



SUSTAINABILITY REPORT

Growing Our Tomorrow

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 142.



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SECTION 1

About Us

Vision & Values

As a leading global pulp-and-paper company, we believe in delivering innovation, sustainably and responsibly, working together to secure a better future of our customers, communities, employees, shareholders and you.

We Value

- 01** Our employees, who are integral to Asia Pulp & Paper (APP) Sinar Mas' success
- 02** The environment, as our business, depends on sustainable operations
- 03** Our customers and suppliers, who sustain our business
- 04** Our shareholders, and the community to whom we are accountable
- 05** The principles of good governance as we continue to build a sustainable business

INTEGRATED PLANTATION-PULP-PAPER

1. R&D and seedling production



2 main
Seedling nurseries



Annual output of
200 million
seedlings

2. Forestry



38 forestry concessions
Managed by 33
pulpwood supplier
companies



100% of forestry concessions
compliant to PEFC scheme
and certified with PHPL-VLK
(SVLK, Timber Legality Assurance System)

3. Fiber sources for paper production



56%
Plantation fiber



8%
Imported fiber



36%
Recycled fiber

4. Pulp & paper production



57%
of our energy
is generated from renewable fuels



Water consumption
19m³
per tonne of production



We reused, recycled or recovered
36% of waste
in 2019



80% of our mills
certified to ISO 50001 energy
management system

5. Customers & consumers



150 Countries
APP brands are marketed in



17 Million
tonnes total capacity (APP Indonesia)

About Us

GRI: 102-2, 102-6

Asia Pulp & Paper (APP) Sinar Mas is a trade name of pulp and paper manufacturing company which delivers quality products to meet the growing global demand for paper, tissue, and packaging. Beginning as a caustic soda producer in 1972, we have grown into a global business with operations across Indonesia and China with an annual combined pulp, paper, packaging product and converting capacity of over 20 million tons per annum. Today, Asia Pulp & Paper (APP) Sinar Mas markets its products in more than 150 countries across six continents.

This growth is guided by our vision of a better future. It is what keeps us moving forward, creating new ways of living and innovating. Over the years, we have expanded our operations through the acquisition and expansion of our pulp and paper mills. It is 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.

As part of our vision for a better future, the integrity of our supply chain and our commitments to our Sustainability Roadmap Vision 2030 are crucial to our operations. Every day, we do our best to achieve sustainable forest and peatland management, market-leading product environmental footprints, and people-first sustainable operations. This vision extends beyond the countries where we operate.

We believe that the growth of our business is dependent on the support of the people around us: partners, employees, communities, and you. Together, we are growing our tomorrow.



Perawang village prior to the development of Indah Kiat Mill, now Perawang has become a big industrial district in Riau Province

Our History

Asia Pulp & Paper Sinar Mas's founder, Eka Tjipta Widjaya, migrated from Fujian, China to Makassar, Indonesia in 1930. In 1938, when he was just 15 years old, he worked tirelessly selling biscuits and candles from door to door to help his parents financially. By 1960 his hard work paid off when he eventually could afford to establish a small trading company, which focussed on importing textiles and exporting natural resources. Then in 1972, he ventured into a caustic soda manufacturing business by establishing PT. Tjiwi Kimia, which later became PT. Pabrik Kertas Tjiwi Kimia Tbk., in Mojokerto, Surabaya.

Even as we have grown our business over the decades, we recognise that growing a better, more sustainable future requires a collective effort. Working closely together with partners and communities, Asia Pulp & Paper Sinar Mas has transformed millions of lives in Jambi, Riau, Serang, Karawang and Mojokerto through employment opportunities, community development programmes, including support for education, developing specialised skills, conservation of our natural forests and much more.

Financial Performance⁽¹⁾

GRI: 102-7, 201-1

USD (1,000)	2019	2018	2017
Revenue	8,005,870	7,858,388	6,897,092
Operating costs⁽²⁾	5,397,009	4,920,453	4,780,779
Community investments	13,437	8,795	6,205
Payments to providers of capital	562,422	534,43	398,675
Employee compensation	322,403	332,8428	343,044
Retained earnings	4,842,830	3,616,224	2,002,825
Payment to governments	11,036	26,815	21,053

Note :

{1} Consolidated financial performance for the mills listed on page 39

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

Our Products

Our fibre technology and manufacturing innovation allow us to produce every exceptional product for every need, from bleached hardwood paper pulp to a full range of paper, tissue, packaging, and stationery. Sustainability is intrinsically linked to the products we sell.

Based on responsibly sourced recyclable and renewable fibre, applying innovative design and manufactured in well managed mills we directly support our customers' sustainability goals. Precision technology for commodity grades of paper and packaging is helping to reduce product variation, tighten specifications and create less waste.

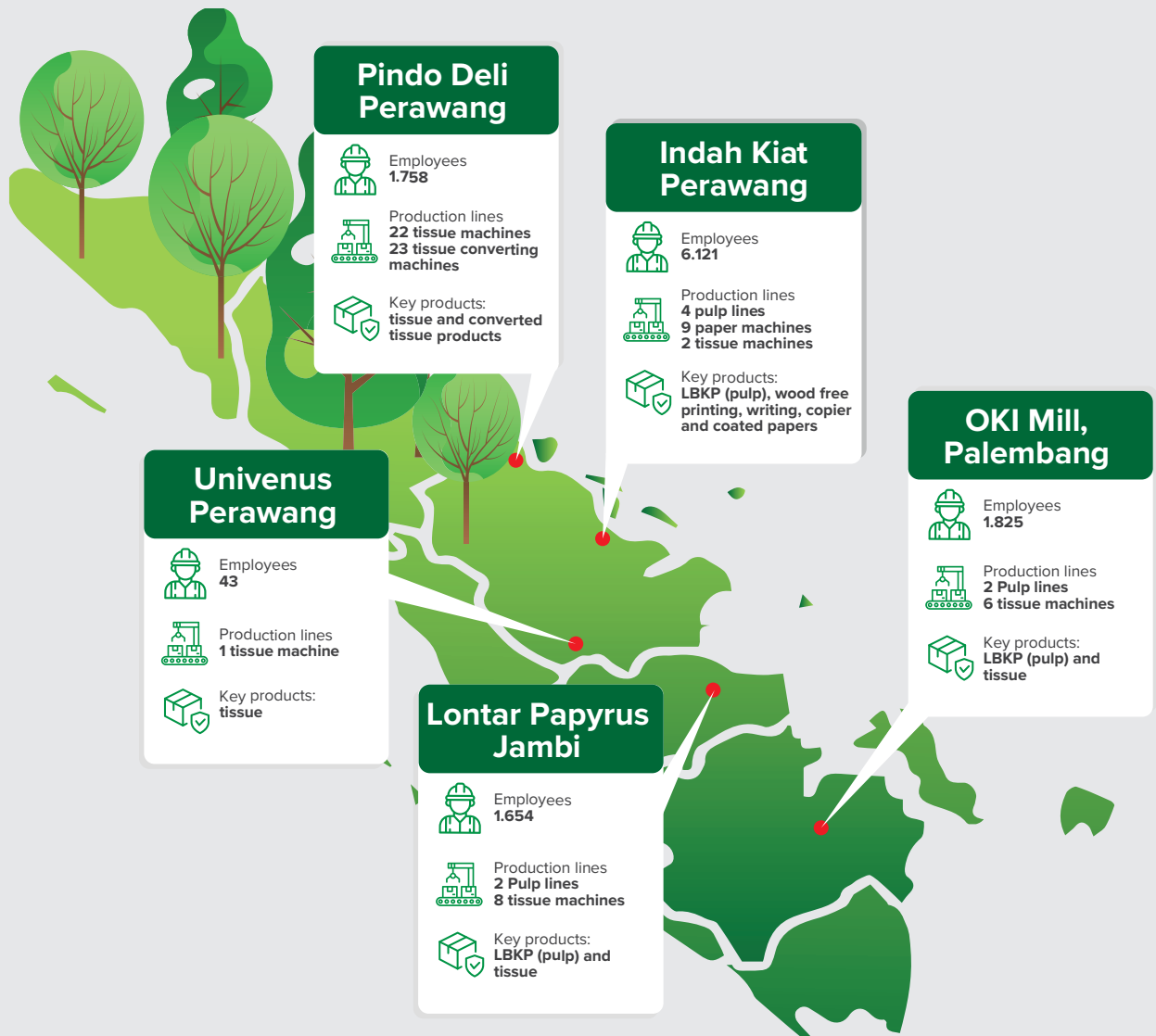
To view our latest products categories and brands, see the Our Products section of our website. To read about innovations in our product range see the Production Innovations section on page 52.

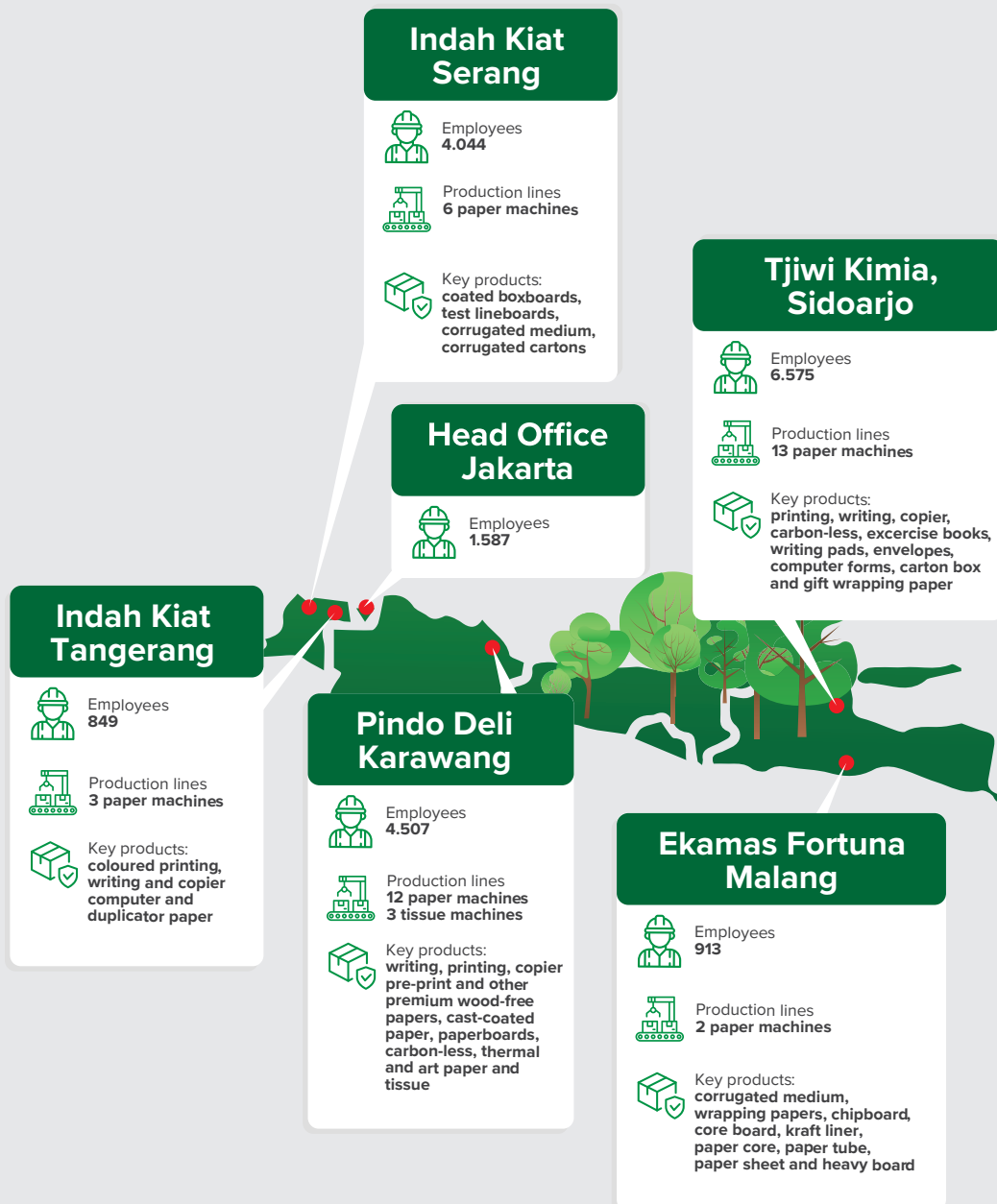


Paper machine converting

APP Map of Operations

GRI: 102-3, 102-4





Our Mills

1. Indah Kiat Perawang

Indah Kiat Pulp & Paper Perawang Mill is strategically located in Perawang, on the island of Sumatra. With the Siak River as a major transportation link, the mill also benefits from local pulpwood plantations for raw materials. The mill uses renewable biofuel for 64% of its energy needs. The mill focuses CSR activities on economic empowerment through entrepreneurship, stimulating economic development and improving the livelihoods of the local community. The mill offers business management and 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, starting production of pulp in 1994 and tissue in 1998. As an integrated mill, Lontar Papyrus can use waste products from the pulping process as an energy source, providing 69% of the mill's requirements in 2019, up from 64% in 2018. In support of the local government commitment to improve the agriculture sector in the area, the mill has established several farmer empowerment programmes.

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 86% 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 2019 the mill helped build 11 wells and related infrastructure such as water tanks and pumps. The clean water is used to supply the latrines to improve the sanitation in the area, reducing risks of various sanitation-related illnesses such as diarrhoea and typhoid for more than 1,000 households.

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 is purchased pulp and it exports the majority 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 Hutan Kertas, or 'Paper Forest', which today is a well-established eco-tourism hotspot. Managed by a local youth group, the site hosts live music and camping events as well as hosting school visits. To promote the circular bio-economy approach, waste wood and plastic provided by the mill was used to set up the location.

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. Tjiwi Kimia collaborate with the farming department in local government in the Bogem Pinggir village to empower farmer groups. The mill provides water pumps for farming irrigation with technical assistance to set up the equipment, in addition to fertilizer.

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. 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 80% of its power requirements from renewable waste products from the pulping process. In a collaborative partnership between OKI mill, local government and the Simpang Heran village, educational facilities were improved for the local community. The mill supported the development of the community center (Rumah Pintar), establishing IT resources and a library, the facility also includes a play area for children and a meeting room.



One of our facilities, OKI Mill

Mill and Product Certifications

GRI: Disclosure of Management Approach (Marketing and labelling), 417-1

To provide our customers with assurance of our products sustainability credentials, we offer a range of third-party certified labels or certifications. These predominantly cover fibre source, product content, quality and environmental credentials.

	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
	SNI 6691 : 2015			Environmental Choice - New Zealand Ecolabel	Environmental Choice - New Zealand Ecolabel
	SNI 8126 : 2014			Ecolabel - Indonesian Standard	Singapore Green Labelling Scheme
					Ecolabel - EU Standard
					Singapore Green Labelling Scheme
					Green Mark - Taiwan Ecolabel Standard
					SNI 6691 : 2015
					SNI 8126 : 2014
PROPER	Blue	n/a ^[1]	Blue	Blue (Mill 1) n/a ^[1] (Mill 2) Blue ^[3] (Mill 3)	n/a ^[2]
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 45001	OHSAS 18001	ISO 45001	OHSAS 18001	ISO 45001
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		ISO22000	Food Contact Safety Grade for Paper & Paperboard
		ISO 22000			Dermatological test on Humans
Other				ISO 17025	

	Lontar Papyrus	Tjiwi Kimia	Ekamas Fortuna	OKI	Univenus Perawang
Quality	ISO 9001	ISO 9001	ISO 9001	ISO 9001	ISO 9001
Product Quality	Halal	Halal		Halal	Halal
		Ecolabel - Indonesian Standard			
		Green Seal			
		SNI 8126 : 2014			
PROPER	Blue	Blue	Blue	Red	n/a ^[2]
Environment	ISO 14001	ISO 14001	ISO 14001	ISO 14001 ^[4]	
	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	
Other					

Note :

[1] Subject to special environmental assessment

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

[3] PROPER with the scope of West Java Province (PROPERDA)

[4] OKI put in place corrective actions which were approved by the Ministry of Environment and Forestry .

Awards & Achievement in 2019

Award



Indonesia Green Awards (IGA) 2019

Institution
The La Tofi School of CSR

Awarded for:
Plastic Waste Handling category, Integrated Waste Management category and The Best Indonesia Green Awards Program in the Developing Biodiversity category. (APP Sinar Mas)

Award



Sustainability Business Awards

Institution
PWC, Kadin Indonesia, and IBCSD (Indonesia Business Council for Sustainable Development)

Awarded for:
Special Recognition Water Management and Best Stakeholder Engagement & Materiality categories (APP Sinar Mas)

Award



Asia Sustainability Reporting Rating, Silver Rating

Institution
National Center for Sustainability Reporting

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

Award



Green Supply Chain Award

Institution
Supply & Demand Chain Executive

Awarded for:
The Green Supply Chain Award recognizes companies making sustainability a core part of their supply chain strategy, and working to achieve measurable goals within their own operations and supply chains (APP Sinar Mas)

Award



Halal Top Brand

Institution
Indonesian Ulema Council (MU)

Awarded for:
"Halal Top Brand 2019" award in the paper and paper material category (APP Sinar Mas)

Award



Climate Festival 2019

Institution
Ministry of Environment and Forestry

Awarded for:
Program Kampung Iklim Utama 2019, or Climate Village Program awarded for Dataran Kempas Village, Jambi (APP Forestry supplier, PT. Wira Karya Sakti)

Award

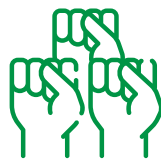


Zero-Accident Award

Institution
Banten Provincial Government

Awarded for:
Zero-Accident and the Health and Safety Committee awards (PT. Indah Kiat Pulp & Paper Tbk, Tangerang Mill)

Award



Indonesia Business & Human Rights Ranking

Institution
Foundation for International Human Rights Reporting Standards (FIHRRST)

Awarded for:
Best 10 Human Rights Performance Company (PT. Indah Kiat Pulp & Paper Tbk)

Award



Social Business Innovation Awards

Institution
Warta Ekonomi

Awarded for:
Top Social Business Inovation Company (Pulp & Paper) (PT. Indah Kiat Pulp & Paper Tbk, PT. Lontar Papyrus Pulp & Paper Industry)

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 Pulp and Paper, Ekamas Fortuna)

Achievement



**CDP Forest Score : B
CDP Climate Change Score : B
CDP Water 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 forest, environmental and water stewardship, and our actions and approaches in managing deforestation, climate change and water

Achievement



**SPOTT Assessment :
5th Rank**

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





Chairman's Statement

GRI: 102-14



At APP we consider that sustainability is core to the success of our business. We take a broader view across many different issues, and work to align our position with the expectations of our global customers. Whilst the present situation is dominated by the COVID-19 crisis, we have spent recent years developing our supply chain to ensure we have a constant supply of the right quality of raw materials for our mills, and this is paying dividends now in times of global disruption.

Pulpwood is our most important raw material, and we have developed a sustainable pulpwood supply for our future, through innovations in forestry management to increase yields. Throughout this work we have built on our commitment, first introduced in 2013, to zero deforestation. With this approach comes a need to constantly improve the way we monitor and enforce this commitment. We are seeing the returns on this investment every day, through strong relationships with customers, and increasing recognition for our work on forest protection, conservation and restoration.

We have continued to develop partnerships with local communities; and we will continue to look for opportunities for communities to play an active role in our supply chain, not only for forestry but also for other types of goods and services needed by our operations. We continue in our efforts to reduce loss of forest areas due to fire. 2019 brought unusually dry conditions across specific areas of our forest concessions, and our fire management teams rose to this challenge with speed and determination. Extreme climatic events are becoming more frequent and will require that we continue to adapt and develop our programmes in the future.

As an employer of around 29,000 people, the development of talents within our company is of vital importance to our future. We also promote diversity as a way of ensuring employees are recruited and developed, particularly at senior levels, without bias towards gender or ethnicity. In fact we see great

benefits in using the global nature of our organisation to provide opportunities to work in different regions and countries. We recognise the need to always improve the way we protect the safety of our workforce, and this is an area that I take personal interest in. Over the last year we have made a range of improvements to our safety processes, and we have taken actions to protect employees during the current health crisis which we will report on fully next year.

Our goal is to work alongside our customers to meet shared sustainability goals. With the evolution of our Sustainability Roadmap Vision, we see many opportunities to collaborate and work towards sustainability targets together. Quality, price and delivery are areas APP have always excelled in meeting customer expectations. It is encouraging to see many global brands now taking a collaborative approach alongside APP to challenges that require landscape level action, across geographical and land ownership boundaries.

As a company that places sustainability as being central to core business success, we are driving ourselves forward into the future. I am proud to see the value of sustainability being shared today with everyone connected to our business.

A handwritten signature in black ink, appearing to read 'Teguh Ganda Wijaya', with a stylized flourish at the end.

Teguh Ganda Wijaya,
Chairman

Chief Sustainability Officer's Statement



2019 saw a number of important developments in our approach to sustainability at APP. Over the last decade we have work hard to enhance the integrity of our supply chain including intensive efforts for natural forest, protection and restoration.

APP is now one of the few companies that are able to demonstrate that we are meeting our commitment to zero deforestation of natural forest as a result of our commitment. We are working to increase the transparency of data available in our Dashboard, particularly over forest cover changes. We are also continuing to reduce the rate of illegal logging and other forms of encroachment which threaten our protected forests.

Since we first introduced our zero-deforestation commitment in 2013, we have come a long way, and have worked hard to address any issues as they arose. We have continued to implement our Collaborative Conservation Management programme as a key way to reduce deforestation risk by actively involving villagers in conservation and protection activities.

2019 was also a landmark year in our work towards sustainable forestry certification. We believe that to be internationally credible, forest certification needs to be rigorous, and needs to be tailored to local conditions. 100% of our wood supply is aligned with the requirements of the PEFC standard, as implemented locally through the Indonesian Forestry Certification Cooperation (IFCC).

During 2019 we worked alongside the Government of Indonesia to finalise the restoration plan for specific peatland areas within our supplier's concessions. For our supplier's plantations, our forestry team have developed a plan for the next 5 years to increase the efficiency and yield from existing forest plantation areas.

We have also continued our efforts to increase the uptake of our Desa Makmur Peduli Api (DMPA) program, which is based on the Integrated Forestry and Farming System concept. During 2019 we focussed on improving the penetration of the programme within villages that are already participating. The programme includes a range of opportunities to facilitate the creation of women-owned enterprises, and to improve the access to market and sale of goods that are produced. Through our work with Martha Tilaar Group, we have increased the number of women from remote villages who have received training in the use of local plants to create herbal drinks and to learn therapy techniques, many of whom have gone on to create successful community enterprises.

With our employees, we have introduced a new talent retention programme, whilst at the same time adjusting to the increasing use of automation across our operations. On safety, during 2019 we introduced a new roadmap approach to assess each Mill and determine actions for improvement. We also made further progress on process safety management which has been reflected in the reduction in our LTI rate, although must still make further progress towards our goal of eliminating fatalities.

