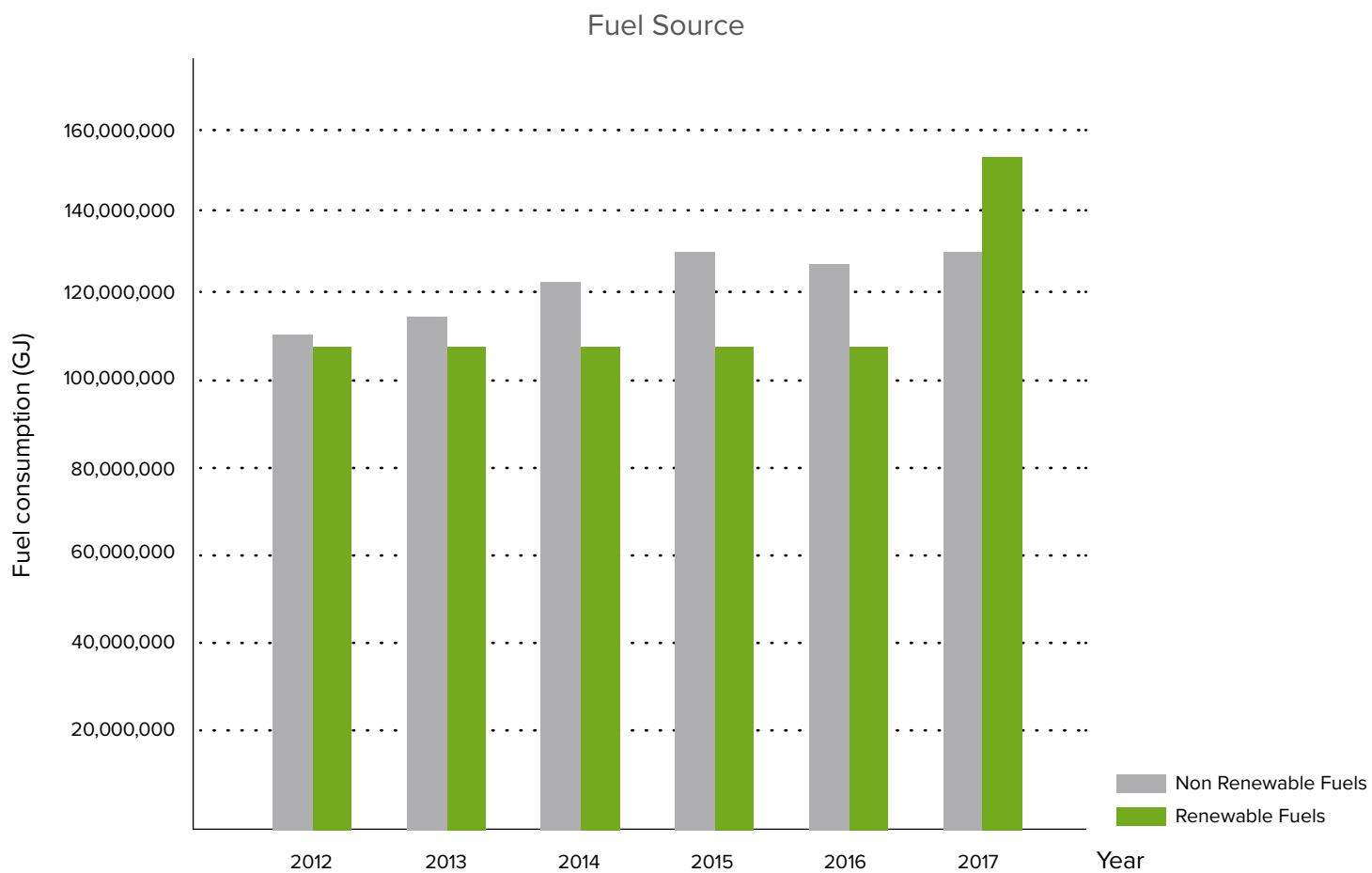
All mills except one have successfully implemented the ISO 50001 Energy Management Standard; the Ekamas Fortuna mill is preparing for certification in 2018. Various third party certification schemes and ecolabels also drive energy intensity improvements relating to products.

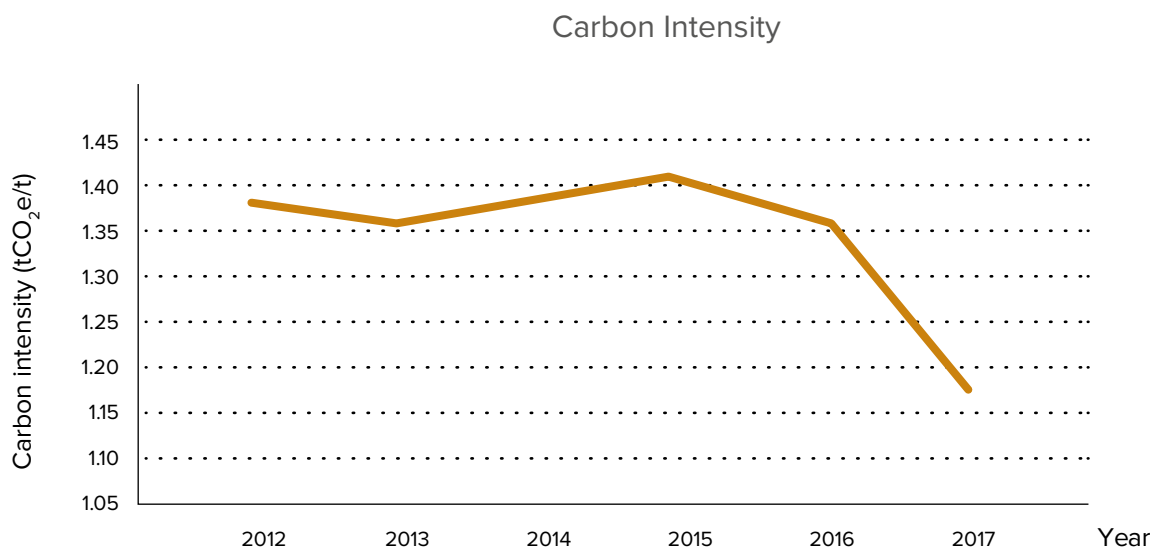
Energy Intensity



The majority of our carbon emissions are direct emissions (Scope 1), generated from onsite power generation. Less than 10% are indirect emissions (Scope 2), related to purchased electricity. Therefore the most significant impact on our carbon emission intensity is the type of fuel we use to generate power and steam on site.

For the first time since 2011 the majority of the fuel used to generate power on site was renewable (53% of total). We continue to expand on this. We are piloting new alternative fuels such as rubber compound oil alongside bark, black liquor, sawdust, palm shell, waste water sludge, empty fruit bunches (palm oil industry waste), and methanol (wood alcohol). Use of renewables is predominantly at our integrated pulp and paper mills, where the waste products from processing wood for pulping provide the renewable fuel. We currently do not measure Scope 3 emissions, but will review this during 2018.





Award winning management at Pindo Deli

Our long-term partnership with IDH Sustainable Trade Initiative is delivering a Clean Manufacturing Program at Pindo Deli Karawang mill which has identified 14 projects for implementation in 2017, with more lined up in 2018. The Programme also won a Sustainable Business Award (Energy Management category) from the Global Initiatives.

“We recognise APP already has a robust approach to environmental efficiencies, our role as independent partners is to seek continuous improvement using new technology and techniques, stimulating co-financing arrangements, and monitoring impacts. We hope our projects will be replicated in other APP mills to maximise the impact” Mr. Fitrian Ardiansyah, IDH

Incremental, low investment optimisation

We run several programmes at Pindo Deli Karawang, with no impact on quality or reliability:

- Reduced steam leakage, with daily monitoring
- Revised cleaning and repairing schedules
- Optimised process temperatures
- Optimised refiner flows
- Decreased dryer hood temperatures and silo water temperatures
- Reduced vacuum pump usage
- Installed new LED lighting.

53%

Renewable fuel use across all APP mills from 2016 to 2017

6%

Increase in renewable fuel use at our Indah Kiat Perawang mill from 2016 to 2017

14%

Improvement in carbon emission intensity across all APP mills from 2016 to 2017

140,531 MWh

Energy savings from Pindo Deli Karawang through multiple programmes in 2017

89%

OKI's power sources fuelled by biomass, mainly tree bark, in 2017

12,000

Tonnes of alternative fuel (palm fibre) in 2017 offset the equivalent carbon emissions from burning 8,000t of coal across APP

Water

Water is a vital part of our manufacturing processes. We withdraw water from local sources, treat it, and then consume in various processes. We aim to reuse as much water as possible. Conserving water is a strategic focus for all mills: not only does it support our Vision 2020 commitments, it also makes commercial sense. Wastewater is treated on site, closely monitored for regulatory compliance, and returned to source. As well as compliance, our water management is driven by APP policy, the clean technology partnership, the UNGC CEO Water Mandate, ecolabelling schemes and PROPER.

Water intensity improved by 11% since 2013 (14% excluding OKI mill), at 23.9 m³ per tonne of production. The target was a 10% improvement from that baseline. We reused 14% of our process water in 2017, a reduction from 19% in 2016. Our lower water reuse rate was impacted by the inclusion of the OKI mill and refinement of primary data source. We anticipate improving water reuse rates as the mill becomes fully established, which will impact water reuse rates across the group. OKI's target is to reduce water intensity by 40%. As the second largest user of water in APP, this will have a marked impact on overall water intensity.

Further, Pindo Deli Karawang mill 1, for example, is tightening up its water stewardship. Water reuse is being improved by closing leaks and upgrading pumps. Data show water intensity decreased by 3% to build on previous good performance. And we note strong performances at Ekamas Fortuna and Pindo Deli Perawang which returned improvements in water intensity of 15% and 20% respectively.

		2013 (baseline)	2015	2016	2017
Water used for production	m ³		234,352,442	224,211,412	276,810,176
Water intensity	m ³ /t	27.0	24.8	22.7	23.9
Performance against benchmark			-8%	-16%	-11%
Water reuse	%		19%	19%	14%

As the wastewater data show (see mill's environmental data tables), effluent quality (pH, TSS, BOD, COD) remains stable and within permitted regulatory limits. Our target is to maintain levels at least 10% below national and/or regional water quality limits, measured through both online measurements and externally verified laboratory sample testing.



Waste

Against our Vision 2020 target to reduce solid waste to landfill by 25% (based on 2010 baseline), we have achieved a 63% reduction at the end of 2017 (65% including OKI mill). Our most significant waste streams are ash residue created from onsite power production and sludge waste from pulping and paper production.

		2010 (baseline)	2015	2016	2017
Solid waste to landfill	t	500,813	283,869	417,898	513,991
Proportion of waste landfilled	%	58%	23%	32%	21%
Performance against baseline			-60%	-45%	-63%

APP apply the '3R' approach to waste management – reduce, reuse, recycle. We always aim to minimise the amount of waste we generate, however some waste streams from our processes are unavoidable. In these cases we seek to find alternative uses for the waste products, either reusing on site or recycling through licensed third parties. Mills continue to implement general waste reduction on site, such as reusing plastic strapping for community projects and better waste segregation, to improve landfill and recycling rates.

