



SUSTAINABILITY REPORT 2018

Improving Lives

We welcome your thoughts on the report:

Please send your feedback to sustainability@app.co.id



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 128.

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SECTION 1

ABOUT US

Our Vision

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

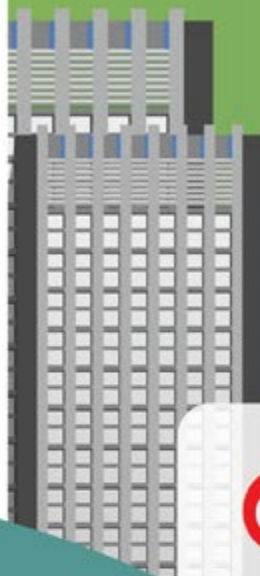
We Value

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

01 R&D and seedling production

2 main
seedling nurseries

Annual output of
200 million
seedlings



05 Customers & consumers

150 Countries
APP brands are marketed in

14 Million tonnes total
capacity (APP Indonesia)



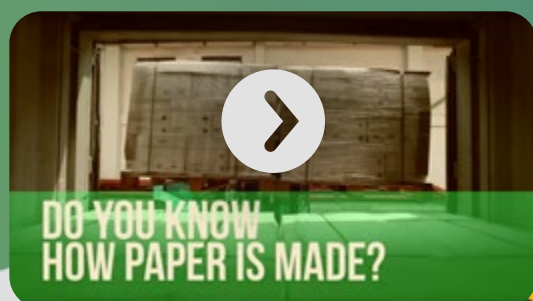
02 Forestry

38 forestry concessions,
9 of which are directly
under APP's ownership

91% Concession area
certified to Indonesian Forestry
Certification Cooperation
(the Indonesian arm of the PEFC)

100% of forestry concessions
certified with PHPL-VLK
(SVLK, Timber Legality
Assurance System)

INTEGRATED PLANTATION - PULP - PAPER



03

Fiber sources for paper production

48% plantation fiber
7% imported fiber
45% recycled fiber

04 Pulp & paper production

54% of our energy
is generated from
renewable fuels

We reused, recycled
or recovered over
32% of waste
in 2018

Water consumption
20 m³ per tonne
of production

70% of our mills
certified to ISO 50001
energy management
system

About Us

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

We started in 1972 with Tjiwi Kimia producing caustic soda, and now run operations across Indonesia and China¹ with an annual combined pulp, paper, packaging product and converting capacity of over 20 million tons 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 that while tradition and modernity go hand in hand; which means we value long term relationships as part of our Eastern traditions, we also are eager to embrace the modern values of innovation and efficiency.

Our Products

What is the future of paper? It is already biodegradable, recyclable and, importantly, a more environmentally friendly substitute for plastic in many applications. Fibre technology and manufacturing innovation now permit the production of paper and packaging that is shapable, stretchable and with customized textures. Precision technology for commodity grades of paper and packaging is helping to reduce product variation, tighten specifications and create less waste.

Customer expectations are changing too. There are new markets: there is incremental growth in the sustainability attributes desired by customers and APP is increasing the depth and frequency of customer partnerships to deliver them. In 2018 we saw improvements in the biopak cup, foopak baking paper, food packaging trays, and further investment in our Research and Development (R&D) function. APP works with customers to progressively improve products, understanding and anticipating their changing requirements.

Read more about our range of products at <https://www.asiapulppaper.com/products>

Financial Performance (USD \$000)			
	2018	2017	2016
Revenue	7,858,388	6,897,092	5,572,599
Operating costs ²	4,920,453	4,780,779	4,155,160
Community investments	8,795	6,205	13,350
Payment to providers of capital	534,438	398,675	241,172
Employee compensation	332,842	343,044	351,097
Retained earnings	3,616,224	2,002,825	1,377,600
Payments to governments	26,815	21,053	30,868

¹ Not in scope of this report. See About This Report section on page 198

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

Customer Engagement

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 in real time and made accessible through a dedicated online platform.

Going Circular

Our alignment with the Circular Bio Economy (CBE) framework encourages industrial symbiosis and is a clear move away from the take-make-waste approach to manufacturing. It means waste reduction and better use of renewable materials. It means finding opportunities to change how we do things while maintaining the benefits we derive from ecosystems.

Initiatives at APP that align with CBE include the use of renewable fibre and manufacturing processes which reuse and recycle materials more. The use of our by-products has also been evaluated under CBE and these have now become a part of our side streams. Adopting this framework allowed us to map our operations, thus identifying potential areas for intervention and improvement. In line with our business strategy, we aim to increase resource efficiency in our operational practices by adhering to CBE principles. You can read more on page 96 about how our mill operations apply innovative techniques to reuse both our own waste and that of other industries in our processes, predominantly as a fuel source.

And of course, since sustainability contributes to our 'value proposition' alongside cost and price the alignment with the CBE concept complements the customers' requirements in terms of quality, regulatory compliance, market positioning and cost efficiency.


foopak bio natura, our compostable and biodegradable food & beverage packaging product

In response to the global plastic pollution crisis and the changing demands of customers, our marketing, R&D and manufacturing teams developed foopak bio natura packaging. It is 100% recyclable, biodegradable and compostable, and suitable for food and hot beverages. Such paperboard packaging is set to replace the plastic, foam and PE-coated food packaging varieties.

Further, foopak bio natura is FDA-certified, Halal-certified and meets the EN13432 standards for biodegradability and compost-ability. Testing by Germany's Isega Institute shows scientific evidence that, once used, the packaging can completely break down and return to nature by decomposing in a matter of 12 weeks. Therefore, foopak bio natura can be safely composted in the appropriate facility or home compost pile.

It has attracted several prestigious accolades that recognizing APP initiatives to embed sustainability in our supply chain and product development. The accolades include:

- **Green Supply Chain Award 2018 from Supply & Demand Chain Executive**
- **Sustainability Product of the Year - Business Intelligence Group's 2018 Sustainability Awards program**
- **Ecopack Challenge at the 2017 Packaging Innovations Exhibition in Birmingham UK**

 100% recyclable, biodegradable & compostable



Developed with a
extensive research
& development
processes



Excellent sealing
properties



Offline coating
aqueous dispersion
technology



Good liquid
hold out



High temperature
resistance



Comply with food
grade certificates
(Compostable
EN13432, ISEGA,
FDA, Halal)



APP Map of Operations



³ Paper production and converting

INDAH KIAT SERANG



Employees
4,017



Production capacity
**2,627,500
tonnes
paper/year**



Production lines
6 paper machines



Key products:
coated boxboards,
test lineboards,
corrugated medium,
corrugated cartons

INDAH KIAT TANGERANG



Employees
907



Production capacity
**532,840
tonnes
paper/year**



Production lines
3 paper machines



Key products:
coloured printing,
writing and copier,
computer and
duplicator paper

PINDO DELI KARAWANG



Employees
4,261



Production capacity
**1,123,500 tonnes
paper/year**



Production lines
**12 paper machines
3 tissue machines**



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



TJIWI KIMIA, SIDOARJO



Employees
7,055



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, carton box
and gift wrapping paper

EKAMAS FORTUNA, MALANG



Employees
919



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

Data as per 2018

Our Mills

1. Indah Kiat Perawang

Indah Kiat Pulp & Paper Perawang Mill is strategically located in Perawang, on the island of Sumatera. 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, for 61% of its energy needs. The mill focuses its CSR activities on community empowerment, stimulating economic development and improving the livelihoods of the local community. The mill offers business management, marketing training and coaching to several small and medium enterprises based in communities around the mill.

2. Pindo Deli Perawang

Located in Riau Province, Pindo Deli Perawang focuses on the production of tissue for the converting market. The mill supports 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

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

One of the world's largest vertically integrated pulp and tissues mills, Lontar Papyrus exports its products globally. The mill was established in 1992 began the 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 for 64% of the mill's requirements in 2018. In support of APP's Group-wide commitment to the UN CEO Water Mandate and in response to the needs identified in the Klagihan village through a local social impact assessment, the mill has supported the development of the infrastructure to provide clean water via two communities clean water systems.

5. Indah Kiat Serang

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 85% 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 support of the



Our mill facility, Indah Kiat Perawang

national target for basic education, the mill provides scholarships to school children across seven districts. Since beginning our support in 1997, over 35,000 students have benefited from the programme, receiving IDR 4 billion in scholarship funding.

6. Indah Kiat Tangerang

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 86% 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

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 an 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.

8. Tjiwi Kimia

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 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

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

OKI is located near Palembang, South Sumatra, is equipped with the most advanced environmental technology currently available. The mill generates 90% of its power requirements from renewable waste products of the pulping process. In 2018 the mill continued to focus on supporting preschool education in the neighbouring communities. Projects included construction activities to improve infrastructure and providing education training teachers to further develop their teaching skills. The mill also supported a community empowerment project which increased access to drinking water through the establishment of a SME group.



Mill and 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	Halal	Halal	Halal	Halal	Halal
	Ecolabel – Indonesian Standard			Environmental Choice - New Zealand Ecolabel	Environmental Choice - New Zealand Ecolabel
	SNI 6691:2015			Ecolabel - Indonesian Standard	
	SNI 8126:2014			Ecolabel - EU Standard	
				SNI 6691 : 2015	
				SNI 8126 : 2014	
PROPER	Blue	n/a ^[1]	Blue	Blue (PD1)	n/a ^[2]
				n/a ^[1] (PD2)	
Environment	ISO 14001	ISO 14001	ISO 14001	ISO 14001	ISO 14001
	ISO 50001	ISO 50001	ISO 50001	ISO 50001	ISO 50001
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	RoHS
	SVHC Screening	SVHC Screening	SVHC Screening	SVHC Screening	SVHC Screening
		Food Grade Paper/Board Food Packaging Direct Contact		Food Grade Paper/Board Food Grade Tissue	Food Contact Safety Grade for Paper & Paperboard
		ISO 22000		Robinson Test	Dermatological test on Humans
				ISO 22000	
				ISO17025	
Other				ISO17025	

Mill and Product Certification



	Lontar Papyrus	Tjiwi Kimia	Ekamas Fortuna	Univenus Perawang	OKI
Quality	ISO 9001	ISO 9001	ISO 9001	ISO 9001	ISO 9001
Product Quality	Halal	Halal		Halal	
		Ecolabel – Indonesian Standard			
		Green Seal			
		SNI 8126 : 2014			
PROPER	Blue	Blue	Blue	n/a ^[2]	n/a ^[3]
Environment	ISO 14001	ISO 14001	ISO 14001		ISO 14001
	ISO 50001	ISO 50001			
Health & Safety	SMK3	SMK3	SMK3		SMK3
	OHSAS 18001	OHSAS 18001	OHSAS 18001		
Chain of Custody	PEFC	PEFC		PEFC	PEFC
	LEI				
	SVLK	SVLK	SVLK	SVLK	SVLK
Product Specific	RoHS	RoHS			RoHS
	SVHC Screening	Food Grade Paper/Board			SVHC Screening

Note:

[1] Subject to special environmental assessment

[2] Scope included in Indah Kiat Perawang's assessment

[3] Not listed as audited company as per Ministry of Environment & Forestry decree

Some of the Awards / Achievements in 2018 - Highlights

Award **PADMAMITRA AWARDS**

Institution
Ministry of Social Affairs

Awarded for
Addressing poverty through
CSR activities
(APP Forestry,
PT. Wira Karya Sakti)



Award **THE MOST ABSORBABLE MANPOWER AWARD**

Institution
Ministry of Finance

Awarded for
The Most Absorbable
Manpower award in the
pulp and paper industry
(Indah Klat)



Award **ASIA SUSTAINABILITY REPORTING RATING**

Institution
National Center for
Sustainability Reporting

Awarded for
Consistently implementing
the Global Reporting
Initiative (GRI) standards
for sustainability reporting
(APP Sinar Mas)



Award **HALAL TOP BRAND**

Institution
LPPOM MUI

Awarded for
"Halal Top Brand 2018"
award in the paper and
paper material category
(APP Sinar Mas)



Award **GREEN SUPPLY CHAIN AWARD**

Institution
Supply & Demand
Chain Executive

Awarded for
Sustainability credentials
of the product range
Foopak Bio Natura
compostable packaging
solution (APP Sinar Mas)



Award
**THE SUSTAINABILITY
AWARDS 2018**

Institution
Business Intelligence Group

Awarded for
Sustainability Product
of the Year for
Foopak Bio Natura
(APP Sinar Mas)



Award
**GREEN INDUSTRY
AWARDS**

Institution
Ministry of Industry

Awarded for
Implementation of green
industry principles is one
of APP Sinar Mas' commitments in
achieving sustainable
business practices
(Indah Kiat, Ekamas
Fortuna)



Achievement
CDP FOREST SCORE : A-

Institution
CDP (formerly the
Carbon Disclosure Project)

Awarded for
APP Sinar Mas received a
score of A- which is within the
"Leadership" level in
demonstrating of forest
stewardship, and our actions
and approaches in managing
deforestation



Achievement
CDP CLIMATE CHANGE SCORE : B

Institution
CDP (formerly the Carbon
Disclosure Project)

Awarded for
APP Sinar Mas received a score
of B which is within the
"Management" level in
demonstrating of environmental
stewardship, and our actions
and approaches in managing
climate change



Achievement
**SPOTT ASSESSMENT :
4TH RANK, SCORE 69,4%**

Institution
ZSL (Zoological
Society of London)

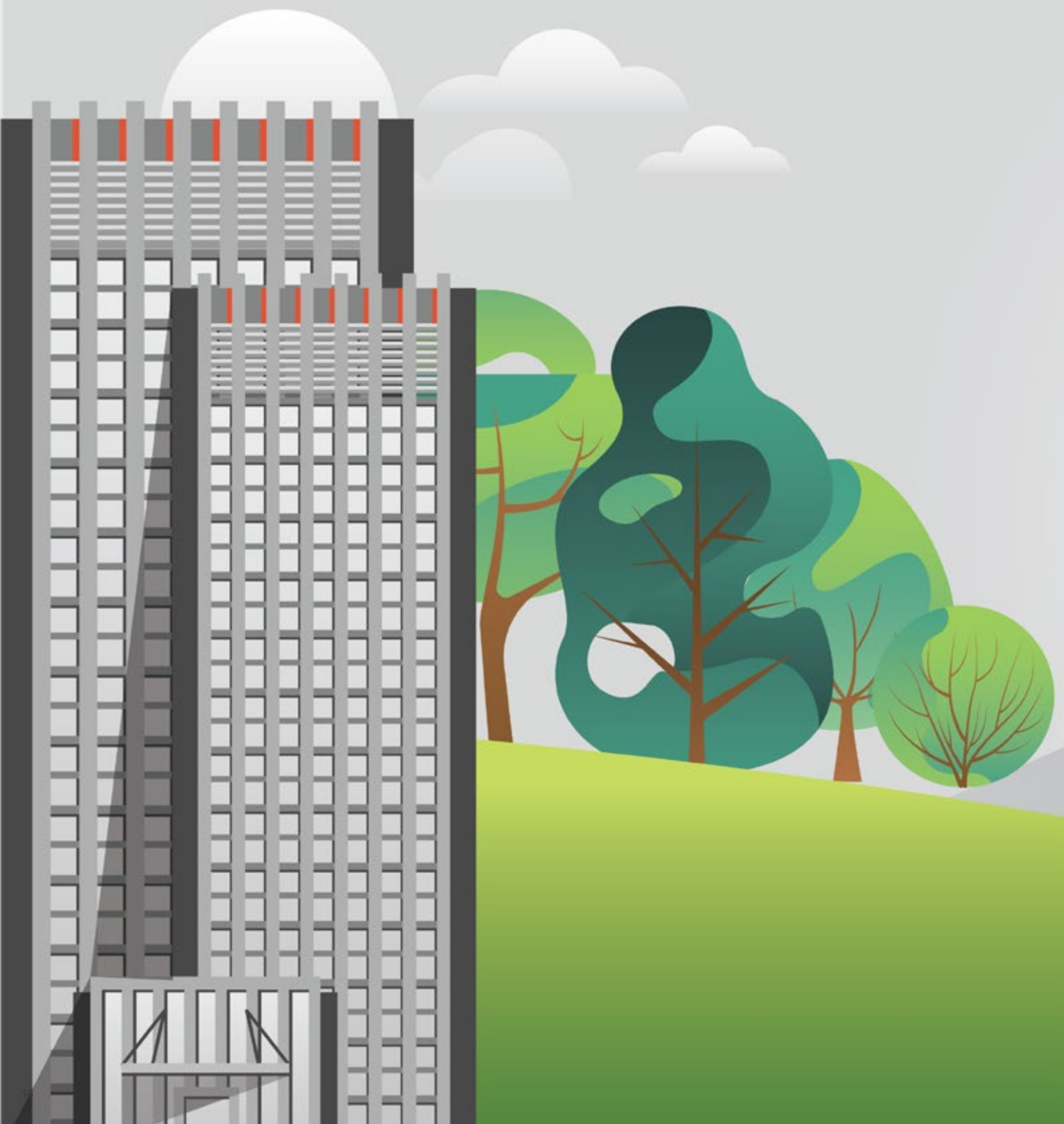
Awarded for
Environmental, social and
governance policy
transparency assessments
of Timber and Pulp (APP
Sinar Mas)



SECTION 2

SENIOR

STATEMENTS



APP's Chairman and Chief of Sustainability Officer discuss the overall sustainability vision and strategy, priorities, achievements, challenges and opportunities for APP Indonesia.



Chairman's Statement



The change in consumer requirements and perceptions of paper based products continues apace. I believe APP is well positioned to meet consumer and societal demands for more recyclable, compostable or reusable paper-based products. Our current position of strength has been gained by working hard for many years to ensure a sustainable supply chain to back up our product credentials. We continue to work closely with our customers to progressively improve products, understanding and anticipating their changing requirements.

Taking a wider perspective and reflecting on the growing maturity of issues surround sustainability, APP also has a great opportunity to articulate how our business aligns with the Circular Bio Economy (CBE) framework which encourages industrial symbiosis and a clear move away from the take-make-waste approach to manufacturing. Based on renewable and recyclable fibre, our products are part of the global low carbon circular economy.

We have invested hundreds of million in sustainability since we launched our Forest Conservation Policy in 2013. APP has learned through its own journey over



the last five years that ending deforestation takes a transformation in the way we do business. Two key areas can help accelerate us all on the course to reach zero deforestation; enhancing collaboration to combine areas of expertise and harnessing the latest technology.

Management by Olympic System (MBOS), a result based strategic management methodology is another initiative I fully support. I believe this approach will have broad business benefits, but more specifically help us to improve health and safety performance at our mills. Effective corporate governance is vital to ensure we operate with integrity and carefully monitor and manage our performance, which is why we set in place a revised sustainability governance approach. The Sustainability Committee Board is responsible for overall direction and strategy. A revised approach to Corporate Risk and Integrity now has a broader remit too, covering health & safety and security, further bolstering our commitment to ethics and integrity.

You can see through the range of our activities such as forest management activities and community engagement programs, that APP has an influential

position to positively contribute to the Sustainable Development Goals (SDGs)⁴.

Our vision is to demonstrate a global industry with responsible business practices throughout our operations and supply chain; protecting forests, peatlands and biodiversity, and working in harmony with local communities. By working towards these issues, together with efficient production and innovative product design, we strive to support our customers in achieving their sustainability goals.



Teguh Ganda Wijaya,
Chairman



⁴ <https://sustainabledevelopment.un.org>

Chief of Sustainability Officer's Statement



“

Through 2018 we continued our activities that have a strong positive contribution towards the SDG's in Indonesia, with a particular focus on Goal 15 Life on Land and Goal 12 Responsible Consumption and Production. During the year we also engaged an independent consultant to analyse carbon emissions avoided by implementing our Forest Conservation Policy since 2013, the results show a 64% reduction in annual tonnes of CO₂e as a result of the FCP compared to the 'business as usual' scenario.

Our work won't stop there, as we look for further reductions predominantly from the Forest Conservation Policy, fire management and peatland restoration. I'm proud to report that in 2018 we succeeded in maintaining the rate of forest cover changes within protected areas of our concessions within our suppliers by using RADARSAT2.

We implemented SMART Patrol pilot monitoring, a concept community-based forestry security which ensures patrols around the participating villages to prevent forest fire and encroachment in addition to our Integrated Forestry and Farming System (IFFS). We also launched Collaborative Conservation Management, which complements our Sustainable Forest Management where we work with others to reduce the threat of deforestation

“

Elim Sritaba,
Chief of Sustainability Officer, APP

As we draw our Vision 2020 commitments to a close, I'm pleased to be able to report we achieved many of the goals we set ourselves back in 2012, as we now look towards developing a strengthened set of commitments through our Vision 2030.

In 2018 we worked hard to carefully consider what our stakeholders expect to see in our new strategy. We discussed with our suppliers, customers, NGOs, local

communities and our employees too, and we openly consulted stakeholders through our Stakeholder Advisory Forum, giving them the chance to review drafts and provide their feedback. We are committed to transparently disclosing our progress against each commitment through our annual sustainability reporting from 2020, celebrating our successes and achievements, while also discussing challenges we face as we work towards the ambitious goals.

We understand that deforestation is a complex issue, which is why we approach it with a range of different initiatives. In 2018 we have succeeded to maintain the rate of forest cover changes within protected areas of our concessions within our suppliers by using RADARSAT2. We implemented SMART Patrol pilot monitoring, a concept community-based forestry security which ensures patrols around the participating villages to prevent forest fire and encroachment. We also launched Collaborative Conservation Management, which complements our Sustainable Forest Management where we work with others to reduce the threat of deforestation.

Our partnership with SDGs in Indonesia focuses on women empowerment and is supported by Indonesia Global Compact Network aims to train 1,000 women in the communities around our forest concessions and mill operations. The programme expand on our Integrated Forestry and Farming System (IFFS), a community engagement programme that aims to transfer knowledge, create collaboration and a virtuous circle of forest management and improving livelihoods. The programme is currently benefiting 16,807 households and is in place in 284 villages, well on our way to the 500 target.

We remain committed in supporting the Government of Indonesia's revision of the long-term strategy for peatland forest in Indonesia, known as the Peat Rezoning Plan.

We continue to build on the Belantara Foundation towards their commitment to rehabilitation and

restoration of natural forests including peat forests in Indonesia through a range of protection, restoration and social forestry programmes. I'm pleased to report good progress against this goal, which you can read about in detail in this Report.

We fully support the Government of Indonesia Low Emissions Development Goal relevant to The Paris Agreement of a 29% emission reduction by 2030⁵. Forestry and agriculture emissions reduction will help meet around two thirds of the national target, so clearly APP has a role to play.

In 2018, we engaged an independent consultant Ata Marie to analyse carbon emissions avoided by implementing our Policy since 2013, and a projection of long-term carbon emission avoidance in future. We were keen to understand what impact our activities had, and crucially, understand how we can maximise our contribution towards carbon emissions avoidance. We continue to finalise our Vision 2030 sustainability strategy, in consultation with our stakeholders, as we look beyond 2020. I look forward to sharing more details of our renewed approach, focus areas and commitments later in the near future.



Elim Sritaba,
Chief of Sustainability Officer, APP



⁵ <https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx>

SECTION 3

SUSTAINABILITY APPROACH & GOVERNANCE

Launched in 2012, Vision 2020 is APP's comprehensive sustainability strategy. It set out ten key impact areas relevant to our stakeholders across our business and wider supply chain, with ambitious targets for each. We closely manage our stakeholder engagement activities to gather feedback and respond to expectations, while overarching governance mechanisms ensure we monitor and hold ourselves to account for our performance.





Vision 2020




















Launched in 2012, Vision 2020 was APP's comprehensive sustainability strategy. It set out ten key impact areas relevant to our stakeholders across our business and wider supply chain, with ambitious targets for each.

We continue to focus our efforts to support the Sustainable Development Goals (SDGs) through our Vision 2020 strategy. You can read about some of our initiatives and the goals they address throughout this Report.