We have also worked closely with the Government of Indonesia in its work towards Indonesia's Nationally Determined Contribution (NDC) towards carbon emissions reduction. We have identified ways in which APP can contribute towards this target, not only through our forest protection and conservation activities, but also through the development of low carbon products.

We continue to identify opportunities to improve the efficiency of our pulp and paper mills, through targeted investments and technical innovation. In 2019 we reduced both carbon emissions and water intensity by 23% and 31%, against a 2012 and 2013 baseline respectively. Solid waste to landfill reduced 37%, based on a 2010 baseline, as a result of our continued efforts

to reduce waste and identify opportunities to recycle and reuse materials across our processes.

2019 marked the beginning of our transition from the Sustainability Roadmap Vision 2020, to our Vision 2030 commitments and goals. As our Sustainability Report 2019 shows, the challenges we face are constantly evolving, and we are committed to achieving best practice of responsibility and transparency as we move forwards into the coming decade.



Elim Sritaba,
Chief Sustainability Officer, APP Sinar Mas





SECTION 3

Strategy

Launched in 2012, **Vision 2020** has become our comprehensive strategy for sustainability.

It sets out ten key impact areas relevant to our stakeholders across our business and wider supply chain, with ambitious targets for each. Furthermore, it sets out our approach to continue supporting the UN's Sustainable Development Goals (SDGs). 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.

APP Sustainability Roadmap Vision 2020



Fibre Sourcing



Reforestation



**Conservation
& Biodiversity**



**Human rights &
Indigenous People**



**Community
Empowerment**



Climate Change



Emissions



**Water
Management**



Solid Waste



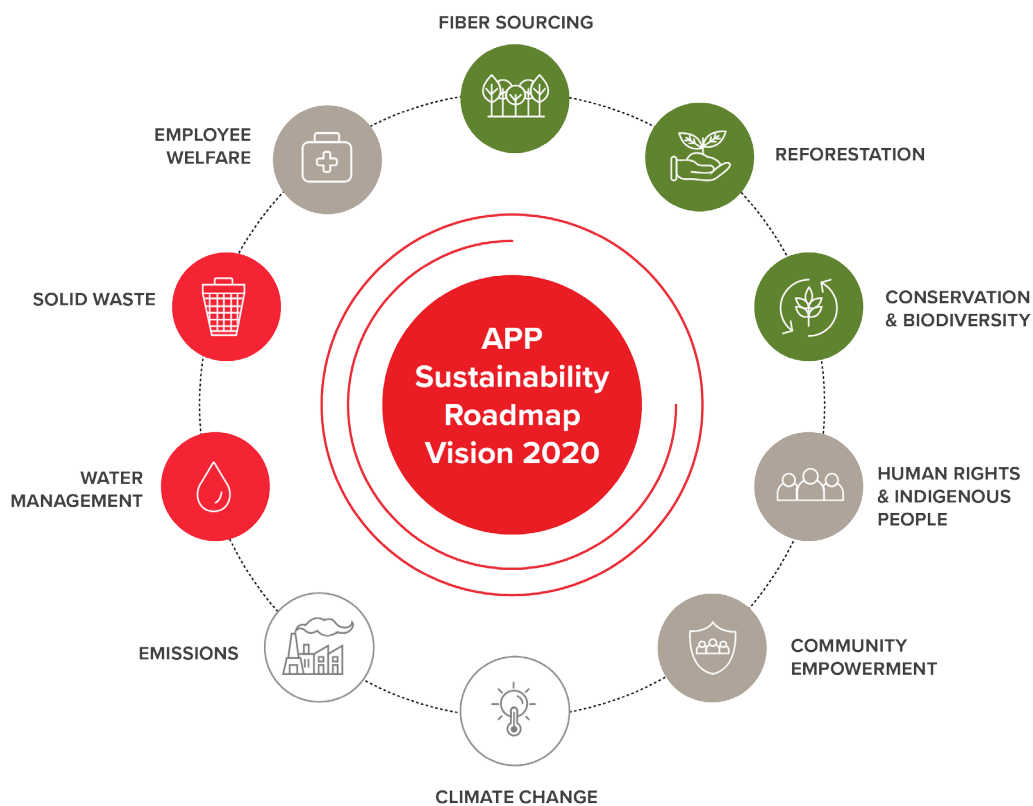
Employee Welfare

Vision 2020

GRI: 102-16

Sustainability has always been at the core of our business. At APP, we create products and deliver services with care through responsible and sustainable innovations for every product life stage. For us 'Growing' is not only about business but also the purpose of improving the livelihoods of people around us.

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



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

<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 2019</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>In 2019 36% 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 2019</p> <p>APP continued our commitment through supporting the protection and restoration of natural forest inside AAP 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 2019</p> <p>All conversion of natural forest was halted in 2013 ✓</p> <p>Supplier Evaluation & Risk Assessment (SERA) tool implemented in 2018. ✓</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 2019</p> <p>Implementation of Free Prior Informed Consent (FPIC) ✓</p> <p>Responsible Conflict Management 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 2019</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. 335 villages were included into the programme as of December 2019 ✓</p>

Vision 2020 element	Target	Progress in 2019
 <p>CLIMATE CHANGE</p> 	<p>Implement Peatland Best Practice Management Programme</p>	<p>We continue to develop and improve our approach to Peatland Best Practice Management Programme. See page 72 for more details</p> 
 <p>EMISSIONS</p> 	<p>10% reduction in carbon intensity by 2020, based on 2012 baseline</p>	<p>Carbon Intensity decreased 23% in 2019 compared to 2012 baseline</p> 
	<p>10% reduction in energy intensity by 2020, based on 2012 baseline</p>	<p>Energy intensity decreased 11% in 2019 compared to 2012 baseline</p> 
	<p>10% below national and/or regional limits for annual SOx and NOx</p>	<p>All mills achieved in 2019</p> 
 <p>WATER MANAGEMENT</p> 	<p>Achieve 10% reduction in water intensity by 2020, based on 2013 baseline</p>	<p>Water intensity decreased 31% in 2019 compared to 2013 baseline</p> 
	<p>10% below national and/or regional limits for COD and BOD</p>	<p>All mills achieved in 2019</p> 
	<p>Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme</p>	<p>Water footprint completed in all mills</p> 
 <p>SOLID WASTE</p> 	<p>25% reduction in solid waste to landfill, based on 2010 baseline</p>	<p>37% reduction achieved</p> 
 <p>EMPLOYEE WELFARE</p> 	<p>Zero employee and contractor fatalities, major fire incidents and traffic accidents on site</p>	<p>Not achieved in 2019</p> 

 Achieved

 On Track

 Not Achieved

Sustainability Roadmap Vision 2030

While the vast majority of our targets in Vision 2020 Sustainability Roadmap have been achieved, we realised that we need to expand the scope of our commitments to sustainability, as we continue to challenge ourselves as we look past 2020. With that in mind, we created Sustainability Roadmap Vision 2030 following extensive engagement with internal and external stakeholders. Compared to Sustainability Roadmap Vision 2020, this evolution covers an increased range of issues and tighter alignment with both the UN Sustainable Development Goals and the Paris Agreement on Climate Change.

Vision 2030 focuses on three main areas related to our industry: production, forest and people. We explain how our production process will produce less carbon intensive products, using materials that are sourced from responsibly managed plantations that contribute to the welfare of local communities.



Products & Production

30% reduction in carbon footprint

Doing more with less, so that our products go further, with minimal waste.

As a business that relies on sustainable plantations, we are continuing research and improvement in sustainable forestry while protecting and restoring natural forests in and around our supplier concessions.

-  Lower Carbon Footprint
-  Innovative Products



We are taking action on the UN Sustainable Development Goals



Forest

Over half a million hectares of natural forests conserved

Protecting and conserving the forests, peatlands and biodiversity which sustain our business.

To reduce our environmental footprint and contribute towards a circular global economy, we commit to producing paper goods responsibly and sustainably.

-  Fiber Sourcing
-  Forest Protection
-  Integrated Fire Management



We are taking action on the UN Sustainable Development Goals



People

Improving the lives of millions

People are at the heart of what we do, from uplifting communities, empowering employees and partnering with allies in sustainable development.


To create and sustain lasting change, we have to work together, across our employees, forest communities and allies in sustainable development.

-  Sustainable Livelihood
-  Workforce Management
-  Business Ethics & Conduct



We are taking action on the UN Sustainable Development Goals

Production



Production


30% reduction in carbon footprint

Doing more with less, so that our products go further, with minimal waste.

To reduce our environmental footprint and contribute towards a circular global economy, we commit to producing paper goods responsibly and sustainably.


[Lower Carbon Footprint >](#)


[Innovative Products >](#)




We are taking action on the UN Sustainable Development Goals

Contributes to UN SDG :


12 RESPONSIBLE CONSUMPTION AND PRODUCTION


13 CLIMATE ACTION



15 LIFE ON LAND

About

Achieve competitive product environmental footprints and contribute to the circular economy.

Goals

1. Increase the share of renewables in the energy mix.
2. Reduce energy consumption.
3. Reduce water consumption.
4. Zero waste to landfill.



Production


30% reduction in carbon footprint

Doing more with less, so that our products go further, with minimal waste.

To reduce our environmental footprint and contribute towards a circular global economy, we commit to producing paper goods responsibly and sustainably.


[Lower Carbon Footprint >](#)


[Innovative Products >](#)




We are taking action on the UN Sustainable Development Goals

Contributes to UN SDG :


12 RESPONSIBLE CONSUMPTION AND PRODUCTION


13 CLIMATE ACTION


15 LIFE ON LAND

About

Achieve competitive product environmental footprints and contribute to the circular economy.

Goals

1. Increase recycled fiber composition.
2. Increase product biodegradability and resource efficiency.

Forest



Forest

Over half a million hectares of natural forests conserved

Protecting and conserving the forests, peatlands and biodiversity which sustain our business.

As a business that relies on sustainable plantations, we are continuing research and improvement in sustainable forestry while protecting and restoring natural forests in and around our supplier concessions.

Fiber Sourcing >

Forest Protection >

Integrated Fire Management >

Contributes to UN SDG :



About

Achieve landscape-scale sustainable forest management, protection and restoration across APP and its supplier concessions.

Goals

1. Source only from certified Sustainable Forests and increase fiber productivity.



We are taking action on the UN Sustainable Development Goals



Forest

Over half a million hectares of natural forests conserved

Protecting and conserving the forests, peatlands and biodiversity which sustain our business.

As a business that relies on sustainable plantations, we are continuing research and improvement in sustainable forestry while protecting and restoring natural forests in and around our supplier concessions.

Fiber Sourcing >

Forest Protection >

Integrated Fire Management >

Contributes to UN SDG :



About

Achieve landscape-scale sustainable forest management, protection and restoration across APP and its supplier concessions.

Goals

1. Conserve High Carbon Stock (HCS) forest and High Conservation Value (HCV) area and continue restoration efforts.
2. Conserve critical peatland ecosystems.
3. Protect Indonesia's flora and fauna, focusing on the three priority wildlife and ten species of rare trees.



We are taking action on the UN Sustainable Development Goals



Forest

Over half a million hectares of natural forests conserved

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As a business that relies on sustainable plantations, we are continuing research and improvement in sustainable forestry while protecting and restoring natural forests in and around our supplier concessions.

Fiber Sourcing >

Forest Protection >

Integrated Fire Management >

Contributes to UN SDG :



About

Achieve landscape-scale sustainable forest management, protection and restoration across APP and its supplier concessions.

Goals

1. Maintaining area impacted by fires at under 2%.



We are taking action on the UN Sustainable Development Goals

People



People

Improving the lives of millions

People are at the heart of what we do, from uplifting communities, empowering employees and partnering with allies in sustainable development.

To create and sustain lasting change, we have to work together, across our employees, forest communities and allies in sustainable development.

- [Sustainable Livelihood](#) >
- [Workforce Management](#) >
- [Business Ethics & Conduct](#) >



We are taking action on the UN Sustainable Development Goals

Contributes to UN SDG :



About

Empower and involve communities as part of sustainable operation, and invest in world-class human capital management.

Goals

1. Reduction of land conversion for agricultural purposes through the use of fire.
2. Improve the welfare of local communities through capacity building and enhance community access to markets.
3. Respect the rights of local communities and indigenous people through increased multi-stakeholder engagement.



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- [Sustainable Livelihood](#) >
- [Workforce Management](#) >
- [Business Ethics & Conduct](#) >



We are taking action on the UN Sustainable Development Goals

Contributes to UN SDG :



About

Empower and involve communities as part of sustainable operation, and invest in world-class human capital management.

Goals

1. Increase the number of women in management positions.
2. Strengthen organizational agility.



People

Improving the lives of millions

People are at the heart of what we do, from uplifting communities, empowering employees and partnering with allies in sustainable development.

To create and sustain lasting change, we have to work together, across our employees, forest communities and allies in sustainable development.

- [Sustainable Livelihood](#) >
- [Workforce Management](#) >
- [Business Ethics & Conduct](#) >



We are taking action on the UN Sustainable Development Goals

Contributes to UN SDG :



About

Empower and involve communities as part of sustainable operation, and invest in world-class human capital management.

Goals

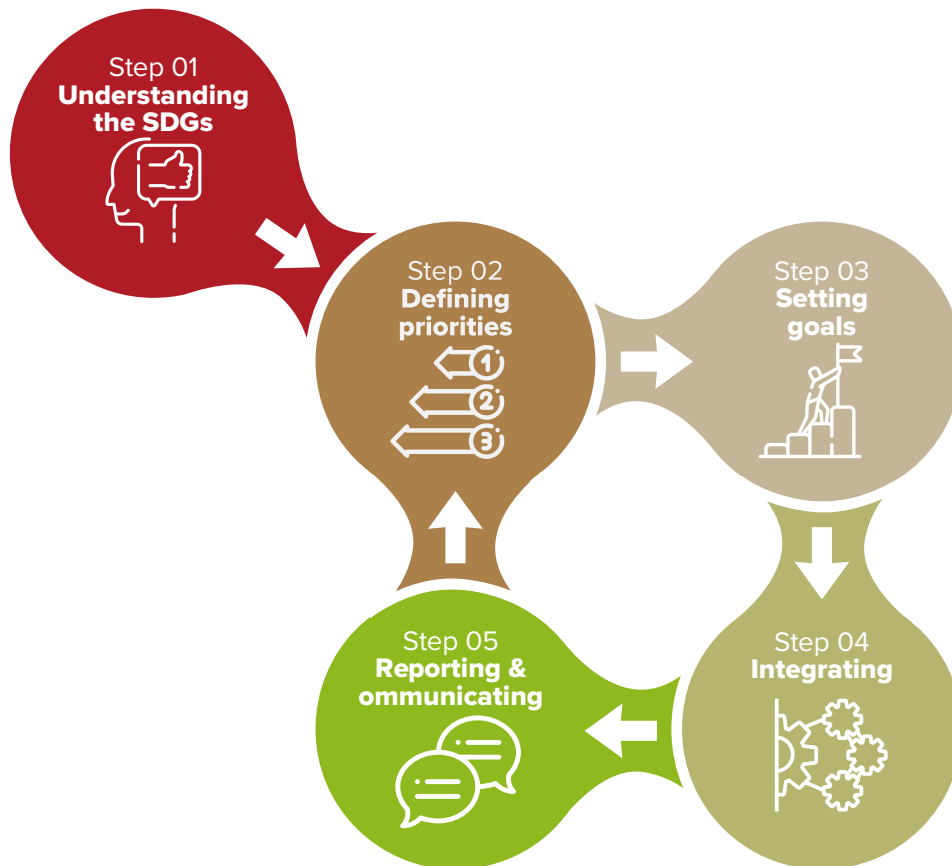
1. Best practices for fraud reporting and whistleblower management.
2. Best practices for ensuring adherence to our Code of Conduct.

Sustainable Development Goals

In 2017 the United Nations launched seventeen Sustainable Development Goals (SDGs), addressing social and economic development issues that all sectors of society are encouraged to work to address. Under each goal sits a set of related targets to be addressed by 2030.



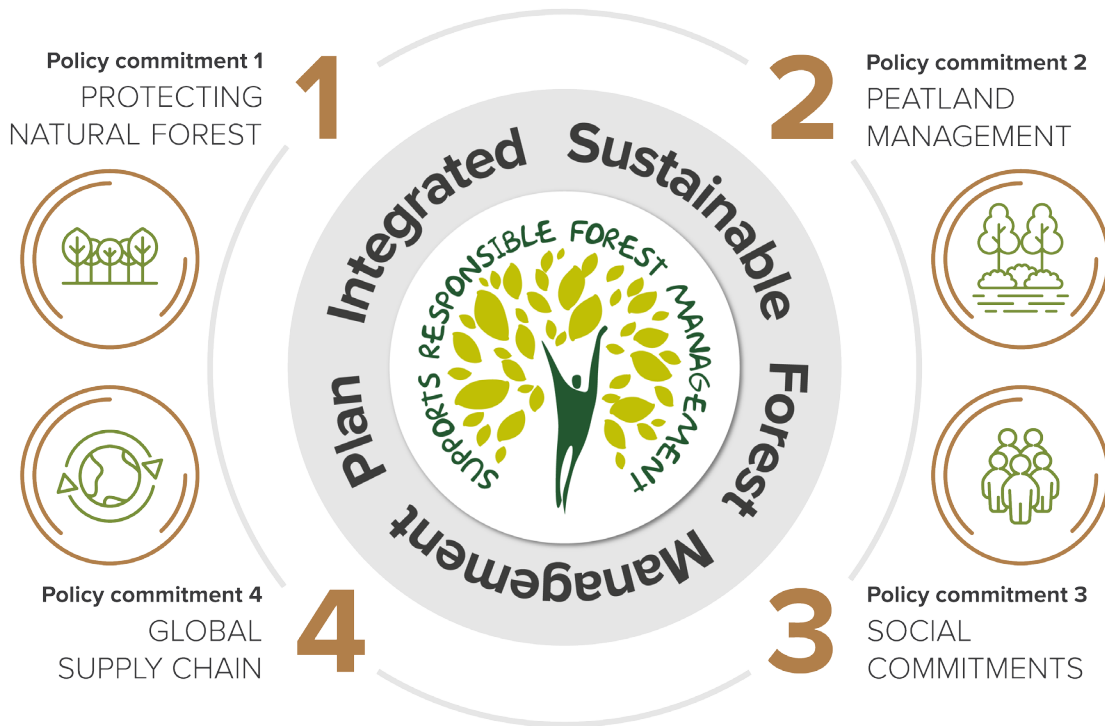
APP is fully committed to supporting the SDGs. We applied the UN's SDG Compass tool to create a detailed map of how our activities and our wider supply chain directly impact a range of the Global Goals. We have provided a detailed breakdown of each Goal, indicator and sub-indicator that we are addressing through our activities in the Appendix of this Report.



<https://sdgcompass.org>

Forest Conservation Policy

A cornerstone of this roadmap is our Forest Conservation Policy (FCP). Initially, Vision 2020 set out a plan for APP and its pulpwood suppliers to implement High Conservation Value (HCV) principles by 2015 and end natural forest clearance by 2015. However, on February 5th, 2013, we announced the FCP to be in immediate effect, accelerating the objective by almost two years. You can learn about the details of the policy in the Forest [page 58] section of this Report.



Stakeholder Engagement

GRI: 102-13, 102-42, 102-43, 102-44

To identify and respond to stakeholder concerns and expectations, monitor global trends and play our role in the debates that relate to the key issues that impact our business, we conduct a diverse and far reaching approach to stakeholder engagement. We identify our stakeholders as any group who expresses an interest in APP's operations and/or our impacts.

APP encourages open dialogue, which is best demonstrated by our annual Stakeholder Advisory Forum. This event 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 Sustainability Dashboard (www.sustainability-dashboard.com). We communicate how we address the issues raised by our stakeholders on our Vision 2020 Sustainability Roadmap and in the development of Vision 2030 (see page 27), our annual Sustainability Reports and our website.

We are a member of and take active participation in various associations, including the Indonesia Pulp & Paper Association (APKI), the Indonesia Forest Concessionaires Association (APHI), IBCSD (Indonesia Business Council for Sustainable Development), CGF (Consumer Goods Forum), TFA2020 (Tropical Forest Alliance 2020) and the UN Global Compact / IGCN (Indonesian Global Compact Network).



Asia Pulp & Paper
8th Stakeholder Advisory Forum
Jakarta, March 14, 2019

The 8th Stakeholder Advisory Forum was held on March 14th, 2019. We presented and facilitated stakeholder discussions covering a range of topics, including;

- Update on our progress against of FCP commitments
- APP's response to an assessment on its link with industrial forest plantations in Indonesia
- Update on our strategy towards land dispute resolutions
- Presented the results of an independent study on the carbon impacts of our FCP
- All presentation material and notes from the forum are available to download from our Sustainability Dashboard (www.sustainability-dashboard.com).

In some cases, the concerns and discussions raised by our stakeholders are too specific to respond to through broader engagement mechanism and a more direct approach is required. In these cases, we issue specific briefings or press releases to address issues raised. Regional Social Working Group (RSWG) (see page 66) are used in specific regions where our supplier's concessions are located, providing stakeholder engagement mechanisms to deal with issues related to land use rights.