Increased landfilling of waste in 2017 was due OKI mill having not yet established a license to utilise waste internally. We are working hard to address this issue, which you can read more about on page 81.

Other Air Emissions

Our policy and management systems account for risk of environmental pollution and our procedures are designed to mitigate negative impacts, but accidents can happen. In 2017, we experienced two significant environmental incidents at Pindo Deli Karawang requiring notification to the relevant regulatory authorities. A residual of chlorine gas escaped to air and affected eight employees, three of whom were admitted to hospital and discharged on the same day. No other spills were recorded.

FEATURE: OKI Green Power Project

Showcasing the latest most efficient equipment and processes, our OKI mill, commissioned in 2017, will make a significant contribution to the sustainability performance of APP group.

Renewable fuel is at the heart of OKI. In 2017, 89% of the site's fuel was renewable, mainly fibre by-product; our target is 99% by 2020. The remaining (non-renewable) fuel is heavy oil, diesel and coal.

We operate the world's largest recovery boiler¹³ at OKI, fuelled using 94% recycled fibre by-products and 6% fossil fuel (heavy oil for lime kiln). Also, OKI's power boilers, gasifiers and lime kiln are predominantly fuelled using tree bark. Our teams pay careful attention to fuel preparation, to ensure the correct moisture content, which varies throughout the year.



OKI's Recovery Boiler

¹³ A recovery boiler is the part of Kraft process of pulping where chemicals for white liquor are recovered and reformed from black liquor, which contains lignin from previously-processed wood. The black liquor is burned, generating heat, which is usually used in the process or in making electricity, much as in a conventional steam power plant. [Source: <https://www.andritz.com/group-en/news-media/news/2014-02-17-high-energy-recovery-boiler-okl>]

When it comes to using fossil fuels more efficiently, OKI also has several efficiency features such as a flue gas cooler and a feed water preheater. The same level of attention extends to other parts of the plant, with bark gasifiers and power boilers almost entirely powered by renewable fuel. The use of oil in the process is being phased out and replaced with bark gas. We are 46% of the way to meeting our energy intensity target of 1.37 GJ/ADT for non-renewable energy base. Befitting a world-class facility, our three-year operational programme includes several more improvements as the mill becomes fully established. A roadmap for total mill energy consumption keeps us on track to achieve further energy intensity reductions of around 11% from 2018 to 2020.

As a newly established site, OKI mill currently is not able to maximise the benefit of waste partnerships, which means that most waste, mainly boiler ash and other solid waste, goes to landfill. The mill team is currently working with relevant government departments to secure the necessary waste license. We are assessing third party-licensed waste handlers and researching the waste market. The necessary CAPEX business case is being developed in order to develop the infrastructure required to store and handle waste. One of the options being considered is turning the waste into pellets that are then used as fertiliser and soil conditioner in forest operations. Ultimately, our goal is for OKI mill to divert all main waste streams away from landfill by 2019.

Other OKI mill highlights

- Modified wood washing line to use reject water and condensate, reducing fresh water use by up to 320,000 m³ per month
- Power boiler blowdown water reused in cooling tower, reducing fresh water use by up to 6,000 m³ per month
- Effluent venting to avoid environmental discharge and foaming from wastewater pipe

Driving up fibre efficiency, rationalising fibre supply

Following the initial mill start-up phase, we are increasingly turning our attention to fibre efficiency – obtaining the highest yield of pulp from the lowest amount of fibre. With the aim to improve fibre yield by the end of 2018 we have:

- **Studied wood moisture levels, finding optimum air-drying time to reduce water content of incoming logs, whilst ensuring no moss or bacterial growth**
- **Avoided non-standard or deformed wood, which in turn increases waste**
- **Improved chipper blades to improve chip quality and therefore pulping yield**
- **Where possible, used single species in the pulping process for increased efficiencies**

Our management approach in action: OKI mill and PROPER

Preparation is everything, so to ensure readiness of our newly commissioned mill, in 2017 we ran an internal audit and set up monitoring to achieve PROPER at OKI. We have developed and deployed a range of quality, environmental and chain of custody management systems. Other environmental monitoring is being refined on site too. We have applied experience of achieving certification to ISO standards and share best practices from other mills, and plan to achieve PROPER Gold standard by 2020.

Product Sustainability

Intrinsic to our Sustainability Roadmap Vision 2020 are the sustainability attributes of our products, from the sourcing and chain of custody quality through to innovation, product stewardship and engagement with the market. We firmly believe that APP, and indeed the wider paper industry, has a unique opportunity to demonstrate to consumers that paper based products are intrinsically sustainable. Based on wood from well managed forests, our products are renewable and recyclable. They help consumers all around the world communicate, protect their products and address hygiene and welfare needs.

Global market expectations are evolving fast. In the USA, an important market for APP, for example, compared to five years ago the sustainability attributes of paper-based packaging today are more important to 50% of all Americans (survey sample 1,015 adults; online, June 2017). Also, legislators around the world have been discouraging the use of plastic bags since 2008, examples include China, Taiwan, South Africa, Europe and USA.

APP are well positioned to respond to the opportunities such as digitalisation, e-commerce, recyclability and avoiding single-use plastic. APP has followed the evolution of paper based products and materials development for many years, for example, food industry innovations on weight reduction, additives, heat-resistance, compostability, and the circular economy. Increasingly customers are keen to explore products that do not contain PE coated barriers (typically used in food grade packaging), instead preferring biodegradable coatings to reduce plastic use, waste and improve disposal concerns.

This is our long-term sustainability response in action on the ground: each division of APP has the sustainability vision built into their medium and long-term business planning, supported by a group wide R&D function. Our Management team welcomes the plastics-to-paper global campaign. Importantly, foopak and other innovations coming out of our technical research teams are being tested in other applications, bringing specialist products that support our customers sustainability ambitions. Further, pulp and paper mill teams also work to maximise production efficiency, such as alternative pulping chemical treatments; the different nodes of innovation must connect in order to be commercially viable.



A top brand in SE Asia and beyond, foopak provides the food service and restaurant industry with a family of PE-free paper solutions for all food and beverage needs

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06 PEOPLE & COMMUNITIES



In this Section

We explain how we are doing on the management and performance of sustainability impacts relating to people and communities.

Progress Headlines

We endured nine fatal accidents on our sites in 2017, followed up by extensive senior-level investigation. The scale of our workforce remains stable with a lower turnover rate. We continue to invest in employee training and the APP Academy. Community engagement programmes continued at APP group level, local mill level and with our pulpwood suppliers.

The Issues

Protecting the health and safety of everyone who comes into contact with our business is our top priority: everyone must go home safe. Our pulp and paper manufacturing sites present inherent safety risks, and while office-based work also comes with risks, they are substantially different.

Improving the wellbeing, productivity and happiness of our employees is vital to the individual and to APP. What makes a productive worker? We know that good leadership is important, but also we recognise the need to invest in those who are not leaders; good followers are people who are trained, evaluated fairly on competence and satisfaction, and with universal access to career opportunities.

We recognise that good quality jobs in well-managed sites are an important contributor to the national economy. Each year, close to two million young women and men enter the Indonesian labour market, but the economy does not create sufficient jobs to absorb them¹⁴. Consequently, many existing and new jobs may bring negative sustainability impacts over time. Alongside many other commodities industry companies, we understand the importance of better working conditions and access to benefits such as fair pay, insurance, representation, training, and no forced labour. We also share the view that work can be provided without negative environmental or social impacts. Part of the issue more widely in Indonesia is a lack of awareness in some labour pools of general labour rights, conditions, health and safety, or contracts.

Our employees tell us they recognise business ethics to be highly important, alongside health and safety, diversity, and equal opportunities. Behaviour aligned to a Code of Conduct – from the top to the shop floor – is clearly of importance to the commercial and reputational success of an international business.

¹⁴ Labour Conditions in Forestry in Indonesia/International Labour Organization, Jakarta Office; ILO, 2010, ISBN: 978-92-2-123390-9; Bahasa Indonesia: Kondisi Tenaga Kerja di Kehutanan ISBN: 978-92-2-823390-2/Kantor Perburuhan Internasional - Jakarta: ILO, 2010

APP has a shared dependence on the landscape for raw materials; we believe we have a responsibility to contribute to the social development of the communities where we operate. A healthy community can often mean a healthy business.

Our local communities depend on the immediate landscape and its resources for the basics: food and drink, clothing and building materials. Often remote and without basic infrastructure, community welfare and social development may be fragile. Community rights and expectations take various forms, for example, free, prior and informed consent (FPIC) is the right of a community to give or withhold consent to projects that may affect lands they customarily own, occupy or use. Whilst many stakeholders compete to use limited land resources, there are many practices by some that can result in illegal logging and fire risk, or expansion into privately owned land where informal workers use potentially unsafe accommodation. Economic liberalisation and privatisation can affect forest users in diverse and unexpected ways, and whilst benefits to share can arise, not all stakeholders gain from them equally; this may generate new tensions, or revive latent, low intensity conflict. Resultant misunderstandings can create wider tension and negative environmental impacts.

Our Response

APP's primary human resources policy is the Employee Welfare Policy¹⁵ which commits us to meet the requirements of regulations and ILO Standards. In turn, we require our contractors and suppliers to do the same. The Policy sets out commitments on safety, wellbeing, human rights, labour rights, skills, and data protection. Our Organizational Health Index tracks employee satisfaction levels.

Our Corporate Social Responsibility Policy¹⁶ sets out our commitment 'to ensure that our operations and those of our supply chains have positive impacts on the social and economic welfare of the surrounding communities'. Beyond legal compliance it covers anti-corruption, alignment with the United Nation's "Protect, Respect and Remedy" human rights framework, conflict management, participative programmes, education and engagement and expectations of our suppliers. Further, APP's Responsible Fibre Procurement & Processing Policy requires fibre from legal, sustainably sourced origins and chains of custody that do not violate traditional and civil rights and that comply with ILO Core Conventions. Certification schemes such as PEFC and FSC acknowledge international labour Conventions to ensure that certification bodies check on compliance with labour standards and the protection of workers' rights during certification audits.

¹⁵ <https://asiapulppaper.com/sustainability/policies-reports> & <https://asiapulppaper.com/sustainability/social-responsibility/employee-welfare>

¹⁶ https://asiapulppaper.com/system/files/app_corporate_social_responsibility_policy_english.pdf

Since 2012, APP has measured progress towards Vision 2020. Further, Commitment 3 of our Forest Conservation Policy¹⁷ aims to implement FPIC, resolve conflicts, empower community development, respect human rights, including employees, temporary and outsourced workers. To achieve sustainable positive benefits, APP carries out community investments that also align with the UN Sustainable Development Goals.

National legislation specifies the responsibilities of an employer, of contractors (including their workers) and contract workers (self-employed workers) at a workplace. There is a health & safety committee (P2K3) at each mill with overall responsibility for safety, and relevant documentation shows named representatives within the enterprise with particular responsibilities.