The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which is an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

<p>Vision 2020 element</p> <p>FIBRE SOURCING</p>  	<p>Target</p> <p>100% independent 3rd party verification for pulpwood legality</p> <p>100% sustainable plantation wood for pulp by 2015</p> <p>100% Sustainable Forest Management (SFM) certified pulpwood</p> <p>Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre</p> <p>Develop and implement Integrated Sustainable Forest Management Plans (ISFMP's)</p>	<p>Progress in 2018</p> <p>Accelerated progress and achieved by end 2012</p> <p>All conversion of natural forest was halted in 2013</p> <p>100% of our fibre is Sustainable Forest Management certified pulpwood</p> <p>45% of our fibre was from recycled sources</p> <p>ISFMPs are now completed for all 38 pulpwood suppliers' concessions and has been implemented since 2017.</p>
<p>Vision 2020 element</p> <p>REFORESTATION</p>  	<p>Target</p> <p>Support the national target to preserve designated protected and conservation areas</p>	<p>Progress in 2018</p> <p>APP continued our commitment through supporting the protection and restoration of natural forest inside APP pulpwood suppliers' concession and outside concession through landscape approach</p>
<p>Vision 2020 element</p> <p>CONSERVATION & BIODIVERSITY</p>  	<p>Target</p> <p>Zero Fibre from High Conservation Value Forest</p> <p>Support the national target to increase by 10% the population of 25 specified endangered species</p>	<p>Progress in 2018</p> <p>All conversion of natural forest was halted in 2013</p> <p>SERA tool improved and implemented (see page 58)</p> <p>Dedicated conservation programmes focussed on 'umbrella species' of Orangutan, Elephant and Tiger conservation continue, with the support of NGOs and conservation specialists</p>
<p>Vision 2020 element</p> <p>HUMAN RIGHTS & INDIGENOUS PEOPLE</p>  	<p>Target</p> <p>Adopt international guidelines for the protection of indigenous people's customary rights in the forest</p>	<p>Progress in 2018</p> <p>Implementation of Free Prior Informed Consent (FPIC)</p> <p>Responsible Conflict Management</p> <p>Implementation of HCV 5 & 6 through ISFMP</p>
<p>Vision 2020 element</p> <p>COMMUNITY EMPOWERMENT</p>  	<p>Target</p> <p>Increase welfare of indigenous & local communities and maintain good relations</p>	<p>Progress in 2018</p> <p>Integrated Forestry and Farming System (IFFS) or Desa Makmur Peduli Api (DMPA) programme aiming to benefit 500 villages in the next five years. 284 villages were included into the programme as of December 2018</p>

Vision 2020 element CLIMATE CHANGE  	Target Implement Peatland Best Practice Management Programme	Progress in 2018 We continue to develop and improve our approach to Peatland Best Practice Management Programme. See page 59 for more details 
Vision 2020 element EMISSIONS  	Target 10% reduction in carbon intensity by 2020, based on 2012 baseline 10% reduction in energy intensity by 2020, based on 2012 baseline 10% below national and/or regional limits for annual SOx and NOx	Progress in 2018 Carbon Intensity decreased 18% in 2018 compared to 2012 baseline  Energy intensity decreased 9% in 2018 compared to 2012 baseline  All mills achieved in 2018 
Vision 2020 element WATER MANAGEMENT  	Target Achieve 10% reduction in water intensity by 2020, based on 2013 baseline 10% below national and/or regional limits for COD and BOD Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	Progress in 2018 Water intensity decreased 24 % in 2018 compared to 2013 baseline  All mills achieved in 2018  Water footprint completed in all mills 
Vision 2020 element SOLID WASTE  	Target 25% reduction in solid waste to landfill, based on 2010 baseline	Progress in 2018 41% reduction achieved 
Vision 2020 element EMPLOYEE WELFARE  	Target Zero employee and contractor fatalities, major fire incidents and traffic accidents on site	Progress in 2018 Not achieved in 2018 



Achieved



On Track



Not Achieved

Vision 2030

Vision 2030 is an evolution from APP's previous strategy Vision 2020 and is being developed through extensive internal and external consultation. Compared to Vision 2020, Vision 2030 covers an increased range of issues, and is aligned with the UN Sustainable Development Goals, and the Paris Agreement on Climate Change.

Vision 2030 will a broad range of issues, including governance, fire prevention and management, gender equality, anti-fraud and corruption and product environmental footprint. A combination of short-term milestones will support longer term commitments through to 2030. The Sustainable Development Goals (SDGs) will be mapped to Vision 2030 so that APP can clearly demonstrate its contribution to achieving the global goals in line with international best practice.

It is important to note that the core policy commitments of our Forest Conservation Policy (FCP) remain in place. Vision 2030 will not alter any of the FCP commitments set out in 2012 in consultation with NGOs.

We will present full details of Vision 2030 in our 2019 Sustainability Report, released in 2020.

Vision 2020 is supported by a wider set of companywide policies. Full copies are available on our website.

- 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

“

Our overall vision is to demonstrate global leadership in responsible business practices throughout our operations and supply chain; protecting forests, peatlands and biodiversity, and working in harmony with local communities. To be successful, we know that we need to demonstrate the clear links between our products and production processes, and the needs of our customers.

Sustainability is part of our core business strategy. That is why our vision includes making achievements in efficient production and innovative product design, which when couple with responsible forestry practices means we are able to deliver products with low carbon impacts and support our customers in achieving their sustainability goals.

“

Elim Sritaba,
Chief of Sustainability Officer, APP



Stakeholder Engagement

We have a diverse range of stakeholders, who we identify as any group who expresses an interest in APP's operations and/or our impacts. Through a range of different channels and engagement mechanisms we listen and respond to our stakeholders' requests and concerns. We communicate how we address the issues raised by our stakeholders through our Vision 2020 Sustainability Roadmap and in the development of Vision 2030 (see page 27), our annual Sustainability Reports, our website and FCP Monitoring Dashboard. In some cases, the concerns and discussions raised by our stakeholders are specific. In these cases, we engage directly or through issue specific briefings, grievance mechanisms and press releases. Regional Social Working Group (SWGR) (see page 66) are founded in specific regions within our supplier's concessions, providing stakeholder engagement mechanisms to deal with specific issues and challenges focused towards our supplier's forestry activities.

Our twice-yearly Stakeholder Advisory Forum 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 started using a revised stakeholder mapping tool at the end 2018 and continue to roll out the tool during 2019, with the aim of improving the way we track stakeholder engagement

Across our global markets we are constantly seeking opportunities to engage with key customers, sector peers and global sustainability leaders through roundtables, conferences and webinar events. We join the global sustainability debate and support the Government of Indonesia at events such as the UNFCCC Conference of Parties 24 (COP24).

Stakeholder Group	Engagement mechanisms	Issues raised
Employees 	<p>Satisfaction surveys, I-suggest portal, bipartite meetings</p> <p>Frequency</p> <p>Annually and case by case as required</p>	<ul style="list-style-type: none"> • Health and safety • Diversity and equal opportunities • Business ethics
Stakeholder Group	Engagement mechanisms	Issues raised
Contractors 	<p>Direct engagement by mill procurement teams</p> <p>Frequency</p> <p>Case by case as required</p>	<ul style="list-style-type: none"> • Health and safety • Business ethics

Stakeholder Group
Suppliers



Engagement mechanisms

Direct engagement by APP Forestry and Chain of Custody Certification team for forestry products

Direct engagement by APP's Procurement function for non-forestry related products and services

Frequency

Day to day and case by case as required

Issues raised

- Forest management practices
- Third party certification
- Supplier assessments

Stakeholder Group
Customers



Engagement mechanisms

Direct engagement by global sales team and Stakeholder Engagement team, FCP monitoring dashboard

Frequency

Day to day and case by case as required

Issues raised

- Forest management practices
- Product sustainability
- Product carbon intensity

Stakeholder Group
Government



Engagement mechanisms

Direct engagement with APP Sustainability and Stakeholder Engagement team

Frequency

Case by case as required

Issues raised

- Pulpwood supplier management
- Compliance
- Environmental performance
- Economic impacts

Stakeholder Group
Local communities



Engagement mechanisms

Direct outreach from local CSR teams, communication forums between mills and local community representatives, FPIC processes, conflict management

Frequency

Day to day, annually and case by case as required

Issues raised

- Employment opportunities
- CSR programmes
- Mills environmental impacts
- Indirect economic impacts

Stakeholder Group
NGOs



Engagement mechanisms

Focused Groups Discussion, FCP update meetings and events, conflict resolution efforts, FCP monitoring dashboard

Frequency

Day to day and case by case as required

Issues raised

- Forest management practices
- Human rights
- Conflict resolution

Stakeholder Group
Industry associations



Engagement mechanisms

Engagement through associations such as Indonesian Pulp & Paper Association (APKI), The Association of Indonesian Forest Concessionaires (APHI)

Frequency

Case by case as required

Issues raised

- Environmental performance
- Forest management practices
- CSR programmes

Stakeholder Group
Media



Engagement mechanisms

Media briefings, press releases, FCP update events, mill visits

Frequency

Case by case as required

Issues raised

- Forest management practices
- Mill CSR programmes

Stakeholder Group
Academic institutions



Engagement mechanisms

Direct outreach from our Sustainability and Stakeholder Engagement team, and local CSR teams based at our mills and forestry suppliers

Frequency

Case by case as required

Issues raised

- Forest management practices
- Group level CSR programmes
- Mill CSR programmes

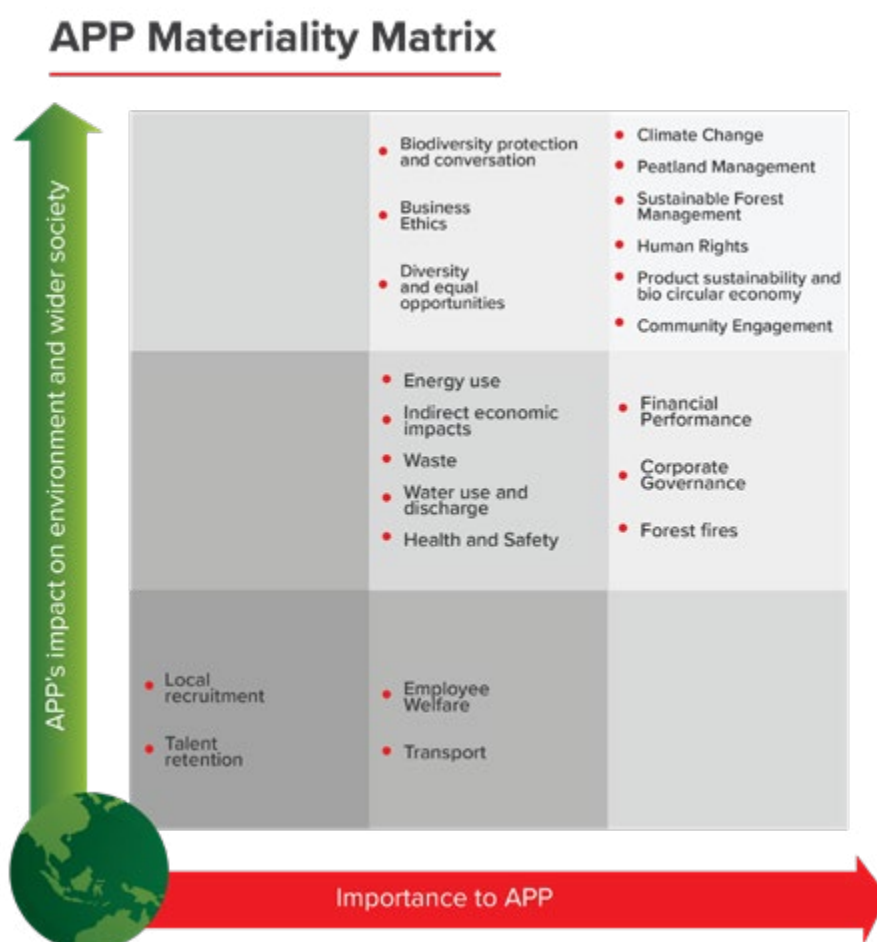
Materiality

A successful materiality analysis helps an organisation identify its social and environmental priorities. APP engages with its stakeholders on an ongoing basis and monitors societal trends to identify sustainability priorities and integrate these with our business strategy.

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 27). Our approach is guided by the Global Reporting Initiative (GRI⁶) 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.

This year product sustainability was renamed product sustainability and circular bio economy, as this specific aspect of product sustainability is an area of increased stakeholder interest. We lowered the importance of transport, as it become comparatively less import to stakeholders compared to other issues we report on. Diversity and equal opportunities raised in level of importance, specifically gender diversity, as this issue is gathering momentum amongst global companies and peers. In response to external stakeholder interest in the governance of APP and its pulpwood suppliers, corporate governance raised in importance to APP.



⁶ <https://www.globalreporting.org/Pages/default.aspx>

Governance

In 2018 we launched a revised governance structure to oversee our sustainability commitments. The Sustainability Committee Board is headed by APP's CEO, members include APP's Deputy Chairman, Managing Director, Business Unit heads and the CSO. The SCB meets monthly, reviewing performance, overall direction and strategy, as well as any issues raised from stakeholders.

Each mill reports to the COO through the respective COO for pulp, paper and tissue divisions. Our mill KPI scorecard (see page 91) helps to track performance against Vision 2020 targets with a culture of sharing good practice and highlighting areas of less performance where further improvement is required. Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and publish their own governance structure each year in their Annual Reports, available here: <https://www.asiapulppaper.com/investors/annual-reports>.

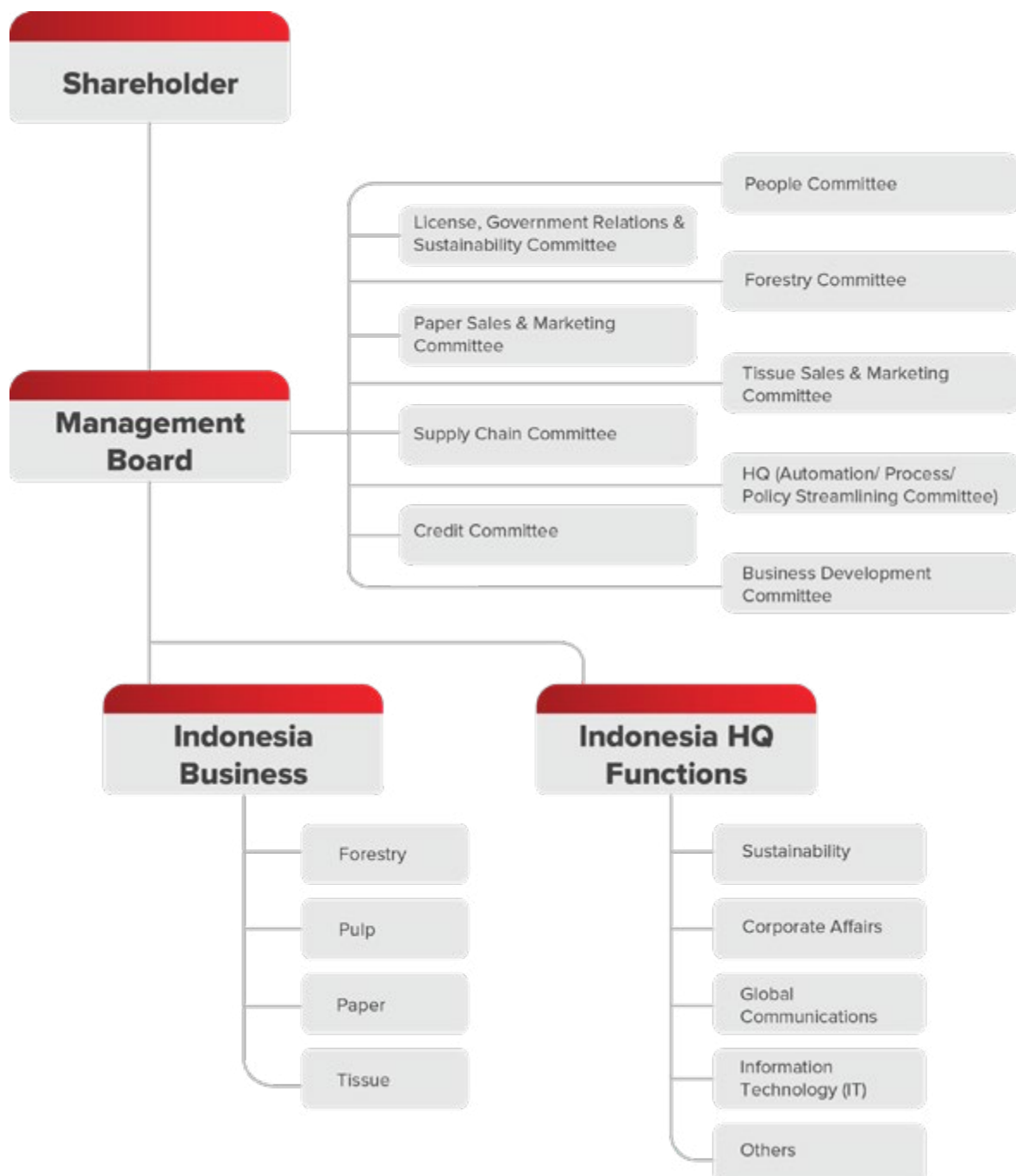
A Nomination and Remuneration Committee support the Board of Commissioners in conducting performance evaluation of the Board of Commissioners and Directors, making recommendations for additional training as required and recommend nominations to the boards. Individual salaries are not reported, as per Indonesian capital market regulations (see our Annual Reports⁷). 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 are adopted in response to the business needs, these included preventing misconduct and ensuring our comprehensive Group-wide Standard Operating Procedures are followed correctly.



APP employees at our mill

⁷ <https://www.asiapulppaper.com/investors/annual-reports>

APP Sinar Mas Organization Structure



APP's Pulpwood Suppliers

APP's Forestry is a division within APP and is responsible for the management of supply of wood fibre to all APP mills. An area of concern raised by our stakeholders was APP's link with our pulpwood suppliers in Indonesia. We commissioned a second independent assessment in 2018 to clarify the relationships and the results of which were published in March 2019.

The main objective of the assessment was to demonstrate APP's zero deforestation commitment through:

- Ensuring that APP's supply chain is deforestation-free
- Ensuring that APP's shareholders, Board of Directors (BOD), Board of Commissioners (BOC) and employees of APP are not involved in deforestation
- Providing clarity on APP's governance and corporate structure

The assessment consisted of crosschecking 168 pulpwood plantation companies and the individuals listed under these companies' shareholders, Board of Commissioners, and Board of Directors, to assess the relationship, whether by ownership structure or financial influence, with APP. The assessment concluded that:

- The companies identified as APP Partners are consistent with the ones we have declared through the APP FCP Monitoring Dashboard (www.fcpmonitoring.com)
- The companies that were identified as involved in deforestation practices no longer supply to APP
- Other companies that were alleged to have relationship to APP have been identified as having no relationship to APP supply chain

In response to the findings of the assessment, we have committed to strengthen our Supplier Evaluation & Risk Assessment (SERA) process by:

- Aligning e-Kinship system to APP sustainability commitment
- Crosschecking shareholders in our Suppliers Evaluation System
- Continuing to publish new suppliers' risk assessment report



Log checking activity



Pulpwood raw material

Business Ethics and Risk Management

In 2018, the Corporate Risk and Integrity Division (CRI) continued to focus on our four pillar approach to oversee ethics and risk management within the business; asset protection, integrity management, fraud prevention and business ethics.

APP believes that maintaining the highest ethical standards is crucial to long term sustainability and growth of our business. Our main focus has been enhancing the existing baseline programs to achieve better ethics and compliance and risk management standards in our business. To achieve this, we have established an ethics and compliance department under CRI as a pillar to assist in implementing a culture of ethical conduct in our business. To kick start this initiative, we launched an ethics and compliance survey to assess our employees' awareness and knowledge about the APP Business Code of Conduct (BCoC)

and to assess our Speak Up culture. The results of this survey are being used as a foundation to further develop the APP compliance program.

We enhanced the existing Ethics Call Center (ECC) into a more robust communication platform, which we have named the Integrated Call Center (ICC). This platform is for employees and external stakeholders to raise concerns, ask questions, product queries, emergency handling and raise grievance.

In 2018, 70 concerns were raised through the ICC platform from employees and external stakeholders with 40 concerns requiring investigation. These concerns focused on fraud, theft and misconduct cases, many of which were investigated by the CRI. As the result these investigations, two employees were given formal warnings and 36 employees were dismissed.



APP employees at our mill



APP employee mill warehouse

We improved our BCoC communications and training program through the launch of the APP Circle newsletter and the appointment of trained APP Ethics Ambassadors at our Mills.

We continue to improve our risk management policies and tools including upgrading risk management policy aligned to ISO 31000: 2018 - Risk Management, gift and entertainment and managing conflict of interest (e-kinship).

Our Asset Protection Programme has been focused on implementing the APP Business Resilience and Asset Protection Programme across its main mills and offices. This programme is focused on building APP's capability to effectively prepare and respond to adverse events so that disruption to our operations is minimised and the continuity of our business maintained.

Our integrity program continues to improve our controls to minimise our exposure to reputational risk from our suppliers, vendors, customers and our employees. As part of APP's commitment for continuous improvement, our integrity program underwent an internal audit, which highlighted areas for improvement to ensure that our program meets global best practices.

The last pillar of our program is fraud identification and prevention. This program is focused on investigating incidents of fraud and where possible to provide recommendations to the Group on fraud prevention. The reduction of fraudulent activity will ensure shareholder value and improve the confidence of our stakeholders.

A copy of our Business Code of Conduct can be found here: <https://www.asiapulp.com/sites/default/files/apppdf/bcoc-english.pdf>

Procurement of Non-Pulpwood Goods and Services for Mill Operations

In the forestry section of this report we explained how we manage our wood fibre supplies. We also procure other raw materials, goods and services for our mill operations; these suppliers are subject to a broader set of supplier requirements.

In 2017 we further improved our approach to supplier due diligence. We began by assessing the legal status of supplier companies, through document checks, to ensure that the appropriate and correct permits are in place. Like many robust procurement practices, we also consider the financial stability of a company before conducting business with them. Depending on the output of the assessment, further due diligence is carried out, with site assessments if required.

We reached a milestone in our vendor management program in 2017 by launching our Contractor Health, Safety and Environmental policy and guidelines. All suppliers working on site must adhere to the policy. Intensive training activities were rolled out in 2017 and 2018. We have a zero-tolerance policy for supplier integrity. An improved Supplier Code of Conduct is planned for release in 2019.

SECTION 4

FORESTS

We will lead the way in developing and implementing a landscape level approach to forest management, going beyond our own concession boundaries to develop a truly collaborative approach to protection, rehabilitation and restoration of Indonesia's forests. We will also take a leadership role in developing and implementing best practice peatland management. In collaboration with various experts, we will develop our role in peatland forestry in Indonesia to align with national policy and support the Paris Climate Agreement.





FCP Achievement in 2018



ZERO

Natural forest conversion by APP Pulpwood supplier since Feb 2013



100%

Pulpwood supply from plantation



0.14%

Forest cover loss in protected areas



0.07%

Concession areas impacted by fire



49%

Land disputes resolved



284

Villages implementing IFFS program



ZERO

Casualties from human-wildlife conflict

Certification

PEFC

Programme for the Endorsement of Forest Certification

Coverage

2017

89%

2018

91 %



PHPL-VLK

SVLK, Timber Legality Assurance System

Coverage

2017

100 %

2018

100 %






APP's primary raw material is wood fibre, which we are committed to source sustainably. Most of our fibre is from plantation forestry in Indonesia, which means we must ensure we are taking active steps to address the risks associated with deforestation. Whilst third party independent certification is way to do this, meeting corporate and government deforestation goals are challenging and complex. So, in common with many other agriculture and forestry companies, we are working with stakeholders on innovative ways to ensure we are making a positive impact on forest protection.

Transparency is an example, our FCP (Forest Conservation Policy, see page 42) monitoring dashboard lists our suppliers' plantations in detail to

allow full accountability: our supply chain is public, satellite maps and HCV (High Conservation Value) reports are also available. We have also published a governance report in response to stakeholder enquiries about relationships and ownership with our suppliers (see page 34).

Further, we are starting to apply the 'landscape-level', approach to sustainable forest management. This means a shift from an isolated supply chain approach to a holistic, multi-stakeholder approach. Our IFFS programme and the work of the Belantara Foundation on the Giam Siak Kecil Bukit Batu (GSK BB) biosphere reserve and natural capital study are emerging examples.