Stakeholder engagement highlights in 2019:






- Providing feedback for national governments on key issues, for example sustainable forest management certification and procurement policies
- Attending COP25 in Madrid, using the opportunity to raise awareness and share our experiences of our community empowerment projects, demonstrate our support for the Government of Indonesia in achieving NDC targets through the implementation of our FCP and showcase how sustainable packaging contributes to the global circular bio economy
- Participated in a diverse range of interviews for media publications including Edie, Innovation Forum, Packaging Europe, Print Monthly, Office Products International, Forestopic, La Papeterie, Les Cahiers de l'Environnement & Radio 24 Italy
- Hosted a workshop to educate stakeholders on PEFC certification, in support of the Responsible Wood-PEFC partnership
- Attended New York Climate Week as part of UNGC Indonesia delegation, showcasing women empowerment and water initiatives
- Hosted mill visits for various media, NGOs and customers
- Participated in over 25 industry stakeholder events, including PaperWorld, RISI PPI Awards, Indonesian Business Forum, and Sustainability in Packaging 2019








Activities in forestry nursery facility

Our Stakeholders

GRI: 102-40

<p>Stakeholder Group</p>  <p>EMPLOYEES</p>	<p>Engagement mechanisms</p> <p>Satisfaction surveys, i-suggest portal, bipartite meetings</p> <p>Frequency</p> <p>Day to day, as necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Health and safety • Diversity and equal diversity • Business ethics
<p>Stakeholder Group</p>  <p>CONTRACTORS</p>	<p>Engagement mechanisms</p> <p>Direct engagement by mill procurement teams</p> <p>Frequency</p> <p>Day to day, as necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Health and safety • Business ethics
<p>Stakeholder Group</p>  <p>SUPPLIERS</p>	<p>Engagement mechanisms</p> <p>Direct engagement by APP Forestry and Chain of Custody Certification team for forestry products</p> <p>Direct engagement by APP's Procurement function for non-forestry related products and services</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Forest management practices • Third party certification • Supplier assessments
<p>Stakeholder Group</p>  <p>CUSTOMERS</p>	<p>Engagement mechanisms</p> <p>Direct engagement by global sales team and Stakeholder Engagement team, FCP monitoring dashboard</p> <p>Frequency</p> <p>Day to day and case by case as required</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • No Deforestation, No Peat, No Exploration (NDPE) and social standard • Product sustainability • Product carbon intensity • Chain of custody or product tracking
<p>Stakeholder Group</p>  <p>GOVERNMENT</p>	<p>Engagement mechanisms</p> <p>Direct engagement with APP Corporate Affairs team</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Pulpwood supplier management • Compliance • Environmental performance • Economic impacts

<p>Stakeholder Group</p>  <p>LOCAL COMMUNITIES</p>	<p>Engagement mechanisms</p> <p>Direct outreach from local CSR teams, communication forums between mills and local community representatives, FPIC processes, conflict management</p> <p>Frequency</p> <p>Day to day, as necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Employment opportunities • CSR programmes • Mills environmental impacts • Indirect economic impacts
<p>Stakeholder Group</p>  <p>NGOs</p>	<p>Engagement mechanisms</p> <p>Regional Social Working Groups, FCP update meetings and events, conflict resolution efforts, sustainability dashboard, Stakeholder Advisory Forum</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • NDPE commitment • Human rights • Land dispute management
<p>Stakeholder Group</p>  <p>INDUSTRY ASSOCIATIONS</p>	<p>Engagement mechanisms</p> <p>Engagement through associations such as Indonesia Pulp & Paper Association (APKI) and Indonesian Forest Concessionaires (APHI)</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Environmental performance • Industrial compliance • CSR programmes
<p>Stakeholder Group</p>  <p>MEDIA</p>	<p>Engagement mechanisms</p> <p>Media briefings, press releases, sustainability update events, mill visits</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Sustainability progress update • Mill CSR programmes • Products
<p>Stakeholder Group</p>  <p>ACADEMIC INSTITUTIONS</p>	<p>Engagement mechanisms</p> <p>Direct outreach from our sustainability division, joint research & study team, and local CSR teams based at our mills and forestry suppliers</p> <p>Frequency</p> <p>As necessary</p>	<p>Area of Interest</p> <ul style="list-style-type: none"> • Joint research and study • CSR programmes

Materiality

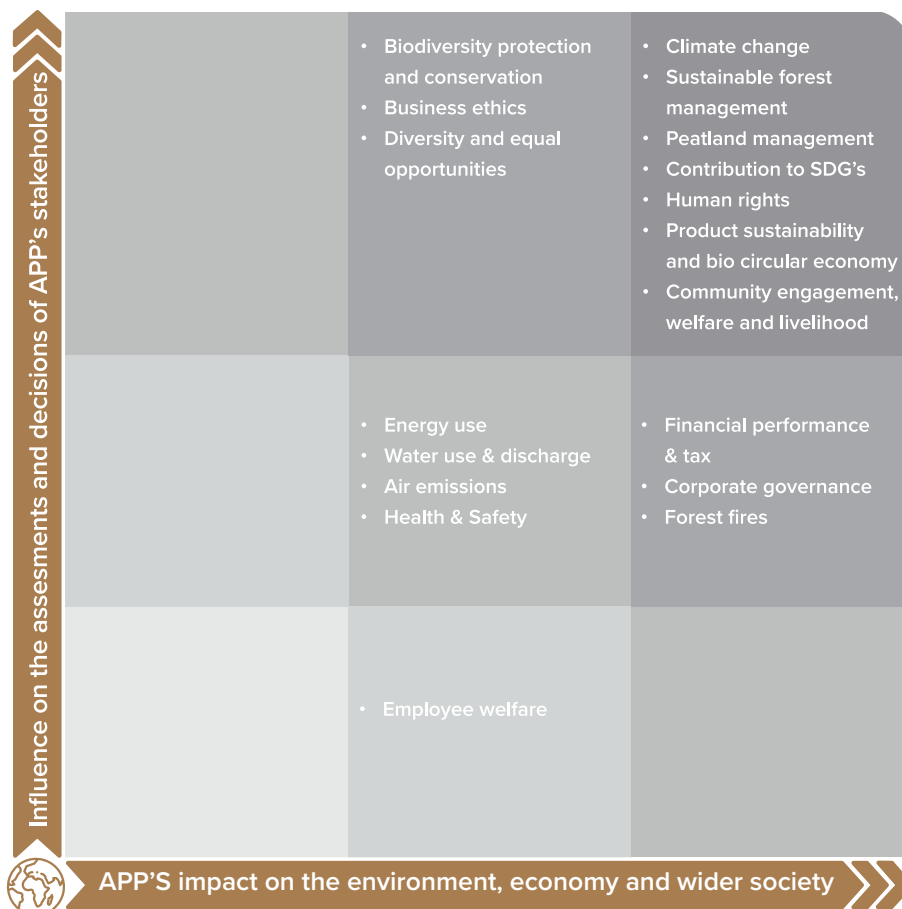
GRI: 102-47

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). This process was conducted through 2018 and 2019 and identified a range of long-term key issues for APP. In conducting our analysis, we considered stakeholder feedback from our Stakeholder Advisory Forums (see page 33), conducted focussed interviews with internal and external stakeholders, reviewed peers and other related industry sectors materiality assessments and researched media coverage. We also carefully considered the prominent global frameworks, such as the SDGs and both global and national legislative drivers and emerging trends.

We acknowledge that our stakeholders have a wide range of interests, some of which will not be captured in our materiality assessment. For such specific issues we engage in direct dialogue with stakeholders to respond to questions and discuss their concerns.

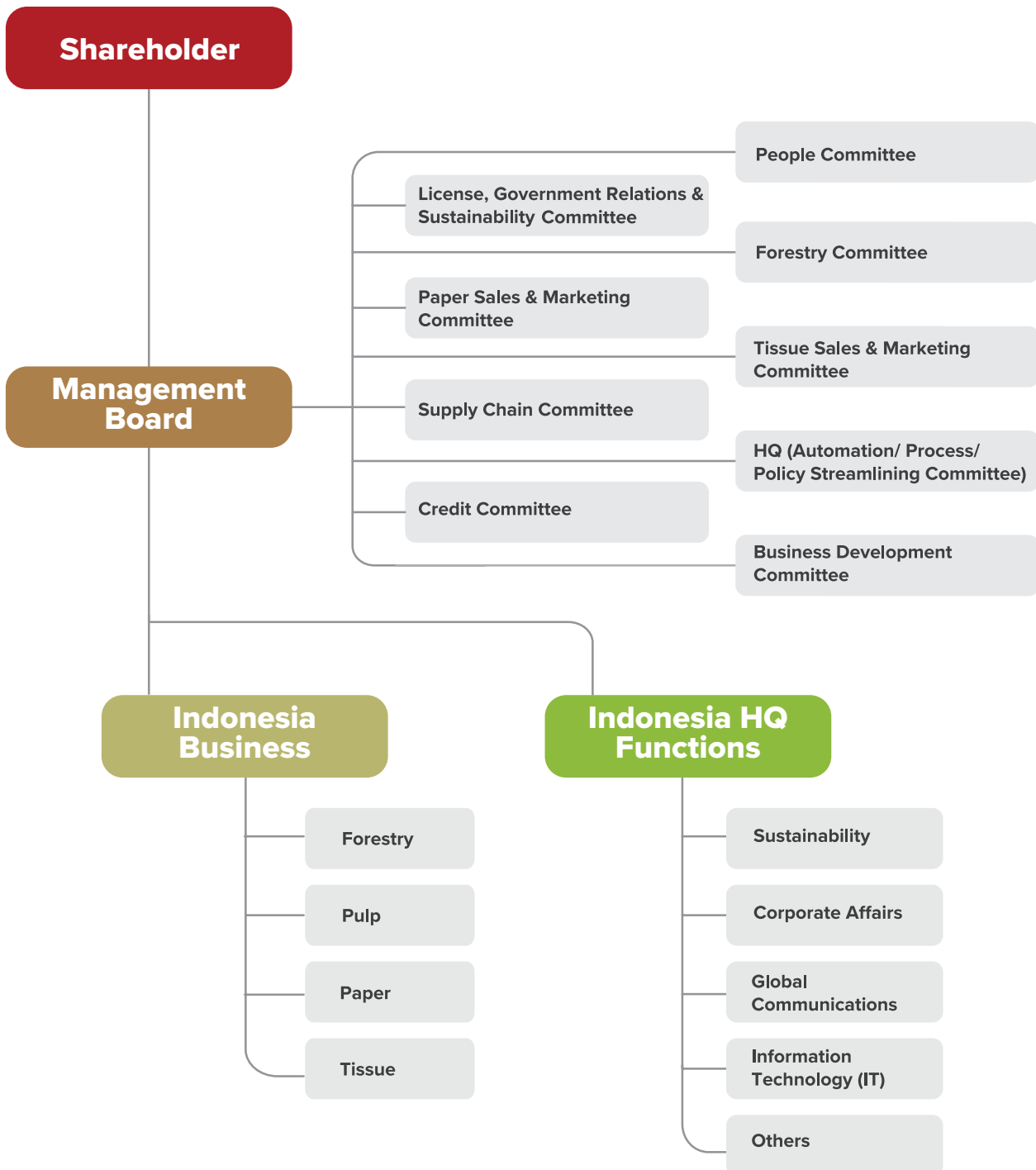
This year we update several issues in our materiality matrix. We added 'contribution to SDGs' as a specific high priority issue and removed 'indirect economic impacts', as these are covered within the SDGs indicators. We broadened 'community engagement' to 'community engagement, welfare and livelihood' to better reflect the broader range of the issue that sit within this term. We also broadened 'financial performance' to include 'tax disclosure'. 'Transport', 'local recruitment' and 'talent retention' were removed as lower priority issues.

Our approach to materiality is guided by the Global Reporting Initiative (GRI) and updated annually. How the issues in our materiality matrix correspond to GRI topics, including the aspect boundaries for each topic, can be found in the About this Report section on page 116.



Governance

GRI: Disclosure of Management Approach (Anti-corruption), 102-18, 102-19, 102-20, 102-21, 102-22, 102-23, 102-24, 102-25, 102-26, 102-27, 102-28, 102-29, 102-30, 102-31, 102-32, 102-33, 102-34



The Management Board consists of senior members of our management teams from across our business, each with their own specific responsibilities. Authority is delegated from the Management Board to several specialist sub committees who deal with specific areas relevant for each individual committee, review policies and procedures and appraise performance. All sub committees report back to the Management Board on a regular basis and communicate key issues to the wider organisation as appropriate.

The License, Government Relation and Sustainability Committee Board is headed by APP's CEO, members include APP's Deputy CEO, Managing Director, Business Unit heads and the CSO. The committee meets monthly, reviewing sustainability performance, overall direction and strategy, as well as any issues raised from stakeholders. The Ethics Call Centre is the main source for stakeholders to raise critical concerns, the management board maintain oversight of all issues raised, however most concerns are dealt with by the relevant committee and do not require escalation. For a breakdown of the concerns reported in 2019 see page 41.

The Management Board meet every week. Once a quarter, economic, environmental, and social topics will get raised with the Board for a detailed review. The team were involved in the development and approach of the Vision 2020 Sustainability Roadmap have been involved and signed off our Vision 2030 Sustainability Roadmap. Members of the highest governing body take part in interviews which feed into the Sustainability Report development process. The management team delegate the responsibility of the Sustainability Report review to the sustainability committee.

Sustainability performance of the Management Board is measured through a balanced scorecard approach, covering four focus areas; financial, customer, process and organisational. All Board members have a common scorecard, which is reviewed at least annually, however weighting of individual targets vary by role. The results of the balanced scorecard assessments help to guide the training needs of the Board. Across the

organisation, all employees at a management level and above receive 360 degree feedback.

We apply the same approach to employee diversity to the Management Board as we do the rest of the organisation; we appoint based on individual competencies and do not discriminate based on gender or social group. The Business Code of Conduct sets out our approach to maintain APP's integrity and reputation, the code applies to the Management Board as it does for the rest of the organisation.

In terms of how our individual mills are managed, each mill reports to the COO through the respective COO for pulp, paper and tissue divisions. Our mill KPI scorecard (see page 44) helps to track performance against Vision 2020 targets and we encourage a culture of sharing good practice and working collaboratively 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 at our website⁽³⁾.

The governance arrangement for each mills include a Nomination and Remuneration Committee who 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. 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.

{3}

Indah Kiat :
<https://asiapulppaper.com/documents/20123/0/INKP+Annual+Report+2019+web.pdf/ca68787b-1e84-1d48-8f99-45f1dfa02bcd?t=1595579998944>

Tjiwi Kimia:
<https://asiapulppaper.com/documents/20123/0/TKIM+Annual+Report+2019+web.pdf/51ba475e-1625-9d1a-3dd7-1e4de5209d1a?t=1595580030784>

Lontar Papyrus :
<https://asiapulppaper.com/documents/20123/150293/LPPI+Annual+Report+2019.pdf/72044fe5-43ce-4a78-8c90-e2cc8d97bf86?t=1593367395351>

Business Ethics and Risk Management

GRI: 102-17, 205-1, 205-2, 205-3

At APP we believe in holding ourselves to the highest ethical standards. We are committed to doing the right things in all that we do. This means acting honestly and treating each other and our customers, suppliers, partners, and communities fairly and with dignity. Our Business Code of Conduct (“BCoC”) has been developed to guide us with a set of standards of ethical conduct expected in operating our business.

APP’s 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. Our priority during 2019 was to operationalise this programme.

In our journey to enhance governance, an Ethics Committee was established in early 2019 to provide oversight to Senior Management. The Ethics Committee is comprised of key Senior Management members who convene to review compliance performance in APP and provide oversight for sensitive investigations.

The results of 2018’s Ethics Survey identified the need for Ethics and Compliance to enhance APP employees’ knowledge of the BCoC and Speak Up culture. In response, mandatory BCoC training was introduced and delivered through online and class room sessions. More than 24,000 APP employees attended these sessions. The BCoC program was extended to APP business partners (pulpwood suppliers) and other contractors in Indonesia. An “Ethics Week” campaign was held in late 2019 at key office locations and at the Perawang Mill to increase awareness of the BCoC.

In 2019 our Asset Protection programme focused on implementing the APP Minimum Security Standards in Tjiwi Kimia and OKI mill. ISO based standards has strengthened APP’s security governance framework. In 2020 there will be a continued focus on the continued implementation of this minimum standard and technologies to support APP’s path to Industry 4.0.



Employees in APP mills

During 2019, following a risk assessment that covered all mills, we started to develop a Bribery and Corruption programme, including a training course based on ISO 37001 standard for anti-bribery management system. In January 2020 we intend to host this training for our Procurement, Legal, Supply Chain, Audit, and CRI teams. Integrity Management team developed an Integrated Due Diligence Services Portal that automates APP's due diligence process for our suppliers and customers. This system is a collaboration with APP's Internal Audit Division (IAD) and provides an additional boost to APP's second and third line of defence in effective risk management and control.

Throughout 2019 Profit Protection focused on implementing fraud risk frameworks to more effectively prevent, monitor and investigate fraud related matters. Fraud risk assessments were conducted on identified critical areas and our case management systems were optimized to predict trends in fraudulent activities. Follow up investigations continued to focus on reducing fraud within our operations.

The Integrated Call Center (ICC) provides a platform for employees and external stakeholders to raise concerns, ask questions, make product enquiries, emergency handling and raise grievances. During 2019 there were 71 concerns raised; 29 of these were reported via the ICC and two were raised through our internal audit function. Forty concerns were reported directly to CRI. Of these reports, 30 required further investigations. During 2019, 16 employees were given formal warnings and 30 employees had their employment terminated as a result of the follow up investigation.



Paper jumbo roll as output of the paper machine

SECTION 4

Production

To maintain sustainability in our operation, we are committed to carefully and responsibly manage these resources, applying the precautionary principle in our approach to identifying and managing adverse impacts on the environment. By applying innovative design and ensuring the highest manufacturing efficiency in our mills, we directly support our customers' sustainability goals.



Waste Management



Efficient Use of Water



Supplier Compliance Mechanism



Emissions Monitoring



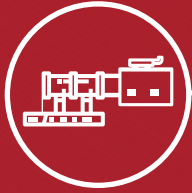
Water Reuse and Recycling



Efficient Use of Raw Materials for Fuel



1. Wood Preparation



A. Reausticizing

Lime kiln

2. Cooking



B. Evaporation



C. Recovery Boiler

57%

Renewable fuels



D. Power Generation

Energy Intensity decreased

11%

in 2019 compared
baseline (2012)

Carbon Intensity decreased

23%

in 2019 compared
baseline (2012)

3. Bleaching

4. Pulp, Paper & Tissue Product



E. Chemical Plant



F. Water Treatment

We are used & recycled

14%

of our water in processes in 2019



G. Waste Water Treatment

Reused, recycled or recovered over

450,581 tonnes

of waste in 2019

How We Work

GRI: Disclosure of Management Approach (Materials, Energy, Water, Emissions, Effluents and waste, Environmental compliance), 102-11

APP's production processes involve the use of various natural resources such as wood fibre, fuel, and water. To maintain sustainability in our operation, we are committed to carefully and responsibly manage these resources, applying the precautionary principle in our approach to identifying and managing adverse impacts on the environment. We adhere to local and national government guidelines, as well as maintaining third party certifications to global standards such as ISO 14001 (environmental management system) and ISO 50001 (energy management system). Our mills participate in PROPER (a government environmental evaluation programme), overseen by the Ministry of Environment and Forestry. For specific details of the various standards and certifications applicable to each mill, see page 12.

We use APP's mill scorecard and sustainability KPIs to monitor performance and track progress towards the Sustainability Roadmap Vision 2020. We have also aligned these scorecards with our new Vision 2030 as we transition to a new set of targets and commitment. In 2019 we made significant investments in our data collection systems, moving towards collecting online measurements in real time from one central operational data system. This provides us with a more granular level of detail and oversight across all of our production units.

Our APP Responsible & Sustainable Business Declaration and our Environment Stewardship Policy set out our commitment to sustainability and good governance in all our operations, and the responsible management of natural resources such as wood fibre, fuel, and water. 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.

Regular audits ensure policies and procedures are adhered to. We are keen to create a climate of collaboration between mills, sharing best practice and benchmarking data across all production units, which forms an integral mechanism to monitor performance against our Vision Sustainability Roadmap.

In this section of the Report we provide examples of the ways in which we are driving efficiency improvements across our business through long term capital investments in the latest technology and utilising our skilled technical workforce in identifying and delivering incremental improvements.



Dry pulp sheets. APP produces both wet and dry pulp.

Energy and Carbon Emissions

GRI: 301-1, 302-1, 302-3, 302-4

Energy efficiency is a key focus for all our mills, driven from both a sustainability and cost perspective. Our ability to generate electricity onsite has the most impact on our direct fossil CO₂ emissions, which also improves our cost efficiency. Where technically and commercially feasible we use renewable fuels. For our integrated pulp and paper mills we are able to utilise biofuel waste streams to significantly reduce fossil fuel use, while for paper mills the majority use a combination of renewable fuels supplemented with predominantly coal or natural gas. 7% of our emissions are related to purchased energy (scope 2 emission).

Our energy intensity decreased 11% by the end of 2019 compared to a 2012 baseline, achieve our target of 10% we committed to in Vision 2020 (GRI 302-4). However we achieved a carbon intensity reduction of 23% by the end of 2019 compared to a 2012 baseline, against a target of 10%, achieved predominantly by replacing fossil fuels with renewable fuels for energy generation (GRI 305-5). Today, we generate 57% of our energy needs from renewable fuels, compared to 49% in our 2012 baseline year. This represents an increase of over 52 million GJ of energy generated from renewable sources, which met 84% of our increased energy demand over the same period.

Because the majority of our energy demands are met by internal generation, we have a tight focus on how our mills manage operations and carefully plan capex investments to derive the greatest improvements and benefits. For example at our OKI mill, we have conducted regular energy audits to identify potential loss & opportunities for improvement in steam distribution. Several recommendations will now be considered, including optimising boiler and turbine loads, conducting additional preventive maintenance to reduce losses and improve efficiency, and modifying equipment to increase heat and steam recovery.

At Lontar Papyrus a similar audit took place during 2019, identifying opportunities for improvement to the compressed air system and boiler & turbine equipment. We envisage these changes will improve air circulation, allow better control of pressure settings and overall improve efficiencies and lower energy demands.

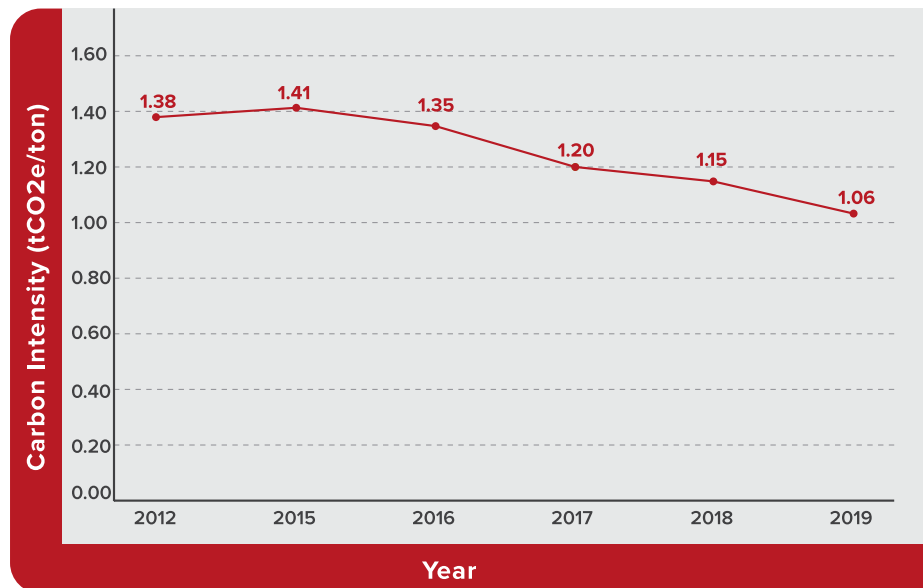
At Indah Kiat Serang, the team identified that the most significant opportunity to reduce carbon emissions was to increase the use of steam generated using renewable fuels (from biofuel). The technical challenge of these improvements related to the quality of steam produced, which was too saturated and ultimately created additional waste. Once these challenges were addressed the mill increased the amount of steam generated from biomass.