We systematically establish and maintain procedures to identify any risks to safety and health associated with the operations of APP. Site managers organise work, define duties, and provide the resources required, such as risk minimisation devices, incident prevention tools and equipment, fire prevention - detection - suppression system and PPE.



Specifically, APP's Integrated Fire Management provides a level of fire risk management that means very low exposure to safety risks for APP employees and workers. Thousands of highly trained people at APP form specialist firefighting teams to protect people, assets and communities.

¹⁷ https://asiapulppaper.com/system/files/app_forest_conservation_policy_final_english_0.pdf

Each mill runs an Occupational Health and Safety management system aligned with OHSAS 18000 and the Indonesian standard SMK3. Each safety manager reports directly to the mill manager who is directly accountable to APP's COO and CEO. We are continuously improving our approach, for example on incident reporting and training.

How do we manage human resources (HR)? Our global model comprises HR Business Partners who provide guidance vertically through the company, expert functional teams on training and benefits for example, and shared services dealing with payroll for example. APP is currently rolling out the global corporate HR approach across all operations, including FMUs.

Operational success relies on competent people so APP's training and development is managed at Group level through the APP Academy and using increasingly standardised procedures across all sites to build competence in a consistent manner. The APP Academy applies to both upstream and downstream operations and specifically caters for younger staff as part of APP's succession planning. One of the ways APP seeks to recruit is through Indonesia's specialist academies working on pulp and paper. Separate leadership programmes exist for divisional management to supervisor level.

Community Investment (CSR) Approach

APP community investments are done at three levels: Group, Mill and Forestry units. We refer to the SDGs and align with provincial and national development plans as appropriate. Activities are enriched by social impact assessments, too. We have a particular focus on community empowerment, with long term sustainability in the broadest sense being our ultimate goal.

At Group level, APP actively supports a range of partnerships for community based programmes addressing Indonesia's key sustainability challenges. Our support includes active engagement, using our scale to facilitate the sharing of best practice, and funding support.

Launched in 2015, APP's Integrated Forestry and Farming System (IFFS) aims to address encroachment, illegal logging and fire risk by including communities in initiatives that yield economic prosperity. These CSR initiatives (also referred to as DMPA) aim to protect and rehabilitate natural forests while reducing pressure on forest land. IFFS/DMPA forms a critical component of APP's integrated sustainable forest management plans (ISFMPs), since they promote community relationships, help with land use conflicts, promote forest protection and improve food security.

Mill and forestry community investment programs are jointly conducted with local groups, technical partners and local governments. They may take many forms.

For example:

- A DMPA agreement signed in 2016 with families farming the land belonging to an APP pulpwood supplier concession, resulted in zero fire incident in 2017
- Farmers utilising a plot of unused land belonging to the mill to produce vegetable crops (Pindo Deli Mill, Karawang)
- Water infrastructure improvements for clean water and better sanitation in a village neighbouring a mill (Lontar Papyrus Mill, Jambi)
- An educational centre for children living near the mill, comprising a library, computer facilities, playground and an assembly hall (Ekamas Fortuna Mill, Malang)
- A community waste bank was established to provide additional income, in addition to a women's farmer group, a fishery and a handicraft SME (Ekamas Fortuna Mill, Malang).

Community forestry initiatives run by our pulpwood suppliers complement the recent growth in social forestry, where the Government of Indonesia is setting aside forest area for management by community groups to remove pressure on natural forests.

Performance

Our Vision 2020 commitments on health and safety remain a challenge: we endured nine fatalities in 2017. We anticipate that steps taken since 2016 on contractor safety will soon start to influence performance.

2017 saw fresh analysis of employee development, a new leadership development project and groundwork for an enhanced talent management programme.

Since 2015, APP has made good progress towards the community related Vision 2020 commitments. 2017 saw a surge in delivering IFFS/DMPA to help strengthen the relationship between forest protection and community prosperity: almost 200 villages started the program and the fire risk aspect of the IFFS/DMPA work resulted in no significant fires during the year (defined as a fire affecting more than two hectares).



Our People



Note: This data includes employees only, with the exception of accident frequency rate and severity rate, which includes contractors.

2017 saw a steady continuation of delivering our commitments on general welfare, onsite living accommodation, skills, equal rights, and compliance. Labour union relations continued to be strong. APP's complies with minimum wage regulations across all operations. Employee satisfaction measures show a stable performance.

APP's Transformation programme continues to evolve in response to business needs, with employee development, diversity and employee satisfaction at its core. Since the headcount reductions of 2016 we have focused on process efficiency and the best blend of automation and human workforce, while accounting for employment opportunities and safety.

Organisational Health Index

2017 saw an OHI of 2.93 (a 3.17% improvement and a higher response rate) and was in line with the benchmark of 3.0. The main areas of improvement were staff motivation despite a challenging year of headcount reductions. Ever mindful of future challenges APP is refining the way training is delivered to keep employees' competences and career development aligned with business need.

Health & Safety

All mills are certified to OHSAS 18001 and SMK3 (90% of mills achieved SMK3 Gold). APP's OHS Management System incorporates key improvement plans tailored to each mill.

Among nine fatalities in 2017, seven involved contractors. Accidents involved falls, confined spaces, vehicles and machinery. In all cases a full investigation was carried out and corrective actions put in place. We identified the root causes of the accidents were insufficient risk assessment, working procedure, training and team briefings. We restate the number of fatalities in 2016 at eight instead of three; the difference is accounted for by including contractors and a separate part of the company responsible for the construction of OKI mill in 2016. Overall injury rate decreased and absentee rate remained consistent with 2016, with a marked improvement in the number of lost days and a lower severity rate in 2017.

		2017	2016	2015
Injury rate	Male	2	4	3
	Female	0.1	2	1
Lost day rate	Male	4.7	36	77
	Female	2.4	24	10
Fatalities	Male	8	8*	4
	Female	1	0	0
Absentee rate	Male	0.1	0.1	0.1
	Female	0.1	0.1	
Frequency rate		8	18	13
Severity rate	Male	22	17	35
Lost day rate	+ Female	4	35	-
Occupational disease rate		0	0	0

*including OKI Mill construction



APP's Safety Culture Programme continued in 2017. It reinforces basic messages on housekeeping and a safety mindset. It raises awareness about our 8 safety golden rules, implementation of our 'safety in the line' program, accurate incident reporting, access to PPE, audits, wellbeing, a suggestion line, emergency preparedness and the annual APP OHS Conference. Mill medical centres for employees and their families provide compulsory annual health checks with local hospitals, occupational disease screening, and HIV/AIDS education.

Further, APP refers to national regulations including the use of metrics such as injury rates and fatalities. New in 2018 is a Safety Leadership Programme to demonstrate safe behavior from top to bottom: top management staff have safety KPIs built in to their performance appraisals.

Managing subcontractor's health and safety

Contractor safety management at APP is now going beyond what is required for compliance. All suppliers complete a risk-based self-assessment survey to help us assign each a risk classification. High-risk sites become a priority. In 2017 we intensified work on the Contractor Safety Management System (CSMS) which also covers sub-contractors. Whilst CSMS complements existing contractor safety initiatives, it has been elevated from a contractual clause to become an engagement process – particularly for high risk sites – backed up by performance benchmarking between contractors. For example:

- At Indah Kiat Perawang in 2017, 128 contractor companies were checked; 119 passed, nine failed due to minor non-compliances. Sharing of safety management best practices has taken place with OKI and Tjiwi Kimia mills. Site speed limits are enforced, a driving permit is being introduced and motorbike safety guidance is provided. Near-miss reporting has been adopted, safety workshops with external experts took place in 2017, and contractors also received fire safety training.
- At OKI, the mill manager required all contractors to attend a meeting on APP's basic safety requirements. Often new workers with no previous work experience have little awareness of the culture of safety in a manufacturing environment. Achieving its first SMK3 certificate in 2017 allowed OKI to introduce a systematic approach from the start. Specific focus in 2017 was on SOPs, working at height, confined space, electrical isolation and motorbike safety.
- In 2017, Pindo Deli Karawang started rolling out the Safety in Line programme where a champion promotes the eight golden rules on behavioural safety. OHS training and awareness also targets contractors under the mill's CSMS: 308 contractors received the socialisation in 2017.

CSMS will be fully implemented across mills during 2018. We expect to levy fines and suspend operations if contractors do not comply.

Training

As the business evolves, the way employees develop skills also transforms. In 2017 we took a fresh look at training effectiveness and employee development. Performance appraisals apply to all employees. Training young workers is still an important part of succession planning (200 trainees in 2017). APP's younger employees – future leaders – are tested using a formal assessment before they join the 'talent pool'.

An academy programme for all

The APP Academy is a Group-wide training and development programme to build a world-class workforce, to retain talent and to deliver the commercial aim of the organisation. The APP Academy was scaled up in 2017, it now includes maintenance teams and product converting businesses downstream. Leadership modules that also cover APP's Transformation House process, were added with an aim to expand in 2018.

At Indah Kiat Perawang for example, the Energy and Pulp Production School forms part of the APP Academy. Engineering training is provided for current employees to develop new skills; once assessed they can achieve formal certification. Bespoke modules are offered for specialist operations found within the mill.

OKI's own blend of technical and general training covers compliance, engineering, environment, health & safety, human rights, and leadership. Their specific circumstances led to the use of external and internal trainers. In 2018 the mill will start with APP Academy.

Diversity and Equal Opportunities

In line with our commitment on equality of pay, benefits and conditions for our direct employees, our internal reporting channels indicated no confirmed cases of discrimination in 2017. Each of our mills pays a salary equal to or greater than the locally determined minimum wage, which varies by location, irrespective of gender. The proportion of women at all levels of the organisation was 10%, and amongst management 6%.

As we have reported in the past, gender diversity presents a real challenge to APP. While we actively seek to provide a workplace that is free from discrimination, we operate in a manufacturing sector that has traditionally employed a high proportion of male employees.

Recruitment & Retention

In 2017, recruitment rates increased slightly: 5% for men, and 2% for women (3% and 2% respectively, in 2016). Also, data shows that we recruited more young people (a rate of 16% for both men and women under 30). Turnover reduced to 10% and 37% for male and female employees respectively. The previously high rates in 2016 were the result of the prior restructuring programme.

		2017	2016	2015
New employee hires	Total	5	3	4
	Male	5	3	5
	Female	2	2	2
Turnover	Total	13	27	7
	Male	10	26	7
	Female	37	39	5

Meeting employees' needs and attracting new talent are vital. So we commit to providing excellent benefits and working conditions with long-term career prospects. Benefits include paid annual leave, maternal and paternal parental leave, sabbatical leave, health insurance and a company pension plan. Certain benefits are provided to permanent employees only, but this varies by location, in line with local regulations.

All employees receive annual career development and performance reviews.

Many of our mills are in remote locations, so the employment opportunities we offer provide a significant positive impact to local communities. While we aim to recruit locally as a priority, this does not always provide us with the right technical manufacturing expertise we require. In response, we support a range of scholarships and build relationships with local educational institutions and technical schools. In 2017, 7% of our mill senior management were hired locally.