Progress Headlines

Vision 2020 element	Target	Progress in 2018
FIBRE SOURCING 	100% independent 3rd party verification for pulpwood legality 100% sustainable plantation wood for pulp by 2015 100% Sustainable Forest Management (SFM) certified pulpwood Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre Develop and implement Integrated Sustainable Forest Management Plans (ISFMP's)	Accelerated progress and achieved by end of 2012 All conversion of natural forest was halted in 2013 100% of our fibre is Sustainable Forest Management certified pulpwood 45% of our fibre was from recycled sources ISFMPs are now completed for all 38 pulpwood suppliers' concessions and has been implemented since 2017.
REFORESTATION 	Support the national target to preserve designated protected and conservation areas	Continued our commitment through supporting the protection and restoration of natural forest inside and outside APP's pulpwood suppliers' concession through landscape approach
CONSERVATION & BIODIVERSITY 	Zero Fibre from High Conservation Value Forest Support the national target to increase by 10% the population of 25 specified endangered species	All conversion of natural areas forest was halted in 2013 SERA tool improved and implemented (see page 58) Dedicated conservation programmes focussed on 'umbrella species' of Orangutan, Elephant and Tiger conservation continue, with the support from NGOs and conservation specialists
HUMAN RIGHTS & INDIGENOUS PEOPLE 	Adopt international guidelines for the protection of indigenous people's customary rights in the forest	Implementation of Free Prior Informed Consent (FPIC) Responsible Conflict Management Implementation of HCV 5 & 6 through ISFMP
COMMUNITY EMPOWERMENT 	Increase welfare of indigenous & local communities and maintain good relations	Integrated Forestry and Farming System (IFFS) or Desa Makmur Peduli Api (DMPA) programme aiming to benefit 500 villages in the next five years. 284 villages were included into the programme as of December 2018
CLIMATE CHANGE 	Implement Peatland Best Practice Management Programme	We continue to develop and improve our approach to Peatland Best Practice Management Programme. See page 59 for more details



Achieved



On Track

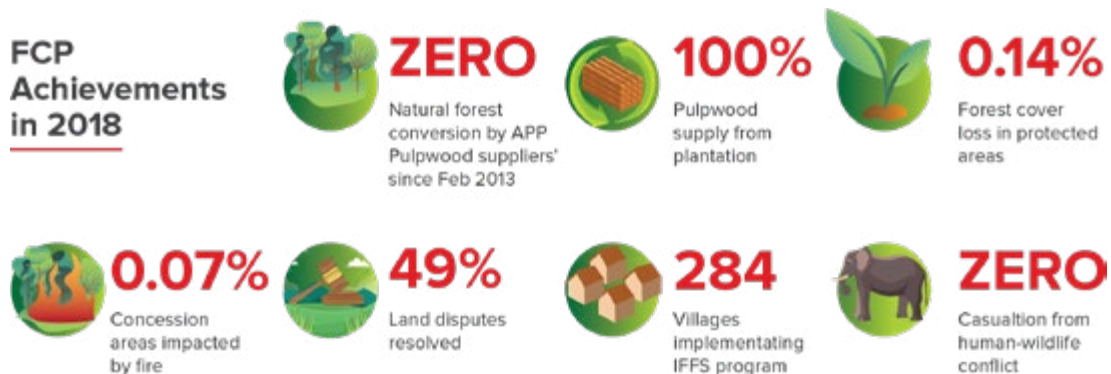
How we've gone further in 2018

- Carbon impact of our flagship Policy>> see page 55
- Remote forestry image sensing using RADARSAT technology >> see page 60
- Fire prevention and control>> see page 57
- Forest and Community: IFFS success stories>> see page 63

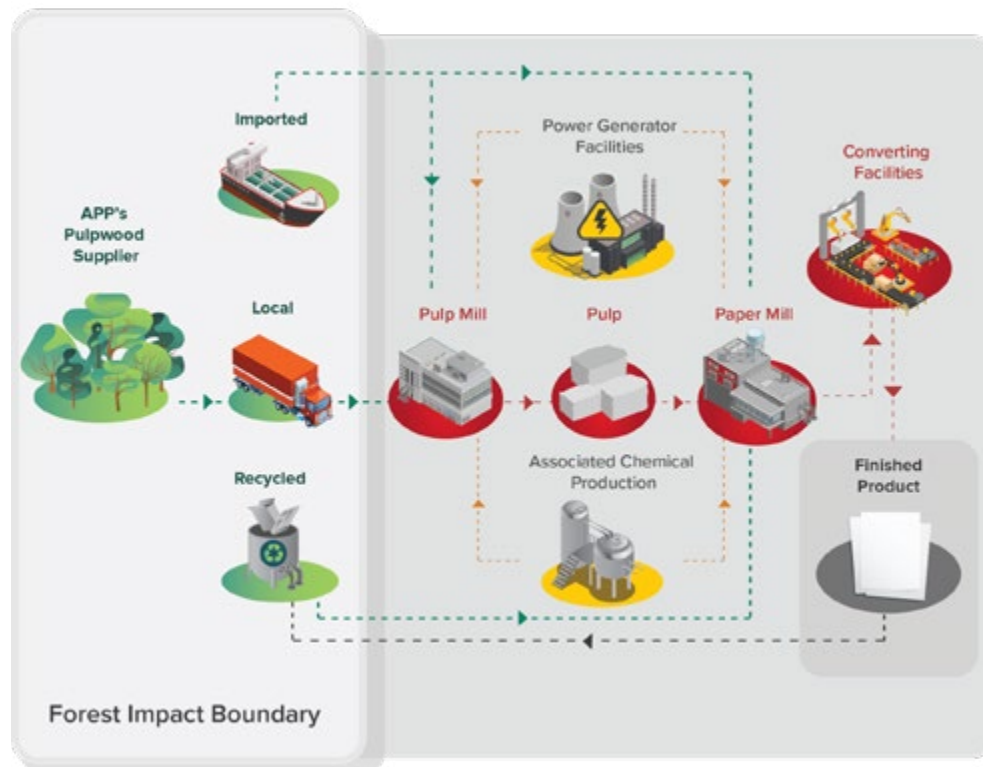
Launched in 2013, APP's Forest Conservation Policy (FCP) forms the central strategy for managing and monitoring our pulpwood suppliers. As part of the development of our Vision 2030 strategy, we will also consult with stakeholders through 2019 for ways in which we can continue to improve our FCP.



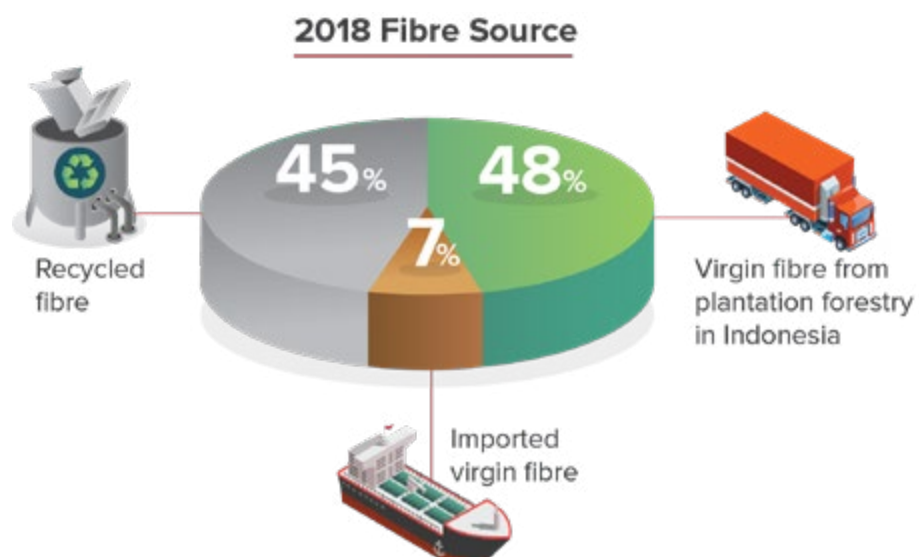
FCP Achievements in 2018



Forests in APP's Value Chain



APP's value chain is extensive: from the forest to the retailers' shelves. Most of our fibre comes from our 38 concessions (9 of which are under direct APP ownership). APP also has partnerships with three community forest in addition to the 38 concession.



Forest Conservation, Restoration and Protection

APP supports the national Government of Indonesia target to achieve forest emission reduction with maintain minimum of 85% of HCS forest in good condition compare to baseline assessment conducted by third party and maintain the value of HCV areas, including peatlands.

APP pulp mills only receive fibre from responsibly managed pulpwood plantations. All APP suppliers are prohibited from clearing forested areas, as designated using HCV and HCS assessments. 100% of APP's fibre supply third party certified to one or more recognised standard for sustainable forest management.

Core to our Policy is the protection of officially-designated area of natural forest in each concession area – the Government of Indonesia requires 10% of each concession to be set aside and conserved. APP goes further: we have currently set aside 21% of our concessions includes the protected areas (a total of 613,997 ha). Overall, we record a cumulative total around 7,000 hectares of retired production forests in peatland by end of 2015.



We are implementing SMART Patrol System and community engagement to prevent illegal activities and to conduct biodiversity monitoring. The data from the MDA⁸ are being used to determine the route for SMART Patrol as well as determining the project sites for Collaborative Conservative Management (CCM).

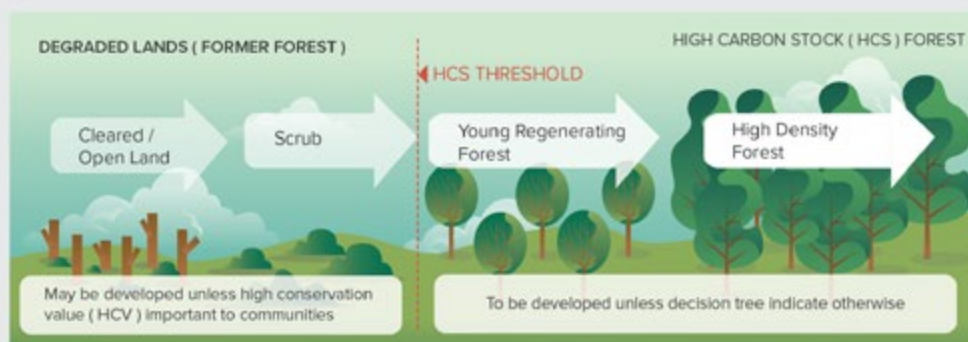
One of the examples from MDA data, in 2018 helped to identify and verify the cause of forest cover loss in East Kalimantan along the mining road.

⁸ <https://mdacorporation.com/geospatial/international>

From Mapping to Management

Monitoring High Carbon Stock

APP continued to monitor High Carbon Stock (HCS) in 2018. Our Policy demands that each forest management unit (FMU) is managed sustainably. Clear mapping of the land is vital, and we have implemented it using the High Carbon Stock Approach Toolkit. The different zones are shown in the graphic below, indicating that Young Regenerating and High Density forests are conserved.



Biodiversity + social value

We use the globally-recognised High Conservation Value (HCV) approach to protect important environmental and social value in production landscapes. Community relations are part of HCV management, a feature emulated by our own sustainable forest management plans (see below). Well organised dialogue with relevant stakeholders about land management, wildlife, and borders for example, is at its core.

Integrated Sustainable Forest Management Plans (ISFMP)

At the centre of delivering our FCP, we use ISFMPs to account for the HCV and HCS assessments. These plans set out to deliver the most productive forestry, high quality peatland management, environmental and social value protection, and conflict resolution mechanisms (see page 65). They are subject to scrutiny by Independent Observers (IO) as we work on preventing deforestation resulting from illegal forestry, forest fires, and community land disputes.

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



A new initiative, Collaborative Conservation Management (CCM), was developed in partnership with Earthworm Foundation and piloted in July 2018 to further improve APP's forest protection initiatives. The location of the pilot project is in the protected areas of PT. Arara Abadi's Duri 1/Melibur district, which was identified through MDA alerts as a significant risk for deforestation. Through CCM, APP works with the local authority and as well as the four local villages around the protected area in implementing forest protection measures to reduce the deforestation risk in the area.

SMART Patrols

Part of our collaborative conservation pilot project we have used the SMART (Spatial Monitoring and Reporting Tool) patrols in APP's Musi Banyuasin supply area in South Sumatra. SMART is a digital tool for recording any findings during monitoring activities, for analysing as well as reporting the results, which can be directly evaluated and utilized for better area management. Our security teams patrol in the participating villages to prevent illegal activities in conservation areas. Its success relies on systematically recording the findings on the ground, and aligning it with the management plan objectives, to check the approach is delivering results as intended.



SMART Patrols activity inside of our supplier concession in Musi Banyuasin area

Rehabilitating Degraded Forest Areas

We aim to restore 78,057 ha of degraded forest, a similar surface area to Singapore. Around half of the targeted land comprises lowland soils, while the rest is on peatland soils and marine clay soils.

Our progress so far is to develop the restoration strategy for each type of soil in 2018 in our supplier concession areas across all regions and establish 21 permanent sampling plots to monitor the growth of the vegetation in the restoration area. Restoration works

have begun on more than 5,000 ha in Muba and Jambi.

In 2019, APP is working to set to restore a further 30,000 ha of degraded forests across suppliers' protected and HCS areas, which also includes the work to conserve rare local tree species.

In 2018 we invested IDR 5.8 billion (US\$ 409,000) in forest restoration.

Biodiversity Conservation: Belantara

We are committed to support the protection and restoration of one million hectares of natural forests in Indonesia. To achieve this, we fund specific projects run by the Belantara Foundation and other partners. The work of the Belantara Foundation⁹ supports the Government to achieve its published commitments to the protection of endangered species and forest.

We are halfway there. The table shows our progress. The hectareage targeted includes protection, restoration and social forestry. There is a strong social dimension to the work of the Foundation¹⁰.



Blue-eared King Fisher Bird in our concession, is one of environmental health indicator

⁹ Belantara is an Indonesian grant-making institution, that works to protect the Indonesian landscape by establishing local sustainability projects in areas that are set aside for conservation, reforestation and sustainable community development.

¹⁰ Belantara's 500 villages target for community development is different to APP's 500 villages target under DMPA/IFFS, see page 63



Monitoring tower at Sungai Alur Village, Jambi



Canal blocking at Jati Mulyo Village area, Jambi

Across Indonesia, the Foundation continues to run extensive programmes focusing on core functions to enable high quality project planning and efficient grant-making. They include capacity building, partnership development, government engagement, international institutional discussions, sustainable finance research, communications and event sponsorship.

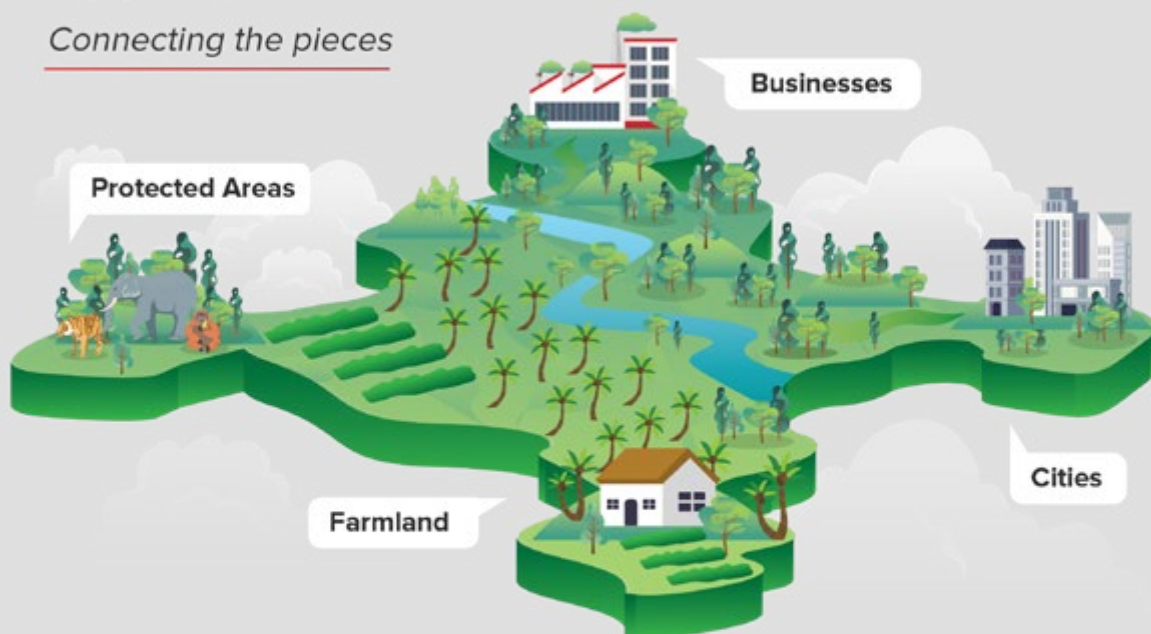
While we recognise the Foundation has made good progress to date, we are aware of the systemic challenges that it needs to overcome to achieve the stated objectives, for example, allocating budget on accepted proposals and the time taken between concept and proposal development. We have started to assess the measurable impact of Belantara Foundation projects for APP and will begin to report on this in 2019.

An example of a partnership project is the Natural Capital study in support of Indonesia's national carbon emissions commitments and the South Sumatra Government's Green Growth strategy, working with University of Cambridge and University of Indonesia (I-SER). In 2016 we conducted a national level stakeholder workshops to understand available information from different sources. The analysis will be used to assess the relative significance of all key ecosystem services and to support Ecotourism development in Sembilang and other developments in South Sumatra.

Looking forward to 2019 and beyond, the Foundation will continue to deliver the Sembilang sustainable ecotourism ambitions, with at least 20 new projects that aim to achieve a projected impact of 200,000 hectares, involving 100 villages.

Multistakeholders Approach:

Connecting the pieces



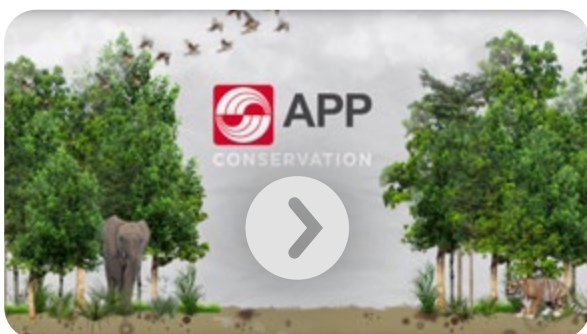
Businesses, cities, farmland and protected areas depend on healthy landscapes - shared spaces where these activities need to co-exist in harmony.

Because all these actors are interconnected and are an integral part of the landscape, they must be involved in the solution to sustainably manage the landscape they rely on.

Conserving Priority Fauna: Sumatran Elephants, Tigers and Orangutan

We support the Government of Indonesia's target to protect national priority and critically endangered species of animals and rare trees within our concession areas. By 2022 we will have completed a scientific study to identify habitats that are critical to wildlife (orangutan, tiger and elephant) and endangered/local priority species of plants within APP concessions, and to identify actions to protect them.

Indeed, we recognise that such studies inform a wider 'landscape scale' approach to species conservation (an approach also advocated by the Belantara Foundation). We will be piloting a programme that adopts this integrated approach in 2019 around the OKI mill for elephant conservation. With our stakeholders we began discussions on the options for a multi stakeholder platform for key species protection activities at a 'landscape' level. We will report on the progress in future.



We continued our Sumatran elephant conservation programme in 2018 and started preparing for a new project at the OKI mill site to be launched in 2019. There are around 70 elephants population surround OKI mill area. Our goal is to maintain this, and to prevent conflict with local residents. In 2018 we ran group discussions with all local suppliers as well as with NGOs, such as the Indonesian Elephant Conservation Forum. Action plans are in place for the identified priority areas, to be delivered with the support of supplier companies.

Following up from last year's Sumatran tiger update, to contribute to the Government of Indonesia tiger monitoring programme, we engaged a survey in two concession areas. The data we expect to collect will help to clarify the population analysis which currently estimates 600 Sumatran tigers in Sumatra.

Between 2013 and 2018 we installed 177 camera stations to help monitor populations of tiger and elephant. We continued to operate these in 2018 and to sensitise workers and communities to conservation goals and conflict mitigation.

Zero Human-Animal Conflict

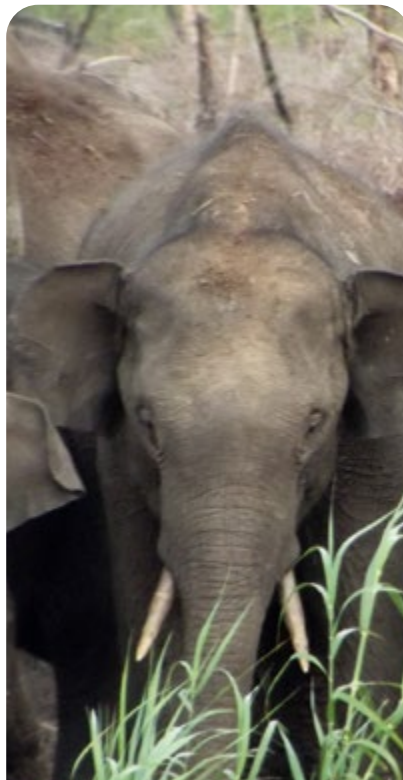
Based on camera trap and direct counts, APP supplier areas are used as habitat and corridor by:

- 10% of total Sumatran tiger population (46 of 400-600 individuals)
- 7% of total Sumatran elephant (201 of 2,400-2,600 individuals)
- 1.5% of total orangutan population in East Kalimantan (Sub species pp wrumbii; 70 of 4,825 individuals)
- 11.7% of total orangutan population in Kutai National Park (total estimated population of 600).

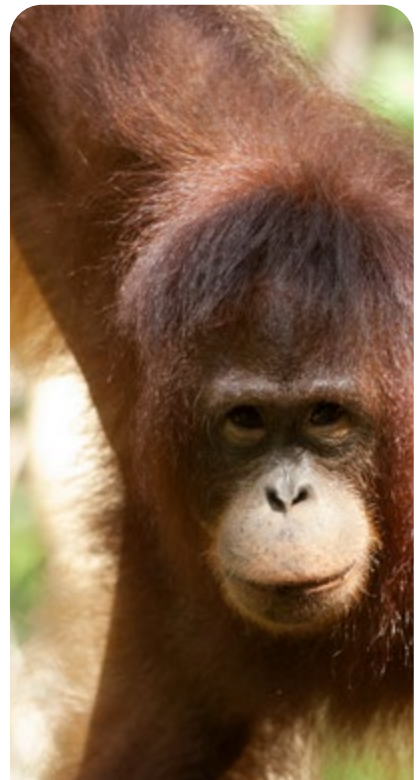
We are committed to ensuring zero fatal conflicts between humans and wildlife within our concession areas. There were no fatalities despite the fact that, according to our data, 46 tigers use the set-aside conservation areas in APP's concessions as part of their habitat range. In advance of harvesting operations, a preparatory tiger survey is normally done to identify areas to avoid.



Sumatran Tiger



Sumatran Elephant



Borneo Orangutan

Rare Trees: Conservation Update

The repopulation of locally rare tree species continued in 2018, following the identification of 10 species from habitat surveys since 2013. APP's work focused on four species: Ramin, Balangeran, Gaharu, Ulin.

Balangeran (pictured), for example, is a critically endangered tree threatened by habitat loss. APP has repopulated 238 hectares of the species under a programme with Balai Besar Penelitian Bioteknologi dan Pemuliaan Tanaman Hutan (BBPPBPTH) Yogyakarta, under the Ministry of Environment and Forestry, between 2013 and 2018. In 2019, we intend to repopulate endangered or vulnerable tree species in a minimum of 45 plantation blocks in protected areas under APP's control.

We have placed significant attention on the restoration of such tree species in the region surrounding the OKI mill. Whilst we can identify endangered species and areas of land to restore, we acknowledge the practical challenges in restoration. As discussed in Stakeholder Advisory Forum, we know it is often difficult to find contractors who want to carry out restoration work, and often the seedlings of specific local tree species may be hard to obtain. Nevertheless, we are working with NGO Yayasan Perkasa Mandiri (YPM) dan Gerakan Cinta Desa (Ge-Cinde) and research partners to overcome these challenges.