A significant investment programme at Ekamas Fortuna during 2019 focused on reducing fuel use and steam consumption. Rotary syphons were replaced with stationary syphons in the paper machine dryer section. The technology is a step change, reducing torque and therefore energy requirements, making steam use more efficient and allowing a greater degree of process control. By the end of 2019 we had installed some of the improved dryer rolls, with the project set to complete in 2020.

We are considering how to increase our solar power installations for less demanding applications across our sites. Our Ekamas Fortuna mill, for example, uses solar panels to power LEDs and we plan to increase solar power generation capacity in the coming years.

You can read about other climate mitigation activities in relation to forestry activities on page 62.

APP Carbon Emissions Intensity

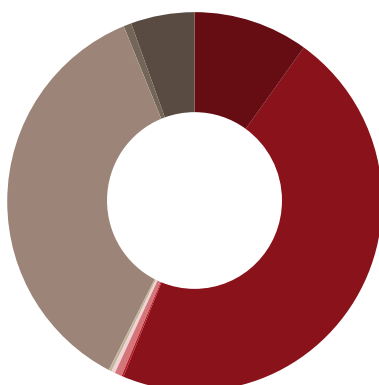


		2019	2018	2017
Scope 1	tCO2e	10,739,506	11,328,559	11,496,579
Scope 2	tCO2e	814,041	784,732	761,711
Biogenic	tCO2e	15,657,999	14,874,304	14,612,407
Carbon Intensity	tCO2e/t	1.061	1.152	1.204
Scope 3	tCO2e	6,444,488		
Scope 3 Biogenic	tCO2e	21,219,191		

GRI: 305-1, 305-2, 305-3, 305-4, 305-5

Note:

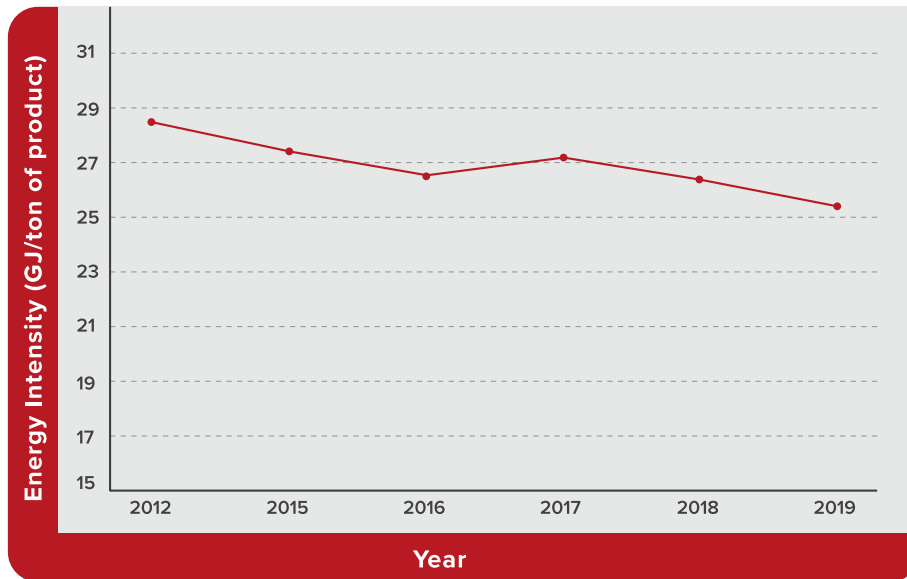
- GHG or carbon emission assessment is based on Intergovernmental Panel on Climate Change (IPCC) and World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) - Greenhouse Gas (GHG) Protocol methodology
- Fuel oil conversion factor is based on Pertamina specification
- GHG emission from waste water treatment assume zero due to well managed category of waste water treatment
- Scope 3 Emissions include Purchased goods and services, fuel and energy-related activities not included in scope 1 or scope 2, upstream transportation and distribution, waste generated in operations, downstream transportation and distribution, processing of sold products, end-of-life treatment of sold products



Energy generated by fuel source

Bark	9.9%	Methanol	0.2%
Black liquor	46.3%	Coal	36.3%
Sawdust	0.1%	Fuel oil	0.7%
Palmshell, Palm fiber & RCO	0.7%	Gas	5.5%
Sludge & Biogas	0.3%		

APP Energy Intensity



GRI: 302-1, 302-2, 302-3

Energy consumption	Unit	2019	2018	2017
Coal	Giga Joules (GJ)	99,453,848	102,200,208	105,420,877
Diesel Oil		840,130	4,166,238	1,513,006
Industrial Diesel Oil		53,278	45,289	89,805
Marine Fuel Oil		921,223	1,340,671	2,329,861
Gas		15,009,302	15,976,606	16,396,406
Total non-renewable (direct)		116,277,780	123,729,012	125,749,955
Bark		27,227,767	24,131,098	20,633,450
Black liquor		126,924,764	122,290,596	114,055,260
Sawdust		337,405	426,556	277,732
Palmshell		32,758	146,721	10,204,416
WWT Sludge		698,894	684,599	671,335
Biogas		95,477	49,076	76,353
Empty fruit bunches (tankos)		0	4,951	127,191
Palm fiber and Rubber Compound Oil (RCO)		2,027,390	2,377,631	1,568,729
Methanol		431,100	219,755	73,885
Total renewable (direct)		158,006,188	150,330,982	147,688,351
Purchased Electricity		3,292,749	3,221,247	3,126,749
Sold electricity		16,884	22,927	40,638
Total energy consumption		277,559,834	277,219,157	276,483,557
Energy intensity		GJ/tonne	25.46	26.04
Energy consumption outside organization	GJ	223,347,020		

Air Emissions

GRI: 305-7

By applying the latest processes technologies and Continuous Emissions Monitoring Systems (CEMS), we closely monitor and seek to minimise our emissions to air. Our main emissions are carbon dioxide (CO₂), sulphur dioxide (SO₂), nitrogen oxides (NO_x), and also fine particles, which originate from the combustion of fuels used to generate energy. The main influence we can have on reducing these emissions is through types of fuel used; by using a higher proportion of renewable fuels, and switching to cleaner types of non-renewable fuels such as our Tjiwi Kimia mill moving to a low sulphur coal. In 2019 all mill emissions met our regulatory requirements for air emissions, with the level of emissions at least 10% below these regulatory limits, in line with our Vision 2020 targets. For a full breakdown of emissions by mill, please see the data tables on page 121.

Waste and Materials

GRI: 306-2, GRI 301-1, 301-2, 307-1

As a part of our commitments to the concept of the bio-circular economy, we are committed to minimising waste and maximising the opportunities to reuse waste materials through 3R-Reduce, Reuse and Recycle, with the ultimate goal of maximising the value of resources at each life cycle stage.

We strive to maximize the use of all raw materials, so that nothing is wasted, and our processes maximise efficiency. Our main raw material is wood fibre - losses can occur through water and other waste streams, so we aim to minimise such losses, or develop processes that capture fibre before it is lost from our processes.

We generate most of our waste through our onsite power production and the pulp and paper making process. We turn by-products such as black liquor, bark, and other residues from forestry and pulping activities into energy sources that directly replace fossil fuels at our integrated pulp and paper mills. Besides diverting waste from landfill, these waste streams can be utilised in the energy generation process, helping to reduce the carbon intensity of our mills significantly.

As a clear commitment towards establishing our position within the bio-circular economy, we work closely with local governments to identify and secure licensing for innovative waste processing. Our Indah Kiat Perawang and Lontar Papyrus mills collect sludge

waste from their wastewater treatment and mix it with waste bark from the wood preparation area and bio ash to form soil conditioner. The calcium, magnesium and other micronutrients neutralise acidity on the top layer of soil and enhance forestry growth, so is spread in new growth areas of forest to boost growth rates.

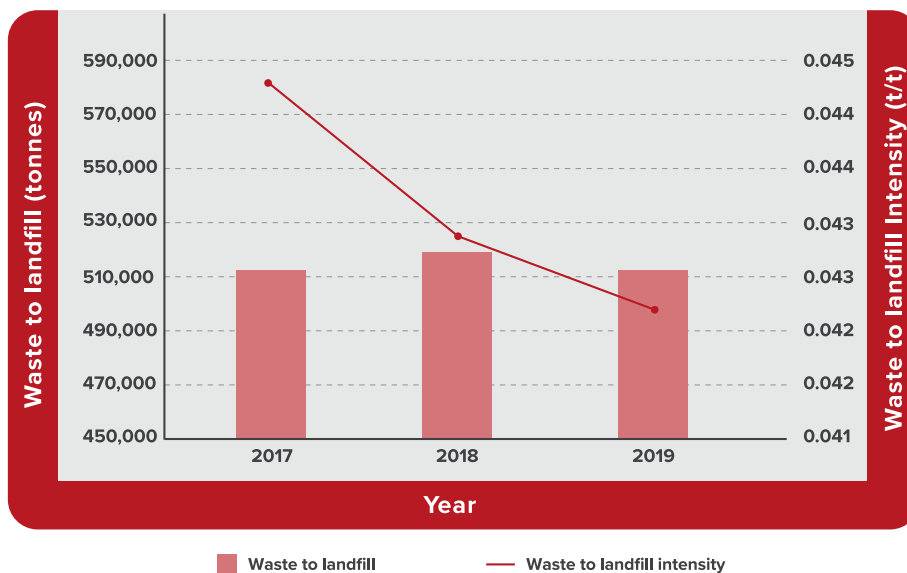
Calcium carbonate is used in a recausticizing process at our Lontar Papyrus mill. We began trials using Calcium Oxide (quicklime) as a substitute to reduce the amount of calcium carbonate we were using, consequently reducing the amount of solid waste generated, such as dregs, grits and lime mud, in the process. As a result of this project and many other similar waste reduction programmes the mill has achieved a 10% reduction in solid waste in 2019 compare to 2018.

An incident of non-compliance to Government regulations with regards to waste to landfill permits was reported in 2019 by our OKI mill. We acted upon the written warning and took the relevant corrective actions.

Production (tonnes)	2019	2018	2017
Pulp	5,959,426	5,635,000	5,254,000
Paper, packaging, stationery	5,707,484	5,625,000	5,648,000
Tissue	890,093	810,000	658,000
Total (exclude chemicals)	12,557,003	12,070,000	11,560,000
Chemicals	2,647,631	2,584,385	2,482,380
Total	15,204,634	14,685,909	14,042,802

Materials (tonnes)	2019	2018	2017
Material for pulp production			
Pulpwood	20,679,761	21,525,654	19,770,423
Chemicals	1,948,854	2,345,640	2,372,647
Material for paper production			
Virgin fiber	3,471,909	3,396,492	6,942,194
Recycled fiber	1,977,564	1,869,368	3,773,228
Chemicals	1,447,059	1,475,459	1,629,462
Packaging material	781,995	475,918	282,881
Total renewable	26,911,230	27,267,432	30,768,726
Total non-renewable	3,395,912	3,821,100	4,002,109
Recycled material for paper (%)	36%	35%	35%

Waste to Landfill Intensity



Water

GRI: 306-3

Water is a vital resource in our operations, we use it in various stages of the pulp and paper manufacturing process. Applying the latest production technologies, we are constantly working to reduce our water consumption, reusing and recycling this vital resource at every opportunity. We achieved a water intensity reduction of 31% by the end of 2019 compared to 2013 baseline, against a Vision 2020 target of 10%. In 2019 we reused & recycled 14% of our water in processes, reducing our demand for fresh water.

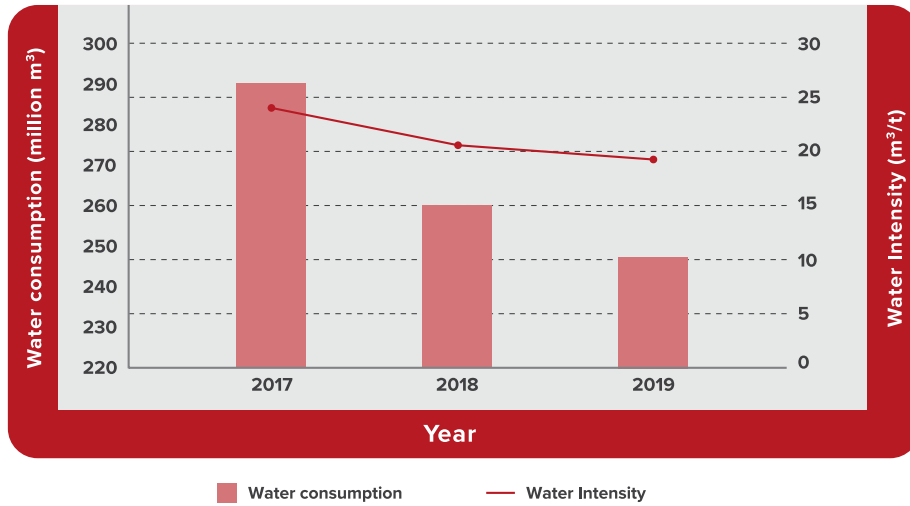
Water plays a key role in our production processes, predominantly for generating steam, heating, cooling and cleaning. In most of our mill locations, water is relatively abundant. However, water scarcity can impact our operations, particularly during the dry season. We must also closely monitor water quality, for example measuring salt content at our OKI mill whose river water source can suffer from sea water ingress.

At Indah Kiat Serang, we minimised the use of fresh water by increasing wastewater reuse and are conducting a feasibility study for installing a reverse osmosis system to reuse effluent water for areas of production where this quality of water would be acceptable and fit for purpose. Water balance improvements, particularly when producing cup stock on Paper Machine 6 further reduced our consumption. Clean and flushing equipment and working practices were modified, as well as efficiency improvements in our de-inking process. A number of additional investments saw the upgrade of our bio sludge plant too, which will reduce COD (a measure of water quality) effluent.

Ekamas Fortuna focussed on driving down water use through process efficiencies, driven by a vigorous approach to water management, awareness and equipment repair. Recycling effluent and converting it into water for production helped drive down demand for fresh water. The mill saw a 8% increase in water recycle and reuse from 2018 to 2019.

We also recognize that our responsibility to protect local water sources at all of our mill sites. Therefore, we control our water intake and ensure that our water-discharge meets the highest environmental standards before it is returned to source. At each mill location, minimum water standards are set by the relevant authorities, with regular testing conducted to ensure compliance. In 2019, all discharges met, as a minimum, the government limits for wastewater quality.

Our Pindo Deli 3 mill received a written warning for wastewater discharge quality into the Citarum River on 7th May 2019. The mill contained the spillage within two hours of detecting the issue, which was caused by bad weather. We identified that the mill's wastewater treatment plant could be improved to prevent a reoccurrence, so we ceased operations for one month to investigate and rectify the situation. The local authorities granted us permission to restart production following the modifications we made. We plan to make long term improvements to the wastewater plant during 2020.



		2013 baseline	2017	2018	2019
Water used for production	m ³		277	247	234
Water intensity	m ³ /t	27.0	23.9	20.4	18.6
Reduction			-11%	-24%	-31%
Water reuse	%		14%	15%	14%



Mill waste water treatment facility

Product Innovation

At APP, we understand that our products provide the opportunity to support our customers in achieving their sustainability goals and play a role in the global circular economy. Using only responsibly sourced fibre, we aim to utilise increasing amounts of renewable energy and to minimise energy, water and waste intensities. We also aim to increase the range of products where we can demonstrate their low environmental footprint and can offer alternatives to plastic based products.

As part of the global industry, pulp and paper making process presents opportunities to create positive environmental impact. APP aims to produce innovative products with competitive environmental footprints that contribute to the circular economy, while also serving the purpose for our customers. To do that, we focus our long-term investment and R&D efforts to come up with new types of products that are manufactured through improved processes in order to minimise impacts. The landscape for consumer paper-based products has changed rapidly in recent years. At APP we closely follow technological innovations and the relevant consumer and governmental drivers to

identify opportunities for innovation and understand how the markets and expectations for our products are changing.

A number of drivers are at play today; the move to light-weighting products, where we use less fibre to achieve the physical properties, the ability to form and shape paper products, and the move towards replacing plastic-based products with fibre based solutions. Biodegradability is also a key issue for our customers, which means we must ensure any coatings we apply to our products are designed with this in mind.

In response to the changing market requirements we have switched a number of our paper machines to producing cup stock, as consumers move away from plastic based equivalents. We've also responded to the increase demand for paper straws, as plastic straws were banned across many markets. Paper grades based on recycled content has also grown, again in response to consumer demand, as has the paper for digital applications segment.



Quality control activity at paper converting

Foopak Bio Natura, Our Solution to Safer and Better Food Packaging

Foopak Bio Natura is our food packaging solution that uses 100% virgin pulp, a natural pulp produced directly from highly selected woods. It is made of high-quality ingredients with rigorous production standards, making it sterile from harmful compounds.

We do not use recycled paper in the production process for Foopak Bio Natura, as recycled paper might contain lead, a heavy metal that will potentially endanger people who consume the food it contained. Foopak Bio Natura is certified to international level safety standards (FDA, ISEGA, ISO).

There is no chemical migration from the paper packaging to the food product it contains, unlike, for example, polystyrene foam. Widely known as styrofoam, this material is not only non-biodegradable but also dangerous for health. Styrofoam contains Benzene and Styrene, oil-based substances the World Health Organization has classified as a possible cause of cancer. These toxic agents can quickly leach when in contact with hot, oily, or acidic food and beverage.

Bio Natura Cup has a 12-week composability making it easy to be recycled and also safe for the environment if recycling infrastructure is not available to the consumer. You can read more on our official website or our product page.



SECTION 5

Forest

Asia Pulp & Paper (APP) Sinar Mas is committed to achieving sustainable forest management, balancing conservation with production aspects through a landscape approach. We work to protect and restore natural forest in concession areas as well as improving forest management to ensure sufficient supply of raw material from our suppliers pulpwood plantations to supply our pulp mills. The challenges inherent in the effort to protect natural forest cannot be overstated. Threats in the form of activities such as illegal logging, encroachment as well as forest fire remain, so our approach is to continuously monitor and address these threats directly, while providing alternative livelihoods and supporting community empowerment activities that reduce the risk to forest protection.

As a responsible business, APP aim to support the Government of Indonesia in achieving its Nationally Determined Contribution (NDC) target, of which forestry protection plays a significant role through the way that areas of forestry and peatland can store carbon dioxide.





FCP Achievement in 2019



ZERO

Natural forest conversion by APP Pulpwood supplier since 2013



100%

Pulpwood supply from plantation



1.69%

of concession area impacted by fire in 2019



51%

Land disputes resolved



324

villages involved into the DMPA programme



0.35%

forest cover change in protected area in APP suppliers' concessions



100%

coverage of Sustainable Forest Management

Certification



PEFC-SFM

Programme for the Endorsement of Forest Certification - Sustainable Forest Management

Coverage

2018

91%

2019

92%



PHPL-VLK

SVLK. Timber Legality Assurance System

Coverage

2018

100%

2019

100%

How We Work

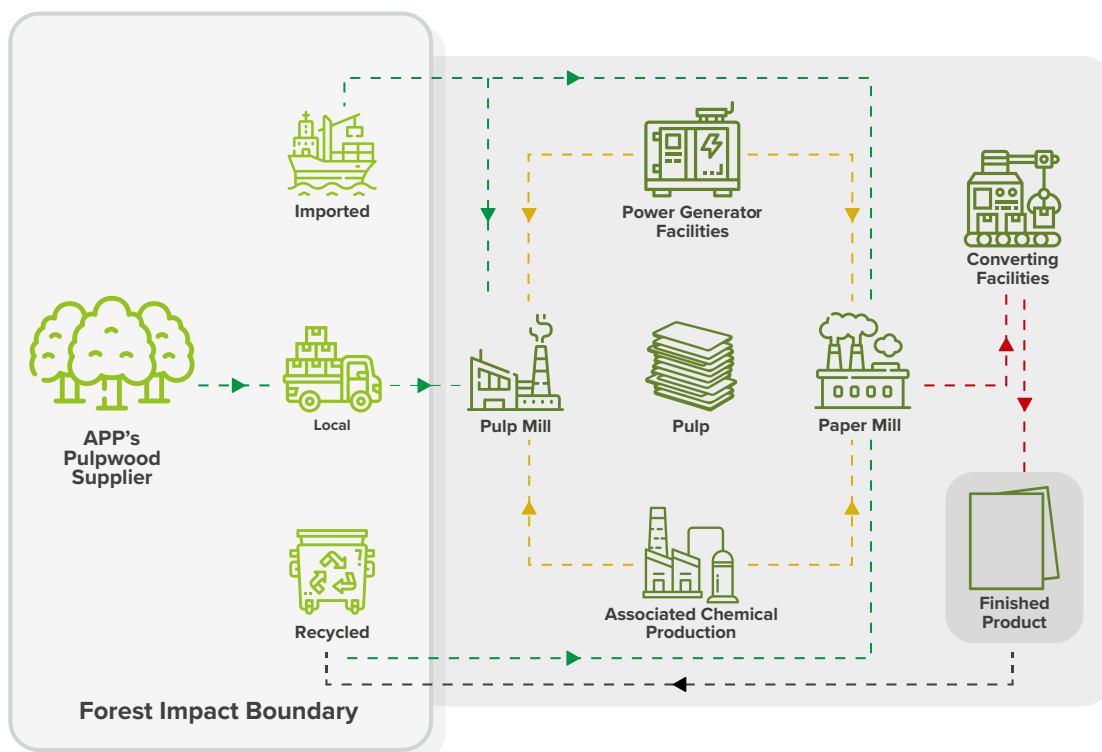
GRI: Disclosure of Management Approach (Biodiversity)

To ensure that our supply chain is free from deforestation, APP requires all pulpwood suppliers - current and potential, to comply with our Forest Conservation Policy (FCP) as well as our Responsible Fibre Procurement and Purchasing Policy (RFPPP), which provides an overarching framework for the specific processes and criteria that we use in evaluating their compliance with our FCP.

To achieve the commitments of our FCP we use various tools to support and guide us, such as Sustainable Forest Management certification and HCV/HCS assessments. Our Supplier Evaluation and Risk Assessment (SERA) tool provides a screening for suppliers, assessing them based on the FCP commitment as well as global standards for Sustainable Forest Management.