Developing our future employees

- From over 100 applicants, our OKI mill selected 10 students from the senior high school who will be supported through university, both financially and with work placements at the mill, following technical engineering, pulp and paper related courses.
- 29 graduates were employed at Indah Kiat Perawang immediately after graduation, each will be given six months of intense training before being offered a full time role at the mill. The mill also provided 9 scholarships to students at the technical pulp school in Bandung.

Group-level Community Engagement

APP continues to be Chair of the Indonesia Water Mandate Working Group, a working group under the Indonesia Global Compact Network, which works with UNESCO and communities on islands off the Javanese coast near Jakarta to address island water management. Initiated through funding secured through UNESCO, the agreed delivery partners are Habitat for Humanity Indonesia (HfHI) and Indonesian Institute of Sciences (LIPI). Work is focused on Pari Island (see page 44 in our 2016 Sustainability Report) on water shortages, waste water and awareness raising.

APP worked with HfHI once again in 2017 to improve access to clean water and sanitation. HfHI have a strong record of effective engagement with local leaders, an understanding of mill management, and knowledge of local land ownership processes. Two activities took place in 2017. Firstly, we continued the disaster-relief work in Aceh, following the 2016 earthquake, to provide water tanks, training on personal hygiene, community and family kits to clean their living area. HfHI teams are experienced and used to working alongside provincial, government-funded rebuilding. Secondly, HfHI and Tjiwi Kimia mill continued with their sanitation programme, adding 80 toilets in local villages in 2017. New tasks in 2018 will focus on community empowerment through diverse water & sanitation programmes. Through mentoring, training and infrastructure development the community will become more independent and self-sustaining.

We also collaborated with the Ministry of Village, Disadvantaged Area Development and Transmigration (Kemendes PDTT) by aligning the rebuilding program with the Government's villages program.

Forestry Production in Indonesia

By way of background, there are three officially recognised forestry production types in Indonesia:

- 1 **Natural forest management:** based on location-specific and time-based permits issued by local government to legal entities such as cooperatives, state-owned enterprises and private companies. Some selective logging practices can be sustainable but commercial logging in these areas is generally not seen as sustainable. We cautiously note a general trend in Indonesia from unsustainable logging of natural forests towards a greater emphasis on commercial plantation forestry and social forestry.
- 2 **Commercial plantation forestry** is where forests are seeded, cultivated and eventually harvested, ideally in a sustainable manner. Partly owing to sustainability considerations, plantation forestry is expanding: it helps recover carbon absorption capacity, stabilise land, prevent soil loss and manage water cycle. Arguably, any positive sustainability impacts are lost if Commercial Plantation Forestry simply replaces natural forests, however.
- 3 **Social forestry** is the management of natural forests in a sustainable manner by local communities. Communities that depend on the forests can legally take products from forests to support their basic needs, including some limited commercial production. Forest communities practice traditional swidden agriculture to grow crops in the forest, they may harvest rattan, honey, or carry out fishing and animal husbandry; certain trees are owned by certain community members.

Social forestry is a community-based approach to forestry and natural forest protection. The Government of Indonesia (GoI) allocated 12.7m ha to it as part of its efforts to reduce wealth disparity (measured using the GINI ratio). So far, some 1.4m ha have been placed under community-based management across Indonesia.

In 2017, APP approved four community forest groups as pulpwood suppliers.

Forestry Community Engagement

Each of APP's pulpwood supplier has been conducting environmental and social impact assessments, for many years. These helped us identify social impacts for CSR activities. They are further strengthened by the DMPA approach which guides communities to depend on the forest for prosperity and to combat illegal logging, forest fire, and conflict.

As well as providing capacity building, planting materials, equipment and access to market, DMPA projects may also feature a micro-finance model where project funds are managed by the community. This pays for training and agronomy demonstrations that help eliminate a need to clear forest. It is a condition of DMPA that if any conflict exists, its resolution must be achieved before project start-up. SMF provides training and inputs (seeds, seedlings and fertilisers), guides project implementation, and ensures a buyer for the farming produce. An independent observer reports project performance to SMF.



At Desa Simpang Heran, South Sumatra Province, for example no-burning agreement was signed in 2016 with farmers on land managed by our supplier. Working with local government, we trained the farmers and planned improved irrigation infrastructure. The result is zero burning since the agreement was signed.

One farmer, Mr. Sugeng, a signatory to the DMPA agreement, attended many training sessions and told us in March 2018 how the DMPA helped him achieve better yields, make better compost, use existing land more productively and benefit from the zero-interest rate loan. Since 2012 he has noticed that other farmers are motivated to attend the training and share the benefits. His one hectare share of the concession is enough for his family as well as for additional revenue from rubber tapping.

“After they see me succeed, finally many follow,” said Suryono, a successful farmer of this programme.

Mr. Kurnia, an employee of APP’s pulpwood supplier, is the facilitator of Desa Simpang Heran since October 2017. He is the middleman between SMF and the farmers, and on a daily basis he monitors the entire process of farming, BUMDes operation and co-operative administration matters. He told us in 2018 that the main challenges he faced were the unwillingness of some farmers to change their ways, so he finds examples and demonstrations that they can trust.

For more information on the DMPA programme please see the Forests section, page 57.



Mill Community Engagement

Each of our mills has developed community engagement programmes based on community social impact assessments, overall APP commitments and community participation. The social impact assessments provide the information we need to develop these tailored plans, which ultimately feed into a five-year strategic CSR plan for each mill. All mill CSR programmes align with SDGs, with a focus towards goals SDG 1 (No poverty), SDG 3 (Good health and wellbeing), SDG 4 (Quality education) and SDG 6 (Clean water and sanitation).





- Indah Kiat Serang supports a local handicraft business of 16 employees who sell products made from the off-cuts of wood from the school furniture project. The mill provides the wood waste material, mentoring, facilitates networking and marketing guidance. The mill also works with local government and an environmental group to develop responsible tourism at Lontar beach. Initial work has been to construct a bamboo walkway through the mangrove area.



- Microfinance institution “Rumpin Abdul Wahid” is financing SMEs and farmers. The goal is to improve agriculture practices, and provide commercial guidance to SMEs. Additionally, through a local farmers’ group, the mill’s sustainable agriculture program aims to provide training, mentoring, soft loans and capital to enable the community to produce better yields, manage risks and achieve better prices for their produce.
- At Indah Kiat Perawang, APP provides used heavy duty plastic strapping at a reduced price to a brand new local SME. The 80 workers repurpose it into various products for sale and the mill provides guidance and finance for capital equipment and marketing. Following this success the mill expanded the programme to a second SME in late 2017. The mill also supports a local snackfood SME operating since 2009. Data show that our support helped expand market reach and provide up to 1.2m IDR additional monthly income per person.
- Indah Kiat Tangerang and local government support a local fishery with training and finance and commercial guidance. Materials provided include a portable pool for breeding and upgraded equipment. The fish are sold to the community, restaurants and to the mill, and the project has spawned a further seven fisheries. The mill also supports a farmer group on unused riparian land under the control of APP.
- OKI mill has made significant progress in 2017 on fire control and community empowerment. Also, OKI is improving local infrastructure in collaboration with the local community that will help boost local community development, including 6.6 km of new road, 17 new bridges, as well as repairs to roads and several bridges. Better transport links help improve economic empowerment by making the distributions of farming produce and other services easier.
- Lontar Papyrus empowers a local women’s farmer group through training and assistance to develop mushroom farming. It is estimated the programme increases each farmer’s income by 500,000 IDR per month. The mill also supports livestock husbandry: the mill donates liquid nitrogen to local farmers for the purpose of storing cow sperm and supporting cattle breeding programmes. Training and mentoring is also provided.

- Also at Lontar Papyrus, support is given to a women's handicraft SME; strapping material is one raw material from the mill. Other support includes soft loans, training from our SME partner at Indah Kiat Perawang, and networking opportunities to boost marketing.
- Pindo Deli Karawang mill continues to support the growth of a community farming group. Following a formal agreement between the group, local government and the mill, 20ha of land was provided to the group in 2017, and the mill also provides seed and technical support. Similar farmer groups are found in three local villages, totalling approximately 250 people and achieving average monthly incomes of around 4.5 million IDR.

"I farm on 5ha of land provided by the mill, growing bittergourd, cucumber, long beans and eggplants, all of which are sold in Jakarta. I make around 3 million IDR per month and employ five others to support me. I've also attended training sessions, provided by the mill. This has been vital in providing insight into techniques for better farm management, crop efficiency and disease control"
Ibu Marsilem, local farmer.



- Ekamas Fortuna facilitates programmes to support economic empowerment, improve educational facilities and promote environmental conservation. All projects are based in and around the Gampingan village nearby. A community waste bank was set up, to provide additional income and to raise awareness - in the village and in local schools – about responsible waste management. Other programmes include a community library, a women's farmer group, a fishery and a handicraft SME. The projects are often visited by external parties such as universities and government departments to learn about community empowerment.

3 GOOD HEALTH AND WELL-BEING



- To keep breastfeeding mothers healthy, Indah Kiat Serang implements a program in Kragilan district that provides training, nutrition supplements and vitamins. The goal is to eliminate malnutrition and boost the immune systems in toddlers, the project involves local health centres and midwives. Hygiene and sanitation have been improved in partnership with local government in Serang and the government forestry office.
- In 2017, Pindo Deli Karawang raised awareness of the importance of infant health in partnership with the local government. Awareness of the importance of healthy eating was provided and vitamins were distributed. In a related programme, healthy lifestyles for children were promoted through a competition involving physical and mental fitness for under-fives.
- In a bid to improve the quality of life for three villages neighbouring Tjiwi Kimia, a Sanitation and Hygiene Improvement Project was established. The project, which follows a participative model, is run with Habitat for Humanity Indonesia to deliver training in personal hygiene, waste management and infrastructure development to drive improvements in sanitation and waste practices. At the end of 2017 the programme had provided:
 - 90 individual toilets were completed and handed over to 90 families, 6 individual toilets are in the construction progress
 - 84 people trained in household waste management training
 - 228 people trained on sanitation and hygiene.



4 QUALITY EDUCATION



- Indah Kiat Serang mill continues to improve education locally by donating unused pallets and the means to turn them into school furniture. The outcome is job creation (training, refurbishment, monitoring) and empowered communities. The mill sees the value of cooperation with the Government and the village authority. It conducts an initial assessment, checks what is required and assigns the materials and support.
- At Indah Kiat Serang, the mill's GNOTA Scholarship programme has been helping improve elementary, junior and senior education in seven districts. Some 778 employee volunteers have helped 35,594 students over the 21 years of the programme.
- OKI mill is improving local schools and access to further education. Core to this are 60 new pre-schools, constructed in line with the government aim to improve pre-schooling. Looking at the progress in 2016, 20 buildings were added in 2017. Members of the community are helping construct them and formally trained teachers are being taken on.



- OKI also provides a scholarship to the Academy of Pulp & Paper Technology at Bandung, West Java; in 2017 APP sponsored 15 students (in addition to 24 over previous years).