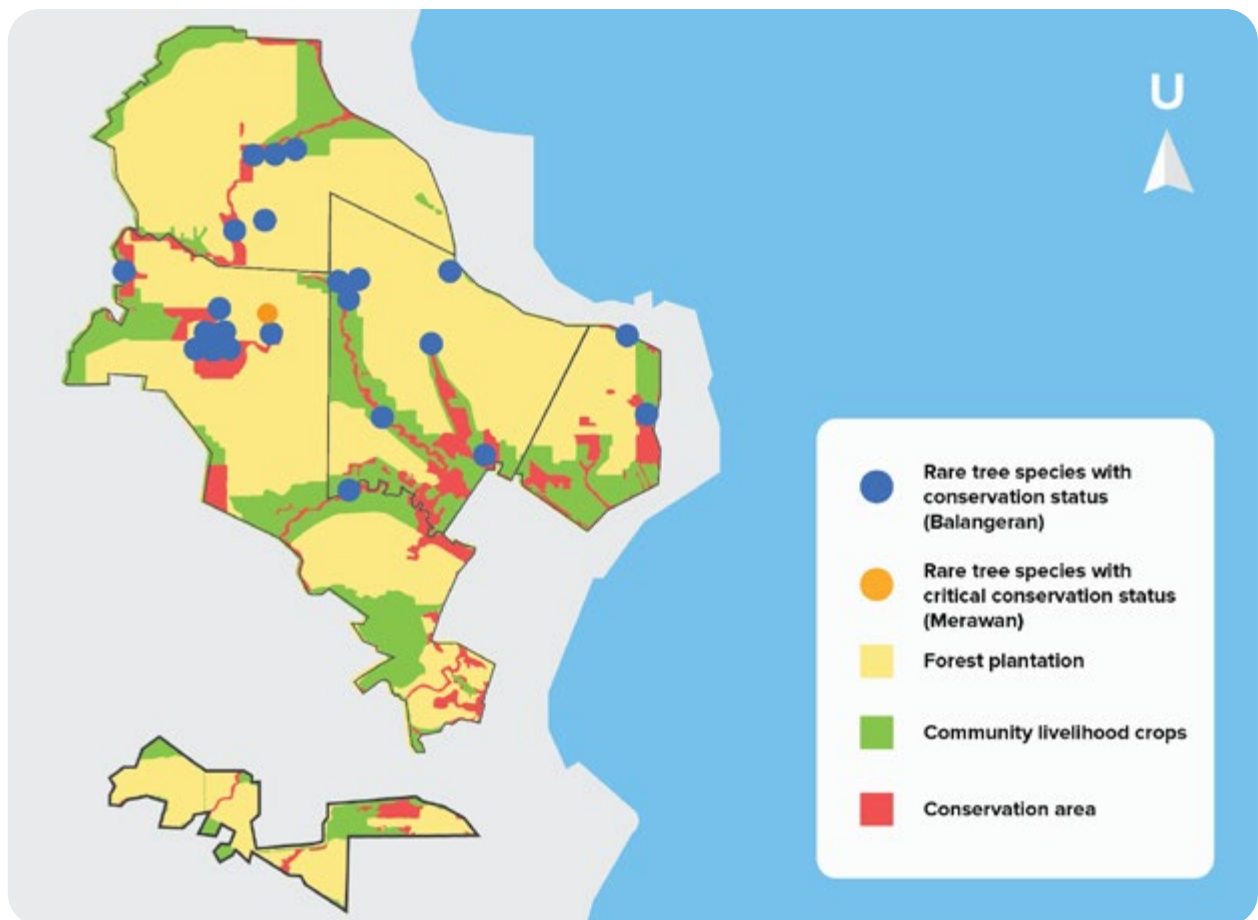


Balangeran Trees



Ramin nursery in our concession, Arara Abadi

Rare Trees: Conservation Update





Balangeran nursery in our concession, Surya Hutani Jaya

10 Indigenous Species to Focus on Repopulation



Species	Local Name	IUCN	Riau	Jambi WKS	Muba	OKI	Kalbar	Kaltim
<i>Aquilaria malaccensis</i> Lam.	Geharu	CR	✓		✓			
<i>Combretocarpus rotundatus</i> (Miq.) Danser	Prepat	VU				✓		
<i>Cotylelobium melanoxylon</i> Helm	Giam	EN	✓					
<i>Eusideroxylon zwageri</i> Telism. & Binn.	Ulin/Bulian	VU		✓			✓	✓
<i>Fagraea fragrans</i>	Tembesu	NE	✓	✓				
<i>Gonystylus bancanus</i> (Miq.) Kurz.	Ramin	CR	✓	✓	✓	✓	✓	
<i>Intsia bijuga</i> (Celebr.) Kuntze	Merbau	VU	✓		✓			
<i>Scorodocarpus borneensis</i> (Balil.) Becc.	Kulim	NR	✓	✓	✓			
<i>Shorea balangerana</i> Burck.	Balangeran	CR				✓		✓
<i>Shorea stenoptera</i> Burck.	Tengkawang	EN					✓	✓

Climate Change, Forestry and A Low Carbon Economy

We commit to support the Government of Indonesia Low Emissions Development Goal relevant to The Paris Agreement of a 29%¹¹ emission reduction by 2030. Global Forest Watch analysis indicates that tropical deforestation is the third-largest source of carbon dioxide emissions in the world, responsible for 8% of the world's annual carbon dioxide emissions. Forestry and agriculture emissions reduction will help meet around two thirds of the national target.

Our Forest Conservation Policy (FCP) helps avoid carbon emissions, to a potentially significant degree. Of particular note is the focus on protecting standing forests, preventing forest fires and restoring peatlands, all of which enhance carbon sequestration.

In 2018, we engaged independent consultant Ata Marie advisors to analyse carbon emissions avoided by implementing our policy since 2013, and a projection of long-term carbon emission avoidance in future. In the study, two scenarios of land use change (area and rate) are modelled, Business as Usual (BAU) and FCP.

The work is being peer reviewed extensively and a set of assumptions guides the modelling. Initial data show that for the period 2013-2016 the reduction in emissions is primarily due to the implementation of our FCP, with specific carbon avoidance resulting from the APP integrated fire management programme and peatland management from 2017 and 2019 respectively.

Whilst assumptions may be adjusted and research methods strengthened over time, the data looks robust. We can forecast that the major potential for long-term savings (avoidance) are from peatland rewetting and reduction of fire in peatland areas. There are initially significant emissions reductions from no deforestation, but potential savings from these will reduce over time. The data exclude changes in plantation biomass.

As a result, APP will maintain a focus on reducing third-party deforestation risk, continue towards best practice peatland restoration, seek alternative species in plantations, and continue with resolute management of fire prevention.



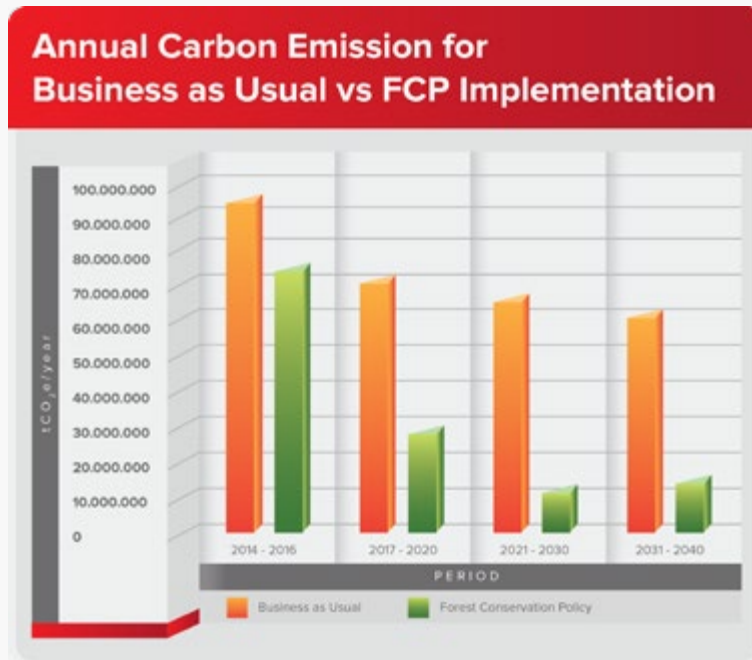
APP Protected Area

¹¹ Independent of international aid



Land cover

The FCP, along with APP's work to meet Government of Indonesia requirements, has so far reduced deforestation in favour of young regenerating forest, secondary forest and other scrub cover.



Carbon emissions

We report an initial analysis that shows 64% reduction in annual tonnes of CO₂e as a result of the FCP compared to BAU. We presented the same peer-reviewed figures to our stakeholders in March 2019. The chart above attempts to forecast future reductions resulting from FCP, fire management and peatland restoration. There are initially significant emissions reductions from no deforestation, but these reduce over time. These estimates also include the carbon sequestered in plantations.

Integrated Fire Management

We continue to intensify our approach to managing fires and their destructive impacts on forests and communities. Our aim is to minimise the area impacted by forest fire to 0.01% of that affected by fire in 2017 compared to the total gross area.

2018 was overall a drier year than 2017, during which we recorded a small increase in the number of fires on or near our concessions. However, in a year with greater risks, our fire management work is still mitigating and preventing fires. Our data show that 0.07% of our suppliers' (SFM) concession areas were impacted by forest fire in 2018.

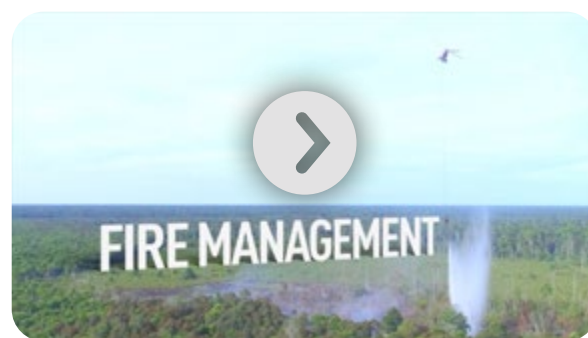
Our strict No Burn Policy remains in force and in 2018, detection systems, aerial detection and ground patrols were used in all concession areas in South Sumatra, with heightened attention during the dry season. Two new helicopters were incorporated in 2018, the fleet is proposed to expand in 2019.

Being prepared counts and we continue with fire control training. In 2018 for example, our rapid response teams – whose capability ranks above that of the regular fire fighters – have been set up in all Sumatera concessions, with a view to expansion into West and East Kalimantan.

During the Asian Games 2018, the Government of Indonesia, APP and a host of other companies worked hard to ensure no haze affected the event. APP's concession suffered no serious fires, and the Government of Indonesia offered the following message.

“The assistance of the private sector is expected to be able to strengthen fire suppression from the air. In the past handling was still partial, but now it must be synergistic between the private sector and the government.”

Acting Governor of Riau Wan Thamrin Hasyim



As we move through 2019, we continue to expand patrol and monitoring posts with the police, army and regional disaster mitigation agency and we are strengthening community engagement for fire prevention (see IFFS, page 63). The weather in 2019 is expected to be drier than 2018. To go further, for all concession areas plus a surrounding zone of five kilometres, we plan to use new stretch targets to improve our effort by the close of 2019:

- We aim to detect any fire, even below 0.2 ha in surface area and record this;
- We aim to reach all detected fires in less than two hours,
- We aim to contain all fires in less than eight hours.

Ensuring Suppliers Comply with “No Deforestation”

All new suppliers in our forest products supply chain are obliged to comply with our Supplier Evaluation and Risk Assessment (SERA). SERA then facilitates delivering on the requirements of APP’s Responsible Fibre Procurement and Purchasing Policy (RFPPP). Additionally, all existing suppliers have to implement sustainable forestry management practices, the assessment of which is done with Earthworm Foundation¹² (formerly named The Forest Trust).

We report that 96.2% of APP Indonesia’s current pulpwood supply comes from the 38 long-term partner suppliers, 2.5% is imported while the remaining 1.3% is from local one-time suppliers.

In 2018 we assessed 22 new suppliers (16 ‘one-time’, and 6 continuous). Most of these suppliers provide woodchip from South East Asia, predominantly Malaysia and Vietnam, and all but one passed the SERA process successfully.

At APP we have ongoing engagement with suppliers. For example, once SERA is completed, if the supplier is to be used on a continuous basis (not one-time) then a HCV assessment is made. In another example, we discuss deforestation risks relating to a supplier’s other operations, such as palm oil; we want to avoid

allowing a supplier to pass SERA for pulpwood supplies if another part of their business is clearing forest.

In the woodchip example, mills have to provide details on sources, to ensure logs are from responsibly sourced, and we will work with partners such as Earthworm Foundation in Vietnam to assess compliance. All of our woodchip suppliers in Vietnam have FSC certification at the mill level, while logs have Controlled Wood (FSC legality) certification, or equivalent. If we work with a supplier with no sourcing certification, we will ask them for Landsat mapping image files to help prove there is no risk of deforestation. Additionally on engagement, the SERA process also includes a public notification period to allow for stakeholder feedback on potential suppliers, an example is found in the FCP Monitoring micro-site.

In 2018 we also assessed three Community Forests in Indonesia. These make up a very small percentage of our forestry supply (around 1% of the total), from areas allocated by the Government of Indonesia for community forestry activities, which aim to provide access for communities to benefit from the forestry industry. We apply the same strict approach to this type of forestry; all supplies must meet our FCP requirements and undergo HCV and HCS assessments.

Pulpwood Suppliers Ownership Status

We responded to stakeholder concern about APP’s beneficial ownership status and relationships with Indonesian pulpwood suppliers in order to confirm that there is no link with companies who were in breach of APP’s zero-deforestation commitment. In 2018, an international accountancy firm conducted an assessment which concluded that APP’s partner (supplier) companies list is consistent with what we declare on the FCP Monitoring Dashboard, companies that were found to be involved in deforestation are no longer supplying to APP, and other companies with an alleged relationship with APP have been identified as having no part in APP’s supply chain. You can read more about this assessment on page 34.

¹² www.earthworm.org

Peatland Management

Approximately 50% of APP's pulpwood suppliers' concessions are on peatland. This means we must manage forestry activities carefully in this delicate ecosystem to maintain optimal water levels that protect natural forests and minimise carbon dioxide emissions. In 2018 we continued to deliver better information on peatland topography to better manage peat forests, to deliver our FCP commitments and to enable progress toward our climate change target.

Specifically, APP and Deltares worked to refine concession land zoning to identify areas that must be protected for water storage and natural forest buffer zones as well as areas for production forests. This work directly supports the Government of Indonesia's Peat Rezoning Plan. We acknowledge the new zoning that will create an additional protected area and we are adapting our production planning accordingly by preparing more detailed plantation zones to manage

water levels and protect the area defined by the Government of Indonesia.

APP recognises the two challenges of: (i) delivering technical land use assessments that meet the needs of plantation management and science-based land management; and (ii) using our knowledge of balancing pulp production with forest conservation, flood mitigation, and carbon dioxide emission reduction to support rezoning.

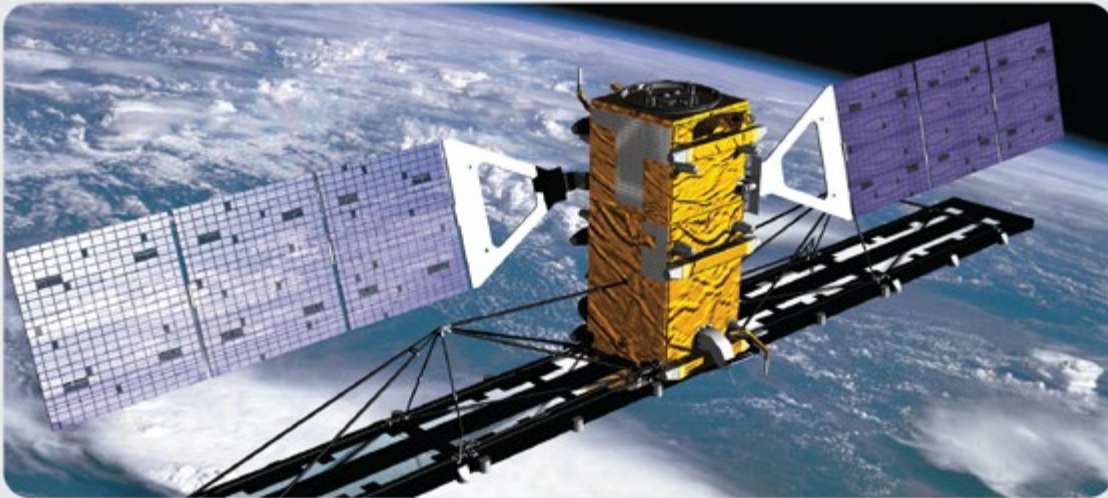
To support this work, the Indonesian Government has created the International Tropical Peatland Centre (ITPC), in collaboration with the Centre for International Forestry Research (CIFOR), to foster leadership in peatland management that meets the needs of both the environment and industry. APP supports this initiative, and is involved through the The Association of Indonesian Forest Concessionaires (APHI).



Kerumutan Landscape

State of the art mapping technology

As described previously, in 2018, a small amount of natural forest was lost inside our protected areas (0.14%). We use a remote sensing technology based on RADARSAT-2 data provided by MDA¹³ as the primary means to detect forest cover change: the 'near real time' data allows a quick response to forest disturbance.



Radarsat-2

The key features of APP's Forest Change Detection system using RADARSAT-2 are:



Monitoring almost 3.6 million hectares comprising 38 APP suppliers' concessions, Giam Siak Kecil biosphere reserve and the PT. Karawang Ekawana Nugraha ecosystem restoration concession near APP's OKI pulp and paper mill



The RADARSAT-2 sensor covers a large swath (125 km) at a high resolution (0.5 metres) allowing large landscape monitoring in 'near-real-time'. A world first: this kind of radar remote sensing has not been done at this scale before.



Automated process from data acquisition, data processing and forest change alerts, as georeferenced polygons, delivered directly to APP's enterprise servers



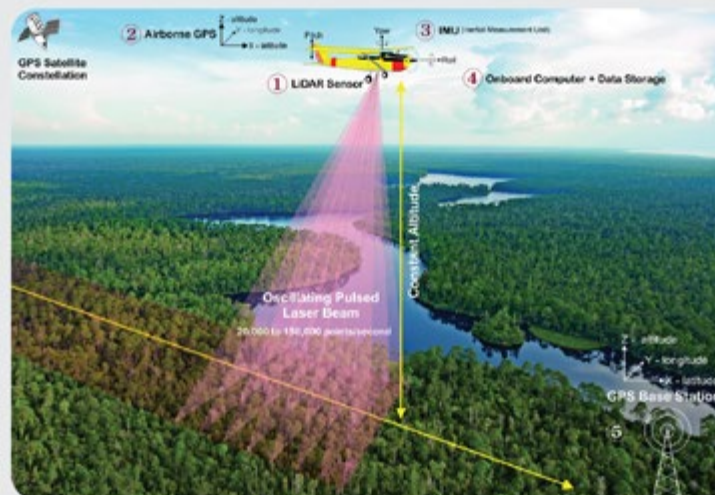
This system enables the detection of encroachment, illegal logging, forest damage due to natural causes, or infrastructure changes.



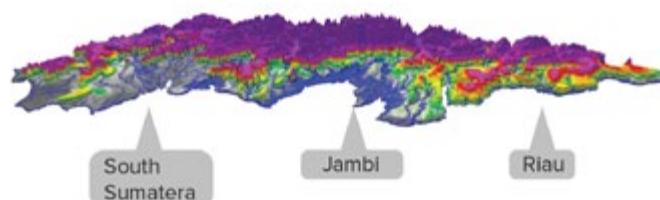
RADARSAT-2 can identify a single tree that has been removed from the forest canopy.

¹³ <https://mdacorporation.com/geospatial/international>

APP acquired LiDAR data from 2015 to 2018. LiDAR penetrates the forest canopy for near-perfect data on forest structure. LiDAR also provides data on perimeter canals to detect water levels and is used to model the surface morphology. The 2017-2018 data will help refine APP's digital terrain model and fill in the gaps, in coastal areas, for instance. The total cost of airborne LiDAR funded by APP and Belantara Foundation is around US\$ 2m.



Digital Terrain Model of Sumatera



LiDAR Aircraft



LiDAR Camera

Such hi-tech mapping allows us to precisely target peatland management activity. For example, we completed a study of forest regeneration in target the MUBA retirement area which shows the return of many species without planting. This is despite the fact that rewetting was not yet complete. APP has strongly recommended further rewetting measures, without which further growth of the desired swamp species will fail.

Our peatland management teams at APP also recognise other threats to the peatland restoration such as fire risk from bird poachers (observed during field surveys).

Alternative Species

As part of our peatland management, we are intensifying the focus on rewetting in 2019. And as the national Peatland Rezoning Plan develops in Indonesia there is a need to adapt to the soil conditions of the zones designated by the Government of Indonesia. Our research and development teams are working on alternative species which thrive on peat soils and which can potentially be a commercial proposition. Trials are currently on-going with 12 species with an academic partner using seeds with a good tolerance for wet conditions that came from from peat forest areas in Papua and East Kalimantan. There are some good growth results in Riau which we will monitor through 2019.

The main challenge is finding tree species to research: the fruiting season is short and physically accessing them is problematic. And, whilst alternative natural species productivity is lower than acacia (typically used in zoning for its fast growth rate), our University partner has a strong track record of finding the fast-growth species and ways to improve pollination.

Integrated Forestry and Farming System (IFFS)

Our flagship community-forestry program, the IFFS, or Integrated Forestry and Farming System seeks prosperity for communities while combatting illegal logging, forest fire and conflict.

We are committed to empower and involve communities as part of sustainable operations in order to achieve landscape-scale sustainable forest management, protection and restoration across APP and supplier operations.

If forestry and agri-business corporations can empower communities then forests stand a greater chance of being protected. In common with many systems of forestry around the world, there are people living not only near forests, but within them too. It is important to engage communities thus they can work with us to protect the forests.



Peatland forest at Kerumutan Landscape

Thriving Communities, Thriving Forest



284
Villages

Benefitting from
IFFS programs



16,807
Households

Benefitting from
IFFS programs



64
Women Groups

Involved in
IFFS programs

IDR 43.67
Billions

Total funds channeled
to IFFS program

IFFS is a participatory community engagement program that aims to transfer knowledge, create collaboration and create a virtuous circle of forest management and improving livelihoods. To a large extent, the approach – now in its 4th year – aligns well with the landscape level approach to sustainability.

Engagement takes place via the following:

- Economy-development program (Integrated Forestry & Farming System)
- Land dispute resolution activities
- Community forest patrol
- Community fire patrol.

Main part of IFFS is getting villages to participate. The target is 500 villages by 2020. At the end of 2018 we had 284 (16,807 households, 77 Village Owned Enterprises or Badan Usaha Milik Desa (BUMDes) micro-enterprises, eight village co-operatives (KUD), 199 farmer associations, and 64 women's groups). Whilst we may face a challenges to meet the target of 500, we note some string benefits

already such as the growth of women's roles where IFFS is running. Women are increasingly seeking to join farmer cooperatives, but women may still run the household, so practical change is taking place to stimulate inclusion (such as moving the times of meetings).

In 2018, interim observations indicated better incomes for families in two thirds of IFFS villages, greater diversification of livelihoods, reduced fires, and better relations with industry.



A Partnership for Indonesian Sustainable Agriculture

What IFFS has also triggered is an initiative to scale up the concept to a national level currently being studied in a project with CIFOR/ICRAF with the aim to develop a model for a Partnership for Indonesian Sustainable Agriculture, in collaboration with the Ministry of Village, Development of Disadvantaged Regions and Transmigration (Kemendes PDTT) and other NGOs including The Nature Conservancy, IDH, CIFOR, ICRAF and PISAgo. This would produce a network, or web of "IFFS +" villages. The aim is to make such village programs self-sustaining, which would be achieved as long as there is a market for their products villages produce. To go to the next level the model would need to be more robust, and more business-like using KPIs and based on a thorough business plan. A trial with six villages is ongoing with The Nature Conservancy, CIFOR and ICRAF.

Train and Empower 1,000 Women

In line with encouraging alternative livelihoods that are free of deforestation risk, a new partnership with the Martha Tilaar Group¹⁴ aims to formally empower women in rural areas around APP suppliers and mill operations.



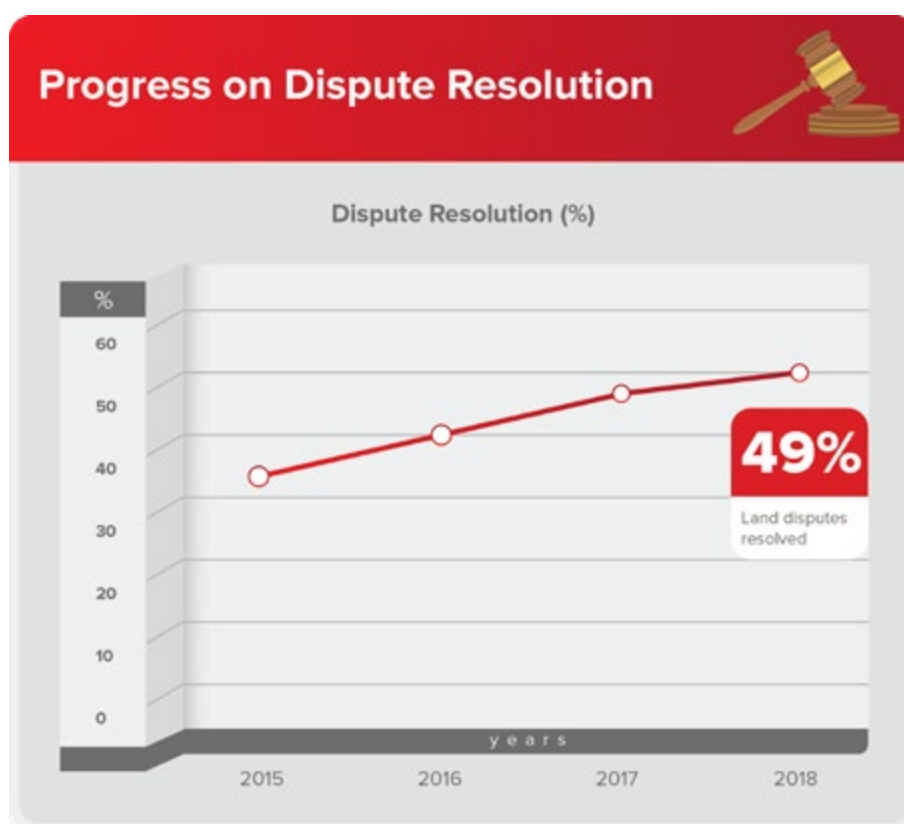
The partnership was facilitated by Indonesia Global Compact Network and aims to train participants to identify and process valuable local herbs which in turn enables micro-entrepreneurship and alternative livelihoods for women and their families. The target is to reach and train 1,000 women by 2020. As part of the program, Martha Tilaar Group provides full scholarships in developing skills in spa therapy techniques. Following completion of the training, employment can be found in APP suppliers and around the mill areas, as well as the opportunity to become a spa therapist for Martha Tilaar branches. Martha Tilaar Group has trained more than 7,500 women in beauty therapy, herbal drinks and financial management across the group. The initiative aligns well with APP's IFFS programme which promotes income diversification.