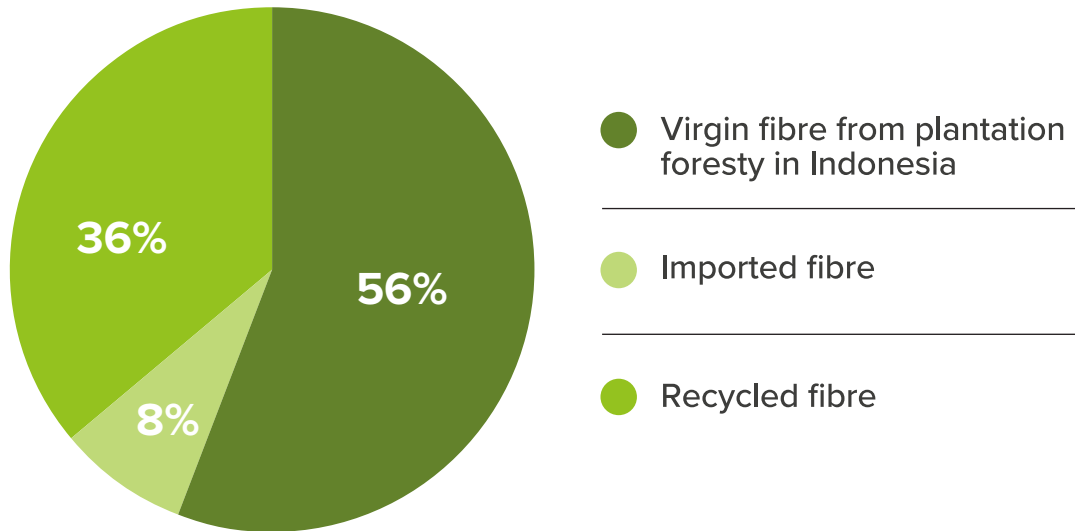
Our Forestry Value Chain

GRI: 102-8, 304-1, 304-2



The majority of our wood fibre is sourced from pulpwood plantations in Indonesia, through APP's pulpwood suppliers. This provides the raw material to our three integrated pulp and paper mills; Indah Kiat Perawang, Lontar Papyrus and OKI mill. The mills produce pulp for their own consumption, as well as supplying our paper mills. We supplement this supply with a small amount of imported pulp. Our Ekamas Fortuna, Indah Kiat Serang, Pindo Deli Karawang and Tjiwi Kimia mills also use recycled fibre.

2019 Fibre Source

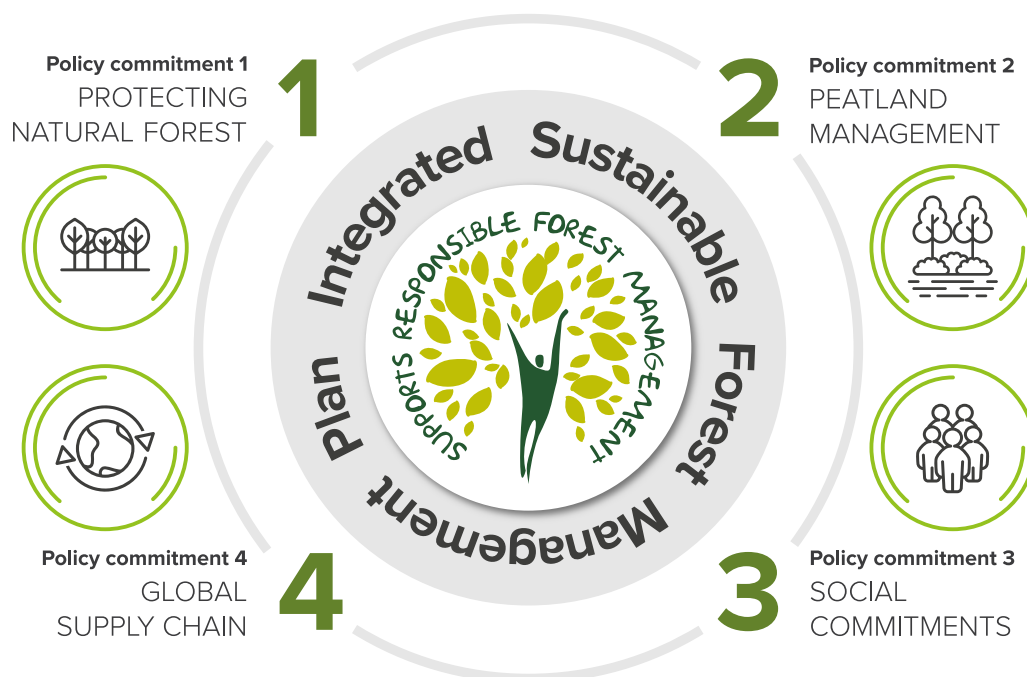


All our wood fibre suppliers, both continuous and one-time, must first be approved through our Supplier Evaluation and Risk Assessment (SERA) process. We only accept wood fibre sourced from area that was not converted from forest area identified as High Conservation Value (HCV) and/or High Carbon Stock (HCS) after of February 2013 (see page 73). Our continuous pulpwood suppliers currently comprise 33 pulpwood supplier companies who manage 38 concessions (forest management units based on government forest concession licenses). APP has shared ownership in nine of these 38 pulpwood supplier concessions. In addition, there are three Community Forest suppliers, and a small number of one-time suppliers, also supported by our forestry management team.

We also purchase wood from outside of our concession areas in Indonesia and import wood from overseas. All of our externally sourced wood is compliant under Sustainable Forest Management scheme either to PEFC, PEFC Controlled Sources, FSC, the FSC Controlled Wood standard or PHPL-VLK (SVLK) (see page 61). Despite not being under APP’s direct ownership, we have a responsibility to manage and monitor their activities. The FCP applies to all pulpwood suppliers, irrespective of ownership.

The complete list of APP pulpwood suppliers is available in our sustainability dashboard. We also disclose a summary of the risk assessment report of all potential suppliers.

Forest Conservation Policy



Launched in 2013, APP's Forest Conservation Policy (FCP) forms the central strategy for managing and monitoring our pulpwood suppliers.

Since the inauguration of the FCP in 2013, APP has:

- Held its pulpwood suppliers to the highest standards of conservation and carbon stock distribution.
- Set a side around 600,000 ha (approximately 21% of our pulpwood suppliers' total concessions area) as protected forest within the concession.
- Retired 7,000 hectares of pulpwood plantation located on critical peatland for conservation purpose.
- Introduced the Desa Makmur Peduli Api (DMPA) program, based on the Integrated Forestry and Farming System (IFFS) concept. This initiative has contributed to improved community welfare through constructive engagement and the responsible empowerment of local communities in 324 villages.
- Developed and launched an Integrated Fire Management program to prevent and mitigate land and forest fires.
- Joined the Mangrove Ecosystem Restoration Alliance (MERA) to protect and rehabilitate mangrove ecosystem in northern coast of Jakarta, and partnered with the Martha Tilaar Group in a women empowerment program in rural areas around APP suppliers and mills operation.

FCP Achievements in 2019



ZERO

Natural forest conversion by APP Pulpwood supplier since 2013



0.35%

forest cover change in protected area in APP supplier concessions



324

villages involved into the DMPA programme



100%

coverage of Sustainable Forest Management



1.69%

of concession area impacted by fire in 2019



Kelulut honey at Mengkiang Village, one of our DMPA programs

Sustainability Dashboard

Home / Suppliers

APP Indonesia's Pulpwood Suppliers

APP's pulpwood suppliers have gone through a robust SERA (Supplier Evaluation and Risk Assessment) process to ensure that the pulpwood we source originate from responsibly managed plantations.

Below are the list for pulpwood and woodchips suppliers that have supplied to APP Indonesia operation.

APP INDONESIA LONG-TERM PULPWOOD SUPPLIERS	APP Indonesia Long-term Pulpwood Suppliers = pulpwood suppliers who supply exclusively to APP Indonesia, under a long-term contract period.
APP INDONESIA'S APPROVED CONTINUOUS SUPPLIERS	<ul style="list-style-type: none">RiauJambiSouth SumatraWest KalimantanEast Kalimantan
APP INDONESIA'S APPROVED ONE-TIME SUPPLIERS	
APP INDONESIA'S APPROVED COMMUNITY FOREST SUPPLIERS	

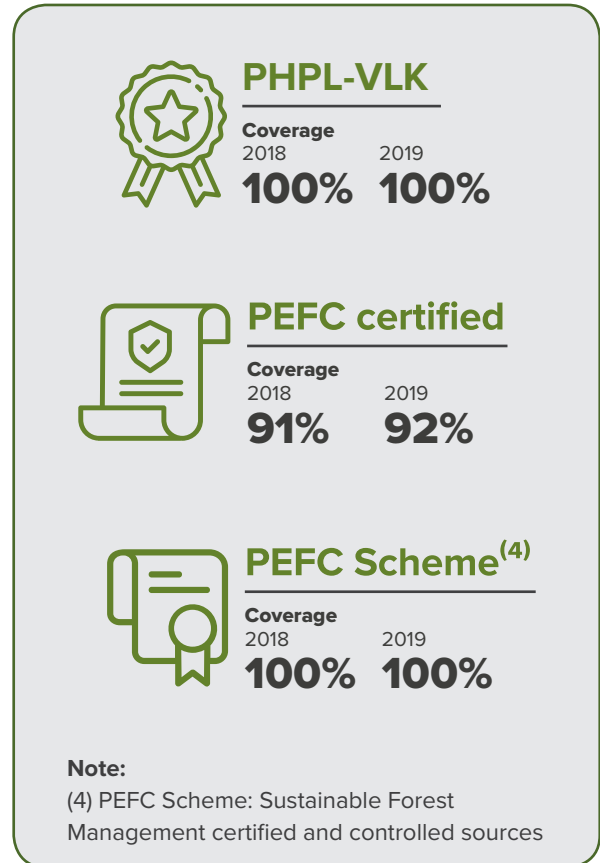
APP's sustainability dashboard provides access to up-to-date reporting of our Pulpwood Suppliers activities, relevant policies, tools and stakeholder dialogue. We plan to improve the dashboard in 2020, making information about our FCP more accessible and disclosing more details on the progress against our Sustainability Roadmap Vision 2030. <https://sustainability-dashboard.com/>

Certification

When we launched the first Sustainability Roadmap in 2012, we set a goal to achieve 100% of our pulpwood suppliers to be certified by independent, third-party forest certification schemes. We have achieved the goal; **100% of our pulpwood suppliers are certified under various third-party sustainable forest management certification schemes available and we plan to maintain this in the years to come.**

Third party certification is a vital tool in demonstrating that our fibre is sourced sustainably. Certification covers two key aspects of our supply chain – the forestry practices and the traceability from forest to our mills, commonly referred to as ‘chain of custody’. As well as providing APP with assurances, these certifications also allow us to meet the requirements of our customers, many of whom require that we provide certification as part of their responsible sourcing commitments.

At the end of 2019, 100% of our suppliers’ concession areas are compliant to PEFC scheme. 92% are PEFC Sustainable Forest Management certified while the remaining 8% are categorised as PEFC Controlled Source. We will continue to expand the scope of our certification program in 2020, increasing the percentage of PEFC certified area.



PEFC is an umbrella organisation and mutual recognition scheme of national standards – e.g. IFCC in Indonesia. PEFC was set up as an endorsement process, to assess independent national forestry management standards against internationally recognised criteria for sustainable forest management. PEFC bases its sustainability benchmarks on globally recognised principles, guidelines and criteria developed by international and inter-governmental bodies with broad consensus from a broad range of stakeholders. Any national certification system seeking to obtain PEFC endorsement must submit to a comprehensive and rigorous assessment process, including independent evaluation and public consultation. A full final report of this process is then made publicly available, and national systems are required to revise their schemes every five years. PEFC uses internationally recognised requirements for certification and accreditation defined by the International Standardisation Organisation (ISO) and the International Accreditation Forum (IAF).

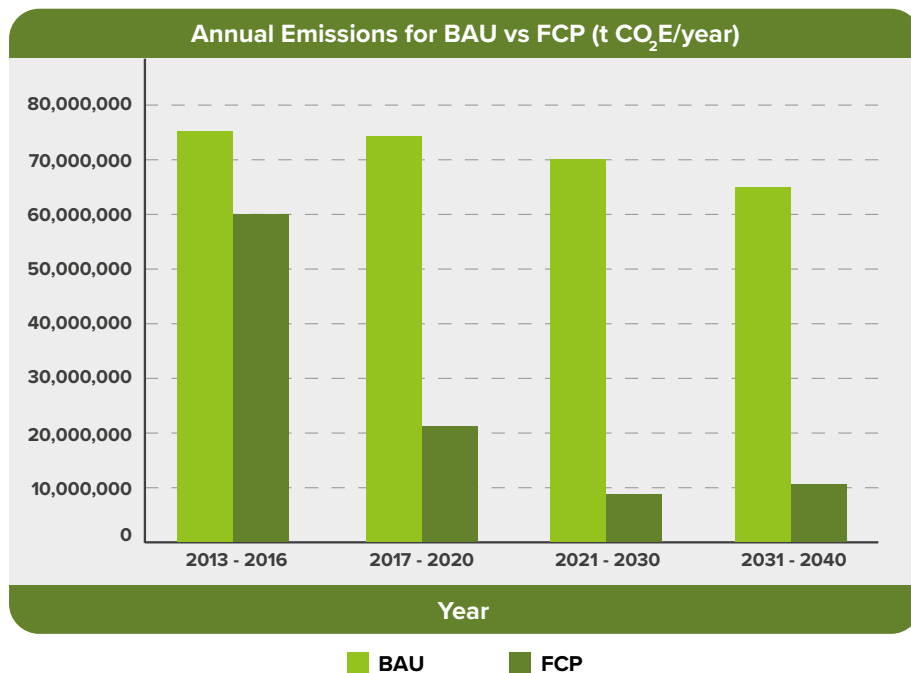
PHPL-VLK is a mandatory certification which helps to assure timber legality and removes the need for our customers to carry out due diligence for fibre traceability themselves.

Avoiding Carbon Emissions

APP is fully committed to supporting the Government of Indonesia Low Emissions Development Goal relevant to The Paris Agreement, which sets out a target to reduce emissions by 29% by 2030. Our Forest Conservation Policy (FCP) helps avoid carbon emissions compared to ‘business as usual’, through sustainable forest management, preventing forest fires and protecting peatlands.

In 2018, we engaged independent consultant Ata Marie to analyze carbon emissions avoided through implementation our FCP since 2013, and a projection of long-term carbon emission avoidance in the future. In the study, two scenarios of land use change (area and rate) are modelled, Business as Usual (BAU) and FCP. The study found that for the period 2013-2016 the avoidance of emissions is primarily due to the implementation of our FCP since 2013.

The assessment also showed that our integrated fire management programme and peatland management from 2017 and 2019 respectively are the most significant activities that led to specific carbon avoidance. We can forecast that the major potential for long-term emissions avoidance are from peatland rewetting and reduction of fire in peatland areas. There are initially significant emissions avoidance from no deforestation, but potential savings from these will reduce over time.



Implementing our FCP has achieved :

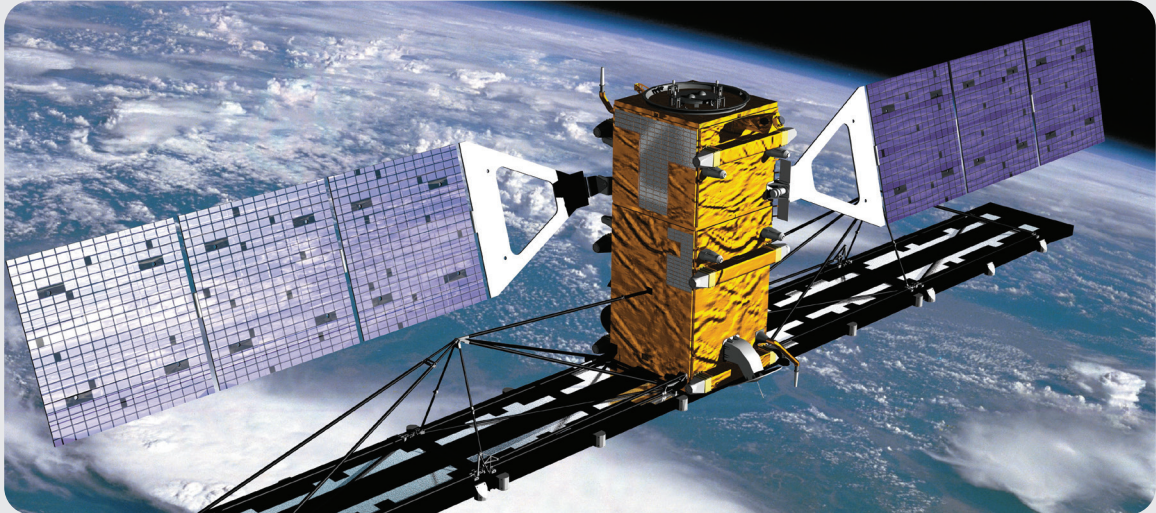
64%

avoidance in annual carbon emissions compared to Business as Usual

44 million

metric ton CO₂e/year of carbon avoidance compared to Business as Usual

RADARSAT-2 Case Study



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.



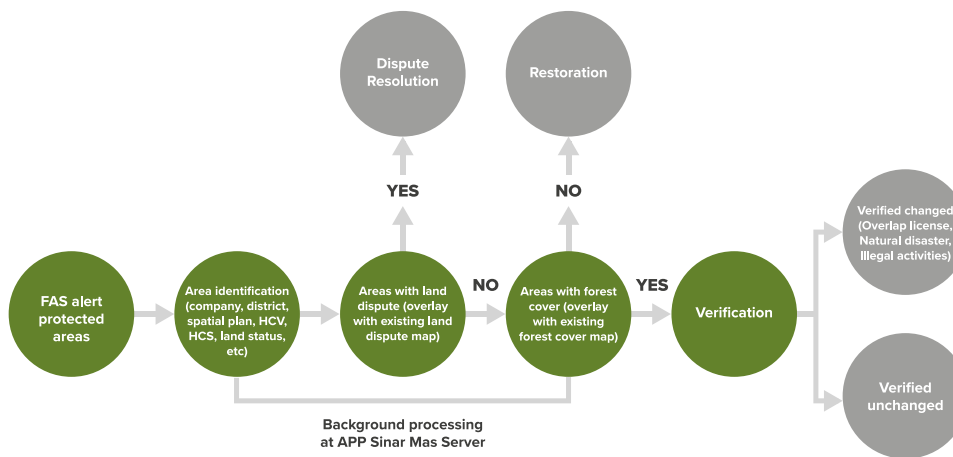
This system enables the detection of encroachment, illegal logging, forest damage due to natural causes, or infrastructure changes .



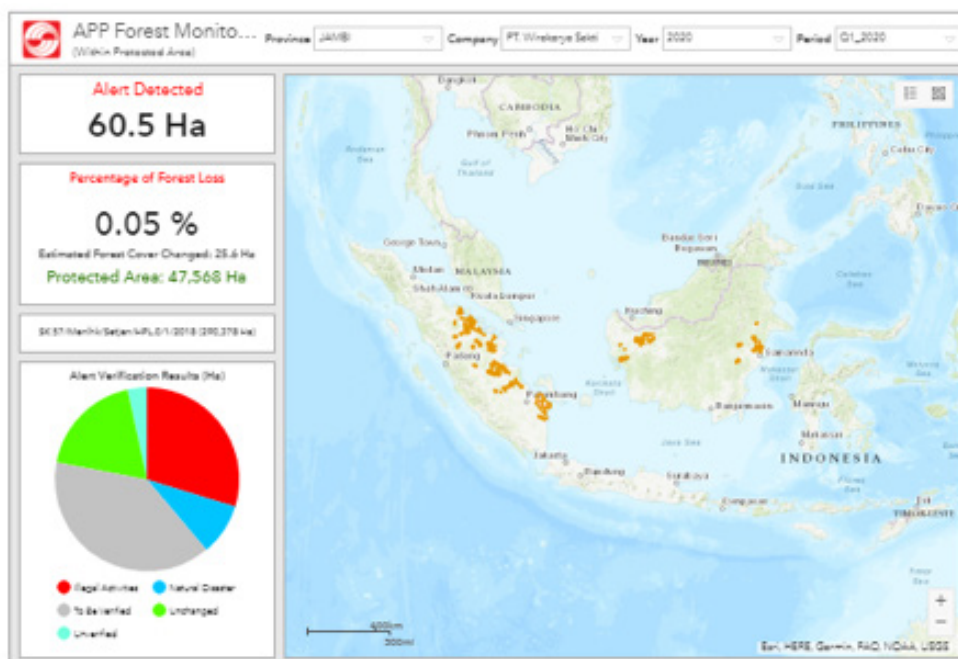
RADARSAT-2 can identify a single tree that has been removed from the forest canopy.

In 2019 we continued to apply the latest satellite technology to monitor and respond to forest cover change. We monitor 3.6m hectares of production forest and conservation area, including the Giam Siak Kecil – Bukit Batu biosphere reserve (GSK-BB). The fine resolution allow us to detect event the subtlest change in forest cover. We use the data to map forest cover change, which can be caused by encroachment, illegal logging, or natural changes. As well as providing a vital tool to respond to land use change, we are also able to monitor the impact of our FCP over the long term and understand how our actions are reducing the risk of land use change. The technology provides vital data for remote areas of forest that are difficult and time consuming to monitor manually. The data feeds into our Collaborative Conservation Management and SMART Patrol too (see page 82 and 83). In 2020 we will shift our focus towards protected areas as defined by our HCV and HCS assessments (see page 73), allowing us to concentrate on the area’s most at risk of forest disturbance.

Process flow for monitoring forest cover change



In 2020 we plan to make image data available to stakeholders through our sustainability dashboard. As well as providing image data, we will also report the number of incoming alerts and estimate forest cover change. We will also continue to improve our manipulation of image data. As the quantity of data grows, we will be able to gain a better understanding of overall forest health and biodiversity values remotely.



Land Dispute Management

GRI: Disclosure of Management Approach (Rights of indigenous peoples), 410-1

The majority of the land disputes we experience relate to villages within concessions, but in some cases they concern villages that become established after a license to manage concession is granted. The issues are often complex and multi-faceted, involving customary land rights, access for livelihoods, illegal land trade and speculation, land use without permission, or concession overlaps. Not managed correctly, land disputes can create social tensions and negative environmental impacts through forest clearance.

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

There are several intrinsic challenges in managing land disputes that we identify and constantly look for ways to improve. Community politics could be complex, and trust takes time to be built. External parties can add additional complexity, with conflicting interests which we must consider, too.

APP has developed a range of measures to identify and effectively resolve land disputes. These include:

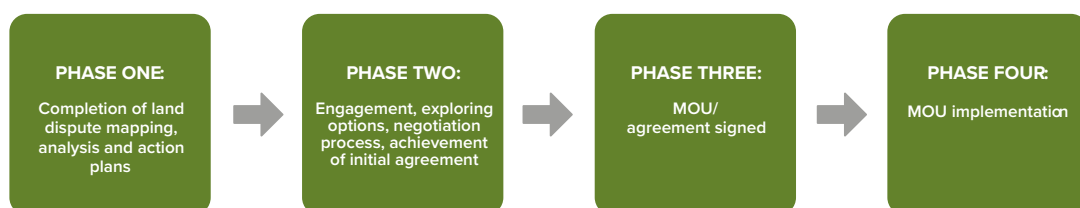
- Land dispute mapping
- Work plans to address each land dispute and implement the plan
- Acceleration of land dispute resolution as part of Key Performance Indicators (KPI)
- Establish Social and Security Division (from HQ until district level) to handle land dispute resolution
- Develop SOP for land dispute resolution
- Establish Social Working Group Regional (SWGR)

Together with the Earthworm Foundation (formerly TFT, or The Forest Trust), in 2013 APP conducted land dispute mapping across its pulpwood suppliers' concessions area in Indonesia. We have since trained all managers on how to undertake land dispute mapping and practical methods for developing action plans to resolve land disputes. As part of this, we have developed a methodology for classifying different levels of land disputes which helps to inform our decisions on how best to allocate resources for effective resolution.