- Throughout 2016 and 2017 Pindo Deli Karawang supported a programme to improve community education in partnership with Habitat for Humanity Indonesia. The 250m IDR programme has provided for the renovation of school buildings, toilet facilities, a clean water supply and the greening of the local environment. In addition, minor renovations to three other school buildings and a pre-school were carried out. In response to the higher than average student dropout rate from local schools, the mill also worked with education agency to allow students the opportunity to complete their studies through the Kejar Paket programme and obtain their school leaver certificates. The mill covered the school fees for 30 students in 2017. The mill also provided motivational training for young unemployed people in the community with the aim of diversifying their future employment opportunities.

6

CLEAN WATER
AND SANITATION

- OKI mill is collaborating with Sriwijaya University to develop 400ha of paddy fields for rice production on some abandoned land that flooded. OKI brought it back into productive use and released it to the community. The next step is to build local capacity to farm it and manage the water pH levels for the crop.
- At OKI mill a clean water access project was implemented at Bukit Batu village to prevent brackish water contamination, remove reliance on rain water for washing and drinking and improve sanitation. Reverse osmosis facilities, provided by OKI mill and owned by the community Village-Owned Enterprise (BUMDes), once commissioned and online, will allow them to provide them or even sell clean water to others. The next step in 2018 is to provide training on its operation, and structure the management at community level.
- Clean water is a basic need for any community, the water conditions in the communities around Lontar Papyrus are generally acidic, high in iron content, making it unsuitable for consumption. Shallow wells do not reach water of sufficient quality, leaving the community no choice other than use the river for daily water consumption which comes with it risk to health. Working together with the local community and government the mill supported the development of a deep well and its infrastructure, and provided technical assistance and mentoring. Today the community is water self-sufficient and have taken ownership of the clean water installation through their community led water committee.



Human Rights, FPIC and Conflict Resolution

APP recognises that our operations are exposed to human rights related risks. The way we manage this is informed by the United Nation's Guiding Principles on Business and Human Rights and the International Labour Organisation (ILO). Our Forest Conservation Policy aims to deliver community development, transparent conflict resolution and Free, Prior and Informed Consent (FPIC). We incorporate resolution action planning into professional performance indicators of site managers. Our conflict resolution process is supported by stakeholders at regional level and based on MoUs. The process is measurable with four phases of resolution, in 2017 we achieved MoUs in just under half of active cases (see page 59).

As described above, disputes and transactional misunderstandings can create social tension and negative environmental impacts. APP's new OKI pulp mill in South Sumatra is a significant example of intense engagement with local community and NGOs on FPIC in the development of the site. In 2017 the conflict with Riding village was resolved, helped by a third party mediator. The conflict with Kesuma village in Riau province was resolved in December 2017. On the conflict with Hasan Basri, having reached verbal consensus we are now working towards a final written agreement.

Grievance

We reported no grievances through our grievance mechanism in 2017.

Community-based Security

During 2017 we consulted with community stakeholders on how to deliver community-based security; this was finalised in December. Implementation will begin in 2018 in seven villages. Discussion took place with community leaders on perceived concerns, community groups were set up and human rights, forestry, fires, encroachment and safety training was delivered early in 2018. A patrol schedule has been agreed, and whilst it is a professional team, it will not be armed.



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About This Report



About This Report

This report continues Asia Pulp and Paper's long term commitment to annual sustainability reporting. Our most recent report, the 2016 Sustainability Report, was published in October 2017.

Asia Pulp and Paper's 2017 Sustainability Report, published in October 2018, communicates a summary of our approach and performance against our Sustainability Roadmap: Vision 2020 and, within the roadmap, our Forest Conservation Policy (FCP) commitments. We also briefly introduce our future sustainability strategy, Vision 2030, which at the time of this report publication was in the process of development. We intend to provide further stakeholder updates expected in the second half of 2018 with regards this new strategy and revised commitments, reporting fully against the new strategy in 2019.

The contents of this report should be read alongside the information provided in the sustainability section of the APP website. Relevant links are provided throughout this report.

This report serves as our Communication on Progress (COP) for the United Nations Global Compact (UNGC) and coverage of activities related to the ways in which we support the UNGC CEO Water Mandate.

Defining Report Content

The content and quality of this report is guided by the latest Global Reporting Initiative Standards (GRI Standards). We apply the guidelines and associated indicators to ensure we report against our relevant economic, social and environmental impacts and mitigation activities.



Report Scope and Boundary

Unless stated otherwise, information in this report relates to the period 1st January 2017 to 31st December 2017. Continuing the approach we first applied in 2016, we report mill production capacity based on quoted capacity in relevant legal documentation (business permits).

APP is a brand name under which our products are sold. Purinusa Ekapersada is the brand holder of APP. The scope of the report covers APP pulp and paper manufacturing operations in Indonesia.

The following operational facilities are within scope of this report.

Legal entity	Mill (s) known as
PT Ekamas Fortuna	Ekamas Fortuna
PT Indah Kiat Pulp & Paper Tbk	Indah Kiat Perawang
	Indah Kiat Serang
	Indah Kiat Tangerang
PT Lontar Papyrus Pulp and Paper Industry	Lontar Papyrus
PT. OKI Pulp & Paper Mills	OKI
PT Pabrik Kertas Tjiwi Kimia Tbk	Tjiwi Kimia
PT Pindo Deli Pulp and Paper Mills	Pindo Deli Karawang (mill 1, 2 and 3)
	Pindo Deli Perawang
PT The Univenus	Univenus Perawang

For the first time we report fully on our OKI mill in this report, following a full year of production in 2017. We exclude OKI mill from our baseline calculations (2012 for all commitments, with the exception of water commitments which use 2013) to avoid misrepresenting our performance during 2017.

Sites which do not manufacture pulp or paper and our head office are excluded from the report. APP will consider reporting on these functions in future reports. Due to organisational structure and differing stakeholder priorities, APP China publishes a separate Sustainability Report which can be viewed here¹⁸.

One of the highest priority issues for our stakeholders is the activities of APP pulpwood suppliers. The Sinar Mas Forestry management team supports APP pulpwood suppliers, currently covering 33 pulpwood supplier companies who manage 38 concessions (forest management units based on government forest concession licenses).

Despite not being under APP's direct ownership (although we have shared ownership in nine of our suppliers), we have a responsibility to manage and monitor their activities, therefore details of our approach are included in the scope of this report for the benefit of communicating these issues to our stakeholders transparently.



¹⁸ <http://www.app.com.cn/sustain/report.htm>

Group Environmental Data Table

			2017	2016	2015
Production	Pulp	tonnes	5,254,441	3,879,000	3,783,000
	Paper		3,161,000	3,050,000	2,927,000
	Stationery		213,000	206,000	202,000
	Tissue		657,824	602,000	421,000
	Packaging		2,274,157	2,139,000	2,120,000
	Total (excl chemicals)		11,560,422	9,876,000	9,453,000
	Chemicals		2,482,380	2,413,491	2,426,536
	Total Production		14,042,802	12,289,491	11,879,536
Materials	Total raw material for pulp	tonnes	19,770,423	14,527,448	14,940,156
	Total raw material for chemicals		4,058,303	3,020,961	5,023,787
	Total raw material for paper		5,155,719	4,981,583	4,872,709
	Total raw material packaging		282,881	267,407	135,318
Energy	Coal		105,420,877	103,035,123	102,141,191
	Diesel Oil		1,513,006	254,897	606,277
	Industrial Diesel Oil		89,805	77,866	65,214
	Marine Fuel Oil		2,329,861	186,178	202,579
	Gas		16,396,406	16,439,479	17,817,451
	Total non renewable (direct)		125,749,955	119,993,543	120,832,711
	Bark	GJ	20,633,450	24,769,435	21,925,752
	Black Liquor		114,055,260	80,579,899	81,831,431
	Sawdust		277,732	257,618	216,442
	Palmsheel or Crushed Palm Shell		10,204,416	113,822	197,269
	WWT Sludge		671,335	723,720	676,624
	Biogas		76,353	79,367	84,394
	Empty fruit bunches (tankos)		127,191	212,722	234,398
	Total renewable (direct)		146,045,736	107,894,176	105,620,644
	Purchased electricity		7,361,423	7,544,696	6,491,174
	Total energy consumption		276,483,557	231,179,764	232,944,529
	Energy intensity	GJ/t	27	27	27
Carbon ¹	Scope 1*	tCO ₂ e	11,000,895	10,528,854	10,664,469
	Scope 2*		1,257,395	1,276,976	1,156,518
	Biomass		14,612,407	10,808,641	10,538,677
	Carbon intensity	tCO ₂ e/t	1.18	1.35	1.40
Water	Total water withdrawn by source	m ³	279,846,791	221,369,805	234,641,177
	Percentage water recycled	%	14	19	22
	Effluent discharge to river	m ³	227,403,254	193,951,948	203,330,278

			2017	2016	2015
Waste ²	Landfill	tonnes	513,988	417,898	279,166
	Utilised by licensed third party		283,392	251,919	373,502
	Recycled		380,755	433,336	527,865
	Temporary storage		3,563	12,919	14,005
	Total hazardous waste		1,181,697	1,115,223	1,190,869
	Landfill	tonnes	3	0	4,703
	Utilised by licensed third party		910,478	185,062	22,497
	Recycled		5,588	0	7,062
	Temporary storage		293,082	7,059	7,350
	Total non hazardous waste		1,209,151	192,121	41,612
Others	ODS Emissions		25	46	45
Environmental expenditure	Waste disposal, emissions treatment, and remediation costs	US \$	31,171,296	26,421,928	21,204,901
	Prevention and environmental management costs	US \$	10,275,563	7,636,645	8,568,848

¹ Data calculation based on Intergovernmental Panel on Climate Change (IPCC) and World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) - Greenhouse Gas (GHG) Protocol methodology

[†] Data 2015 revised following updated IPCC 2013 standard and emission factor for electricity from national grid

² Started in 2015 we include incinerated into one category with recycled



Mill Environmental Data Table

			Indah Kiat Perawang			Indah Kiat Serang			Indah Kiat Tangerang		
			2017	2016	2015	2017	2016	2015	2017	2016	2015
Water emissions	pH	mg/L	7.6	6.7	7.4	7.8	7.8	7.6	7.4	7.3	7.6
	TSS		69.5	66.2	78.0	24.7	30.7	26.7	6.1	6.7	7.7
	BOD		51.1	55.1	75.5	33.0	43.3	45.6	11.2	11.8	12.6
	COD		230.1	200.6	289.0	135.4	151.3	141.4	40.7	47.9	43.8
	AOX		4.0	7.2	7.0	N/A	N/A	N/A	N/A	N/A	N/A
Air emissions	NO ₂	mg/Nm ³	151.8	139.1	139.5	171.6	305.6	598.9	165.3	109.4	3.3
	SO ₂		193.2	210.1	200.1	9.1	268.6	224.5	27.8	27.5	49.8
	ClO ₂		29.6	23.3	17.4	N/A	N/A	N/A	N/A	N/A	N/A
	HCl		2.6	2.8	2.9	N/A	N/A	N/A	N/A	N/A	N/A
	Cl ₂		5.3	4.8	4.1	N/A	N/A	N/A	N/A	N/A	N/A
	Opacity		< 20	< 20	< 20	< 20	< 20	15.0	< 20	< 20	< 20
	TRS		10.1	9.7	11.9	N/A	N/A	N/A	N/A	N/A	N/A
Air emissions load ⁵	Total Particulate		100.2	111.7	111.3	15.3	21.9	28.9	65.6	86.1	7.8
	NO ₂	kg/t	0.98	98.2		1.04	1.24		5.13	0.38	
	SO ₂		1.76	1.18		0.07	0.83		0.82	2.61	
Others	Distance to protected area	km	Tesso Nilo National Park (50)			Halimun Mountain National Park (40)			Rawa Danau Tukung Gede Conservation Area (20)		
	Local water source		Siak River			Ciujung River			Cisadane River		