¹⁴ Martha Tilaar Group (MTG) is a leading manufacturer of cosmetics and herbal medicine

Resolving Land Disputes

Our Forest Conservation Policy commits to Free, Prior and Informed Consent (FPIC) of indigenous and local communities on any proposed development or forest management activities in existing plantation areas. It also commits us to resolve conflict effectively and handle complaints responsibly.

Forests are at risk of clearance when ownership or tenure is contested. Economic pressure, the need to alleviate poverty, is often became the root cause. But complex historic and customary rights could also be part of the reason.



Over recent years APP have employed an impressive array of measures to drive the resolution of land disputes. These include:

- Land dispute mapping
- Work plan to address each land dispute and implement the plan
- Acceleration of land dispute resolution is part of Key Performance Indicators (KPI)
- Establish Social and Security Division to handle land dispute resolution
- Develop standard operational procedures (SOP) for land dispute resolution
- Establish Regional Social Working Group (SWGR).

By the close of 2018, 49% of land disputes were resolved, reflecting a steady growth in resolution. Around a quarter of the conflicts are related to villages inside concession areas.

Naturally, there are intrinsic challenges in managing conflicts and disputes. We recognise the following challenges:

- Trust takes time to build, but can be lost in a moment;
- Village politics can be complex
- Involvement from external parties often brings new, potentially conflicting, interests
- Capacity, staff at the district level may struggle to manage conflict resolution.

For example, in 2018, our concession PT. WiraKarya Sakti (WKS) saw an ongoing dispute continue in Jambi. Most recently, the Serikat Tani Mandiri Batanghari farmer group laid claim to more than 8,000 hectares of PT WKS land and again ask compensation relating to past and ongoing allegations. Through the SWGR mechanism, the assessment team conducted interviews with relevant stakeholders (including members of the suku anak dalam community) in order to identify and verify the background of the land rights claims. The assessment provided clear recommendations for future improvement.

The challenges mean that progress is unlikely to be rapid but whilst the number of conflicts resolved in 2018 may be small, the scale of some of them was not insignificant. We delve deep into ways to manage conflict, we try new approaches, sometimes without success.

How to improve Resolution Processes

APP is working with EcoNusantara¹⁵ on a pilot project in two villages in Riau; Mak Teduh and Tanjung Air Hitam. They are the concession of PT. Arara Abadi, in Sorek Malako district, on an area that has never been commercially used within the concession but has been cultivated by the community for generations.

The aim of the pilot project is to improve dispute resolution procedures, especially with respect to contested village borders inside concessions. Using these real 'live' situations, APP intends to produce practical guidance on mapping the contested areas within a supplier concession, understanding how it's used, and its history. The result is clarity on boundaries and better resolution processes. The next step is to replicate the new procedures. Precise activities in the project included:

- Identification of old village boundaries
- Dialogue with community leaders
- Participatory mapping of area boundaries
- Discussion on options for resolving land disputes
- Signing an MoU

We set clear guidelines for how we expect security contractors to conduct themselves, recognising that they play an important role in maintaining relationships with forest communities. Since 2017 we introduced new forest protection procedures and training in all APP's supplier concessions to accompany the Security Vendor Monitoring & Evaluation process, which we implemented in 2016.

Please see the FCP Monitoring micro-site for more on our Responsible Conflict Resolution Procedure, a Collaborative Conflict Management Approach, a Free Prior and Informed Consent (FPIC) implementation procedure and a Grievance Protocol.

¹⁵ <http://econusantara.org/>

Tracing to A Well-Managed Source Using Certification

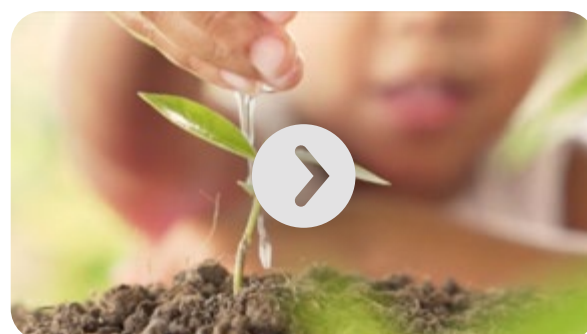
We have expanded the hectareage of our pulpwood supply chain that is covered by formal third-party certification. We use certification as a 'chain of custody' assurance tool that enables us to trace the fibre that we use to a well-managed source.

Our total concession area is 2,587,224 hectares. The table below shows the percentage covered by globally recognised certifications. The IFCC¹⁶ is the Indonesian arm of the PEFC¹⁷, and also meets the requirements of Forest Law Enforcement, Governance and Trade (FLEGT¹⁸) EU import license. The PHPL-VLK helps to assure timber legality and removes the need for our customers to carry out due diligence for fibre traceability themselves. Customers do enquire about what goes into their products; these certifications allows us to meet their specific needs on fibre sourcing.

Certification	Coverage 2018	Coverage 2017
IFCC (Indonesian Forestry Certification Cooperation) ^a	91%	89%
PHPL-VLK (SVLK, Timber Legality Assurance System)	100%	100%

In addition, final PEFC endorsement of the IFCC Community Forest certification is due imminently. APP is targeting certification for all four APP Community Forests in 2019, this would expand coverage to around 95%.

“The level of PEFC certification achieved by APP to date demonstrates the progress the company has made towards a sustainable forest management. It is also key to encourage and promote certification of more of Indonesia’s forests. The certification affords APP products access to the PEFC label, providing a clear message to consumers worldwide that their certified products come from verified sustainable sources. Companies like APP, with the size and scale to implement the systems and processes required for certification, act as a catalyst for helping us to reach the tipping point to mainstream forest certification across Asia.”



Ben Gunneberg (CEO, PEFC Council)

¹⁶ <https://www.ifcc-ksk.org/>

¹⁷ <https://www.pefc.org/>

¹⁸ <http://www.euflegt.efi.int/what-is-flegt>

SECTION 5

PEOPLE



By empowering local communities through a range of programmes we provide the mechanism to decouple economic growth from deforestation. Ensuring every employee, contractor and visitor to our sites returns home safe is our number one priority.

Mangrove restoration project

Women empowerment farmer group

Community Empowerment through Integrated Forestry and Farming System

Addressing water related issues in communities, access to clean water and sanitation



Developing infrastructure

Microfinancing for SME's

Community-based Waste Management



Social Impact Assessments to determine local community needs



Health programmes for young mothers and infants



Supporting handcraft for economic empowerment

End of career training programmes





Safety Culture Programme

Employee Welfare Policy, covering safety, wellbeing and data protection



Training and development



Health clinics for employees and their families





Ethics Call Centre to report concerns

Progress Headlines

Vision 2020 commitment

EMPLOYEE WELFARE



Target

Zero employee and contractor fatalities, major fire incidents and traffic accidents on site

Progress

We had 10 employee and contractor fatalities in 2018

X Not Achieved

Total employees

29,803



Gender split:

8% females in our workforce

(10% in 2017)



Turnover rate

9%

(13% in 2017)



99%

employees covered by **Collective Bargaining Agreement** (the same way in 2017)



Training hours delivered

681,495

equivalent to 23 hours per employee (698,124 and 23 hours per employee in 2017)



Rate of new employee hires under 30 years old: **21%**

(16% in 2017)



Context

The wellbeing of our employees is vital for business success, as we work towards achieving world-class employee safety performance. This means a safe working environment, a workplace free from discrimination and harassment where each employee sees a long-term future in which they can reach their full potential. We are investing and take a long term view in nurturing a corporate culture across our business, encouraging employees to be creative and understand how their success makes the difference. Strong leadership is key in fostering a collaborative work environment that thrives on success and innovation is encouraged.

We are a significant employer in Indonesia and provide a diverse range of employment opportunities. The challenges we face are unique to each mill. For our mills in remote locations, the employment opportunities we offer provide a significant positive impact to local communities. While for mills located near urban centres of population we must compete for skilled labour with other companies in the area. Relationship with unions are strong and collaborative - employees are free to associate with their chosen union.

Alongside our forestry and supply chain community investment, such as our flagship programme, IFFS (see page 63), we also support a number of community projects designed to improve livelihoods, empower women, reduce impoverishment and boost infrastructure. For our mills located in areas of forestry operations, we share with our neighbouring

communities a dependence on the landscape for raw materials and prosperity. A healthy community translates to a healthy business.

Local communities depend on local resources for the basics such as food or building materials, and the available infrastructure probably at best fragile, at worst non-existent. In spite of this, communities have rights relating to the land and its tenure, but often within unclear legal ownership frameworks, and despite the benefits of sharing resources, not all stakeholders gain equitably from them. This can lead to illegal logging, fire risk, or the appropriation of land belonging to others. As described in the Forestry section, we recognise the advantages of multi-stakeholder approaches to manage the landscape and its resources in a sustainable manner. Community investment by corporations aims to make communities more resilient and to foster good relationships. Our Corporate Social Responsibility (CSR) Policy¹⁹ lays out our commitments in these areas, and forms part of the foundation of our strategy.

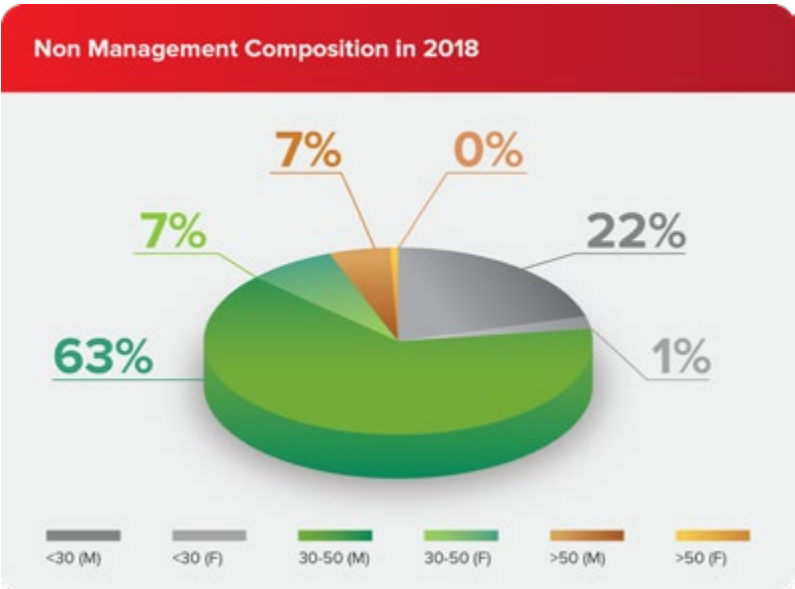
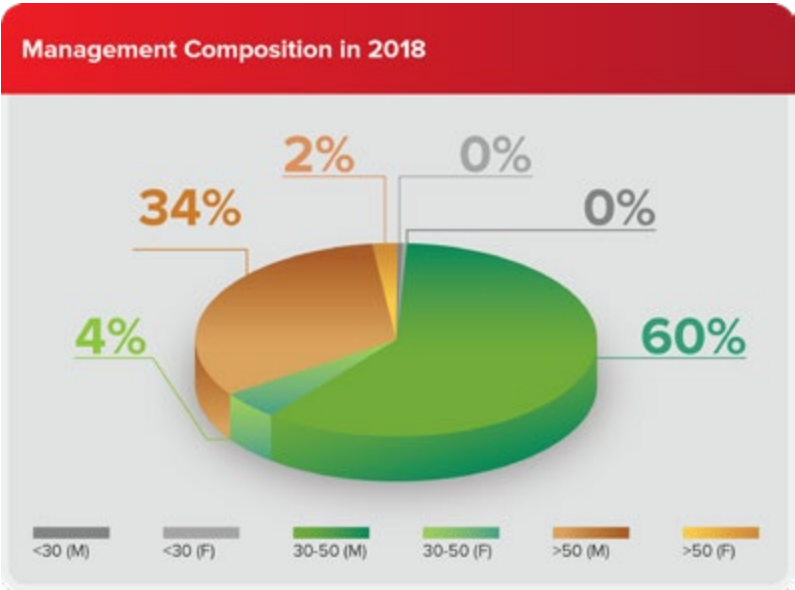
We invest in CSR at two levels:

- Group level such as water related community issues, and collaborations with SPEAK and Martha Tilaar
- Mill level such as supporting handicrafts and other micro-enterprises, sanitation projects, schools, farmer groups and women's empowerment.

Please see page 63 for more on forestry specific community investment.

¹⁹ See our Sustainability Report 2017 p86 for further detail

Our People



Our Employee Welfare Policy (<https://asiapulppaper.com/sustainability/social-responsibility/employee-welfare>) sets out our commitments to our employees on safety, wellbeing, human rights, labour rights, skills, and data protection, meeting the requirement of ILO Standards. We strive to position APP as a dynamic company, with strong employment benefits that extend past salary, including health insurance, pensions and the ability to earn additional bonus through various awards and recognition schemes we have in place. All our permanent employees receive career development reviews, annually as a minimum.

We recognise the challenge of attracting and retaining young talent, working hard to make APP an attractive

employer. Our loyal and long serving workforce means in some areas of our organisation, management turnover is low, so we have stepped up our work to ensure younger team members are recognised and understand they have a prosperous future at APP.

Meeting our employees' needs and attracting new talent are vital for the long term sustainability of our business. We provide attractive benefits and working conditions with long-term career prospects, with benefits that 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 each mill, in line with local regulations.

Employee Hires and Turnover 2016-2018				
		2018	2017	2016
New employee hires (%)	Total	6	5	3
	Male	6	5	3
	Female	5	2	2
Turnover (%)	Total	6	13	27
	Male	7	10	26
	Female	25	37	39
Senior management hired locally (%)		6	7	n/a

Assessing organisational health is an activity we conduct each year, benchmarking ourselves against the best global companies. In 2018 the questions focused on the extent to which we are embedding our corporate culture, building on the Iron Army concept and MBOS approach. In 2019 we plan to refresh our organisational health survey to focus more towards the employees and make it even more inclusive - many employees at our mills typically do not use computers in their day to day work, presenting a challenge to include such workers. To make a step towards practical engagement we plan to launch a company wide competition to create a motivational video around the theme of APP meeting its business performance KPIs. Our ambition is to link company culture to business performance, further supported by Cultural Ambassadors we will select in 2019.

The proportion of females employed at all levels of the organisation at the end of 2018 was 8%, and amongst management 6%, which is lower than the average for Indonesia where females make up 52%²⁰ of the total workforce. In line with the pulp and paper sector in general, gender diversity is a real challenge for APP, as we operate in a sector that has traditionally employed a high proportion of males. By offering equal pay and benefits irrespective of gender we create the working environment and opportunities to diversify our workforce. Each of our mills pays a salary equal to or greater than the locally determined minimum wage, which varies by location, irrespective of gender. Our Ethics Call Centre (see page 35) provides the mechanism to report discrimination and other concerns anonymously. Reporting channels indicated no confirmed cases of discrimination in 2018. We have committed to increase the number of women in senior management positions by 2030 and will report our progress each year through our Sustainability Report.



APP employee at our mill office

²⁰ <https://data.worldbank.org/indicator/sl.tlf.cact.fe.zs>

Training

Developing competencies, technical skills, management techniques and leadership qualities requires a dedicated company wide training effort. APP's training and development is managed at group level through the APP Academy, with each mill developing their own supplementary programmes to meet their own needs. Separate leadership programmes exist for divisional management to supervisor level. However, we also consider the topics covered and measure impact by monitoring performance before and after amongst participants, to give a broader measure of success.

Training does not only focus on growing future talent and developing workplace competencies, we also consider those in the final stages of their career with APP. We provide training for employees approaching retirement, preparing them for changes to their lifestyle up to one year before retirement. Programmes include learning farming techniques, entrepreneur training, husbandry, handicraft and home industries. Where possible, we embed these programmes within established CSR projects at our mills (see page 82).

We conducted pre pension programme for 50 employees who are retiring in the next two years at our Indah Kiat Tangerang mill. In terms of practical skills we collaborated with a local community catfish farming project that forms one of our mill CSR programmes. We also offered seminars on psychology to aid transition out of work and financial planning advice.

At Pindo Deli Perawang we focused on leadership programmes, 'Individual Leader', for supervisors in our production areas as we believe this is the most effective way to build a culture of success and collaboration. 255 employees took part in 2018, and the programme will continue into 2019, when we will also move successful training completion into employee awards to encourage participation.



Product output of tissue machine



Quality control



Process control and monitoring at paper production

Scholarships form a vital part of our long-term planning, as well as offering less advantaged students with the opportunity to start the right step of working life. Each mill forms their own relationships with local educational institutions and develops programmes that meet the needs of the local community.

At Tjiwi Kimia we awarded an additional scholarships, taking the total since the programme began in 2008 to 82. Of these, 39 remain in full time employment at the mill after graduation. We select candidates from the local community at senior higher school at the age of 18 years old. The successful candidates study for their 'Diploma 4' for four years at the ITSB (Institut Teknologi dan Sains Bandung). They participate in vocational training. After four years they are offered full time employment, including the option to transfer to other APP mills.

"I felt extremely fortunate to join the Graduate Trainee scheme. The skills, experience and the disciplined approach to work that I gained from the programme made the transition to full time work in a manufacturing environment so much smoother."

Graduate trainee programme student,
Indah Kiat Perawang

At Indah Kiat Perawang, as part of the APP Academy, APP Technical Certification has been developed in order to equip our employees, particularly those based in production roles at our mills, with the right tools for the job. We target a minimum of five hours of training per month per employee. In 2018 we trained 1,100 people, totalling over 20,000 hours of training. Prior to conducting Technical Certification, all employees receive a basic training programme covering work instructions, Standard Operating Procedures relevant for their role and troubleshooting techniques.

We work closely with a local senior high school to offer students scholarship programmes, selecting students with high potential but lacking the financial support to secure further education. In 2018 we provided three students with scholars who went on to begin further education at ITSB in Bandung, Java, before returning to an open offer of employment at the mill following completion of four years further education. Five students graduated into full time employment in 2018. We also offered vocational training for students, who attend training at the mill while gaining valuable work experience for 4 months. We provide accommodation to all students and a generous living allowance. 212 students took part in this course in 2018.

A graduate trainee programme sits alongside the scholarship programme. Aimed at those who have completed their university course, a six-month work placement is provided following graduation. In 2018, 26 students successfully completed the placement and were offered full time employment.



One of our activity at APP office

Health and Safety

We are committed to ensuring every employee and contractor to return home safely every day. Each of our mills manages health and safety at a local level, as each site has a different risk environment. The mill head, who is directly accountable to APP's Chairman, is ultimately responsible. They are supported by a team of safety managers and safety ambassadors, as well as a team of experts at our head office. All mills with the exception of OKI and Univenus Perawang, have OHSAS 18001 certification for occupational health and safety, and five mills will switch to the new ISO 45001 in 2019. All mills have SMK3, the Indonesia national standard for health and safety in the workplace.

In 2016 we launched the APP Safety Culture program, which continues through to today. The programme focusses on instilling a safety mindset, improving awareness of 8 APP's Safety Golden Rules, 'Safety in The Line' program implementation, more accurate incident reporting, access to PPE, OHS audit, and emergency response. In 2018 we initiated a technical competencies improvement program, covering activities such as process safety management, lifting and rigging, and working in confined spaces. We conducted OHSMS performance audit at all mills to measure safety performance on each safety element, allowing each mill to be more focussed in their own safety improvement programme. We are also held an annual safety conference to share best practice. Mill's clinics also provide health services and advice for employees and contractors.

Looking forward to 2019, our Chairman is committed to improving health and safety performance. At APP Group level, we developed a SPI (Safety Performance Index) to systematically measure and monitor mill performance, while also considering precautionary measures, preventive measures and near misses which we will roll out in 2019. The index covers serious injury and fatality rates, equipment risk inspection frequency, permit to work compliance, behaviours-based safety compliance and mill walk inspection frequency. The approach centres around safety being a personal responsibility. SPI will become a personal KPI to encourage employees to actively participate in risk identification and assessments, high risk activity inspection and behaviour-based safety. The roll out will

begin at management level, then be cascaded down to cover all employees.

The 2019 program will focus on Serious Injury and Fatality (SIF) Prevention to ensure systematic approach on prevention of serious incident and fatality. The SIF Prevention steps then translated into each manager's KPI as an implementation of safety golden rules number 01, safety is personal responsibility where everyone shall involve proactively in SIF prevention. The safety engagement journey began with improvement on engaging at manager level and above and after successfully implemented then program will be cascaded down to other level and cover all employee in the future.

We are saddened to report we suffered 10 fatalities at our mills in 2018. Three of these were employees, seven were contractors.

At Indah Kiat Perawang one contractor was fatally injured when he touched a damaged electrical cable. Since the incident we have revised standard operating procedures for electrical hand tools and cabling, as well as insisting electrical gloves are worn when handling high risk equipment. At the same mill one contractor was fatally injured when a storage container fell during loading and unloading. Following the incident, we installed a revised loading crane to allow more accurate storage of containers and initiated a handover system for warehouse workers to confirm an area is safe at the end of each and every shift.

At Pindo Deli Perawang one employee was fatally injured in the tissue machine, having climbed into a restricted area for cleaning. We provided additional training to employees to remind them of the danger of working in a restricted area, installed an additional interlock system to prevent unauthorised access and increased the height of protective barriers.

At OKI mill, one contractor was fatally injured after falling from man's basket attached to a forklift. Following the incident, we reviewed and revised our pulp stacking procedure, providing additional guidance on safe working practices to employees and contractors. One contractor drowned after a fall into

a river when tending to a pulp transportation barge. In response, we reviewed and updated our supplier contracts with regards to barge specifications for cover and fall protection, specifying HSE requirements, railing design, anchor points and fall protection system requirements. In a third incident, a contractor was involved in a traffic accident on site. Following the incident, a safe riding training programme was implemented, and a riding license scheme introduced.

At Pindo Deli Karawang one employee was fatally injured after being struck down by toppled forklift. Working procedures have since been altered to reduce this risk in the future and additional training provided. In a separate incident a contractor died after being hit by a vehicle in a parking area. Transporter safety procedures were developed to reduce the risk of the same incident happening in the future.

At Indah Kiat Serang mill an employee died following an electric shock and at our Lontar Papyrus mill a contractor was fatally injured due to pinned between two empty containers. In both cases working procedures were revised and updated to address the risks identified in both incidents.

In recent years we have accelerated our focus towards behaviour-based safety training. While we take every precaution to physically reduce the risk of injury, we recognise instilling the right safety culture is vital too. We encourage feedback, self-evaluation and assessment for all employees and visitors. Safety talks at the beginning of each shift, visible reminders, safety ambassadors spread throughout our operations and regular inspections and audits all contribute to making safety visible and integral to day to day work.

Health and Safety KPIs				
		2018	2017	2016
Injury rate	Male	2	2	4
	Female	0.2	0.1	2
Lost day rate	Male	5	4.7	37
	Female	0	2.4	25
Fatalities	Male	10	8	2
	Female	0	1	0
Absentee rate	Male	0.1	0.1	0.1
	Female	0.01	0.03	0.07
Frequency rate	Total	8	8	20
Severity rate		23	22	18
Occupational disease rate		0	0	0

Regular Inspections at Tjiwi Kimia

In order to identify risks, address them and create a culture of safety and awareness that encourages reporting incidents, the mill conduct regular inspections across the entire site. Competition is encouraged between departments. In 2018 we;

- Delivered top management site inspection, led by the Mill Head
- Installed 113 heat sensor of blowers
- Modified 460 safety guards
- Installed a new fire response system at our co-gen power plant
- Upgraded 159 forklift trucks with updated safety features
- Conducted 4,403 employee medical check ups
- Hosted Divisional Town Hall meetings focussed on safety, as required throughout the year
- Conducted basic safety training, basic fire safety and emergency response training, and certification for safety teams

Zero Accident Award

Indah Kiat Tangerang was the first company in Banten Province to be awarded the Zero Accident Award, in recognition of achieving zero lost time incidents. The mill passed 1.2 million hours worked at the end of 2018 with no lost time injury.

Carefully planned periods of production shut down are used as the opportunity to undertake modifications and other maintenance activities at a mill. Identifying these as a period of high risk for employee and contractor safety, Indah Kiat Perawang conducted additional safety training focussing on the approach to safety during these periods. Every shift is briefed by the mill head and safety head during the safety period, providing advice on safe working practices and reinforcing key messages. Shift handover meetings communicate progress and safety notices between shifts.

An inspection group was set up to carry out spot checks with operators to identify risks. We have found 1500 areas for improvement since beginning the programme in 2017. The regular inspection route covers warning signs, PPE, work and contractor permits, and a visual inspection of equipment condition.