APP classifies land disputes into the following typologies :

1. Villages inside concession
2. Customary land
3. Livelihood
4. Land speculators
5. Non-procedural land use (by other parties, public/private actor)
6. Overlapping licenses.

Land disputes resolution stages



APP considers the land dispute has reached its resolution when it already in phase III & IV, where the agreement has been reached and/or points of agreement has been implemented. At the end of 2019, 51% of recorded disputes were classified as resolved.

In 2019 we improved our dispute reporting system, reducing the number of dispute classifications to simplify reporting. There were no identified incidents of human rights violations involving the rights of indigenous peoples during the reporting period.

To further enhance the land dispute management process APP formed and conducted Regional Social Working Groups (RSWG) in Jambi, South Sumatra and Riau Provinces. The engagement mechanism acts as a platform to accelerate the land dispute resolution process by involving key stakeholders, including community representatives, CSOs, government representatives and academics, to discuss land disputes in the region.

The RSWG will continue to host routine meetings to discuss progress and challenges of land dispute resolution processes and find solutions key cases put forward for discussion. At the end of 2019, the RSWG consisted of 18 core member institutions (typically represented by 2-3 stakeholders) and 3 observer institutions.

As we reported in our 2018 Sustainability Report, a land dispute case within our Pulpwood Supplier, PT. Wira Karya Sakti (WKS) saw an ongoing dispute continue in Jambi. In the most recent case, the Serikat Tani Mandiri Batanghari farmer group laid claim to more than 8,000 hectares of PT. WKS land.

This group continues to ask for compensation relating to past and ongoing allegations. The RSWG platform is being used as the primary mechanism to understand the activities and opinions of all stakeholders involved, and these discussions continue.

APP has been working with EcoNusantara Lestari on land dispute management resolution. In 2018 we worked together on a pilot project in two villages in Riau: Mak Teduh and Tanjung Air Hitam. The aim of the pilot project was to improve dispute resolution procedures, especially with respect to contested village borders inside concessions. In 2019 we continued our partnership, working together to develop a platform for mapping in South Sumatra. Two pilot villages were selected for the initial programme. Before a visit is conducted, social mapping is conducted. At this point any current land dispute or potential land dispute are put forward for discussion. We hope to report that a Memorandum of Understanding will be signed during 2020 in the Riau cases. In the South Sumatra pilot programme we are at the stage of organising the stakeholder presentation meeting, which has taken longer than expected due to the unique nature of the village, which includes minority migrants that have come from outside the village and settled in the concession area.

Based on the lessons learned from our work with EcoNusantara, we will develop a practical guide that sets out a step by step process to map areas used by the community within APP suppliers concession and the characteristic and history of the land uses. The end result of implementing these steps are agreed functional boundaries and schemes of resolutions between APP suppliers and the relevant communities.

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 sustainability dashboard 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.

Reporting concerns

To ensure transparency in the implementation of our FCP, APP believes that interested stakeholders can be a constructive partner to help us improve the implementation of a sustainable FCP. Their inputs and concerns are very important to us. Therefore, we developed a procedure to address any grievance that our stakeholders have identified related to the implementation of our FCP. Our Grievance Procedure and channel to report concerns are available from our sustainability dashboard.

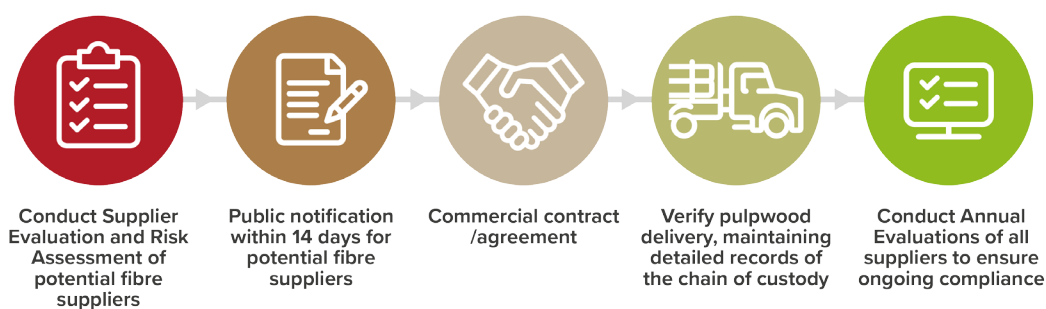


Local forest community near forestry operations

SERA tool

We have developed a robust tool to facilitate the implementation of the RFPPP across our fibre supply chain, called the Supplier Evaluation and Risk Assessment (SERA). All new suppliers are obliged to complete and pass the assessment. The summary of the risk assessment report of all potential suppliers is uploaded to the sustainability dashboard (see page 60) for public notification for a period of 14 calendar days before they are included into APP's Approved Suppliers list.

SERA Process



Developed based on global standards for Sustainable Forest Management, SERA evaluates suppliers against 12 indicators:

- Has the company, or any of its associated companies in the pulpwood industry, converted natural forest after February 1st, 2013
- Country/region of supply
- Tree species
- Third-party certification/verification
- Chain of Custody system
- Legality Compliance
- Protection of High Conservation Values/High Carbon Stock
- Species protection as listed on the IUCN Red List of Critical Endangered Species and CITES
- Company's respect for traditional civil and human rights
- Compliance with ILO Core Conventions
- Company's respect for health and safety of forest workers
- No introduction of genetically modified organisms (GMOs)

In 2019 three new suppliers were assessed through the SERA process and became active suppliers during the year. All of these new suppliers were one-time suppliers, not continuous. In addition, several other suppliers were assessed, and corrective action requests were issued which need to be resolved before they can be approved as suppliers. Updates and the outcome of this process will be made available on our sustainability dashboard.

Innovation in Forestry



Balangeran nursery in our supplier concession Surya Hutani Jaya

Our Forestry Research and Development Team supports the forestry operations of APP and its pulpwood suppliers. The function is involved in research and development activities to find superior tree species that boost production efficiency, as well as investigating improved silviculture management techniques, weed management, and controlling pest and disease.

We aim to implement 100% automation in our nursery operation as well as in the planting process in order to address the challenge of inconsistency that is often found in the manual planting process. By automating some parts of the process, we are able to achieve consistent and uniformed tree growth and health, so that the plantation can achieve optimum yield.

Growth and yield

APP focuses on growth and yield improvement to maximise the efficiency of our fibre supply chain. Essentially, we seek to maximise the use of resource from forest to the final product. Our strategy includes classifying the plantation areas based on soil types, soil textures and flooding risks in order to determine which tree species and relevant silviculture management practices are required in specific planting sites. This approach ensures optimum growth of the tree and contributes to higher fibre yield.

Precision Forestry Concept

In monitoring the growth rate and overall health of a plantation, APP implement the Precision Forestry concept. We acquire monitoring images captured using UAVs (Unmanned Aerial Vehicles) which are then processed and analysed using artificial intelligence (AI) algorithm. The AI is able to identify and analyse blank spots between the trees, estimate age, tree health, highlight poorly-growing trees, flooded areas, and overall trees count, all of which are available through a dashboard accessible through mobile devices of our expert forestry teams. This remote data capture enables us to respond to issues promptly and effectively, and optimise the yield of the plantation.

Integrated Sustainable Forest Management Plan

To ensure that our suppliers manage their concession areas in accordance with the FCP commitments, we have developed and continue to implement the Integrated Sustainable Forest Management Plan (ISFMP). The ISFMP was developed through a long collaborative process that involved compiling and consolidating data as well as recommendations gathered through various assessments as well as input from all relevant stakeholders including local communities, government, academia, and civil societies. The document detailed pulpwood suppliers action plans for improving sustainability and management practices, to ensure that our FCP commitments have been considered and adhered to.

The spatial plans for all 38 suppliers' concessions were completed in 2016. As a result of the ISFMP process, we identified over 600,000 hectares – or more than 21% of the total concession areas – of HCS and HCV areas that we committed to protecting. This protected area is twice from the minimum amount required by the Government of Indonesia.

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



Restoration & Rehabilitation

In the protected areas of APP Sinar Mas' pulpwood suppliers' concession areas, there are forest areas that have been degraded, whether due to fire or illegal activities. As part of our Sustainability Roadmap, we are working on forest restoration activities in these areas.

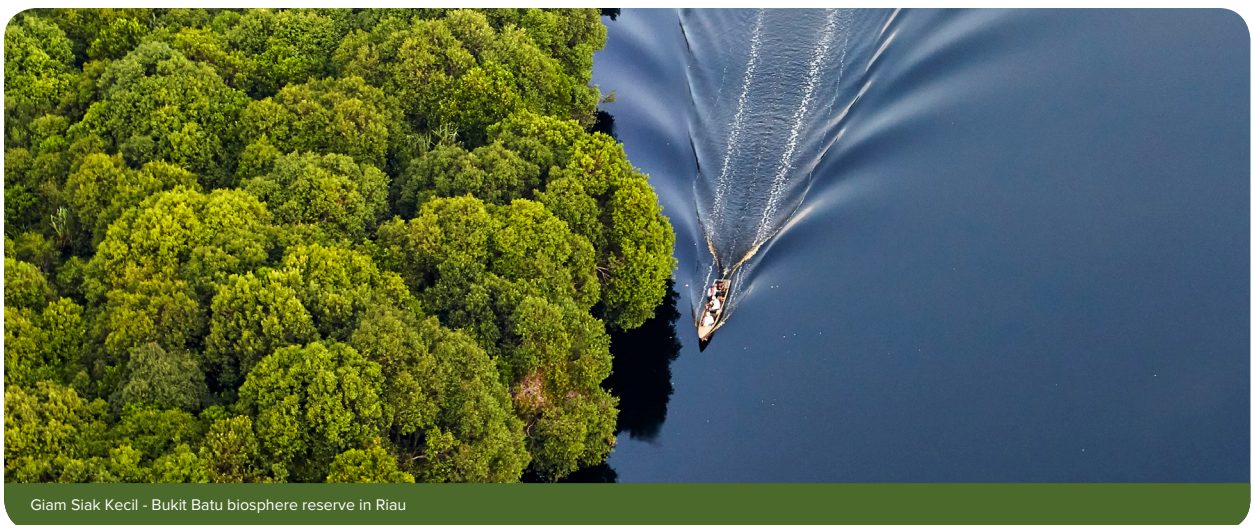
In 2015 we worked to map out areas across our suppliers' concession to be targeted for restoration. As the first step to restoration, we engaged with experts to develop restoration strategies for the different soil types: mineral soil, marine clay and peat, which was completed in 2018. Progress in restoration work is monitored through assessing vegetation class based on the HCS Approach (see page 73) stratification, a way of

classifying land cover. Progress in restoration is made if there is an improvement of vegetation class achieved, such as from open land to young scrubs or from young scrubs to young regenerating forest.

Limited availability of local species seedlings to be used for restoration remains one of the key obstacles in our restoration work. To address that, we are building more nurseries of local tree species as well as investing in the development of seed stands for key local species to ensure continued availability, as well as undertaking work with technical forestry institutions to improve seedling propagation techniques.

Restoration Commitment

In 2019 we set out a target to restore 30,000 ha of forestry. We achieved 21,000 ha of this commitment during the year, applying the HCS classification of carbon stock value. In 2020 we aim to restore an additional 25,000 hectares, currently classified as open land and scrub.



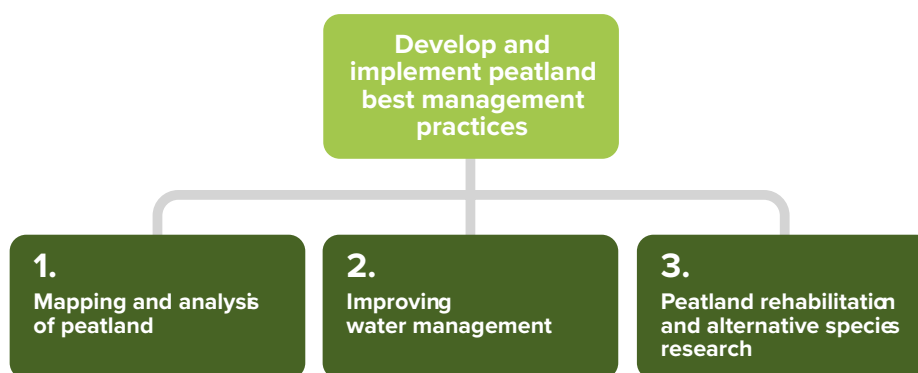
Giam Siak Kecil - Bukit Batu biosphere reserve in Riau

Peatland Management

Parts of APP pulpwood suppliers are on peatland. These are delicate ecosystems that must be carefully managed to protect the forest area and minimise carbon dioxide emissions, supporting the Government of Indonesia's low emissions development goals.

Since the FCP was established, we have been working with global experts in peatland forestry, hydrology and remote imaging techniques to develop and implement best practice peatland management.

Peatland Management Strategy



In 2019 we made changes to our Peatland Management Strategy in line with the Government of Indonesia redefining peat dome areas in February 2019. The main impact was on zoning, with APP's Pulpwood Suppliers required to place a larger forest area under conservation. APP are in full support of the changes and will retire areas from plantation area to conservation in stages, which will be based on a phased work plan approved by the Government of Indonesia.

Back in 2015, we began conducting peat mapping using LiDAR (Light Detection and Ranging) to understand the peat distribution and typology in the landscapes where our suppliers operate. Based on the captured data, we retired 7,000 hectares of productive plantations on critical peat for conservation purpose.

LiDAR data also fed into our understanding of impact zones for plantation drainage into peat swamp forest, allowing targeted measures for improved forest conservation in plantation areas. The data we gathered has also been made available to the Government of Indonesia, feeding into their zoning changes in 2019.

Over recent years we built more than 5,000 perimeter canal blocks to maintain near-natural water level in the protected areas bordering to our suppliers' concession areas, as well as undertaking research to identify alternative tree species that thrives in peat with high water level for both conservation and production purposes.

Canal water level monitoring continues on the ground. Field measurements are fed into our overall plans to compliment and improve water level management. Raising water levels reduce subsidence, reduce emissions, and form a key component in avoiding carbon emissions, as well as APP's contribution to supporting the Government of Indonesia meeting carbon reduction targets.

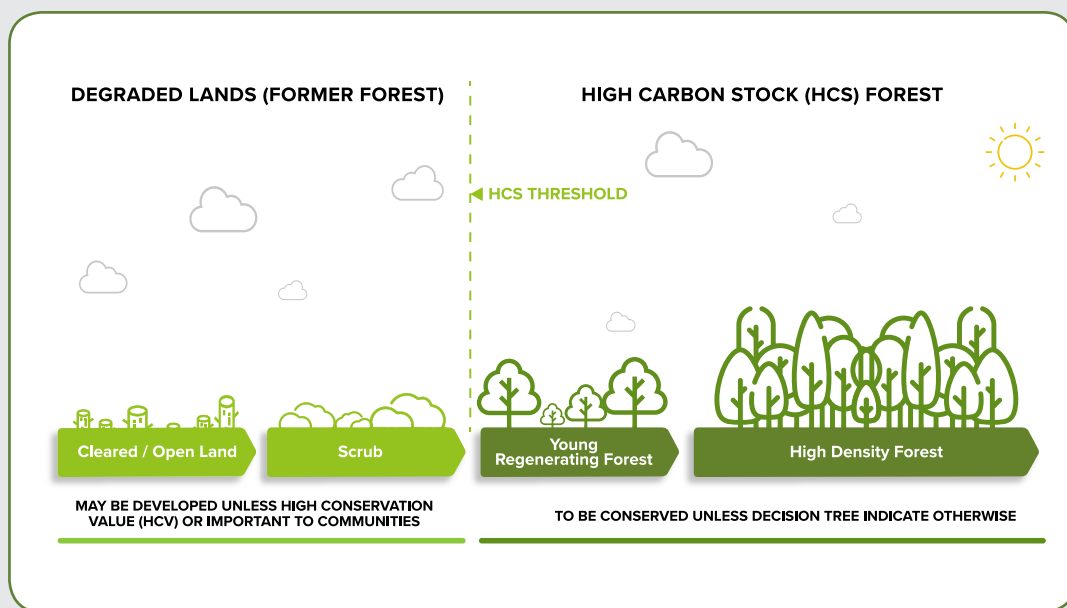
During 2019 we undertook a preliminary water assessment in the concessions around our OKI mill, where peatland forestry is impacted by sea water intrusion. This sea water intrusion can also affect the water quality available for our mill. We have established plot monitoring and are working to understand the water requirements of local communities too. We expect the assessment to continue through 2020.

In 2020 we intend to work with the academic institutions on a project that looks at retirement of plantations and the science of restoration, with the objective of developing a methodology for peatland restoration. We will also continue to improve our peatland management on the ground as well as research projects in collaboration with experts in hydrology and ecology.

High Carbon Stock and High Conservation Value assessments

Our approach to sustainable forest management is based on a clear understanding of current forest conditions. Two assessments are central to this approach.

High Carbon Stock (HCS) assessments identify forest conditions, and most importantly areas of high-density forest which contain a high carbon content and young regenerating forests that will grow and absorb carbon, and therefore must be conserved. To identify these areas we apply the globally recognised High Carbon Stock Approach Toolkit.



Full details of our HCS Methodology, Assessment Results and Management and the Toolkit we apply can be found on our sustainability dashboard.

We apply the globally recognised High Conservation Value (HCV) classifications 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. Engagement with relevant stakeholders about land management, wildlife, and borders for example, are at its core.

Full details of our HCV Methodology, Assessment Process Results and Management plan can be found on our sustainability dashboard.

Conservation and Biodiversity

We continue to maintain, protect, and enhance the High Conservation Values that have been identified in our suppliers' concession areas. To demonstrate sustainable forest management, we must include a clear strategy for key endangered and priority species protection and maintain their ecosystem and habitat, which may exist in our concession or protected forest areas. Our activities support the Government of Indonesia's target to protect national priority and critically endangered species of wildlife and rare trees.

Based on HCV assessments, we focus our effort on three priority species of fauna: Sumatran tiger, Sumatran elephant, and Bornean orangutan with the objective to create the conditions for coexistence of protected species and forest plantation production.

We track estimated minimum numbers of tiger, elephant and orangutan and maintain a detailed wildlife atlas for each species, which provides us with the most reliable data to base our conservation efforts around. To minimize human-wildlife conflicts we establish ecological corridors within and between concessions, including feeding pockets, as well as working on collaborative law enforcement to reduce risk of wildlife poaching within APP pulpwood suppliers concession areas.

We also work to conserve and cultivate indigenous tree species. There are 10 indigenous tree species that we are focussed on protecting and we have identified the respective protected areas as the ecosystem of these species. These local tree species will be planted as part of the continued enrichment efforts aimed to rehabilitate areas that have been degraded.

Conservation Strategy



Wildlife Conflict Mitigation

We are committed to ensuring zero fatal conflicts between humans and wildlife within our concession areas. Unfortunately, we had two fatalities occurred within our supplier's concession area in 2019 where two contractors were attacked by a Sumatran tiger at PT RIA. We believe the tiger had recently given birth and was protecting the cubs. We also found an elephant had died in a concession area as a result of poaching. Following the incident, we worked with The Natural Resources Conservation Agency (BKSDA), Sumatran Tiger Conservation Forum and Tiger Heart Official to remove wildlife snares that are used to trap boars, but become a hazard for tigers and elephants.

In 2012 our pulpwood suppliers developed and implemented a Standard Operating Procedure (SOP) for Prevention and Management of Conflicts between Humans and Wildlife. The procedure was later enhanced in 2015, creating updated procedures and the formation of a Task Force Team at each APP's pulpwood suppliers. All of APP's pulpwood suppliers implement the same SOP, ensuring a uniformed and standardized approach in addressing conflict risks.

Rapid surveys are conducted before undertaking harvesting activity in concessions with wildlife corridors. If required, harvesting plans are adjusted or postponed allowing for wildlife movement.

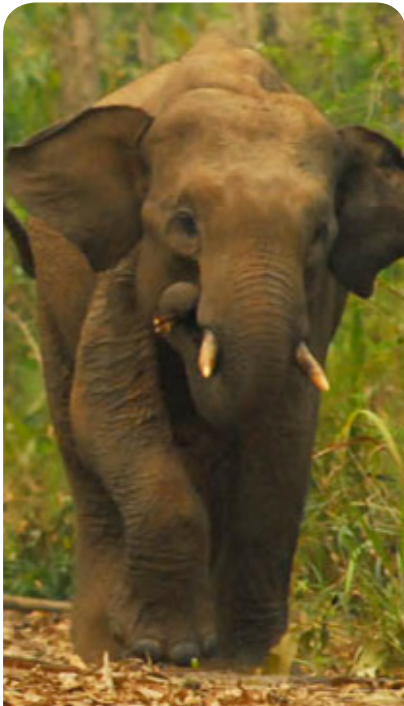


Human - wildlife conflict mitigation activities

Training and Education for Human-Wildlife Conflict Mitigation

We engage with wildlife experts and The Natural Resources Conservation Agency (BKSDA) to provide routine training for APP's pulpwood suppliers Task Force Team. With the wildlife experts and local forestry offices training and education to forestry workers, contractors as well as local communities related to the conservation of endangered species and tips on how to prevent, avoid and mitigate conflict with wildlife.