			Lontar Papyrus			Pindo Deli Karawang			Pindo Deli Perawang		
			2017	2016	2015	2017	2016	2015	2017	2016	2015
Water emissions	pH	mg/L	7.0	7.4	7.1	7.4	7.3	6.6	Discharge via Indah Kiat Perawang		
	TSS		32.3	36.3	26.8	19.7	15.7	16.0			
	BOD		81.3	74.1	41.0	21.2	11.8	17.4			
	COD		181.0	254.0	94.8	76.1	48.9	59.2			
	AOX		3.3	5.4	11.0	0.2	0.1	0.0			
Air emissions	NO ₂	mg/Nm ³	87.5	54.8	139.2	81.2	116.6	107.0	Discharge via Indah Kiat Perawang		
	SO ₂		172.5	57.5	57.6	35.3	30.7	34.3			
	ClO ₂		8.7	4.5	7.2	N/A	N/A	N/A			
	HCl		1.6	1.8	0.1	0.1	0.2	0.3			
	Cl ₂		3.5	4.0	3.3	0.0	0.0	0.0			
	Opacity		< 20	10.8	15.1	< 20	< 20	13.9			
	TRS		7.6	18.0	13.3	0.0	0.0	< 10			
Air emissions load ⁵	Total Particulate		130.8	120.8	112.4	75.6	12.1	7.8			
	NO ₂	kg/t	2.41	3.25		4.76	10.58				
	SO ₂		5.17	3.00		1.29	3.40				
Others	Distance to protected area	km	Bukit Tigapuluh National Park (30)			Nature Reserve of Tangkuban Perahu Mountain (40)			Tesso Nilo National Park (50)		
	Local water source		Pangabuan River			Citarum River			Siak River		

			Univenus Perawang			Tjiwi Kimia			Ekamas Fortuna			OKI	
			2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	
Water emissions	pH	mg/L	Discharge via Indah Kiat Perawang				7.4	7.3	7.3	7.5	7.7	7.6	7.1
	TSS						16.9	9.8	10.2	19.2	25.3	19.0	24.4
	BOD						10.4	15.4	15.6	20.7	26.0	19.5	101.2
	COD						32.5	38.3	38.5	70.6	97.5	59.1	219.7
	AOX						0.0	0.0	0.0	N/A	N/A	N/A	N/A
Air emissions	NO ₂	mg/Nm³	Discharge via Indah Kiat Perawang				153.7	150.8	38.7	35.0	53.4	42.8	105.0
	SO ₂						146.8	313.5	65.1	234.8	309.8	210.5	8.5
	ClO ₂						N/A	N/A	N/A	N/A	N/A	N/A	0.0
	HCl						0.6	1.8	2.8	N/A	N/A	N/A	0.8
	Cl ₂						0.3	0.3	2.4	N/A	N/A	N/A	0.4
	Opacity						< 20	< 20	< 10	< 20	< 20	1.6	< 20
	TRS						N/A	N/A	N/A	N/A	N/A	N/A	7.7
	Total Particulate						14.5	46.0	19.9	128.0	43.0	82.2	17.7
Air emissions load ⁵	NO ₂	kg/t					0.07	2.23		1.01	0.76		0.18
	SO ₂						0.04	9.98		8.64	3.98		0.02
Others	Distance to protected area	km	Tesso Nilo National Park (50)				Bromo Tengger Semeru National Park (80)			Pulau Sempu Nature Reserve (30)			Berbak Sembilang National Park
	Local water source		Slak River				Brantas River			Lesti River			Baung River

³ As a result of sustainability database improvement, started in 2016 we reported air emission load.



Mill Social Data Table

			Indah Kiat Perawang						Indah Kiat Serang					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	68	13	12	1	1	0	116	9	2	11	0	0
	Rate of new employee	%	4.9	0.3	2.2	2.6	0.3	0.0	91	0.4	0.7	18.3	0.0	0.0
	Employee turnover	#	166	295	207	8	29	11	187	215	87	11	21	5
	Rate of employee turnover	%	10.8	6.3	27.6	17.4	9.2	44.0	12.7	8.6	22.6	15.5	14.6	25.0
Health & Safety	Fatality	#		1			1			0			0	
	Frequency rate ⁴			4.8			0.5			8.8			0.0	
	Severity rate ⁴			6.5			33.2			20.7			1.7	
	Injury rate ⁵			1.0			0.1			1.8			0.3	
	Occupational disease rate			0.0			0.0			0.0			0.0	
	Lost day rate			1.3			6.6			4.1			0.3	
	Absentee rate ⁶	%		0.9			1.0			0.9			4.3	

			Indah Kiat Tangerang						Lontar Papyrus					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	9	5	0	2	1	0	94	28	12	4	0	0
	Rate of new employee	%	5	1	0	6	1	0	22	2	10	24	0.0	0.0
	Employee turnover	#	24	30	21	23	75	6	55	88	26	1	5	0
	Rate of employee turnover	%	11.0	5.2	25.6	39.0	50.3	54.5	11	7	18	6	11	0.0
Health & Safety	Fatality	#		0			0			1			0	
	Frequency rate ⁴			9.3			1.7			8.3			0.0	
	Severity rate ⁴			4.0			1.7			58.5			0.0	
	Injury rate ⁵			1.9			0.3			1.7			0.0	
	Occupational disease rate			0.0			0.0			0.0			0.0	
	Lost day rate			0.8			0.3			11.7			0.0	
	Absentee rate ⁶	%		1.8			2.3			1.0			0.6	

			Pindo Deli Karawang						Pindo Deli Perawang					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	141	36	11	5	3	0	18	0	0	0	0	0
	Rate of new employee	%	31	1	3	20	1	0	3	0	0	0	0	0
	Employee turnover	#	38	320	108	17	24	3	45	49	6	0	1	0
	Rate of employee turnover	%	8	9	22	19	10	20	6	4	19	0	4	0
Health & Safety	Fatality	#		3			0			0			0	
	Frequency rate ⁴			12.3			0.6			18.1			6.7	
	Severity rate ⁴			47.7			1.1			11.0			6.7	
	Injury rate ⁵			2.5			0.1			3.6			1.3	
	Occupational disease rate			0.0			0.0			0.0			0.0	
	Lost day rate			9.5			0.2			2.2			1.3	
	Absentee rate ⁶	%		1.3			0.9			1.5			0.7	

			Univenus Perawang						Tjiwi Kimia					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	0	0	0	0	0	0	235	53	3	13	0	0
	Rate of new employee	%	0	0	0	0	0	0	44	1	2	25	0	0
	Employee turnover	#	2	3	0	0	0	0	22	13	424	59	168	599
	Rate of employee turnover	%	20	9	0	0	0	0	4	0.2	72	53	9	98
Health & Safety	Fatality	#		0			0			0			0	
	Frequency rate ⁴			0.0			0.0			8.4			0.0	
	Severity rate ⁴			0.0			0.0			13.3			0.0	
	Injury rate ⁵			0.0			0.0			1.7			0.0	
	Occupational disease rate			0.0			0.0			0.0			0.0	
	Lost day rate			0.0			0.0			2.7			0.0	
	Absentee rate ⁶	%		0.0			0.0			0.6			0.8	

			Ekamas Fortuna						OKI					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	2	0	0	4	0	0	281	139	30	13	1	1
	Rate of new employee	%	7	0	0	27	0	0	26	12	16	16	4	100
	Employee turnover	#	0	5	1	0	1	0	197	216	45	25	18	0
	Rate of employee turnover	%	0	1	1	0	3	0	18	19	24	32	67	0
Health & Safety	Fatality	#		0			0			3			0	
	Frequency rate ⁴			22.1			0.0			15.4			5.3	
	Severity rate ⁴			93.6			0.0			44.8			1.3	
	Injury rate ⁵			4.4			0.0			3.1			1.1	
	Occupational disease rate			0.0			0.0			0.0			0.0	
	Lost day rate			18.7			0.0			9.0			0.3	
	Absentee rate ⁶	%		1.3			0.8			1.3			1.1	

⁴ Frequency rate & Severity rate are calculated based on Government of Indonesia's regulation (Kep 84 BW Year 1998)

Frequency rate = (number of accidents x 1,000,000)/manhours

Severity rate = (number of lost days x 1,000,000)/manhours

⁵ Injury rate is calculated based on OSHA's regulation

Injury rate = (number of injury x 200,000)/manhours

⁶ Started in 2016 to follow GRI Standards, we recorded absentee rate including sick leave (inpatient & outpatient), working accident leave, and absent without leave

GRI Index

Disclosure Number	Disclosure Title	Section (page)	Notes
102	GENERAL DISCLOSURES		
	ORGANIZATIONAL PROFILE		
102-1	Name of the organization	About this Report (112)	
102-2	Activities, brands, products, and services	Who we are (13)	
102-3	Location of headquarters	Who we are (21)	
102-4	Location of operations	Who we are (21)	
102-5	Ownership and legal form	About this Report (112)	
102-6	Markets served	Who we are (9)	
102-7	Scale of the organization	Who we are (10-11)	
102-8	Information on employees and other workers	People and Communities (85), Mill Social Data Tables (118)	
102-9	Supply chain	Forests (40)	
102-10	Significant changes to the organization and its supply chain	GRI Index	None in reporting period
102-11	Precautionary principle or approach	GRI Index	APP applies the precautionary principle in our approach to managing environmental risks relevant to our organisation
102-12	External initiatives	Sustainability Strategy & Governance (22)	
102-13	Membership of associations	Sustainability Strategy & Governance (32)	
	STRATEGY		
102-14	Statement from senior decision-maker	Chairman's Statement (4-7)	
102-15	Key impacts, risks, and opportunities	GRI Index	In each performance chapter we describe key impacts risk and opportunities relevant to the issues described within that section
	ETHICS AND INTEGRITY		
102-16	Values, principles, standards, and norms of behaviour	Sustainability Strategy & Governance (22)	
102-17	Mechanisms for advice and concerns about ethics	Sustainability Strategy & Governance (30)	
	GOVERNANCE		
102-18	Governance structure	Sustainability Strategy & Governance (26)	
102-19	Delegating authority	Sustainability Strategy & Governance (26)	
102-20	Executive-level responsibility for economic, environmental, and social topics	Sustainability Strategy & Governance (26)	
102-21	Consulting stakeholders on economic, environmental, and social topics	Sustainability Strategy & Governance (23)	
102-22	Composition of the highest governance body and its committees	Sustainability Strategy & Governance (26)	
102-23	Chair of the highest governance body	Sustainability Strategy & Governance (26)	Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports
102-24	Nominating and selecting the highest governance body	Sustainability Strategy & Governance (26)	
102-25	Conflicts of interest	Sustainability Strategy & Governance (26)	
102-26	Role of highest governance body in setting purpose, values, and strategy	Sustainability Strategy & Governance (26)	
102-27	Collective knowledge of highest governance body	Sustainability Strategy & Governance (26)	Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports
102-28	Evaluating the highest governance body's performance	Sustainability Strategy & Governance (26)	