We rely on third party contractors for a variety of services across our mill operations. Contractor safety is a integral part of our overall approach to health and safety management and we have been working hard to develop and implement our Contractor Safety Management System

(CSMS) across all our mills. The fundamental approach is based on careful assessment of each contractor before any contractual engagement begins with close engagement and supervision once work commences. In response to the contractor fatalities we suffered in 2018, our CSMS will be revised in 2019, with a focus on leadership and behavioural aspects of safety.

In 2018 we;

- Conducted Contractors Safety Officer training at Pindo Deli Perawang, with the aim of empowering contractor teams to take more responsibility for their own safety while under the supervision of APP employees. We intend to roll this out to other mills in 2019
- Put in place communications mechanisms for contractors to make suggestions for improvements to safer working
- At Tjiwi Kimia we began to roll out Lock Out Tag Out for all contractors (and employees)
- Further improved safety induction for all new contractors and established a working permit issuing system – any contractor working on a task must be approved for that task.

Community Engagement and CSR

A Social Impact Assessment (SIA) guides APP's response to the need on the ground, and if relevant, proposes a five-year CSR plan. Each mill has an annual programme of work plan adjusted to their respective needs and developed in consultation with local communities and other beneficiaries. At mill level, each proposal from the community is reviewed. Once it is approved, it will be funded by the related mill. Group level programmes are funded by APP headquarters. The CSR program priorities are divided into four pillars; Charity, Capacity Building, Empowerment and Infrastructure, which emphasises our focus on community empowerment programmes that deliver

long term sustainable livelihood improvements to the community and APP. APP's CSR projects and programmes also align with the Government of Indonesia's (GoI) development priorities, for example social forestry, where the Government allocates forest areas to be managed by community groups to remove pressure on natural forests. Our community investment programmes are a key component of APP's commitment to address the SDGs, which you can read more about on page 83-87. We focus towards goals SDG 1 (No poverty), SDG 2 (Zero hunger), SDG 3 (Good health and wellbeing), SDG 4 (Quality education) and SDG 6 (Clean water and sanitation).

Ecosystems and Prosperity: Protecting Both

APP continues to collaborate with UNESCO and the Indonesia Global Compact Network (IGCN) on the governance of the water management project on Pari Island, off the Javanese coast near Jakarta. The sustainable water management and waste management project continues (phase 1) but the entire programme of work is expanding to cover coastal areas including four biosphere reserves. Specific objectives of the second phase are to empower the community to help improve sanitation awareness and hygiene. In 2019, partners such as Habitat for Humanity Indonesia (HfHI) will work with the communities to deliver this. It will continue to 2021.

Our Group level collaborations continue along the coast: the Mangrove Ecosystem Restoration Alliance (MERA²¹) is a national platform initiated by Yayasan

Konservasi Alam Indonesia, the Indonesia affiliate of The Nature Conservancy for stakeholders to ensure the sustainability of the protection and restoration of mangrove ecosystems across archipelago. Up to one million hectares of mangrove could be lost over next ten years if nothing is done, so MERA's goal is a measured reduction of the vulnerability of coastal communities, natural resources and vital assets by 2022. Mangrove forests also provide socio-economic benefits, supporting fisheries, tourism and other economic activity. Furthermore, across Indonesia, mangroves store more than 3 billion tonnes of carbon.

The initial focus of MERA is to restore 500 ha of mangroves in three areas around Jakarta Bay: Muara Angke, Muara Gembong, and Muara Cisadane (land owned by the government). A hydrological study

²¹ Launched by Yayasan Konservasi Alam Nusantara (YKAN) and the Jakarta Natural Resources Conservation Agency of the Ministry of Environment and Forestry in 26 July 2018

identified how to improve the flow of seawater to the mangroves and remove the blockages that exist. The trees require low-oxygen soil with slow-moving waters that allow fine sediments to accumulate. Basic infrastructure and a mangrove study centre are in place. Alongside the conservation work is the engagement with the community – a key challenge, in common with many other similar projects of this type, is achieving a mutual understanding and a working relationship with the communities involved. APP is co-funding MERA with other corporations and stakeholders. We are also convening stakeholder engagement to improve the management of the extensive mangrove forests around the OKI Mill.

“Mangrove forests are especially important because they provide ecosystem services and community livelihoods. Now they are threatened by fragmented coastal development but through MERA, we can bring together national stakeholders, including the private sector, to protect and restore them.”

Rizal Algamar, Yayasan Konservasi Alam Nusantara (YKAN)



SPEAK Community Based Total Sanitation

The Indonesian Speak Foundation (SPEAK) works with government and communities to enable access to water and sanitation for all. In the greater Jakarta region, 96% of people have no access to a sewerage system, so with the Governor of Jakarta and the District Governor of Karawang, APP and SPEAK assessed the water and sanitation needs and how the private sector could contribute. A pilot in 2018 began with two villages in the Jakarta region: East Tebet (population 20,221), West Pademangan (population 88,931) and one village in the Karawang region; Kutaneegara village (population 4,492). This established the baseline for developing the programme, which will include training in good sanitation practices, developing household toilet facilities and capacity building.

Mill Level CSR

Switching from Group to mill level, we are pleased to report on our ongoing projects and the launch of another new collaboration. Our strategy focuses on community empowerment activities, as well as better program implementation and evaluation.

Program Strategy



**Social Impact Assessment -
Strategic Plan - Annual Plan**



**Encourage community
empowerment activities**



**Strengthen the monitoring
and documentation system
of CSR activities**



**Strengthen the capacity
of CSR team focusing on
community empowerment**



**Collaborate with
multistakeholders**

Indah Kiat Tangerang

In 2018, Indah Kiat Tangerang allocated IDR 2.4 billion (USD 170,000) to CSR programmes, a quarter of which is devoted to charitable donations to improve family nutrition, and prevent malaria for example. The main focus in 2018 was to stimulate small and micro enterprises. Three notable projects in 2018 include;

Catfish Aquaculture

Initiated in 2016 with four fish farmers, in 2018 this program inspired five more groups to join. The mill provided the material to build the ponds as well as supporting facilities such as pumps and feed. Despite the inconsistent supply of the feed, which the fish farmers stated as one of the main challenges, they are confident that they will be able to grow the business to keep up with the rising demand.

Processed Products Using Catfish

In 2018, the mill supported the local women's group to improve their economic productivity. The group received training on how to create processed food products using catfish as the main ingredient. They now have two product lines, Catfish Nuggets and Dried Catfish Floss. They are planning to improve their marketing and promote the products at various events in order to grow their business.

Paper Flower

In August 2018, the mill trained 18 women from the surrounding communities on how to turn waste paper into beautiful and marketable art. The group decorates various products using "paper flower" such as picture frame, tissue boxes, and many others. They market their products using social media and have been receiving orders. It started small and it certainly has a great potential. The mill provides the coloured paper that would normally be discarded.

Empower Seeds and Catfish Fishery

To support economic self-sustainability within the local community, Indah Kiat Tangerang supports a fishery group in Pakulonon village. In coordination with the local government, we worked to establish the group members through an election process. Specific tasks the mill supported in 2018 included providing the materials to construct the pool for breeding. Produce is sold to the local community, to restaurants and also to mill employees. Profits are used to reinvest in growing the programme, building emergency funds, replacing and upgrading equipment. The fishery is now an inspiring model for other communities, since the inception a further seven similar groups have been formed.

Empower Cisadane Fishery Farmer Group

Empowering a local farming group, the mill grants permission and access to use land adjacent to the mill for farming. The area, adjacent to the Cisadane river bank is rich in fertile soil and ideal for farming. The group of 17 farmers grows a range of vegetables and breadfruit, which are sold at local markets.

Cancer Screening

Indah Kiat Tangerang conducted a pap smear checkup for employees in collaboration with Indonesian National Health Insurance (BPJS) and Sari Asih Group Hospital. The objective of this program is the early detection of cervical cancer for women. In 2018, 54 employees accessed this service.

Tjiwi Kimia

In 2018, Tjiwi Kimia allocated IDR 2.3 billion (USD 165,000) to CSR programmes, around a quarter is allocated to support health and education issues. In 2018, the mill put more resources into community empowerment and environmental issues. Some of the highlights were:

Public Health - Latrines for Impoverished Households

As part of APP's group level collaboration with Habitat for Humanity Indonesia (HfHI), and guided by pre-qualification surveys, the mill provided materials and manpower to build latrines for 123 households in the local community in 2018. Training is provided too, in a bid to improve hygienic behavior and practices. The beneficiaries also contributed time, material and manpower to the project. The benefits are improved public health from a reduction in open defecation in the river.

Waste Bank

Again, working with HfHI, the mill sought to find a solution to the lack of solid waste management in the community. To avoid landfill and indiscriminate dumping we set up a waste bank with follow up training on the value of waste and its separation. The community received cash incentives for the recyclable waste they collected and each household received a simple composting unit for organic waste. There is little recycling infrastructure in Indonesia, this initiatives like this contribute towards raising awareness and changing mindsets towards waste and recycling.

Improving Communities' Welfare Through Empowerment of Small and Micro Enterprise

To foster community empowerment and capacity building, Tjiwi Kimia identified micro enterprises in the area suitable for financial support, training and facilities. An example is the Bento Banana Cake business which saw a five-fold increase in sales, following financial support from the mill. The mill provides business support in the way of marketing and legal advice to the SME.

Boosting Housing Quality

In 2018, Tjiwi Kimia ran their Housing and Settlement Quality Standard Improvement project in three villages in East Java. The aim was to improve the residential environment but also to change how people interact with their housing and surroundings. The project supported the addition of sanitation facilities to households and to a school for 154 students with two latrines, a mini wastewater treatment facility (20 household) and better solid waste management in two communities. The programme also included training and awareness to promote the benefits of good hygiene practices.

Indah Kiat Perawang and Pindo Deli Perawang

Located on the same site, both mills collectively allocated a total of IDR 2.27 billion (USD 162,000) to CSR, the most significant proportion of which goes to education and economic empowerment projects.

Economic Empowerment for The Community

At Indah Kiat Perawang, the mill identified the opportunity to offer business management and marketing training and coaching to several micro enterprises based in communities around the mill. This would be followed by a financial support to boost growth potential of the companies participating. A potato snack business increased their profit from IDR 0.8 million to IDR 6 million per month as a result of better kitchen equipment, technical training and capital investment. Another business run by a female entrepreneur produces the traditional and popular Bolu Kemojo cake and has developed it from a side line to become her main source of income thanks to the assistance from the mill.

Women Empowerment Through Agriculture

The mill supported a farmer women's group who proposed to make better use of the plentiful unused pockets of land in the area. They now cultivate the land and produce vegetables to sell in local markets, earning up to IDR 6 million per month, almost triple the minimum wage.

Upcycling Waste

At Pindo Deli Perawang, mill waste packaging straps and waste wood were again put to good use in 2018 by several creative businesses in the area that upcycle them into higher value products, such as woven products and furniture. The mill provides marketing training and general business support to the SMEs involved; the additional income makes a significant improvement to overall community financial stability.



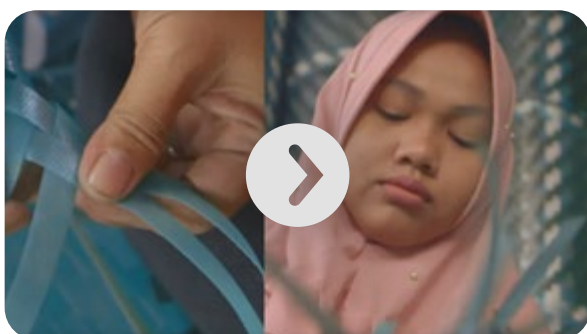
Baking process Bolu Kemojo cake



Vegetables farming by women's group



Upcycle waste wood to woven and furniture product



Indah Kiat Serang

Scholarship

We provide scholarships to school children across seven sub-districts around the mill. Since beginning our support in 1997, over 35,000 students have benefited from the programme, receiving IDR 4 billion in scholarship funding.

Health Programme for Young Mothers and Infants

To boost the health of young mothers and infants, in collaboration with local health centers and midwives, healthy food supplements and immunisations are provided to communities in the Kragilan district. Training is also provided to volunteers as an additional layer of support.

Hygiene Programme

Since 2015, we have supported Environment Day, in collaboration with the local government in Serang. This program commemorates World Environment Day and by collaboration with environment and forestry office we support activities such as greening community spaces and a cleaning competitions for schools and village government offices to further build awareness good hygiene practices.

Lontar Papyrus

Kelagian Village Clean Water Programme

Access to clean water is a basic human rights. Following a social impact assessment of local communities, the need to improve access and quality of water was identified. Shallow wells are not a viable option, due to the poor quality of water near the surface, forcing the community to use water from river for their daily water needs, which is a health risk and time consuming to collect and transport daily. Lontar Papyrus supported the development of well, main pipes, and preparing community for operational and maintenance



Improve community access to clean water at Lontar Papyrus

Pindo Deli Karawang

Recycling Waste and Empowering Communities

Community waste became a real problem in Teluk Jambe, Karawang district. The mill worked with community group “Sahabat Lingkungan” to develop a community waste programme for collecting and safe disposal (recycling or landfill) of waste. A community-based waste management group was established, then provided with training on how to manage a community-based waste management programme. The programme now covers 6 communities, covering over 1,200 households and collecting and safely disposing of one ton of waste per day.



Recycling waste process

OKI

Support Preschool Education

The education sector is one of the priority areas for development in the OKI district, South Sumatra province. The programme, “one village one preschool” aims to improve the quality of education from an early age. The programme addresses poor access to preschool education for many communities in the district, particularly those in more rural locations. The formal commitment of support from the mill to the OKI government was signed at the end of 2015, started to implement in 2016 and continues today through activities such as construction of new pre-school facilities, providing education equipment and teacher training. Between 2016 and 2018 the mill supported the construction of 60 Early Childhood Care and Education centres (PAUDs) and provided training for 120 teachers.

Empower Farmer Groups

OKI mill also support local farmer groups through the provision of agricultural equipments and training. The equipments rent out to member of the farmer groups that will then use the money for their operational costs.



Pre-school education at Bukit Batu Village



Pre-school facilities surround OKI Mill

SECTION 6

SUSTAINABLE OPERATIONS & PRODUCTS



WASTE
MANAGEMENT



EFFICIENT USE OF
RAW MATERIALS FOR FUEL



EMISSIONS
MONITORING

Because we use responsibly sourced, renewable and recycled fibre, sustainability is intrinsically linked to our products. By applying innovative design and ensuring the highest manufacturing efficiency in our mills, we directly support our customers' sustainability goals.

01

Wood
Preparation



A Recausticizing

Lime kiln

B Evaporation

C Recovery Boiler

54%
Renewable fuels

D Power Generation

Energy intensity
decreased

9% in 2018

compared
baseline (2012)

Carbon intensity
decreased

18% in 2018

compared
baseline (2012)



EFFICIENT USE
OF WATER



WATER REUSE
AND RECYCLING



SUPPLIER COMPLIANCE
MECHANISM

7 AFFORDABLE AND
CLEAN ENERGY



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



04

Pulp, Paper and Tissue Product

03

Bleaching

E

Chemical Plant

F

Water Treatment

Water intensity
decreased

24% in 2018

compared to
baseline (2013)

G








Waste Water Treatment

Reused, recycled
or recovered over

487,802 tonnes

of waste in 2018

Progress headlines

Vision 2020 element	Target	Progress in 2018
EMISSIONS  	10% reduction in carbon intensity by 2020, based on 2012 baseline	Carbon Intensity decreased 18% in 2018 compared to 2012 baseline 
	10% reduction in energy intensity by 2020, based on 2012 baseline	Energy intensity decreased 9% in 2018 compared to 2012 baseline 
	10% below national and/or regional limits for annual SOx and NOx	All mills achieved in 2018 
WATER MANAGEMENT  	Achieve 10% reduction in water intensity by 2020, based on 2013 baseline	Water intensity decreased 24 % in 2018 compared to 2013 baseline 
	10% below national and/or regional limits for COD and BOD	All mills achieved in 2018 
	Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	Water footprint assessment completed in all mills 
SOLID WASTE  	25% reduction in solid waste to landfill, based on 2010 baseline	41% reduction achieved 
 Achieved  On Track		



70% of our mills certified to ISO 50001: 2011 energy management system



54% of our energy is generated from renewable fuels



We reused, recycled or recovered over
487,802 tonnes of waste in 2018



We reused & recycled **15% of our process water** in 2018, reducing demand for fresh water in our processes

Context

Pulp and paper production create significant environmental impacts, predominantly through the energy and water we consume, waste we generate and our emissions to air. As a global industry, pulp and paper making also presents opportunities to create positive environmental impacts. The pulping process generates waste which can be used as a replacement for fossil fuels. In 2018, 54% of our energy is generated from renewable fuels. Water is recycled and reused in our processes too, reducing demand for fresh water supplies.

Each of our mills develop individual environmental targets which collectively deliver upon our Vision 2020 commitments. By applying the latest technologies and techniques, dedicated team of engineers and specialists ensure we minimise these environmental impacts and are continuously optimising our processes. This ensures we are producing products with the lowest environmental footprint, meeting the demands of our customers.

We adhere to local and national government guidelines covering our environmental impacts, as well as certification to global standards such as ISO 14001:2015 (environmental management system) and ISO 50001:2011 (energy management system). APP's mill scorecard and sustainability KPI monitoring allow us to track performance towards Vision 2020 Roadmap targets too. Our mills participate in PROPER (a government environmental evaluation programme) as selected by the Ministry of Environment and Forestry. We conduct regular internal audits and foster a climate of collaboration between mills, sharing best practice

and benchmarking data across all production units. The emissions and related environmental impacts are regulated by local authorities, which in turn provide us with the license to operate.

In terms of policies, we apply the APP Responsible & Sustainable Business Declaration and our Environment Stewardship Policy. Non-timber procurement, such as the purchase of chemicals for pulp and paper production is guided by our Chemical Substance and Articles Procurement Policy, and other appropriate environmental quality standards.

We drive efficiency improvements in two ways; through long term capital investments in the latest technology and utilising our skilled technical workforce in identifying and delivering incremental improvements. We foster a collaborative approach through our Skills Development Activity, which is incorporated into our MBOS (see page 19), which invites our employees to make suggestions, with the best taken forward and the employees awarded.

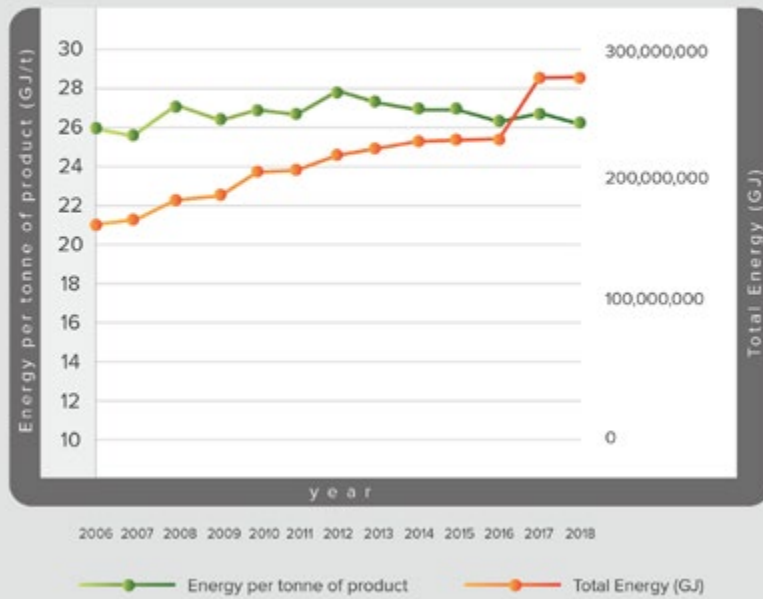
Increasingly we are focussing on material efficiencies at our mills too. Our main raw material is wood fibre, so it makes financial and sustainability sense to ensure we always aim to operate our process efficiently. Fibre losses can occur through water and other waste streams, so we aim to minimise these losses, or develop processes that capture fibre before it is lost from our processes. Improving fibre yield has cost efficiencies as well as reducing the amount of raw material required.

Skills Development Activity in action at Indah Kiat Perawang

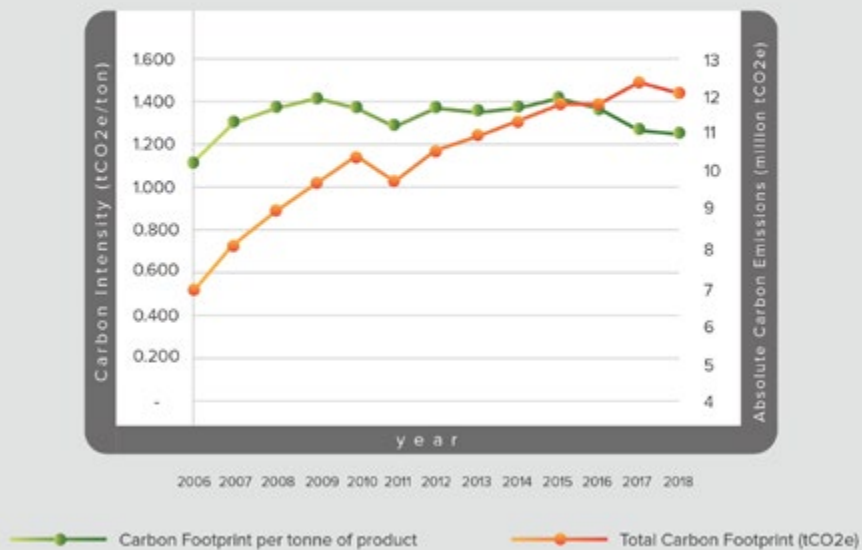
- Installing improved screw presses, improving fibre recovery in waste water and reducing the demand for virgin fibre in our process
- Installing 60 new aerators, improving waste water treatment plant efficiency
- Developing a revised injection system to better control pH of waste water
- Initial phase of installing Continuous Emissions Monitoring System (CEMS) in 2018 and systems redesign to allow for continued roll out through 2019

Carbon and Energy

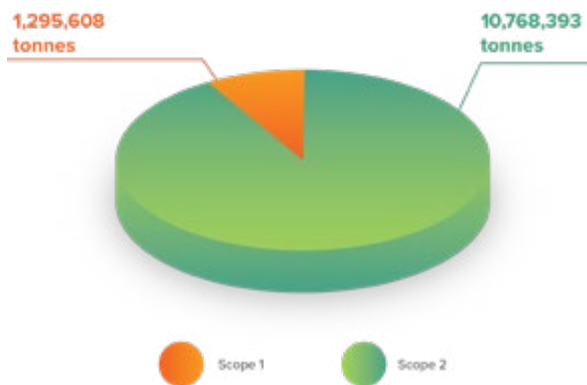
Total Energy Consumption



Total Scope 1&2 Carbon Emission



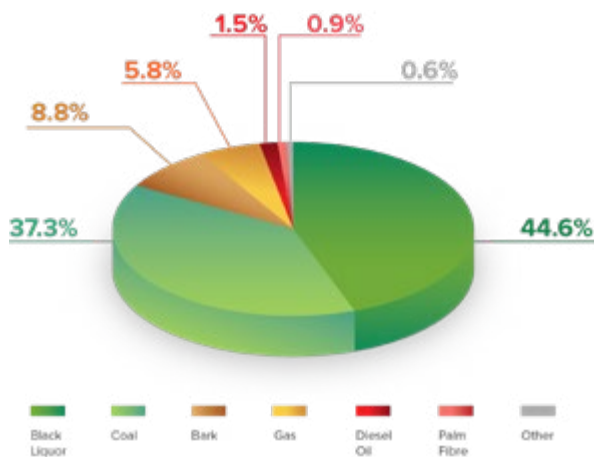
Carbon emissions in 2018



As we can't rely on grid electricity to meet our entire energy demands, our mills must generate their own electricity and steam. Where feasible we use renewable fuels, in other cases our only option is to use coal or natural gas. Such fuel use is our main contributor to carbon emissions in our operations. Less than 11% of our emissions are related to purchased electricity (scope 2 emission). We mitigate our impacts through careful considerations of fuel types and investing in efficient production to ensure our energy demand is as low as possible. You can read about other climate mitigation activities in relation to forestry activities on page 55.

We achieved a carbon Intensity reduction of 18% by the end of 2018 compared to a 2012 baseline, against a target of 10%, achieved predominantly by replacing fossil fuels with renewable fuels for energy generation. Our energy intensity decreased 9% by the end of 2018 compared to a 2012 baseline, slightly short of our target of 10% we committed to in Vision 2020.