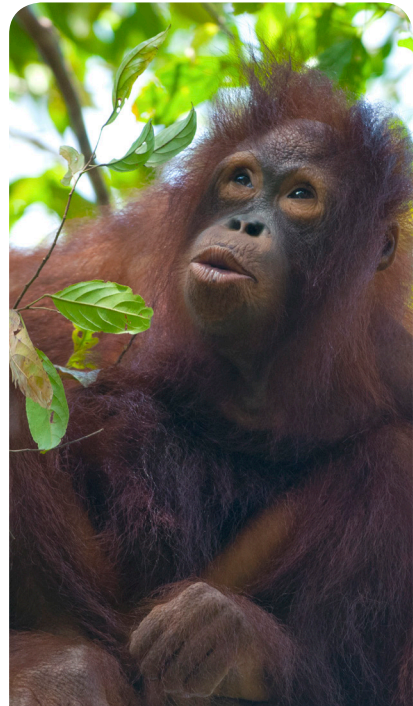
Estimated minimum numbers of wildlife population in our pulpwood suppliers' concessions



7%
of Sumatran Elephant population
in Sumatra



9%
of Sumatran Tiger population
in Sumatra



15%
of Bornean Orangutan population
in Kutai landscape

Mapping Endangered Species

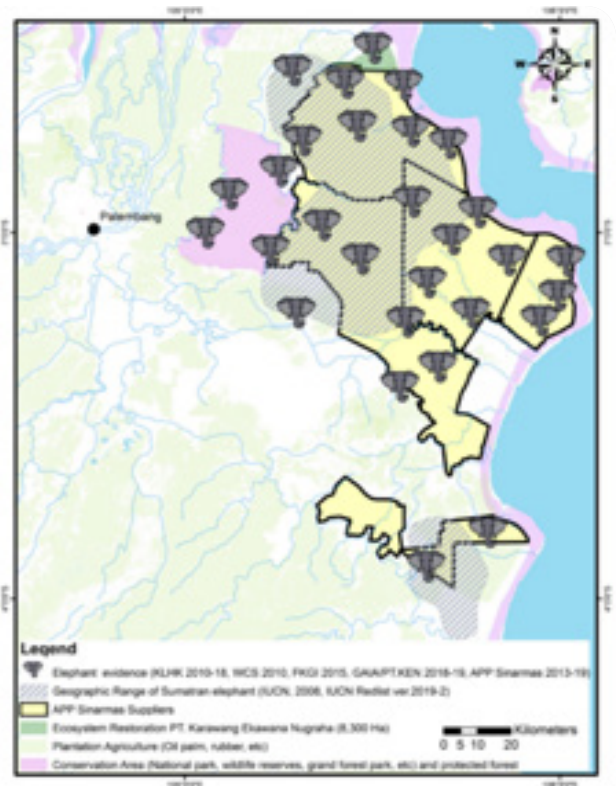
Using camera trap survey information and on the ground monitoring techniques we have established detailed population maps for critical target species in all our major forest concession areas. This detailed analysis, based on best practice techniques provides us with a reliable baseline on which to base our conservation plan on. We track estimated minimum numbers for each species – this is the minimum number we would expect to find in a specific area. The figure is estimated because we base our modelling on expected movement patterns and confirmed sightings, while we recognise wildlife naturally roam within their habitat. Ultimately, our distribution models developed for each species demonstrate that plantation forestry areas are also suitable wildlife habitats.



Camera traps are installed in areas aimed in the direction researchers predict to have the highest probability of detection for the target species, and widely distributing the camera-sites across an area of interest with the principle of closed population in habitat variations.



Example, wildlife habitats in South Sumatra



Sumatran Tiger Conservation

With help from several partners, we improved tiger habitats and increase the opportunity for the Sumatran tiger to thrive and grow in a sustainable manner to a viable population level and avoid extinction. We are pleased to report that on average five cubs are born in our suppliers' concession areas each year, based on data we have gathered since 2013. This demonstrates low stress levels for the tigers and a sign that the habitat provides a safe environment for breeding.

By establishing wildlife corridors and conducted camera trap surveys, supported by a sighting questionnaire to track tiger population and movement patterns are able to estimate the proportion of a given area is occupied by tigers at a production forest landscape scale. This allows us to develop a predictive distribution map for tigers and create the conditions where APP's pulpwood supplier concessions become supportive towards tiger conservation.

We established a specialist team to deal with human-tiger conflict mitigation who are responsible for conducting regular education programmes and raising awareness with field workers and communities.

We were also involved in the implementation of the first ever robust monitoring framework of The Sumatra-Wide Tiger Surveys (SWTS) initiated by several NGOs in Indonesia. The SWTS in APP's pulp wood supplier areas were carried out by SINTAS Indonesia, a non-profit scientific and educational organisation established with aim of conserving Indonesia's natural resources. The project involved establishing 27 plots covering an area of 289 km² (17 x 17 km) for closely monitoring tigers. It is part of the long-term tiger population monitoring program set up by the Government of Indonesia in its National Tiger Recovery Program (NTRP) to double the number of Sumatran tigers by 2022.

Our tiger conservation partners include the government, the Sumatran Tiger Conservation Forum (Forum HarimauKita), Zoological Society of London (ZSL), SINTAS Indonesia and Sumatran Tiger Conservation Foundation (Yayasan Pelestarian Harimau Sumatera).



Sumatran tiger

Sumatran Elephant Conservation

Our conservation goal is to establish and maintain the conditions where APP's pulpwood supplier concessions are supportive of elephant conservation. We collaborate with neighbouring concession and stakeholders to implement landscape approach for elephant conservation to achieve this goal.

Working with various experts, we established elephant feeding stations within our suppliers' concessions to provide a reliable food supply and reduce the risk of elephants straying into community settlements searching for food. The feeding stations also enhance opportunities for population monitoring.

We established a specialist team to manage human-elephant conflicts whose role is to educate communities and oversee anti-poaching patrols using non-violent and educational methods. Our partners include the government, Indonesian Wildlife Conservation Foundation (Yayasan Konservasi Satwa Liar Indonesia) with the Indonesian Elephant Conservation Forum (Forum Konservasi Gajah Indonesia) assistance, and the Belantara Foundation.

We also launched a project to protect elephants around the OKI mill site. We hosted a two-week exhibition to raise awareness of wildlife conservation and undertook special events with a local newspaper to raise awareness. Based on our latest surveys there are between 110 and 120 elephants in the area, a population level we believe will be sustainable over the long term.



Sumatran Elephant

Orangutan Conservation

We support measures to reduce human-orangutan conflicts and continue to raise awareness to help enforce our zero-tolerance policy on harming endangered species. We work together with Natural Resources Conservation Agency – East Kalimantan, Kutai National Park, Mulawarman University, the Orangutan Foundation International, The Orangutan Tropical Peatland Project (OuTrop), International Animal Rescue (IAR) Indonesia and Ecology and conservation Center For Tropical Studies (ECOSITROP) to achieve this goal.



Borneo Orangutan

Indigenous Tree Species Conservation

A key part of forestry restoration activities is planting indigenous local tree species. This is done to maintain the natural composition of the local ecosystem as well as to conserve the local species, many of which are getting increasingly rare due to over exploitation or forest conversion.

In 2019, APP and its pulpwood suppliers predominantly planted Ramin (*Gonystylus bancanus*) and Balangeran (*Shorea balangeran*) species in the restoration areas where these two species are native of.

The focus on Ramin and Balangeran is driven by the lack of availability of the seedlings of the other indigenous species that APP focuses on. To address this, APP and its pulpwood suppliers have been working to establish seed stands for several of the indigenous tree species. The seed stands of the Kulim tree in one of APP's pulpwood suppliers in Riau, PT Arara Abadi, has been certified, which demonstrates that there is sufficient high quality Kulim trees available that will be able to continuously provide a reliable source of good quality Kulim seeds.



Kulim nursery at our pulpwood suppliers in Riau



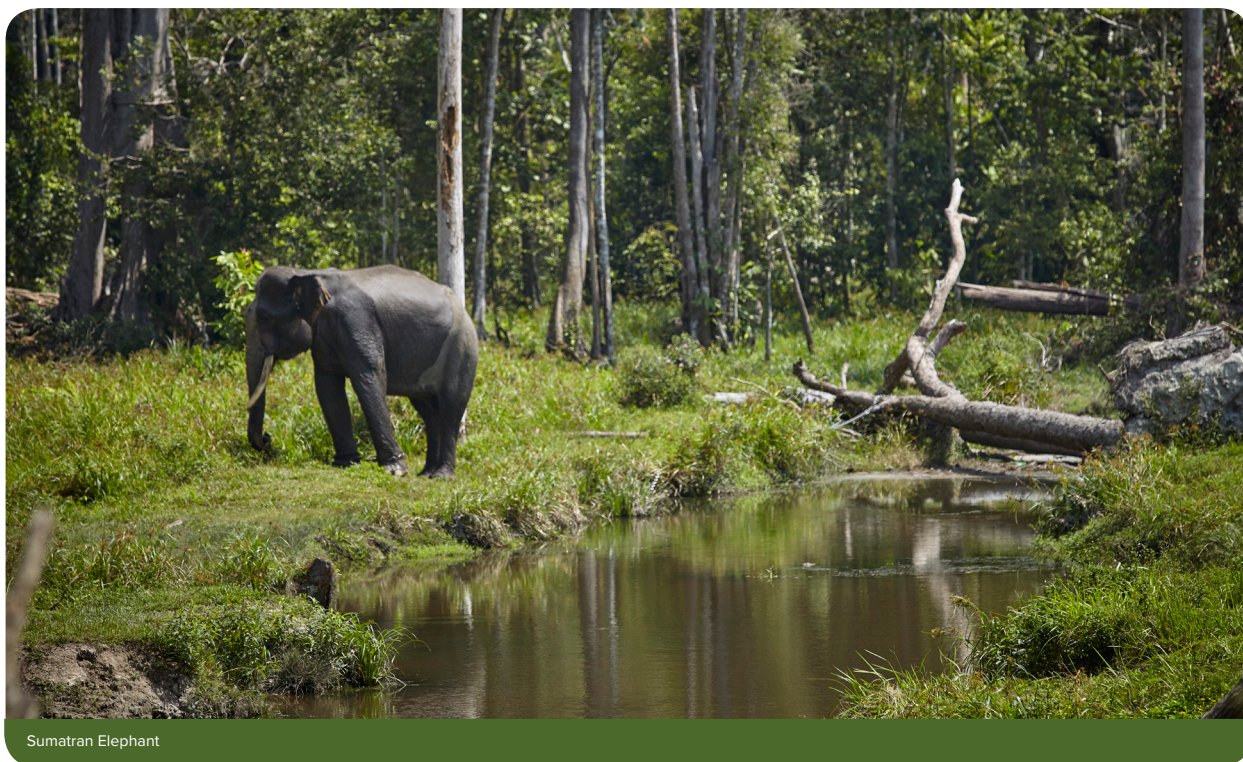
Kulim nursery at our pulpwood suppliers in Riau

Collaborative Conservation Management

Collaborative Conservation Management (CCM), was developed in partnership with Earthworm Foundation and piloted in July 2018. The aim is to work with local communities and other key stakeholders in collaboratively implementing forest protection measures by addressing third party deforestation. Our approach is based on the key principal that the lack of long term and reliable incomes sources is a driver for deforestation and forest encroachment.

Initially working with our pulpwood supplier, PT Arara Abadi, we selected an area of 3,000 hectares in Riau Province for the CCM trial. The area forms part of a Wildlife Conservation Area due to the number of key species that are presence in the area including the Sumatran elephant. Our MDA forest monitoring (see page 63) also identified that the area had suffered from deforestation since 2016. APP worked together with Earthworm Foundation and our pulpwood supplier to run a series of collaborative projects, from non-timber forest products for alternative livelihood, education programmes, stakeholder engagement activities and collaborative approach to forest patrols.

The trial programme has proved an invaluable learning experience. We have identified that a well thought out and detailed conservation agreement and management plan is critical to the success of forest conservation. We also recognise that guidance, tools, facilitation and resources are among the types of support that should be provided in short term, given that the consent is already secured, and we cannot lose momentum. Looking forward we plan to continue to implement CCM in the four pilot villages, before scaling up the approach to include other locations.



Sumatran Elephant

SMART Patrols

As part of our CCM approach we trialed SMART (Spatial Monitoring and Reporting Tool) patrols in the Musi Banyuasin supply area of South Sumatra. SMART is a digital tool for recording any findings during on the ground monitoring activities spatial based. The results can be analyzed and evaluated to measure, evaluate and improve the effectiveness of forest management. Our security teams patrol in the participating villages to prevent illegal activities in conservation areas and feed information into the tool. In 2019 we continued to roll out the SMART Patrols approach, developing the programme in Riau Province.

Our partners in developing this approach are High Conservation Value – Network Indonesia (Jaringan NKT Indonesia) with Zoological Society of London assistance on the KELOLA Sendang Project.



SMART Patrols activity of our supplier concession in Musi Banyuasin area

Integrated Fire Management

Forest fires are a complex global issue that affects both local communities and the environment. The complex nature of the problem necessitates a multi-stakeholder approach that is at the heart of our Integrated Fire Management strategy. We place great emphasis on working closely with our pulpwood suppliers, local communities and relevant stakeholders, basing our approach on global best practices for fire management, and comprises of four pillars: prevention, preparedness, early detection, and rapid response.

Our target is to maintain area affected by fire to less than 2% of APP Sinar Mas' and its suppliers' total concession areas annually.

The dry season during 2019 was an extreme weather event. During the year some of our concessions experienced 120 days without rain. The number of fires reported was markedly higher surrounding our concessions and within the concessions the number of small hotspots increased. In 2019 1.69% of APP suppliers' total concession area was impacted by fires. Around 70-80% of our firefighting effort is typically outside our concession area, to assist where fires have been started outside and need to be contained.

The exceptionally dry season was directly related to measurements such as the IOD Index. The Indian Ocean Dipole (IOD) is the name given to a climatic phenomenon which is similar to El Nino. The IOD refers to the difference between the sea-surface temperatures in opposite parts of the Indian Ocean. Temperatures in the eastern part of the ocean, which is closest to where many of our concessions are found, fluctuate between warmer and cooler temperatures in comparison with the western Indian Ocean. In 2019 the Index was in the 'positive' phase, meaning warmer sea temperatures in the west and the opposite in the East. The dipole was the strongest in six decades, bringing drought conditions in south-east Asia and Australia.

We also experienced a number of illegal fires. In the OKI region, the local community began to use slash and burn techniques to access areas of the forest to unlock the commercial potential of the local Getlam (*Melaleuca Cajuputi*) trees. In response we are now developing a new training course, with the intention of promoting continuous learning to communities we identify as being at risk of using slash and burn techniques to clear forest areas.




APP's special Helitac firefighter team

Integrated Fire Management

01 PREVENTION

Poverty Alleviation


DESA MAKMUR PEDULI API (DMPA)



Average Income Increased
1.5x
after DMPA

➔


Reduce Slash & Burn



324 Villages
Implementing DMPA programs













➔

Reduce Fire Risk




7,783 Households
Benefitting from DMPA

02 PREPARATION


 3180 Fire Fighters	 1470 Water Pump	 52 Thermal Camera & CCTV	 10 Water-Bombing Helicopters
 138 Fire Trucks	 166 Mobile Patrols	 9 Airboat	 55 Speed Boat
 506 Monitoring Post	 462 Bike Patrols	 102 Fire Tower	 Fire Index Rating

- Fire Index Rating : Assessing & Identifying high risk area
- Putting resources in high risk areas
- Equipment readiness and personnel training


03 EARLY DETECTION



Infra-red and satellite technology combined with ground patrols lead to **reductions** in fire incidence



The Integrated Fire Management team is able to detect **60%** fires before satellite detection







We monitor and detect fire up to **5km** outside our concession boundaries

04 RAPID RESPONSE

Our target is to extinguish fires within 4-12 hours

Some of the resources allocated by APP to suppress fires from January to September 2019:

 6264 working days	 611 pump machines frequency	 129 excavators frequency	 77 helicopter working days
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Daily Hotspot Summary

A daily hotspot summary is available on our sustainability dashboard. Remote sensing 'Hot Spot' data allows potential fires to be quickly detected and investigated. Our total number of hotspot data is provided daily from National Institute of Aeronautics and Space of Indonesia (LAPAN) & ASEAN Specialized Meteorological Center (ASMC), also we compared it with data from SIPONGI (Fire Forest Monitoring website from Ministry of Environment and Forestry of Indonesia). We classify each with the following categorisation.

Hotspots: A small area or spot with relatively higher temperature in comparison to its surroundings and detected by satellite sensor. Hotspot does not necessarily mean fire. Additional field verification is needed to determine whether the hotspot indeed represent fire.

Hotspots verified no fire: hotspot information that has been verified by both APP's fire monitoring centre and field team, and the result confirms that there is no fire in the location.

Hotspots verified fire: hotspot information that has been verified by both APP's fire monitoring centre and field team, and the result confirms that there is fire in the location.

Meet Our Firefighters

Meet Iwan and Eldi Ramadanis, our firefighter squad members tasked with fire monitoring. They've not only have proven physical and mental prowess, but they qualified to join the squad for their skills, eagerness, and persistence as well. Iwan and Eldi begin their daily activities at 8 AM every day, exploring the Kayan concession in West Kalimantan to collect and provide hotspot data around the area. Aside from the usual schedule, they must be on constant vigil, be it day or night. Given that their role is crucial as the first responders when there is a fire.

"We patrol a radius of 24 kilometres using either cars or motorbikes. But to date, we've never encountered any fires; this area is still considered safe. Members from the Community Fire Prevention (also known as Masyarakat Peduli Api) participate in our patrols," said Iwan, who is originally from Sambas.



Monitoring on fire tower as part of early detection activity

Desa Makmur Peduli Api (DMPA)



324

Villages
Benefitting from
DMPA programs



7,783

Household
Benefitting from
DMPA programs



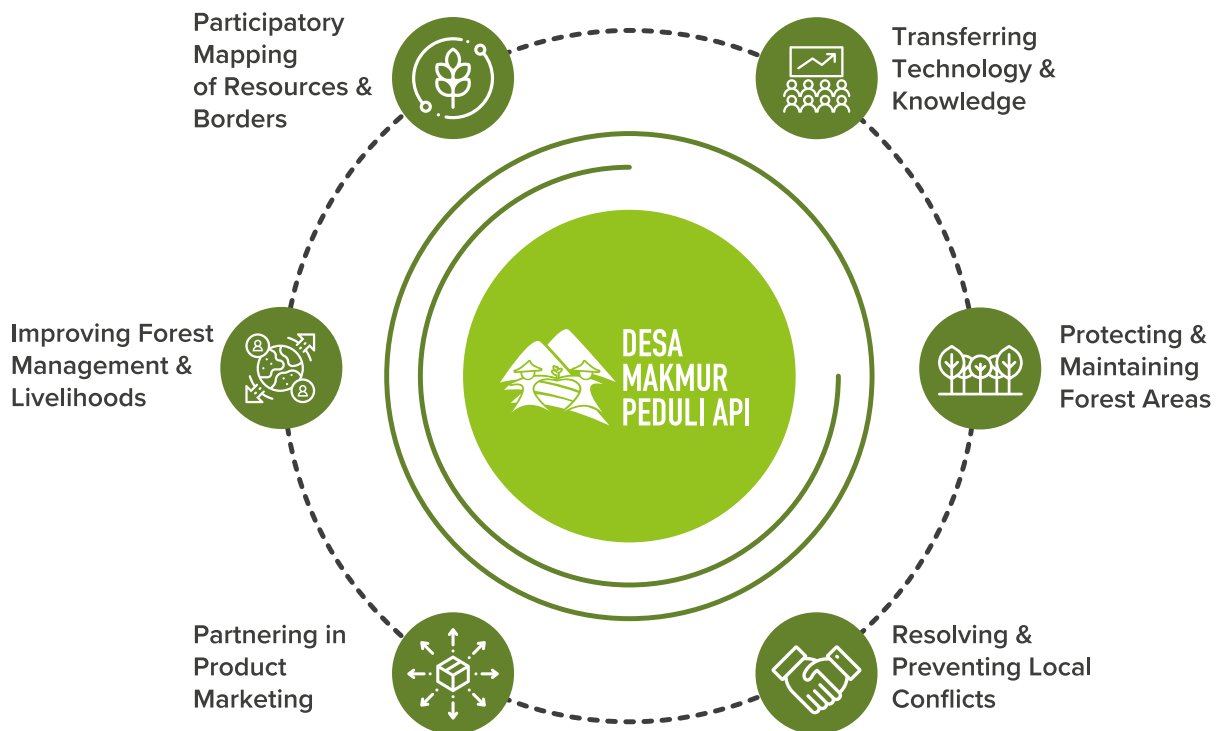
82 Women
Groups

Benefitting from
DMPA programs



70%

of DMPA beneficiary's
location is free from fire



DMPA programme KPIs

Communities livelihood

- Household income are increased
- Livelihood options are increased
- People's education are sustained
- People's health are sustained
- Livelihood equity is sustained

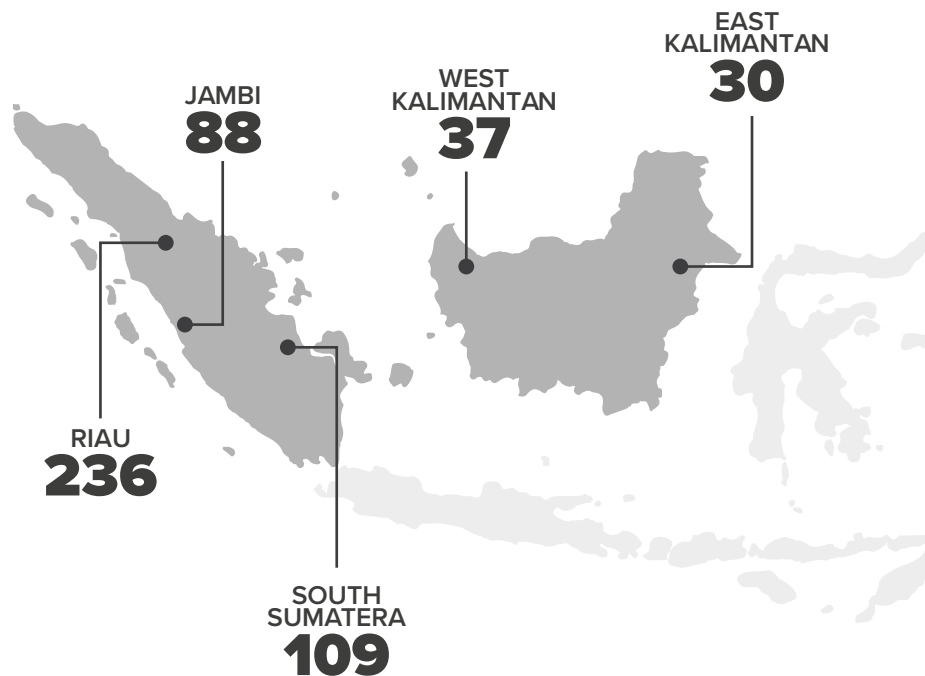
Environmental sustainability

- Trees and vegetation in the landscape are maintained
- Fire is reduced

Our Desa Makmur Peduli Api (DMPA) programme, based on the Integrated Forestry and Farming System (IFFS) is a participatory community engagement program that aims to create greater diversification of livelihoods for forest communities, empowerment, reduced fires, and better relationships between forest communities and industry.

The priority criteria used in the final selection are of beneficiary villages are:

- The village is located within concession areas or are within 3 km concession areas
- The villagers interact closely with forest resources found in concession areas
- The villages have a history of forest and/or bush fires, illegal logging or deforestation in the last three years



Implementation Plan



500
villages



5
provinces



5
years



USD 10
million

At the end of 2019 we had implemented the DMPA programme in 324 villages, up from 284 in 2018, against a target of 500 villages by the end of 2020. Progress to date represents 7,783 households. We now have a total of 751 activities with 100 farmer champions - a huge increase from just 2 farmer champions in 2016 when the programme began.

We are particularly focussed on connecting our programmes to the markets to maximise the commercial opportunities, boost incomes and ensure communities are benefiting. In 2019 we focussed on linking the market to our farmers, and if appropriate in certain cases we buy product direct from the community, for example compost which we then provide directly to pulpwood supplier for forestry applications.