Disclosure Number	Disclosure Title	Section (page)	Notes
102-29	Identifying and managing economic, environmental, and social impacts	Sustainability Strategy & Governance (22)	
102-30	Effectiveness of risk management processes	Sustainability Strategy & Governance (29)	
102-31	Review of economic, environmental, and social topics	Forests (37), Peatlands (63), Sustainable Operations and Products (71), People and Communities (85)	
102-33	Communicating critical concerns	Sustainability Strategy & Governance (30)	
102-34	Nature and total number of critical concerns	Sustainability Strategy & Governance (30)	
102-35	Remuneration policies	Sustainability Strategy & Governance (26)	Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports
102-36	Process for determining remuneration	Sustainability Strategy & Governance (26)	
	STAKEHOLDER ENGAGEMENT		
102-40	List of stakeholder groups	Sustainability Strategy & Governance (32)	
102-41	Collective bargaining agreements	People & Communities (90)	
102-42	Identifying and selecting stakeholders	Sustainability Strategy & Governance (32)	
102-43	Approach to stakeholder engagement	Sustainability Strategy & Governance (32)	
102-44	Key topics and concerns raised	Sustainability Strategy & Governance (32)	
	REPORTING PRACTICE		
102-45	Entities included in the consolidated financial statements	About this Report (112)	
102-46	Defining report content and topic Boundaries	About this Report (112)	
102-47	List of material topics	Sustainability Strategy & Governance (34)	
102-48	Restatements of information	GRI Index	We have restated four 2016 waste data points following improvements in data collection in 2017 led us to recalculate the 2016 data. These are highlighted in the data table on page 80
102-49	Changes in reporting	About this Report (111)	
102-50	Reporting period	About this Report (111)	
102-51	Date of most recent report	About this Report (111)	
102-52	Reporting cycle	About this Report (111)	
102-53	Contact point for questions regarding the report	Inside cover	
102-54	Claims of reporting in accordance with the GRI Standards	About this Report (111)	
102-55	GRI content index	GRI Index	
102-56	External assurance	Assurance Statement (125)	
201	ECONOMIC PERFORMANCE		
103-1	Management approach disclosure	Sustainability Strategy & Governance (26)	
201-1	Direct economic value generated and distributed	Who We Are (11)	
201-3	Defined benefit plan obligations and other retirement plans	GRI Index	Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports
201-4	Financial assistance received from government	Who We Are (11)	Refer to Annual Reports

Disclosure Number	Disclosure Title	Section (page)	Notes
202	MARKET PRESENCE		
103-1	Management approach disclosure	People & Communities (85)	
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	People & Communities (95)	
202-2	Proportion of senior management hired from the local community	People & Communities (96)	
203	INDIRECT ECONOMIC IMPACTS		
103-1	Management approach disclosure	People & Communities (85)	
203-1	Infrastructure investments and services supported	People & Communities (100-107)	
203-2	Significant indirect economic impacts	People & Communities (100-107)	
204	PROCUREMENT PRACTICES		
204-1	Proportion of spending on local suppliers	GRI Index	78%. APP define local as a supplier based on the same island as the mill; Sumatra or Java.
205	ANTI-CORRUPTION		
103-1	Management approach disclosure	Sustainability Strategy & Governance (30)	
205-2	Communication and training about anti-corruption policies and procedures	Sustainability Strategy & Governance (30)	
205-3	Confirmed incidents of corruption and actions taken	Sustainability Strategy & Governance (30)	
206	ANTI-COMPETITIVE BEHAVIOR		
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	GRI Index	None in reporting period
301	MATERIALS		
103-1	Management approach disclosure	Sustainable operations and products (74)	
301-1	Materials used by weight or volume	Data Tables	
301-2	Recycled input materials used	Forests (38)	
302	ENERGY		
103-1	Management approach disclosure	Sustainable operations and products (74)	
302-1	Energy consumption within the organization	Data Tables	
302-2	Energy consumption outside of the organization	Data Tables	
302-3	Energy intensity	Sustainable operations and products (74)	
302-4	Reduction of energy consumption	Sustainable operations and products (74)	
303	WATER		
103-1	Management approach disclosure	Sustainable operations and products (74)	
303-1	Water withdrawal by source	Data Tables	
303-2	Water sources significantly affected by withdrawal of water	Data Tables	
303-3	Water recycled and reused	Data Tables	

Disclosure Number	Disclosure Title	Section (page)	Notes
304	BIODIVERSITY		
103-1	Management approach disclosure	Forests (37)	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Forests (37)	
304-2	Significant impacts of activities, products, and services on biodiversity	Forests (37)	
304-3	Habitats protected or restored	Forests (47-48)	
305	EMISSIONS		
103-1	Management approach disclosure	Sustainable operations and products (71)	
305-1	Direct (Scope 1) GHG emissions	Data Tables	
305-2	Energy indirect (Scope 2) GHG emissions	Data Tables	
305-3	Other indirect (Scope 3) GHG emissions	Data Tables	We currently do not measure Scope 3 emissions, but will review this during 2018.
305-4	GHG emissions intensity	Sustainable operations and products (76)	
305-5	Reduction of GHG emissions	Sustainable operations and products (76)	
305-6	Emissions of ozone-depleting substances (ODS)	Data Tables	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Data Tables	
306	EFFLUENTS AND WASTE		
103-1	Management approach disclosure	Sustainable operations and products (71)	
306-1	Water discharge by quality and destination	Data Tables	
306-2	Waste by type and disposal method	Data Tables	
306-3	Significant spills	Sustainable operations and products (80)	
306-5	Water bodies affected by water discharges and/or runoff	Data Tables	
307	ENVIRONMENTAL COMPLIANCE		
103-1	Management approach disclosure	Sustainable operations and products (71)	
307-1	Non-compliance with environmental laws and regulations	Sustainable operations and products (80)	
308	SUPPLIER ENVIRONMENTAL ASSESSMENT		
103-1	Management approach disclosure	Forests (37), Peatlands (63)	
308-1	New suppliers that were screened using environmental criteria	Forests (40)	
308-2	Negative environmental impacts in the supply chain and actions taken	Forests (37), Peatlands (63)	
401	EMPLOYMENT		
103-1	Management approach disclosure	People & Communities (85)	
401-1	New employee hires and employee turnover	People & Communities (95)	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	People & Communities (95)	
402	LABOR/MANAGEMENT RELATIONS		
103-1	Management approach disclosure	People & Communities (85)	

Disclosure Number	Disclosure Title	Section (page)	Notes
402-1	Minimum notice periods regarding operational changes	GRI Index	In the event of operational changes, APP allows a minimum of seven days' notice, as per Government of Indonesia regulation
403	OCCUPATIONAL HEALTH AND SAFETY		
103-1	Management approach disclosure	People & Communities (85)	
403-1	Workers representation in formal joint management-worker health and safety committees	People & Communities (87)	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Data Tables	
404	TRAINING AND EDUCATION		
103-1	Management approach disclosure	People & Communities (85)	
404-1	Average hours of training per year per employee	People & Communities (90)	
404-2	Programs for upgrading employee skills and transition assistance programs	People & Communities (94)	
404-3	Percentage of employees receiving regular performance and career development reviews	People & Communities (95)	
405	DIVERSITY AND EQUAL OPPORTUNITY		
103-1	Management approach disclosure	People & Communities (85)	
405-1	Diversity of governance bodies and employees	GRI Index	Two companies; Indah Kiat and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports
405-2	Ratio of basic salary and remuneration of women to men	People & Communities (69)	
406	NON-DISCRIMINATION		
103-1	Management approach disclosure	People & Communities (85)	
406-1	Incidents of discrimination and corrective actions taken	People & Communities (95)	
410	SECURITY PRACTICES		
103-1	Management approach disclosure	People & Communities (85)	
410-1	Security personnel trained in human rights policies or procedures	Sustainability Strategy & Governance (29), People and Communities (108)	
411	RIGHTS OF INDIGENOUS PEOPLE		
103-1	Management approach disclosure	People & Communities (85)	
411-1	Incidents of violations involving rights of indigenous peoples	GRI Index	Additional updates are provided through APP's Sustainability Monitoring Dashboard
412	HUMAN RIGHTS ASSESSMENT		
103-1	Management approach disclosure	Forests (37)	
412-1	Operations that have been subject to human rights reviews or impact assessments	Forests (37), Peatlands (60), People and Communities (108)	
412-2	Employee training on human rights policies or procedures	Forest (39)	

Disclosure Number	Disclosure Title	Section (page)	Notes
413	LOCAL COMMUNITIES		
103-1	Management approach disclosure	People & Communities (85)	
413-1	Operations with local community engagement, impact assessments, and development programs	People & Communities (88,95-99)	
413-2	Operations with significant actual and potential negative impacts on local communities	People & Communities (88)	
414	SUPPLIER SOCIAL ASSESSMENT		
103-1	Management approach disclosure	People & Communities (85)	
414-1	New suppliers that were screened using social criteria	Forests (44)	
414-2	Negative social impacts in the supply chain and actions taken	Forests (44)	
415	PUBLIC POLICY		
415-1	Political contributions	GRI Index	None in reporting period
417	MARKETING AND LABELING		
103-1	Management approach disclosure	Sustainable operations and products (71)	
417-1	Requirements for product and service information and labeling	Who we are (11)	
417-2	Incidents of non-compliance concerning product and service information and labelling	GRI Index	None in reporting period
417-3	Incidents of non-compliance concerning marketing communications	GRI Index	None in reporting period
419	SOCIOECONOMIC COMPLIANCE		
419-1	Non-compliance with laws and regulations in the social and economic area	GRI Index	None in reporting period

UNGC Index

			Section (page)
UNGC Communications on Progress	Human Rights	Principle 1 : Businesses should support and respect the protection of internationally proclaimed human rights;	People and Communities
		Principle 2 : make sure that they are not complicit in human rights abuses.	People and Communities
	Labour	Principle 3 : Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	People and Communities
		Principle 4 : the elimination of all forms of forced and compulsory labour;	People and Communities
		Principle 5 : the effective abolition of child labour; and	Sustainability Strategy & Governance
		Principle 6 : the elimination of discrimination in respect of employment and occupation	People and Communities
	Environment	Principle 7 : Businesses should support a precautionary approach to environmental challenges;	Sustainability Strategy & Governance
		Principle 8 : undertake initiatives to promote greater environmental responsibility; and	Sustainability Strategy & Governance
		Principle 9 : encourage the development and diffusion of environmentally friendly technologies.	Sustainability Strategy & Governance
	Anti-Corruption	Principle 10 : Businesses should work against corruption in all its forms, including extortion and bribery.	Sustainability Strategy & Governance