Fuel source for energy generation



Examples of renewable waste materials providing a fuel source to replace fossil fuels include;

- Wood bark – waste bark from wood preparation
- Black liquor – waste from the pulping process
- WWT sludge–waste from waste water treatment process
- Palm fibre –waste material following the processing of palm, for example extracting palm oil

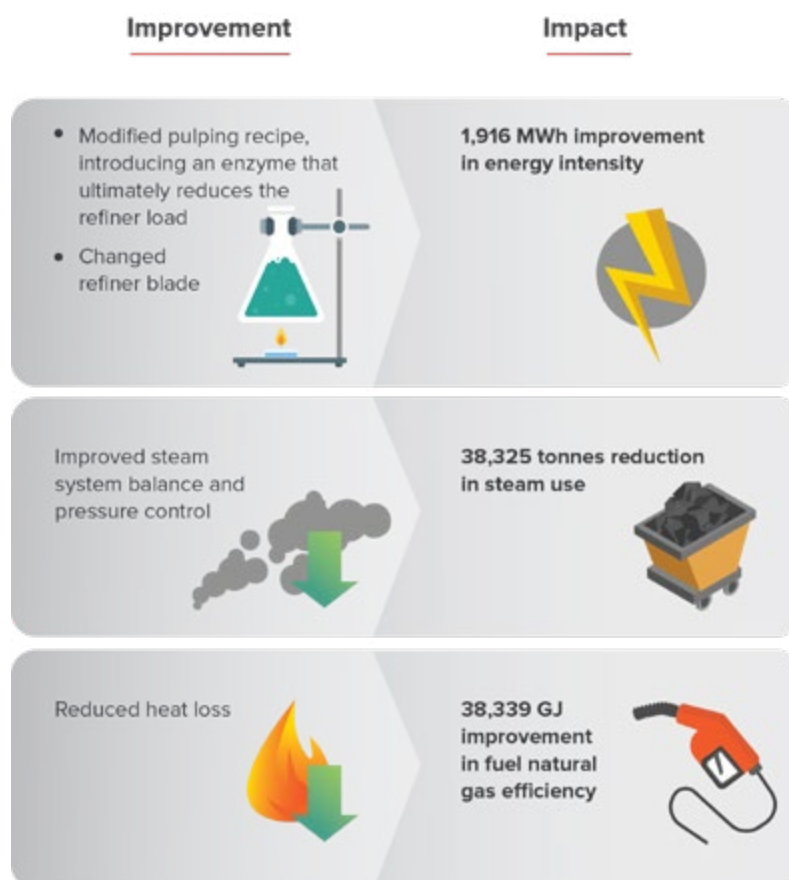
Fuel from Rubber Industry Waste

At Indah Kiat Perawang we introduced a new fuel source in 2018. Supplied by a third party who extracts rubber compound oil from waste tyres, we use the fuel to reduce diesel oil use by 3%. This is not only reduce emissions and lower our fossil fuel use, we also contribute to generating demand for another industries waste stream. Other activities at the mill to reduce energy use include;

- Working with 12 palm oil mills, we collect palm fibre waste left after palm oil mill process. We use this material as a fuel source, increasing the supply in 2018 by 52%.
- Implemented a steam saving programme in Pulp Making 8 & 9, ensuring more heat is captured and not wasted, saving 254,330 tonnes of steam – the equivalent of 196,823 MWH of energy through 2018

Small incremental improvements can be achieved by driving runnability and production efficiencies. At Tjiwi Kimia we upgraded the refiner with no impact on product quality and upgraded lighting equipment. This was part of an overall programme of ten projects that aim to collectively improve energy efficiency by 3% through 2019 compared to 2018.

Pindo Deli Perawang took a similar approach, making small incremental improvements to deliver efficiency gains.



While modifications to equipment and processes help us to deliver on our commitments, capital investment in new machines is another ideal opportunity to realise significant improvements. Our new tissue machine operated at Pindo Deli Perawang utilises the latest drying technology to maximise efficiency and reduce energy consumption. The heating circuit is designed to meet production and product performance requirements with lower steam consumption. The exhausted air will be used to pre-heat air, instead of going to waste. The technology allows for no natural gas consumption for drying, significantly reducing energy requirements compared to previous technologies.

Water

Water is a vital ingredient for our production process, we use it in pulp and paper production and to produce steam at various stages of our processes. We recognise our responsibility to protect local water sources at each of our mill sites, we do this by minimising consumption and ensuring the water we return to source meets the highest environmental standards.

We conduct water balance studies at all mills and use external water experts to conduct regular sampling checks too to ensure our wastewater is safe for return to source. In 2018 we reused & recycle 15% of our water in processes, meaning we use less fresh water. Water intensity decreased 24% in 2018 compared to 2013 baseline. In 2018 we maintained our commitment to ensure all our water returned to source was 10% below national and regional limits for COD and BOD. Following the installation of a new tissue machine, Pindo Deli Perawang immediately saw realised the benefits of modern installation. Water use audits have been conducted at the mill since 2015, working

backwards from water discharge to water source, the engineering team assess the water balance of the process and identify improvement areas. Modifications to pumping systems, seals and wash press showers all contributed to a 41% reduction in water use intensity from 2015 to 2018.

Like all our mills, Indah Kiat Perawang reuses water in various processes throughout mill operations, reducing the demand for fresh water. By reducing dilution rates of hot water, collecting and reusing condensate heat recovery the mill has reduced water intensity for pulp and paper production by 13% and 7% respectively, against a 2015 baseline. The mill also reduced total suspended solids (TSS) from pulp making activities by 63% through overhauling equipment and installing improved fibre recovery equipment, so less fibre is contained in the waste water. Investments and improvements will continue through 2019, with a target TSS reduction of 83%.



Waste

The majority of our waste is generated from onsite power production and the pulp and paper making process. We are committed to reducing waste, minimising the amount of waste that is sent to landfill and maximising opportunities to reuse waste material, either within our own operations or by utilising third party licensed partners as part of our commitment to contributing towards the circular economy. We have reduced solid waste to landfill per tonne of production 41% since 2010, against a target of 25%.

Black liquor, bark and other residue from forestry and pulping activities are waste streams that provide fuels

to directly replace fossil fuels at our integrated pulp and paper mills. As well as diverting waste from landfill, using these waste streams reduces the carbon intensity of our mills. During 2018 our integrated mills utilised over 9 million tonnes of these waste by-products.

Working closely with local governments, who issue the waste handling licenses we require to reuse a waste stream we are continuously looking for suitable technologies or partners to provide us with such opportunities.



Circular Economy – Waste As Fertiliser

Our Indah Kiat Perawang and Lontar Papyrus mills utilise waste streams for the benefit of the forestry operations located in the area surrounding the mill. Sludge waste from waste water treatment is mixed with waste bark from the wood preparation area to form soil conditioner. This is then spread in new growth areas of forest to boost growth rates. Boiler ash, another waste generated from energy production is used in a similar way. Spread in peatland forestry areas, calcium, magnesium and other micronutrients enhance forestry growth. Working closely with local governments, who issue the waste handling licenses we require to reuse a waste stream we are continuously looking for suitable solutions, technologies and partners to provide us with such opportunities.

Through implementation of the 3R approach to waste (reduce, reuse, recycle), real improvements have been made at Indah Kiat Tangerang through small investments in equipment and system redesign. Sludge waste is now passed through a fibre recovery process, enabling us to capture fibre that was going to waste and reduce the amount of sludge generated by 42%. In addition, the site revised production scheduling to reduce grade changes, which avoids losses in materials and waste. Additional activities include reusing pulp wrapping as raw materials, identifying uses for waste lubricants and developing a production programme for a low-grade paper for internal use only during product storage and warehousing.

Other Air Emissions

The combustion of fuels used to generate energy for our mills on site results in emissions of carbon dioxide (CO₂), sulphur dioxide (SO₂), nitrogen oxides (NO_x), and fine particles. We apply the latest technologies and emissions monitoring equipment such as CEMS (Continuous Emissions Monitoring System) to monitor and report our emissions. The main influence on our emission levels are the types of fuel used, so by using a higher proportion of renewable fuels, or switching to cleaner types of non-renewable fuels we are able to minimise these emissions. Air emissions data is published for each mill and can be found on page 102. In 2018 all mill emissions were met our regulatory requirements.



Our power plant facilities at OKI



About This Report

This report continues our Asia Pulp and Paper's long term commitment to annual sustainability reporting. Our most recent report, the 2017 Sustainability Report, was published in October 2018.

Asia Pulp and Paper's Sustainability Report 2018, published in September 2019, 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 introduced our future sustainability strategy, Vision 2030, which we will report progress against our revised commitments in 2020, based on 2019 performance.

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 (GRI) Standards. We apply the guidelines and associated indicators to ensure we report against our relevant economic, social and environmental impacts and mitigation activities.

The report had been externally assured to the internationally recognised AA1000(AS) and in accordance to GRI Standards 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

Report Scope and Boundary

Unless stated otherwise, information in this report relates to the period 1st January 2018 to 31st December 2018. Continuing the approach 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) know 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

We began reporting fully on our OKI mill in our Sustainability Report 2017. We exclude OKI mill from our baseline calculations (2012 for all commitments, except for water commitments which use 2013) to avoid misrepresenting our performance during 2017 and 2018.

Sites which do not manufacture pulp or paper and 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 here: <http://www.app.com.cn/sustain/report.htm>.

One of the highest priority issues for our stakeholders is the activities of APP pulpwood suppliers. Our 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.

For questions or to provide feedback on our Sustainability Report, stakeholders are invited to contact us by email at sustainability@app.com

Group Environmental Data Table

			2018	2017	2016
Production	Pulp	tonnes	5,635,000	5,254,000	3,879,000
	Paper, Packaging, Stationery		5,625,000	5,648,000	5,395,000
	Tissue		810,000	658,000	602,000
	Total (excl chemicals)		12,070,000	11,560,000	9,876,000
	Chemicals		2,615,704	2,482,380	2,413,491
	Total		14,685,909	14,042,802	12,289,491
Materials	Total raw material for pulp	tonnes	21,525,654	19,770,423	14,527,448
	Total raw material for chemicals		3,987,414	4,058,303	3,020,961
	Total raw material for paper		6,182,007	5,155,719	4,981,583
	Total raw material packaging		475,918	282,881	267,407
Energy	Coal	GJ	102,200,208	105,420,877	103,035,123
	Diesel Oil		4,166,238	1,513,006	254,897
	Industrial Diesel Oil		45,289	89,805	77,866
	Marine Fuel Oil		1,340,671	2,329,861	186,178
	Gas		15,976,606	16,396,406	16,439,479
	Total non-renewable (direct)		123,729,012	125,749,955	119,993,543
	Bark		24,131,098	20,633,450	24,769,435
	Black Liquor		122,290,596	114,055,260	80,579,899
	Sawdust		426,556	277,732	257,618
	Palms shell or Crushed Palm Shell		146,721	10,204,416	113,822
	WWT Sludge		684,599	671,335	723,720
	Biogas		49,076	76,353	79,367
	Empty fruit bunches (tankos)		4,951	127,191	212,722
	Palm fiber and Rubber Compound Oil (RCO)		2,377,631	1,568,729	1,157,593
	Other (Methanol)		219,755	73,885	0
	Total renewable (direct)		150,330,982	147,688,351	107,894,176
	Purchased energy		7,779,749	7,361,423	7,544,696
	Total energy consumption		277,219,157	276,483,557	231,179,764
	Energy intensity	GJ/t	26	27	26

			2018	2017	2016
Carbon	Scope 1*	tCO ₂ e	10,817,682	11,004,864	10,528,854
	Scope 2*	tCO ₂ e	1,295,608	1,257,395	1,276,976
	Biomass	tCO ₂ e	14,874,304	14,612,407	10,808,641
	Carbon intensity	tCO ₂ e/t	1.14	1.18	1.35
Water	Total water withdrawn by source (all mills withdrawn water from surface water only)	m ³	277,027,035	279,846,791	221,369,805
	Percentage water recycled	%	15%	14%	19%
	Effluent discharge to river	m ³	225,303,756	227,403,254	193,951,948
Waste	Landfill	tonnes	518,696	513,988	417,898
	Utilised by licensed third party		251,899	283,392	251,919
	Recycled		486,892	380,755	433,336
	Temporary storage		8,522	3,563	12,919
	Total hazardous waste		1,214,416	1,181,697	1,115,223
	Landfill		0	3	0
	Utilised by licensed third party		240,731	910,478	185,062
	Recycled		910	5,588	0
	Temporary storage		50,224	293,082	7,059
	Total non-hazardous waste		291,865	1,209,151	192,121
Others	ODS Emissions		26	25	46
Environmental expenditure	Waste disposal, emissions treatment, and remediation costs	US \$	30,210,689	31,171,296	26,421,928
	Prevention and environmental management costs	US \$	6,272,320	10,275,563	7,636,645

Notes:

- GHG or carbon emission assessment is 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
- Fuel oil conversion factor is based on Pertamina specification
- GHG emission from waste water treatment assume zero due to well managed category of waste water treatment
- Air emission calculation is based on average number in a year

Mill Environmental Data Table

Environmental Parameters			Indah Kiat Perawang			Indah Kiat Serang			Indah Kiat Tangerang		
			2018	2017	2016	2018	2017	2016	2018	2017	2016
Water emissions	pH	mg/l	7.8	7.6	6.7	7.9	7.8	7.8	7.3	7.4	7.3
	TSS		63.1	69.5	66.2	31.6	24.7	30.7	5.6	6.1	6.7
	BOD		46.7	51.1	55.1	38.2	33.0	43.3	13.9	11.2	11.8
	COD		230.3	230.1	200.6	150.2	135.4	151.3	65.7	40.7	47.9
	AOX		2.5	4.0	7.2	NA	NA	NA	NA	NA	NA
Air Emissions	NO2	mg/N m3	202.96	151.8	139.1	369.11	171.63	305.6	203.13	165.3	109.4
	SO2		173.81	193.2	210.1	219.22	9.13	268.6	32.50	27.8	27.5
	ClO2		35.99	29.6	23.3	NA	NA	NA	NA	NA	NA
	HCl		3.11	2.6	2.8	NA	NA	NA	NA	NA	NA
	Cl2		5.41	5.3	4.8	NA	NA	NA	NA	NA	NA
	Opacity		< 20	< 20	<20	< 20	< 20	<20	< 20	< 20	<20
	TRS		8.59	10.1	9.7	NA	NA	NA	NA	NA	NA
	Total Particulate		101.77	100.2	111.7	48.78	15.25	21.9	60.58	65.6	86.1
Air Emission Load	NO2	kg/t	0.08	1.0	0.98	2.23	1.04	1.24	2.76	5.13	0.38
	SO2		1.21	1.8	1.18	1.29	0.83	0.83	0.40	0.82	2.61
Other	Distance to protected area	km	Tesso Nilo National Park (50)			Hallimun Mountain National Park (40)			Rawa Danau Tukung Gede Conservation Area (20)		
	Local water source & discharge		Slak River			Clujung River			Cisadane River		

Environmental Parameters			Lontar Papyrus			Pindo Deli Karawang			Pindo Deli Perawang		
			2018	2017	2016	2018	2017	2016	2018	2017	2016
Water emissions	pH	mg/l	6.9	7.0	7.4	7.6	7.4	7.3	Discharge via Indah Klat Perawang		
	TSS		38.0	32.3	36.3	34.0	19.7	15.7			
	BOD		69.5	81.3	74.1	16.2	21.2	11.8			
	COD		232.1	181.0	254	62.9	76.1	48.9			
	AOX		3.3	3.3	5.4	0.1	0.2	0.1			
Air Emissions	NO2	mg/N m3	72.99	87.5	54.8	227.57	81.16	116.6			
	SO2		176.15	172.3	57.4	36.00	35.29	30.7			
	ClO2		2.17	8.7	4.5	NA	NA	NA			
	HCl		0.21	1.6	1.8	NA	0.06	0.2			
	Cl2		1.23	3.5	4	NA	NA	NA			
	Opacity		< 20	< 20	10.8	< 20	< 20	<20			
	TRS		8.23	7.6	18	NA	NA	NA			
	Total Particulate		150.89	130.8	120.8	41.33	75.6	12.1			
Air Emission Load	NO2	kg/t	1.90	2.4	3.25	3.58	4.76	10.58			
	SO2		1.92	5.2	3	0.78	1.29	3.4			
Other	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 & discharge		Pengabuan River			Citarum River			Siak River		

Environmental Parameters			Tjiwi Kimia			Univenus Perawang			Ekamas Fortuna			OKI	
			2018	2017	2016	2017	2016	2015	2018	2017	2016	2018	2017
Water emissions	pH	mg/l	7.4	7.4	7.3	Discharge via Indah Kiat Perawang			7.3	7.5	7.7	7.4	7.1
	TSS		13.5	16.9	9.8				18.0	19.2	25.3	38.7	24.4
	BOD		14.8	10.4	15.4				27.2	20.7	26	51.3	101.2
	COD		36.5	32.5	38.3				75.5	70.6	97.5	210.1	219.7
	AOX		0.0	0	0				NA	NA	NA	4.0	3.7
Air Emissions	NO2	mg/Nm3	72.27	153.7	150.8				53.0	35.00	53.4	379.5	105.0
	SO2		156.42	146.8	313.5				206.61	234.80	309.8	53.0	8.5
	ClO2		NA	NA	NA				NA	NA	NA	72.3	43.8
	HCl		1.34	0.6	1.8				NA	NA	NA	1.3	0.8
	Cl2		0.0	0.3	0.3				NA	NA	NA	1.6	0.4
	Opacity		< 20	< 20	<20				< 20	< 20	<20	< 20	< 20
	TR5		NA	NA	NA				NA	NA	NA	6.5	7.7
	Total Particulate		29.83	14.5	46				110.33	128.00	43	21.3	17.7
Air Emission Load	NO2	kg/t	1.41	0.1	2.33				0.96	1.01	0.76	1.11	0.18
	SO2		0.37	10.0	9.98				5.27	8.64	3.98	0.96	0.02
Other	Distance to protected area	km	Bromo Tengger Semeru National Park (80)			Tesso Nilo National Park (50)			Pulau Sempu Nature Reserve (30)			Berbak Sembilang National Park	
	Local water source & discharge		Brantas River			Siak River			Lesti River			Baung River	

Mill Social Data Table

			Indah Klat Perawang						Indah Klat Serang					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	128	29	11	9	0	0	223	23	1	17	1	0
	Rate of new employee	%	9.9%	0.7%	1.6%	25.0%	0.0%	0.0%	17.4%	1.0%	0.4%	29.3%	0.9%	0.0%
	Employee turnover	#	103	138	98	3	14	1	139	151	30	13	26	2
	Rate of employee turnover	%	7.4%	3.2%	12.6%	7.7%	4.9%	5.0%	9.8%	6.1%	10.8%	18.3%	19.4%	13.3%
Health & Safety	Fatality	#	2			0			1			0		
	Frequency rate		5.2			0.0			7.3			0.0		
	Severity rate		10.6			0.0			35.9			0.0		
	Injury rate		1.0			0.0			1.5			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		2.1			0.0			7.2			0.0		
	Absentee rate	%	0.6%			0.7%			0.7%			1.2%		

			Indah Klat 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	#	10	1	1	8	1	0	68	20	5	4	0	0
	Rate of new employee	%	5.8%	0.2%	1.4%	25.8%	1.2%	0.0%	15.2%	1.8%	4.7%	26.7%	0.0%	0.0%
	Employee turnover	#	12	5	13	4	3	1	47	76	22	6	6	0
	Rate of employee turnover	%	6.5%	0.9%	15.7%	11.4%	3.6%	20.0%	9.5%	6.4%	17.1%	28.6%	15.8%	0.0%
Health & Safety	Fatality	#	0			0			1			0		
	Frequency rate		10.8			0.0			2.6			0.0		
	Severity rate		10.3			0.0			29.9			0.0		
	Injury rate		2.2			0.0			0.5			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		2.1			0.0			6.0			0.0		
	Absentee rate	%	1.9%			2.3%			0.8%			1.4%		

			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	#	140	47	9	22	3	0	53	2	0	0	0	0
	Rate of new employee	%	33.3%	1.5%	2.0%	30.1%	1.4%	0.0%	8.5%	0.2%	0.0%	0.0%	0.0%	0.0%
	Employee turnover	#	51	108	56	14	9	2	48	39	3	1	0	0
	Rate of employee turnover	%	10.8%	3.4%	10.9 %	16.1%	4.0%	14.3%	7.2%	3.3%	11.1%	7.7%	0.0%	0.0%
Health & Safety	Fatality	#	2			0			1			0		
	Frequency rate		13.1			3.0			13.9			0.0		
	Severity rate		40.7			0.0			37.4			0.0		
	Injury rate		2.6			0.6			2.8			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		8.1			0.0			7.5			0.0		
	Absentee rate	%	1.2%			0.8%			1.7%			1.7%		

			Unlvenus 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	#	3	0	0	0	0	0	223	36	4	21	0	0
	Rate of new employee	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.5%	0.8%	1.0%	32.3%	0.0%	0.0%
	Employee turnover	#	0	0	0	0	0	0	54	68	426	4	11	484
	Rate of employee turnover	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	1.4%	51.4%	5.8%	0.9%	93.6%
Health & Safety	Fatality	#	0			0			0			0		
	Frequency rate		63.4			0.0			6.5			0.7		
	Severity rate		0.0			0.0			22.6			0.5		
	Injury rate		12.7			0.0			1.3			0.1		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		0.0			0.0			4.5			0.1		
	Absentee rate	%	0.1%			0.8%			0.7%			0.9%		

			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	#	11	3	1	1	0	0	417	87	12	22	4	0
	Rate of new employee	%	12.8%	0.5%	0.6%	7.1%	0.0%	0.0%	32.1%	8.9%	8.5%	26.2%	23.5%	0.0%
	Employee turnover	#	1	8	23	0	0	0	134	158	37	16	4	0
	Rate of employee turnover	%	1.1%	1.3%	12.6%	0.0%	0.0%	0.0%	10.3%	16.1%	26.1%	19.0%	23.5%	0.0%
Health & Safety	Fatality	#	0			0			3			0		
	Frequency rate		17.8			0.0			15.9			10.3		
	Severity rate		9.2			0.0			53.8			0.0		
	Injury rate		3.6			0.0			3.2			2.1		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		1.8			0.0			10.8			0.0		
	Absentee rate	%	1.0%			0.9%			0.8%			0.7%		

Notes:

- 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
- Injury rate is calculated based on OSHA's regulation
- Injury rate = (number of injury x 200,000)/manhours