			Section (page)
UN CEO Water Mandate Index	Direct Operations	<ul style="list-style-type: none"> • Conduct a comprehensive water-use assessment to understand the extent to which the company uses water in the direct production of goods and services. • Set targets for our operations related to water conservation and waste-water treatment, framed in a corporate cleaner production and consumption strategy. • Seek to invest in and use new technologies to achieve these goals. • Raise awareness of water sustainability within corporate culture. • Include water sustainability considerations in business decision-making – e.g., facility-siting, due diligence, and production processes 	Sustainable Operations and Products
	Supply Chain and Watershed Management	<ul style="list-style-type: none"> • Encourage suppliers to improve their water conservation, quality monitoring, waste-water treatment, and recycling practices. • Build capacities to analyze and respond to watershed risk. • Encourage and facilitate suppliers in conducting assessments of water usage and impacts. • Share water sustainability practices – established and emerging – with suppliers. • Encourage major suppliers to report regularly on progress achieved related to goals. 	Sustainable Operations and Products
	Collective Action	<ul style="list-style-type: none"> • Build closer ties with civil society organizations, especially at the regional and local levels. • Work with national, regional and local governments and public authorities to address water sustainability issues and policies, as well as with relevant international institutions – e.g., the UNEP Global Programme of Action. • Encourage development and use of new technologies, including efficient irrigation methods, new plant varieties, drought resistance, water efficiency and salt tolerance. • Be actively involved in the UN Global Compact's Country Networks. • Support the work of existing water initiatives involving the private sector – e.g., the Global Water Challenge; UNICEF's Water, Environment and Sanitation Program; IFRC Water and Sanitation Program; the World Economic Forum Water Initiative – and collaborate with other relevant UN bodies and intergovernmental organizations – e.g., the World Health Organization, the Organisation for Economic Co-operation and Development, and the World Bank Group. 	Sustainable Operations and Products

			Section (page)
UN CEO Water Mandate Index	Public Policy	<ul style="list-style-type: none"> • Contribute inputs and recommendations in the formulation of government regulation and in the creation of market mechanisms in ways that drive the water sustainability agenda. • Exercise “business statesmanship” by being advocates for water sustainability in global and local policy discussions, clearly presenting the role and responsibility of the private sector in supporting integrated water resource management. • Partner with governments, businesses, civil society and other stakeholders – for example specialized institutes such as the Stockholm International Water Institute, UNEP Collaborating Centre on Water and Environment, and UNESCO’s Institute for Water Education – to advance the body of knowledge, intelligence and tools. • Join and/or support special policy-oriented bodies and associated frameworks – e.g., UNEP’s Water Policy and Strategy; UNDP’s Water Governance Programme. 	Sustainable Operations and Products
	Community Engagement	<ul style="list-style-type: none"> • Endeavor to understand the water and sanitation challenges in the communities where we operate and how our businesses impact those challenges. • Be active members of the local community, and encourage or provide support to local government, groups and initiatives seeking to advance the water and sanitation agendas. • Undertake water-resource education and awareness campaigns in partnership with local stakeholders. • Work with public authorities and their agents to support – when appropriate – the development of adequate water infrastructure, including water and sanitation delivery systems. 	Sustainable Operations and Products
	Transparency	<ul style="list-style-type: none"> • Include a description of actions and investments undertaken in relation to The CEO Water Mandate in our annual Communications on Progress for the UN Global Compact, making reference to relevant performance indicators such as the water indicators found in the Global Reporting Initiative (GRI) Guidelines. • Publish and share our water strategies (including targets and results as well as areas for improvement) in relevant corporate reports, using – where appropriate – the water indicators found in the GRI Guidelines. • Be transparent in dealings and conversations with governments and other public authorities on water issues. 	Sustainable Operations and Products

Independent Assurance Statement

To: The Stakeholders of Asia Pulp and Paper Indonesia

Introduction and objectives of work

Bureau Veritas Indonesia ("Bureau Veritas") has been engaged by Asia Pulp and Paper Indonesia ("APP Indonesia") to provide independent assurance over the APP's Sustainability Report 2017 ("the Report"). The aim of this process is to provide assurance to APP's stakeholders over the accuracy, reliability and objectivity of the reported information and that it covers the issues material to the business and its stakeholders.

Scope of work

The scope of our work was limited to assurance over data and information included within the Report for the reporting period January 1, 2017 to December 31, 2017 (the 'Selected Information'). Subject to the limitations and exclusions listed in the proceeding section, the scope of work included:

- Data and report text included in the Report for the calendar year 2017 reporting period;
- Assessment of the appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported;
- Evaluation of the Report against the main principles of the AA1000 Assurance Standard (2008)¹
 - o Inclusivity
 - o Materiality
 - o Responsiveness
- Evaluation of the Report against the 'Reporting Principles for defining report content and quality', as defined within the GRI Standards.

Assessment Standard

The assurance process was conducted in line with the requirements of the AA1000 Assurance Standard (2008) Type 2² at a moderate level of assurance.

Limitations and exclusions

Excluded from the scope of work is verification of any information relating to:

- Activities outside the defined verification period;
- Positional statements (expressions of opinion, belief, aim or future intention by APP Indonesia);
- Statements of future commitment;
- Financial data which is audited by an external financial auditor, including but not limited to any statements relating to tax, sales, and financial investments; and
- Other information included in the Report other than scope defined above.

This moderate level assurance engagement relies on a risk based selected sample of the Selected Information and the associated limitations that this entails.

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Responsibilities

The preparation and presentation of the Selected Information in the Report are the sole responsibility of the management of APP Indonesia.

Bureau Veritas was not involved in the drafting of the Report. Our responsibilities were to:

- Provide moderate level assurance over whether the Selected Information has been prepared in accordance with GRI Standards definitions for the relevant indicators;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our conclusions to APP Indonesia's management.

Methodology

As part of our independent assurance, Bureau Veritas undertook the following activities:

- Conducted interviews with relevant personnel, at various levels throughout the organisation and responsible for content included in the Report;
- Conducted interviews with the following external bodies and stakeholders: The Forest Trust, Habitat for Humanity Indonesia, Indonesia Global Compact Network and The Belantara Foundation;
- Examined the data collection and consolidation processes used to compile the Selected Information, including assessment of the assumptions made, and the data scope and reporting boundaries;
- Reviewed a sample of the Selected Information to the corresponding source documentation;
- Conducted 3 physical site visits to PT OKI Pulp & Paper Mills ("OKI site") in Palembang, PT Pindo Deli Pulp and Paper Mills ("Karawang Mill site") in Karawang, and PT. Indah Kiat Pulp & Paper Tbk ("Indah Kiat Perawang site") in Perawang;
- Reviewed the disclosure and presentation of the Selected Information in the report for consistency with the assured information;
- Reviewed APP's stakeholder engagement activities through interviews with selected external stakeholders during physical site visits, and review of stakeholder engagement documents such as minutes of meetings.

¹ Published by AccountAbility: The Institute of Social and Ethical Accountability <http://www.accountability.org.uk>

² Type 2 moderate level Assurance: an engagement in which the assurance provider gives findings and conclusions on the principles of Inclusivity, Materiality and Responsiveness and verifies the reliability of specified sustainability performance information (AA1000AS (2008) Standard). For further information see www.accountability.org/standards/aa1000as/

Conclusion

On the basis of our methodology and the activities described above, nothing has come to our attention to suggest that:

- The Selected Information is not fairly stated in all material aspects;
- The Report does not provide a fair representation of APP Indonesia's activities over the reporting period;
- The information is not presented in a clear, understandable and accessible manner, that allows readers to form a balanced opinion over APP Indonesia's performance and status during the period 1st of January – 31st December 2017
- The Report does not adhere to the AA1000 Assurance Standard (2008) principles of Inclusivity, Materiality and Responsiveness in its operations;
- The Report has not been prepared in accordance with the GRI Standards Core Option; and
- The underlying systems and processes for the collection, aggregation and analysis of the Selected Information are not appropriate.

Reported GHG Emissions

- **Total GHG Emissions: 12,258,290 tonnes of CO₂e**
- **Scope 1 (Direct) Emissions: 11,000,895 tonnes of CO₂e**
- **Scope 2 (Indirect) Emissions: 1,257,395 tonnes of CO₂e**

Alignment with the principles of AA1000AS (2008)

Inclusivity³

APP Indonesia has processes in place for engaging with a range of key stakeholders including government officials, representatives from a range of NGO's, charities and industry associations. APP Indonesia has undertaken a number of formal stakeholder engagement activities in 2017 including its Stakeholder Advisory Forum, which is held biannually. Topics such as climate change, peat land management, sustainable forest management, human rights, forest fire, product sustainability, and community engagement were included within the discussion and highlighted.

Materiality⁴

The Report addresses the range of environmental, social and economic issues of concern that APP Indonesia has identified as being of highest material importance for the Reporting year. The identification of material issues included consideration for both internal assessments of risks and opportunities to the business, as well as stakeholders' views and concerns. APP Indonesia has established a structured stakeholder engagement process that allows for the identification of significant issues.

Responsiveness

APP remains responsive to the concerns addressed by the stakeholders. This is demonstrated through the ongoing updates in its objectives, KPIs and performance targets based on stakeholders' feedback. Furthermore, the Report acts as a response to the material issues which APP identified as a concern

by the stakeholders. This includes the updates published by APP on their continuous implementation of Forest Conservation Policy (FCP) through a no deforestation commitment, best management practices on peat land aligned to the updated Indonesian government requirements, Integrated Forestry and Farming System (IFFS), supplier evaluation and risk assessment, and the inclusion of safety aspects into contractor management systems.

Key areas for ongoing development

Based on the work conducted, we recommend APP Indonesia to consider the following:

- APP Indonesia is looking to actively integrate the principles of Corporate Responsibility into its management structures and day-to-day operations. APP Indonesia is encouraged to continue these efforts, alongside integrating the principles into existing management systems and processes;
- APP Indonesia demonstrated commitment to prioritisation of content within their sustainability report through the update of their materiality matrix in 2017. APP Indonesia should consider mapping their material topics against UN Sustainable Development Goals as an international best practice;
- In line with previous recommendations, APP Indonesia should work towards improving the accuracy of data points relating to the mill datasets that were reviewed during the verification;
- APP Indonesia should also consider increasing the accessibility of information to local communities by making the Report available in languages other than and additionally to English.

³ Inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability

⁴ Materiality is determining the relevance and significance of an issue to an organisation and its stakeholders







A ZERO DEFORESTATION COMMITMENT

We believe in creating a sustainable future through our products and we are doing our part to chart the path ahead through our new Forest Conservation Policy launched on 5 February 2013.

For more information please visit www.asiapulppaper.com