GRI Index

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
General Disclosures	102-1	Name of the organization		About Us (6)
General Disclosures	102-2	Activities, brands, products, and services		About Us (6)
General Disclosures	102-3	Location of headquarters		About Us (9)
General Disclosures	102-4	Location of operations		About Us (8, 9)
General Disclosures	102-5	Ownership and legal form		About This Report (9, 9)
General Disclosures	102-6	Markets served	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports Indah Kiat – p48 Lontar Papyrus – p38 Tjiwi Kimia – p47	About Us (6)
General Disclosures	102-7	Scale of the organization		About Us (6)
General Disclosures	102-8	Information on employees and other workers	Permanent/temporary stats are collected but not published as commercially sensitive. Employee numbers are shown for each mill to show regional breakdown. APP does not employ part time employees so not disclosed.	People (72, 73)
General Disclosures	102-9	Supply chain		Forests (38)
General Disclosures	102-10	Significant changes to the organization and its supply chain	Our Governance structure was revised in 2018, see page 32. There are no significant changes in ownership, size or supply chain.	Sustainability Approach & Governance (33)
General Disclosures	102-11	Precautionary Principle or approach	APP applies the precautionary principle in our approach to managing environmental risks relevant to our organisation	GRI Index (108)
General Disclosures	102-12	External initiatives	This Report was developed in accordance to the Global Reporting Initiative. Other global external initiatives include the UN Global Compact, UN Global Compact's CEO Water Mandate and the International Labor Organization (ILO) Convention.	GRI Index (108)
General Disclosures	102-13	Membership of associations	APP is a member of the Indonesia Pulp & Paper Association of Indonesian Forest Concessionaires	GRI Index (108)
General Disclosures	102-14	Statement from senior decision-maker		Senior Statements (18)
General Disclosures	102-15	Key impacts, risks, and opportunities	In each performance chapter we describe key impacts risk and opportunities relevant to the issues described within that section.	GRI Index (108)
General Disclosures	102-16	Values, principles, standards, and norms of behaviour		Sustainability Approach & Governance (24)
General Disclosures	102-17	Mechanisms for advice and concerns about ethics		Sustainability Approach & Governance (35)
General Disclosures	102-18	Governance structure		Sustainability Approach & Governance (33)
General Disclosures	102-19	Delegating authority		Sustainability Approach & Governance (32)
General Disclosures	102-20	Executive-level responsibility for economic, environmental, and social topics		Sustainability Approach & Governance (32)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
General Disclosures	102-21	Consulting stakeholders on economic, environmental, and social topics		Sustainability Approach & Governance (28)
General Disclosures	102-22	Composition of the highest governance body and its committees	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p29 Lontar Papyrus – p24 Tjiwi Kimia – p25	Sustainability Approach & Governance (32)
General Disclosures	102-23	Chair of the highest governance body		Sustainability Approach & Governance (32)
General Disclosures	102-24	Nominating and selecting the highest governance body	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p63 Lontar Papyrus – p21 Tjiwi Kimia – p47	Sustainability Approach & Governance (32)
General Disclosures	102-25	Conflicts of interest		Sustainability Approach & Governance (36)
General Disclosures	102-26	Role of highest governance body in setting purpose, values, and strategy	The Sustainability Committee Board includes members of the highest governance body, APP as such does not have a 'highest governance body' due to the nature of the mills legal entities and APP acting as a brand holder. Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p19 Lontar Papyrus – p14 Tjiwi Kimia – p18	Sustainability Approach & Governance (32)
General Disclosures	102-29	Identifying and managing economic, environmental, and social impacts	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p83 Lontar Papyrus – p68 Tjiwi Kimia – p82	Sustainability Approach & Governance (32)
General Disclosures	102-30	Effectiveness of risk management processes	The SCB includes members of the highest governance body, APP as such does not have a 'highest governance body' due to the nature of the mills legal entities and APP acting as a brand holder. Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p68 Lontar Papyrus – p66 Tjiwi Kimia – p66	Sustainability Approach & Governance (35)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
General Disclosures	102-33	Communicating critical concerns	Our Code of Conduct and procedure for reporting concerns can be found here: http://asiapulpaper.com/about_app/corporate-governance	Sustainability Approach & Governance (35)
General Disclosures	102-34	Nature and total number of critical concerns		Sustainability Approach & Governance (35)
General Disclosures	102-35	Remuneration policies	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p27 Lontar Papyrus – p22 Tjiwi Kimia – p26	Sustainability Approach & Governance (32)
General Disclosures	102-36	Process for determining remuneration	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p27 Lontar Papyrus – p22 Tjiwi Kimia – p26	Sustainability Approach & Governance (32)
General Disclosures	102-40	List of stakeholder groups		Sustainability Approach & Governance (29)
General Disclosures	102-41	Collective bargaining agreements		People (70)
General Disclosures	102-42	Identifying and selecting stakeholders		Sustainability Approach & Governance (29)
General Disclosures	102-43	Approach to stakeholder engagement		Sustainability Approach & Governance (110)
General Disclosures	102-44	Key topics and concerns raised	Issues raised are shown in the stakeholder engagement and materiality sections of the Report. We respond to the majority through our Vision 2020 Sustainability Roadmap, our annual Sustainability Report and Annual Reports ⁷ In some cases, we respond through direct engagement with stakeholder groups.	Sustainability Approach & Governance (98)
General Disclosures	102-45	Entities included in the consolidated financial statements	Legal entities are shown in the About This Report section of the report. Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷	GRI Index (110)
General Disclosures	102-46	Defining report content and topic boundaries		About This Report (98)
General Disclosures	102-47	List of material topics		Sustainability Approach & Governance (131)
General Disclosures	102-48	Restatements of information	We have restated the number of training hours reported in 2018 to reflect a revised approach to collecting training data from our mills resulting in improved data accuracy	GRI Index (110)
General Disclosures	102-49	Changes in reporting	None in reporting period	GRI Index (110)
General Disclosures	102-50	Reporting period		About This Report (98)
General Disclosures	102-51	Date of most recent report		About This Report (98)
General Disclosures	102-52	Reporting cycle		About This Report (98)
General Disclosures	102-53	Contact point for questions regarding the report		About This Report (98)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
General Disclosures	102-54	Claims of reporting in accordance with the GRI Standards	Our 2018 Sustainability Report is prepared in accordance to GRI Standards: Core.	GRI Index (111)
General Disclosures	102-55	GRI content index		GRI Index (108)
General Disclosures	102-56	External assurance		About This Report (126)
	103-1 103-2 103-3	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	Indirect Economic Impacts, Employment, Labor/Management Relations, Diversity and Equal Opportunity, Non-discrimination, Local Communities, Occupational Health and Safety, Training and education	People (68)
			Supplier Environmental Assessment, Supplier Social Assessment, Human Rights Assessment, Biodiversity	Forests (38)
			Materials, Energy, Emissions, Effluent and Waste, Water, Environmental Compliance, Marketing and Labelling	Sustainable Operations and Products (88)
			Market Presence, Economic Performance, Anti-corruption	Strategy and governance (23)
Economic Performance	201-1	Direct economic value generated and distributed		About Us (6)
Economic Performance	201-3	Defined benefit plan obligations and other retirement plans	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports? Indah Kiat – p74 Lontar Papyrus – p59 Tjiwi Kimia – p71	(111)
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage		People (74)
Indirect Economic Impacts	203-1	Infrastructure investments and services supported		People (80)
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures		Strategy and governance (36)
Anti-corruption	205-3	Confirmed incidents of corruption and actions taken	None in reporting period	Strategy and governance (111)
Anti-competitive Behaviour	206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	None in reporting period	GRI Index (111)
Materials	301-1	Materials used by weight or volume		Environmental data table, Energy (100)
Materials	301-2	Recycled input materials used	We report recycled fibre used as a percentage (45%) of all fibre raw material input	Forestry (43)
Energy	302-1	Energy consumption within the organization		Sustainable Operations and Products (100)
Energy	302-2	Energy consumption outside of the organization		Sustainable Operations and Products (100)
Energy	302-3	Energy intensity		Sustainable Operations and Products (100)
Energy	302-4	Reduction of energy consumption		Sustainable Operations and Products (88)
Water	303-1	Water withdrawal by source		Sustainable Operations and Products / Environmental data table (102)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
Water	303-3	Water recycled and reused		Sustainable Operations and Products (101)
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Forestry (44)
Biodiversity	304-2	Significant impacts of activities, products, and services on biodiversity		Forestry (44)
Biodiversity	304-3	Habitats protected or restored		Forestry (46)
Emissions	305-1	Direct (Scope 1) GHG emissions		Sustainable Operations and Products (101)
Emissions	305-2	Energy indirect (Scope 2) GHG emissions		Sustainable Operations and Products (101)
Emissions	305-4	GHG emissions intensity		Sustainable Operations and Products (101)
Emissions	305-5	Reduction of GHG emissions		Sustainable Operations and Products (93)
Emissions	305-6	Emissions of ozone-depleting substances (ODS)		Environmental data table (101)
Emissions	305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions		Production and products (102)
Effluents and Waste	306-1	Water discharge by quality and destination		Environmental data table (102)
Effluents and Waste	306-2	Waste by type and disposal method		Environmental data table (96)
Effluents and Waste	306-3	Significant spills	No significant spills in reporting period	GRI Index (112)
Effluents and Waste	306-5	Water bodies affected by water discharges and/or runoff		Environmental data table (102)
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	No cases of non-compliance with environmental laws and regulations in reporting period	GRI Index (112)
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria		Forestry (158)
Supplier Environmental Assessment	308-2	Negative environmental impacts in the supply chain and actions taken		Forestry (38)
Employment	401-1	New employee hires and employee turnover		People (73)
Employment	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		People (73)
Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	In the event of operational changes, APP allows a minimum of seven days' notice, as per Government of Indonesia regulation	GRI Index (112)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
Occupational Health and Safety	403-1	Workers representation in formal joint management-worker health and safety committees	Joint safety committees are in place at all mill sites, representing the whole workforce and providing one mechanism available for concerns to be raised and safety messages communicated. All mills with the exception of OKI and Univerus Perawang, have OHSAS 18001 certification for occupational health and safety.	People (113)
Occupational Health and Safety	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities		People (78)
Training and Education	404-1	Average hours of training per year per employee		People (76)
Training and Education	404-2	Programs for upgrading employee skills and transition assistance programs		People (75)
Training and Education	404-3	Percentage of employees receiving regular performance and career development reviews		People (73)
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	Three companies; Indah Kiat, Lontar Papyrus and Tjiwi Kimia are publicly listed and make additional information available in their Annual Reports ⁷ Indah Kiat – p29 Lontar Papyrus – p24 Tjiwi Kimia – p25	People (113)
Diversity and Equal Opportunity	405-2	Ratio of basic salary and remuneration of women to men		People (74)
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken		People (74)
Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples	APP believes that stakeholders can be constructive partners in helping to improve the implementation of the Forest Conservation Policy. Accordingly, the company has developed a grievance procedure designed to address any issues of concern that stakeholders might raise in relation to the FCP. The monitoring dashboard provides details of all grievances received and dealt with by APP since its introduction.	Forestry (65)
Human Rights Assessment	412-1	Operations that have been subject to human rights reviews or impact assessments	Our Forest Conservation Policy commits 100% of our suppliers to respect Human Rights, apply Free, Prior and Informed Consent (FPIC) of Indigenous and local communities on any proposed development or forest management activities in existing plantation areas.	Forestry and GRI Index (113)
Local Communities	413-1	Operations with local community engagement, impact assessments, and		Forestry and People (63,80)

GRI Standard Title	Disclosure Number	Disclosure	Notes	Reference (Page)
Local Communities	413-2	Operations with significant actual and potential negative impacts on local communities		Forestry and People (63, 80)
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	All new suppliers in our forest products supply chain are obliged to successfully complete our Supplier Evaluation and Risk Assessment (SERA).	Forestry (58)
Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken		Forestry (65)
Marketing and Labelling	417-1	Requirements for product and service information and labelling	Mill and product level certification and labelling options are shown for each mill on page 12-13	About us (12)
Marketing and Labelling	417-2	Incidents of non-compliance concerning product and service information and labelling	None in reporting period	GRI Index (114)
Marketing and Labelling	417-3	Incidents of non-compliance concerning marketing communications	None in reporting period	GRI Index (114)

UNGC Index

UNGC Communications on Progress		Section
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights;	People
	Principle 2: make sure that they are not complicit in human rights abuses.	People
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	People
	Principle 4: the elimination of all forms of forced and compulsory labour;	People
	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
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



This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

UNGC CEO Water Mandate		Section (page)
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

UNGC CEO Water Mandate		Section (page)
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

SDGs Mapping to APP Sustainability Initiatives

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP also provide employment opportunities to approximately 30,000 people within direct operations, and many employment opportunities are created through our wider supply chain.
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP also provide employment opportunities to approximately 30,000 people within direct operations, and many employment opportunities are created through our wider supply chain.
	1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP also provide employment opportunities to approximately 30,000 people within direct operations, and many employment opportunities are created through our wider supply chain.
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services	APP contributes at a indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around infrastructure development, we report a sample of such projects each year in our Sustainability Report.
2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme improves incomes and production capacity for recipient communities and individuals. We report the impact of the IFFS programme each year through our Sustainability Report.
	2.3.2 Average income of small-scale food producers, by sex and indigenous status	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme improves incomes and production capacity for recipient communities and individuals. We report the impact of the IFFS programme each year through our Sustainability Report.

<i>Goals and targets</i>	<i>Indicators</i>	<i>Status</i>	<i>Vision 2020 target</i>	<i>Additional information</i>
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	3.6.1 Death rate due to road traffic injuries	APP contributes at a goal and indicator level	Zero employee and contractor fatalities, major fire incidents and traffic accidents on site	At a mill level, health and safety programmes are developed based on local requirements. In a number of our mills, road safety for traffic on site and employees commuting is a area of focus.
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around water and sanitation, we report a sample of such projects each year in our Sustainability Report.
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme includes projects specifically focussed on women empowerment. We report the impact of the IFFS programme each year through our Sustainability Report.
4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	4.b.1 Volume of official development assistance flows for scholarships by sector and type of study	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	At a mill level, we provide a range of scholarship opportunities for students. We report these programmes each year in our Sustainability Report.
5.1 End all forms of discrimination against all women and girls everywhere	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report. Our IFFS programme includes projects specifically focussed on women empowerment. We report the impact of the IFFS programme each year through our Sustainability Report.

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	5.5.2 Proportion of women in managerial positions	APP contributes at a goal and indicator level		APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report.
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around water and sanitation, we report a sample of such projects each year in our Sustainability Report.
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around water and sanitation, we report a sample of such projects each year in our Sustainability Report.
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of wastewater safely treated	APP contributes at a goal and indicator level	10% below national and/or regional limits for COD and BOD	
	6.3.2 Proportion of bodies of water with good ambient water quality	APP contributes at a goal and indicator level	10% below national and/or regional limits for COD and BOD	Our mills monitor and manage water use in our operations. We report water use, intensity, reuse rate and water discharge quality each year through our Sustainability Report.
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time	APP contributes at a goal and indicator level	Achieve 10% reduction in water intensity by 2020, based on 2013 baseline	Our mills monitor and manage water use in our operations. We report water use, intensity, reuse rate and water discharge quality each year through our Sustainability Report.
6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1 Degree of integrated water resources management implementation (0–100)	APP contributes at a goal and indicator level	Implement Peatland Best Practice Management Programme Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	Recognising the importance of water management on the long term sustainability of peatland forest areas, we are actively developing and implementing best practice approach to peatland water management. We report progress each year in our Sustainability Report, and through updates to our Forest Conservation Policy (FCP).

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation	APP contributes at a goal and indicator level	Implement Peatland Best Practice Management Programme Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	Recognising the importance of water management on the long term sustainability of peatland forest areas, we are actively developing and implementing best practice approach to peatland water management. We report progress each year in our Sustainability Report, and through updates to our Forest Conservation Policy (FCP).
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time	APP contributes at a goal and indicator level	Implement Peatland Best Practice Management Programme Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme	Recognising the importance of water management on the long term sustainability of peatland forest areas, we are actively developing and implementing best practice approach to peatland water management. We report progress each year in our Sustainability Report, and through updates to our Forest Conservation Policy (FCP).
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption	APP contributes at a goal and indicator level	10% reduction in carbon intensity by 2020, based on 2012 baseline	APP report % renewable energy used in our operations each year through our Sustainability Report
7.3 By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP	APP contributes at a goal and indicator level	10% reduction in energy intensity by 2020, based on 2012 baseline	APP report energy efficiency of our operations each year through our Sustainability Report
8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	8.1.1 Annual growth rate of real GDP per capita	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP report significant economic impact of our operations each year through our Sustainability Report. A number of our CSR programmes are based around economic empowerment, we report a sample of such projects each year in our Sustainability Report.
8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	8.2.1 Annual growth rate of real GDP per employed person	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP report significant economic impact of our operations each year through our Sustainability Report. A number of our CSR programmes are based around economic empowerment, we report a sample of such projects each year in our Sustainability Report.

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1 Proportion of informal employment in non-agriculture employment, by sex	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP report significant economic impact of our operations each year through our Sustainability Report. A number of our CSR programmes are based around economic empowerment, we report a sample of such projects each year in our Sustainability Report.
	8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP report significant economic impact of our operations each year through our Sustainability Report. A number of our CSR programmes are based around economic empowerment, we report a sample of such projects each year in our Sustainability Report.
8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme includes projects specifically focussed on women empowerment. We report the impact of the IFFS programme each year through our Sustainability Report.
	8.5.2 Unemployment rate, by sex, age and persons with disabilities	APP contributes at a goal and indicator level		APP report significant economic impact of our operations each year through our Sustainability Report
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training	8.6.1 Proportion of youth (aged 15–24 years) not in education, employment or training	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	At a mill level, we provide a range of scholarship opportunities for students. We report these programmes each year in our Sustainability Report.
8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	8.7.1 Proportion and number of children aged 5–17 years engaged in child labour, by sex and age	APP contributes at a goal and indicator level		Our Corporate Social Responsibility Policy 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.

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status	APP contributes at a goal and indicator level	Zero employee and contractor fatalities, major fire incidents and traffic accidents on site	APP report fatalities by gender each year through our Sustainability Report
	8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	APP contributes at a goal and indicator level		Our Corporate Social Responsibility Policy 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.
9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	9.3.2 Proportion of small-scale industries with a loan or line of credit	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around microloans and supporting SME's. We report a sample of such projects each year in our Sustainability Report.
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	9.4.1 CO ₂ emission per unit of value added	APP contributes at a goal and indicator level	10% reduction in carbon intensity by 2020, based on 2012 baseline	APP report carbon emissions of our operations each year through our Sustainability Report. We are also working to develop a better understanding of the impact our Forest Conservation Policy and forestry operations have on carbon emissions.
10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme improves incomes and production capacity for recipient communities and individuals. We report the impact of the IFFS programme each year through our Sustainability Report.
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.1 Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report. Our IFFS programme improves incomes and production capacity for recipient communities and individuals. We report the impact of the IFFS programme each year through our Sustainability Report.

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	APP contributes at a goal and indicator level	Adopt international guidelines for the protection of indigenous people's customary rights in the forest	APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report.
10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	10.4.1 Labour share of GDP, comprising wages and social protection transfers	APP contributes at a goal level		APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report.
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	APP contributes at a indicator level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes are based around infrastructure development, we report a sample of such projects each year in our Sustainability Report.
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP	APP contributes at a goal and indicator level	100% independent 3rd party verification for pulpwood legality 100% sustainable plantation wood for pulp by 2015 100% Sustainable Forest Management (SFM) certified pulpwood Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre	
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1 National recycling rate, tons of material recycled	APP contributes at a goal and indicator level	Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre 25% reduction in solid waste to landfill, based on 2010 baseline Increase welfare of indigenous & local communities and maintain good relations	APP consume recycled fibre in our processes, contributing to the demand for post consumer waste. The percentage of recycled fibre used annually is reported each year through our Sustainability Report. A number of our CSR programmes are based around recycling and upcycling of waste and we report a sample of such projects each year in our Sustainability Report.

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	APP contributes at a goal and indicator level	Increase welfare of indigenous & local communities and maintain good relations	Our IFFS programme empowers communities and contributes towards reducing forest fire risk. We report the impact of the IFFS programme each year through our Sustainability Report.
13.2 Integrate climate change measures into national policies, strategies and planning	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	APP contributes at a goal and indicator level	Implement Peatland Best Practice Management Programme Support the national target to preserve designated protected and conservation areas Zero fibre from High Conservation Value Forest 10% reduction in carbon intensity by 2020, based on 2012 baseline	APP support the Government of Indonesia's commitment to reduce national carbon emissions. APP report carbon emissions of our operations each year through our Sustainability Report. We are also working to develop a better understanding of the impact our Forest Conservation Policy and forestry operations have on carbon emissions.
15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	15.1.1 Forest area as a proportion of total land area	APP contributes at a goal and indicator level	Implement Peatland Best Practice Management Programme Support the national target to preserve designated protected and conservation areas	Addressed through APP's FCP
	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	APP contributes at a goal and indicator level		Addressed through APP's FCP
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management	APP contributes at a goal and indicator level	100% Sustainable Forest Management (SFM) certified pulpwood	Addressed through APP's FCP
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	15.3.1 Proportion of land that is degraded over total land area	APP contributes at a goal and indicator level	Support the national target to preserve designated protected and conservation areas Zero fibre from High Conservation Value Forest	Addressed through APP's FCP

Goals and targets	Indicators	Status	Vision 2020 target	Additional information
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	15.5.1 Red List Index	APP contributes at a goal and indicator level	Support the national target to increase by 10% the population of 25 specified endangered species	Addressed through APP's FCP
15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems	APP contributes at a goal level	Support the national target to preserve designated protected and conservation areas	Addressed through APP's FCP
15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation	15.b.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems	APP contributes at a goal level	Support the national target to preserve designated protected and conservation areas	Addressed through APP's FCP
16.5 Substantially reduce corruption and bribery in all their forms	16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months	APP contributes at a goal and indicator level		APP's Business Code of Conduct 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.
	16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months	APP contributes at a goal and indicator level		APP's Business Code of Conduct 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.

<i>Goals and targets</i>	<i>Indicators</i>	<i>Status</i>	<i>Vision 2020 target</i>	<i>Additional information</i>
16.b Promote and enforce non-discriminatory laws and policies for sustainable development	16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	APP contributes at a goal and indicator level		APP support equal opportunity through our APP Employee Welfare Policy. We report on incidents of discrimination and employee data including male/female ratio, minimum wage by gender and % women in senior management each year through our Sustainability Report.
17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries	17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals	APP contributes at a goal level	Increase welfare of indigenous & local communities and maintain good relations	A number of our CSR programmes utilise multi-stakeholder partnerships to enhance impact. We report a sample of such projects and describe our partnerships each year in our Sustainability Report.

APP Assurance Statement 2019

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 2018 ("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, 2018 to December 31, 2018 (the 'Selected Information'). Subject to the limitations and exclusions listed in the next section, our review included:

- Data and report text included in the Report for the calendar year 2018 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 'Reporting Principles for defining report content and quality', as defined within the GRI Standards;
- Evaluation of the Report against the main principles of the AA1000 Assurance Standard (2008)¹
 - o Inclusivity
 - o Materiality
 - o Responsiveness
- Reviewed disclosures related to APP Forest Conservation Policy in the Report.

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

Our work was limited to APP Indonesia's head office and mills activities where APP Indonesia consolidates and reconciles data provided by its mills.

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

- Information related to activities outside the defined reporting period or scope;
- Company position statements (including any expression of opinion, belief, aspiration, expectation, aim or future intent);
- Historic text which was unchanged from previous years and did not relate to ongoing activities;
- Financial data which is audited by an external financial auditor, including but not limited to any statements relating to tax, sales, and financial investments;
- Content of external websites or documents linked from the Report and <https://www.asiapulppaper.com/sustainability/policies-reports> pages;
- Appropriateness of commitments and objectives chosen by APP Indonesia;
- Determine which, if any, recommendations should be implemented;
- Appropriateness of definitions and any internal reporting criteria adopted by APP Indonesia for its disclosures;
- 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 the accuracy, reliability and objectivity of the information contained within the Report;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our detailed conclusions and recommendations in an internal report to APP Indonesia's management.

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

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/

Methodology and Summary of Work

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

- Conducted interviews with relevant APP Indonesia personnel, at various levels throughout the organisation and responsible for content included in the Report;
- Conducted interviews with the following external bodies and stakeholders: Earthworm Foundation, Habitat for Humanity Indonesia, Indonesia Global Compact Network and, Ata Marie, 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 verification site visits to PT Pabrik Kertas Tjiwi Kimia Tbk (“Tjiwi Kimia Mill site”) in Sidoarjo, PT. Indah Kiat Pulp & Paper Tbk – Tangerang (“Tangerang Mill site”) in Tangerang, and PT. Indah Kiat Pulp & Paper Tbk – Perawang (“Perawang Mill 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.

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 2018;
- 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: 12,113,291 tonnes of CO₂e

Scope 1 (Direct) Emissions: 10,817,682 tonnes of CO₂e

Scope 2 (Indirect) Emissions: 1,295,608 tonnes of CO₂e

Alignment with the principles of AA1000AS (2008)

Inclusivity³

APP Indonesia has been able to demonstrate its consistent stakeholder engagement process. APP Indonesia has undertaken a number of formal stakeholder engagement activities in 2018, including its Stakeholder Advisory Forum, which included Vision 2030 consultation. Going forward APP may plan to include its stakeholders in sustainability strategy decision making.

Materiality⁴

APP Indonesia has aligned its materiality process with the development of APP sustainability strategy and its upcoming Vision 2030. To meet its stakeholders’ interest, APP has aligned their practices to the concept of product sustainability and bio-circular economy along with climate change, peatland management, human rights, sustainable forest management and community engagement. These aspects are result of an assessment of stakeholders’ interest on wider sustainability context.

Responsiveness⁵

APP Indonesia has shown responsiveness to stakeholder concerns through various activities. All mapped stakeholders have been engaged through various means of consultation. APP’s ongoing program of mills’ CSR activities have been implemented based on the needs of the targeted community and to some extent aligns with local government community development program as well. The continual progress of APP Forest Conservation Policy is also an evidence of APP’s commitment to issues raised by stakeholders concerning conservation of natural resources.

Key areas for ongoing development

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

- APP Indonesia is looking towards a strengthened set of commitments through its Vision 2030 which will enter a period of stakeholders’ consultation during 2019. APP Indonesia is encouraged to continue

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.

⁵ Responsiveness is the extent of an organisation’s response to stakeholder issues and is realised through decisions, actions and communication with stakeholders.

- focus on Forest Conservation Policy as the underlying commitment for sustainable supply chain;
- APP should work towards improving the data reporting of waste categories for e.g. the combined weight of reused, recycled, and recovered waste to be further detailed to the weight of each waste type.
 - APP is encouraged to implement technological innovation similar to Perawang Mill to further enhance the safety features across all their operations.

Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specializes in quality, environmental, health, safety and social accountability with over 185 years history. The assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Bureau Veritas operates a certified Quality Management System which complies with the

requirements of ISO 9001:2015, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Bureau Veritas has implemented a Code of Ethics which meets the requirements of the International Federation of Inspections Agencies (IFIA) across its business which ensures that all our staff maintains integrity, objectivity, professional competence and due care, confidentiality, professional behaviour and high ethical standards in their day-to-day business activities. Bureau Veritas has a number of existing commercial contracts with APP Indonesia. Our assurance team does not have any involvement in projects with APP Indonesia outside those of an independent assurance scope and we do not consider there to be a conflict between the other services provided by Bureau Veritas and that of our assurance team.



Jakarta, 28 September 2019

Yours Sincerely,

Lontung Simamora
President Director



AA1000
Licensed Assurance Provider
000-17