In a strong link with our Integrated Fire Management Strategy we are increasingly placing increased focus on reducing fires by monitoring fires around the DMPA project villages. If required, we direct fire management resources from our pulpwood suppliers for support. We are pleased to report a correlation between DMPA villages and fire incidents.

We acknowledge the challenge of meeting our commitment to implement DMPA in 500 villages by the end of 2020. One point we have learned is the importance of maintaining programme momentum, particularly now the programme is in its fourth year. Resources are limited in certain districts too. We also identify a barrier in connecting the programme with external markets – a vital mechanism for delivering income from community products.

In response, we have paid particular focus on linking markets with community farmers. Our own operations and suppliers also buy products, for example forestry suppliers purchasing compost produced by the communities. We have also identified logistical challenges and begun to address these too. Ultimately by demonstrating the success of the programme and benefits to each community involved, we hope to drive new interest and deliver the growth we are committed to achieving.

While growth in village inclusion remains an important goal, we believe that quality and impact are also important measures that should not be compromised in search of growth. With this in mind we are working closely with host villages to expand scope. We currently estimate we are able to reach approximately 30% of the village community.



Vegetables farming in one of DMPA programs



Women in Jambi raise income from community's compost industry facilitated by DMPA program

Jamin is a leader of the Maju Tani Group of Bukit Batu Village that consists of 24 farmers. The Bukit Batu Village is located in Air Sugihan District, Ogan Komering Ilir Regency, South Sumatra Province, and consists of 802 families who relied on oil palm and rubber. This village is located near PT. Bumi Andalas Permai, one of APP's pulpwood suppliers.

After becoming one of the beneficiaries of DMPA programme, the Maju Tani Group was able to utilise a 24 hectares corn field inside the 910 hectares livelihood plantation area. The land has been distributed so that each farmer of the group owns 1 hectare. Jamin leads the farmers' collective to take advantage of this golden opportunity. The group receives corn seeds, fertilisers, and insecticides through the DMPA program. In the first harvest since the programme was initiated the farmers harvested around 2.4 tons of corn per hectare. This boost in productivity has enabled Jamin to employ other farmers, during the harvesting season he employs around 10 people to support him.



Minister of Environment and Forestry, Siti Nurbaya presented the 2019 Main Climate Village Program award to representatives of Dataran Kempas Village, Tebing Tinggi District, Jambi, Asbar Novendra, Village head of Dataran Kempas

24 DMPA villages achieved the ProKlim award from Indonesia Ministry of Environment and Forestry. The Climate Village Program (ProKlim) was developed by the Ministry of Environment and Forestry to encourage community and other stakeholders' involvement in implementing good practices for increasing climate resilience and reducing greenhouse gasses in the local level.

Scaling up impact is key to the future of DMPA. We identify two key mechanisms that are vital to achieve this. The first is to maximise the capacity of village institutions, such as village cooperatives, and Village-Owned Enterprises (known as BUMDES). The second is to work on breaking down barriers to market access at a local, national, and international level to ensure the sustainability of the program.



Meet Lidat, a 49-year-old farmer from Mengkiang, a village in Sanggau Regency, West Kalimantan, Indonesia. The area, which is now home to a population of over 400,000, had been the territory of Sanggau Kingdom in the 4th century AD. However, this village has recently written its own story.

Just like most of his fellow villagers, Lidat cultivates rice to make a living and as his daily meal. Some villagers also depend on farming natural rubber, fish, and poultry. Nature has always been the primary source of income for the people of Mengkiang, and the village has plenty of it. But that does not necessarily mean that there are never problems.

"We have always depended on the forest to make a living. It was like a supermarket for us because we could obtain all of our everyday needs in the woods," said Lidat. "Yet due to the lack of accessibility and information, we only have limited knowledge to manage our lands. We've always followed the old way taught by our ancestors."

And that 4th century way of doing things certainly does not fit today's standards. It is what we now call the slash-and-burn method. In his own words: "I used to farm corn and rubber. Back then, I would move from place to place, burning lands every year to clear areas for farming."

Through the DMPA programme, he learned that the old method of clearing land is not only harmful but also expensive. Protecting the environment, on the other hand, could instead be beneficial for him and his fellow villagers. The farmers in the village received substantial support from the program, including hand-tractors, fertilizers, pesticides, and herbicides. The assistance was to encourage the villagers to take part in responsible and sustainable forest management actively.

"I used to harvest 60 sacks (about 4.5 tonnes) of rice before. Now, I can have around 105 sacks (about 7.8 tonnes)," explained Lidat, who is also now the head of Mutia Agung Farmers Group, sharing his accomplishment. "Back in the days, when we were using hand hoes, the cost of labour could easily reach over Rp2 million (around US\$131). Since 2016, we have started using hand-tractors, and we only spend about Rp400 thousand (around US\$26) per hectare."

It never occurred to him before that protecting the environment could bring positive impacts to his family and fellow villagers. But in the end, the DMPA programme not only helped environmental conservation but also, for the farmers, reduced the cost of land preparation and increased the sum of farm production. Lidat certainly hopes more and more people will join the program and leave behind the irresponsible land clearing methods.

The Mengkiang Village was awarded with the main climate village award by Indonesia Ministry of Environment and Forestry in 2019.

Multistakeholder Collaboration Program

We recognised that a multi-stakeholder approach is needed to successfully scale up the DMPA programme. Our Multistakeholder Collaboration Program aims to develop the business model that can deliver on this goal. The first phase of the programme saw the collaboration with World Agroforestry (ICRAF) and Center for International Forestry Research (CIFOR) in 2018 to formulate the typology and characteristics of the DMPA villages and identify the factors that influence the success of the DMPA program. In 2019 we broadened the programme to embrace other potential parties to be involved in further programs such as Yayasan Konservasi Alam Nusantara, IDH Sustainable Trade Initiative, PISAgrO, Ministry of Villages and Underdeveloped Regions.

The next step will be for three parties, ICRAF, CIFOR, YKAN to conduct field studies to establish the business model with key indicators of success of the intended program. ICRAF will use the Public-Private-People-Partnership (P4) scheme, CIFOR will use the Participatory Action Research approach on the Community Level Business Model (PAR-CLBM), YKAN will use SIGAP approach.

The results of the pilot studies will be discussed with relevant stakeholders and further details will be presented in our 2020 Sustainability Report.

CIFOR and ICRAF

Our collaboration with CIFOR and ICRAF which began in 2018, becomes a key component in our model to implement DMPA. We identified 4 key steps over a five-year timescale:

1. analysis context and typology of villages
2. sampling frame and piloting
3. monitoring system in place, cascading landscape down to household level
4. look for ways to upscale positive impacts wider

We are now at the second phase of implementation in two pilot villages and anticipate moving to the third stage in mid-2020.

CIFOR is supporting APP in Riau Province, meanwhile ICRAF is supporting APP in South Sumatera Province. They are working to improve the market access of the products from DMPA programmes. We aim to have a business plan in place for each pilot village by June 2020, before embarking on an implementation plan. Ultimately, we see this as a model for contributing towards Indonesia's sustainable development, which can be replicated by others and upscaled for maximum impact.

Yayasan Konservasi Alam Nusantara

Our work with Yayasan Konservasi Alam Nusantara is another example of our Multistakeholder Collaboration Programme. In September 2019 we began working with Yayasan Konservasi Alam Nusantara (YKAN), the main partner of The Nature Conservancy in Indonesia. The programme was established on the Sanggau District on the Indonesian island of Kalimantan, focussing on 1,200 ha of forest within our pulpwood supplier's concession area.

Core to this programme is the 'SIGAP' approach, or the 'communities inspiring actions for change' which YKAN has been developing and supporting for almost 10 years in East Kalimantan. The approach has been so successful that has been adopted by regional Government.

The programme engages the local community on fire prevention. Basic training and facilitation are provided, with a focus on strengthening village governance (including improving village development and land use plans), improving livelihood, and strengthening forest management. We have identified from our experience that for long lasting change we must position changes within the village government's infrastructure and the communities way of life. It is not simply a case of

providing equipment and expecting results. The work in improving village development plans is connected to the planning processes at the district and sub-district levels, creating a more holistic approach to sustainable development. Over the long term we hope to be able to demonstrate improved community wellbeing, lowered poverty rate and improved village development index (a measure used by the Government of Indonesia).

“We appreciate APP's commitment and support in this programme. By acting in partnership, we are able enrich the impacts of the programme. Like so many other programmes we truly see the benefit of a collaborative approach”

**Dr. Herlina Hartanto, Executive Director,
Yayasan Konservasi Alam Nusantara.**

Earthworm Foundation

The Earthworm Foundation (formerly known as TFT, or The Forest Trust) has supported us with many aspects of our FCP. One example is how we have worked together to integrate and align the ISFMP (see page 70) with other documentation and KPIs to develop one clear single approach to forest management. We are now making good progress in developing a joint roadmap on several topics, setting out how each party will contribute to the solutions. Prioritised issues include forest conservation, labour standards rights implementations, and peatland management. KPIs have been created for each and quarterly monitoring established.

The Earthworm Foundation have also hosted visits to a number of DMPA villages for our key customers, which have been positively received.

As we look towards 2020, the focus will shift towards Collaborative Conservation Management (or CCM, see page 82). Initially focussing on four villages in Riau Province we will investigate the extent to which they have used alternative livelihoods to stop illegal logging. Earthworm Foundation will also try to develop additional communications channels with Government departments and Corporates, with the aim of developing interest in contributing towards landscape level initiatives.

Martha Tilaar Group

In support of SDG 1 No Poverty, SDG 5 Gender Equality and SDG 8 Decent Work and Economic Growth, we partnered with the Martha Tilaar Group (MTG) in a programme to encourage alternative livelihoods that are free of deforestation risk by empowering women in rural areas around APP pulpwood 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. We also seek to diversify income, so communities are not only dependant on traditional products such as palm oil. The target was to reach and train 1,000 women by 2020 and aligns closely with the DMPA programme which promotes income diversification.

We are pleased to report we have exceeded our goal, to date over 1,000 women have been provided with training, through 80 villages across 5 Provinces. We work in collaboration with local government and community groups to decide who to attend the training. The programme is so well known now we are receiving direct requests to participate in the programme.

The training consists of three different parts.

- Guidance and advice on the potential of local plants (e.g. ginger or turmeric) to be processed into as a health food, herbal drink, cosmetic ingredients and how to grow, for own consumption and sale
- Beauty training, such as technique to apply makeup or improve skills and opportunity to open a beauty salon
- Select and train high school students to enrol in the scholarship programme to become a spa therapist in the Martha Tilaar Group's salon and spa network.

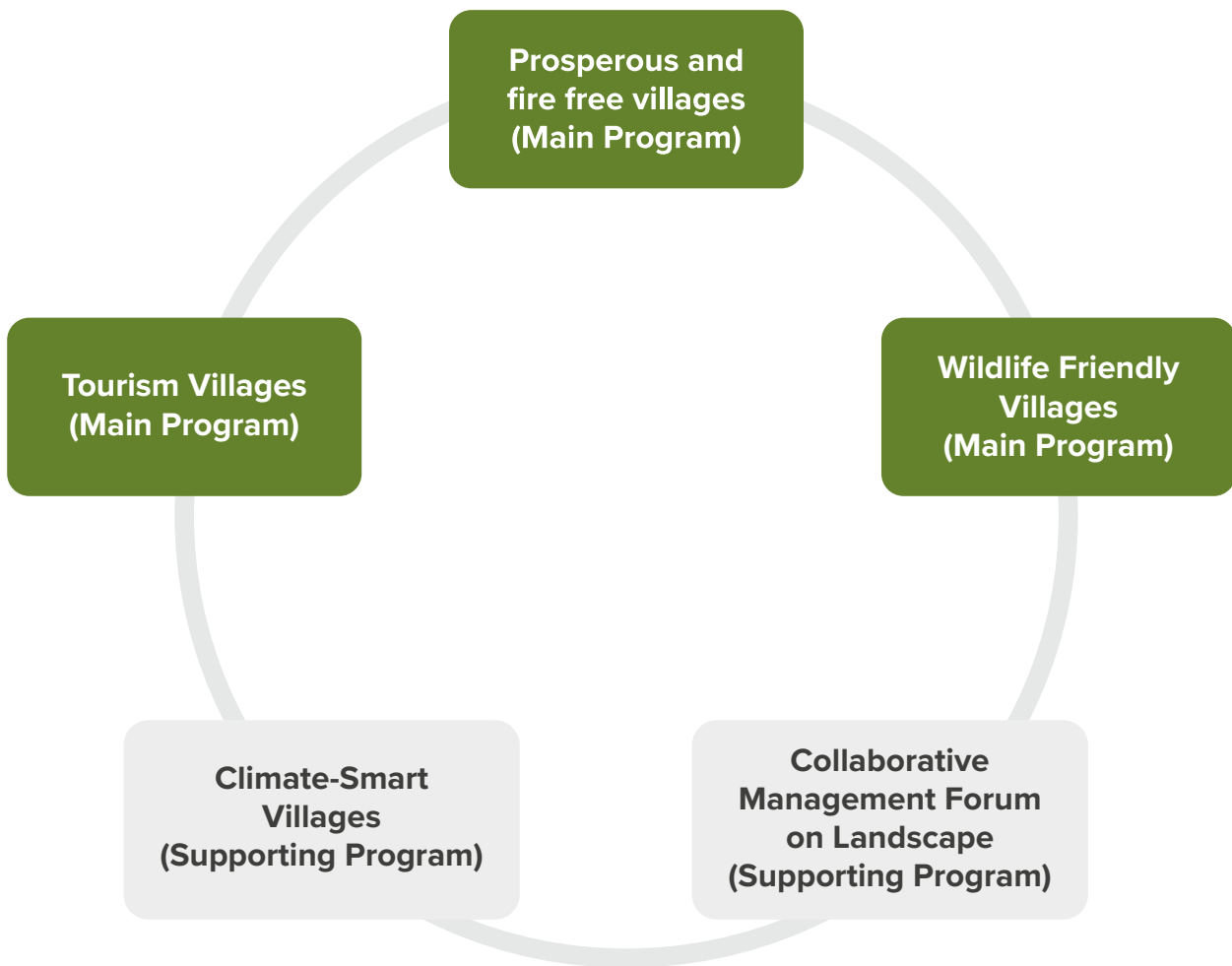
Support does not end following the training. Ongoing mentoring is provided, particularly in selling products and access to market. The increase in income is one of the biggest advantages to the local community, which makes the programme appealing to others to enroll.



Women empowerment program collaborating with Martha Tilaar

Belantara Foundation

Our conservation commitments are ambitious, and we cannot achieve these alone. APP funds specific projects that are coordinated by the Belantara Foundation and other partners to enable us to support the protection and restoration of natural forests in Indonesia. Belantara is an implementer institution, having transitioned from a solely grant making institution. The work of the Belantara Foundation supports the Government of Indonesia to achieve its commitment to the protection of endangered species and forest. APP continues to provide funding to the organisation, alongside other donors and funds raised through crowdfunding digital platforms.



In 2019 Belantara Foundation broadly focussed on eco-tourism development, wildlife conservation and fire-free villages, with the overall goal of improving the welfare of the community through sustainable community empowerment. Belantara identified a number of Belantara Intervention Villages to channel efforts, selected because they are located in peat areas that are at the highest risk of conflicts with wildlife, land and forest fires. The development of tourist villages are also part of the programme. By carefully selecting communities that have valuable natural assets and providing the support and guidance to restore, maintain and protect these natural assets while at the same time encouraging responsible tourism, an eco-tourism village becomes established.

Belantara has also been working in collaboration with the University of Indonesia to conduct a natural capital assessment valuation study. In Indonesia, several activities have the potential to negatively impact ecosystem services, such as forest degradation through illegal logging, land disputes, land use change causing degradation of structure and unclear land boundaries. The study will consider these threats, engaging with relevant stakeholders for conserving the area, particularly the subnational government to develop a credible and relevant natural capital assessment. Initially the study area will be focussed on the Banyuasin and Musi Banyuasin Regency, where the Sembilang National Park is situated. Initial findings are expected to be released in 2020.

Other key activities undertaken through Belantara during 2019 include the development of tourism villages through the preparation of tourism grand designs and revitalization of agro-tourism management groups in Bungaraya District, Riau Province, and ecotourism management groups in Sungsang Village, Banyuasin II District, South Sumatra Province.



SECTION 6

People

APP recognizes its responsibilities not only to its employees but also to the local communities living in and around its operation areas. Under the Sustainability Roadmap, we are investing in human capital management to ensure our business continuity, as well as empowering and inclusiveness of communities as part of our sustainable operations.





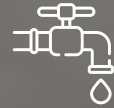
Mangrove restoration project



Women empowerment farmer group



Community Empowerment through Desa Makmur Peduli Api



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



Developing infrastructure



Microfinancing for SME's



Supporting handicraft for economic empowerment



End of career training programmes



Community-based Waste Management



Social impact assessments to determine local community needs



Health programmes for young mothers and infants



Health clinics for employees and their family



Scholarship programme



Graduate training programme



Safety Culture Programme



Employee Welfare Policy, covering safety, wellbeing and data protection



Training and development



Ethic Call Centre to report concerns

How we work – CSR

GRI: Disclosure of Management Approach

Our CSR programmes are guided by our Vision 2020 Sustainability Roadmap, which sets out a focus on community empowerment and employee welfare. The APP CSR policy sets our commitments to ensuring that our operations and that of our supply chains have long lasting positive impacts on the social and economic welfare of the surrounding communities. Programme planning, implementation and monitoring and evaluation of our CSR activities aligns with the Indonesian Corporate Performance Rating Assessment (PROPER) standard (a government environmental evaluation programme). The Indonesian regulations UU Perseroan Terbatas No. 40 Th. 2007 provides us with the legal framework with regards our obligations towards social responsibility programmes and alignment with the sustainable development agenda in Indonesia. We identify the highest priority needs based on robust Social Impact Assessment (SIA) data, in line with government development strategic planning, and the majority of programmes have a five year plan in place. All CSR programmes are reviewed annually through stakeholder forums and surveys to gather feedback and consider improvements.

Our CSR Programmes

GRI: Disclosure of Management Approach (Indirect economic impacts, Local communities), 203-1, 203-2, 413-1, 413-2

This section of the Report showcases a small sample of our CSR programmes at our mills and at a Group level. We also conduct CSR programmes in collaboration with our forestry suppliers. You can read about these in the Forestry section of this Report [page 87].

Pindo Deli Karawang

Eco tourism



Located in a small forest in the area around the Pindo Deli Karawang mill, the Hutan Kertas, or ‘Paper Forest’ is now a well-established eco-tourism hotspot. Thanks to the support from the mill, the recreation area is now equipped with a canopy, photo spot, music stage, toilet and a seating area. Managed by a local youth group, the site hosts live music and camping events as well as hosting school visits. To promote the circular bio-economy approach, waste wood and plastic provided by the mill was used to set up the location. The mill provided the location, technical assistance in preparing the site as well as building and stocking a small library.

The site draws tourist from a wide area, who pay a fee to use the facilities. The local community have free access to the site. 35 employees work at the site, with a salary of between Rp 500.000 – Rp 4.000.000 per month.

In the future the site plans to expand to further grow the revenue stream from additional facilities, including a parking area, motorcycle repair facility, coffee shop, shoe shop, laundry, wedding organiser and waste wood handicraft.

Community resource efficiency programme



In a collaboration between the community, local government, and Pindo Deli Karawang, the community resource efficiency programme has been running since 2015. Waste materials, donated from the mill or sourced from within the community are repurposed or recycled, the sale of these products generate additional income of between IDR 6 to 8 million per month. The mill provided training, equipment and facilitated networking to establish the programme and continue to support various aspects of the programme.

The programme has received external recognition, winning the Climate Resilience Village Program – PROKLIM award from the Ministry of Environment and Forestry in 2019.

Tjiwi Kimia

Farmer group empowerment



Tjiwi Kimia collaborate with the farming department in local government in the Bogem Pinggir village, near Tjiwi Kimia mill. Taking a multi-stakeholder approach, each party takes an important role in the programme. Tjiwi Kimia provides water pumps for farming irrigation with technical assistance to set up the equipment, in addition to fertilizer. The local government takes responsibility for operational and maintenance aspects of the water pumps. 112 farmers from 2 farmer group benefit from the project, which covers a total of 12 Ha. The paddy field harvest doubled as a result of the programme, reducing hunger and empowering the farmer group through increased production and raising income levels through product sales. shoe shop, laundry, wedding organiser and waste wood handicraft.

Community health service



In collaboration with the Citra Medika hospital, the local community are offered training and awareness raising in good hygiene and sanitation practices. Five villages around the mill; Sehani, Singkalan, Kramat Temenggung, Mlirip Rowo, Kedung Bocok are all offered transportation, provided by local government, to bring them to the medical facilities based on the mill site. Two doctors, two nurses and two pharmacists support each training activity, in 2019 about 90 community members took part advantage of this support.

Economic empowerment through entrepreneurship



Micro, Small & Medium Enterprises (MSMEs) have a key strategic role in Indonesia's national economy, providing a strong source of employment and boosting economic activity. The mill is keen to support this vital sector of the economy. Tjiwi Kimia generates waste that can be recycled back into economically valuable products including wood and strapping bands. By fostering and facilitating the supply of raw materials to local businesses, recipients then have the potential to process the waste and generate products which can be sold.

Two MSME groups in two villages around the company, namely Kramat Temenggung and Singkalan Village. The first group process strapping band waste to be used as furniture products and household appliances. While the second group process used wood pallet waste into wood kraft. The programme is now well underway and continues to scale up. We anticipate it to be fully commercially operational during 2020.

Infrastructure development



To improve community infrastructure, Tjiwi Kimia donated over 700,000 paving slabs to improve the roads in and around local schools and government agencies. The paving stone project was an employee innovation, produced by utilising bottom ash waste from the power plant process as a substitute material. By replacing poorly surfaced roads prone to becoming muddy, the paving slabs greatly improve access and transport communications, proving economic and social benefits.

Lontar Papyrus

Agriculture and farming



The local government launched an initiative in 2011 to increase cattle population in the area. However, there are bottlenecks that hinders the success of this program. The main challenge is the insufficient and unreliable supply of liquid nitrogen that is key in storing the semen needed to artificial insemination. In response, Lontar Papyrus has been providing a supply of liquid nitrogen since 2012. In 2019, the mill produced and donated more than 6,400 liters of liquid nitrogen to the district government to support the programme. As a result of the donation, cattle stock has improved almost 40% from an average of 915 new calves born to an average of more than 1,270 calves following the donation.

In a separate project the mill supported Tani Makmur Farmers Group with training and provided equipment to improve the quality of compost produced. The mill facilitated discussions between the group and one of APP's forestry suppliers, which culminated with a commercial agreement for compost purchase. Overall production of composts increased from 300 tons to more than 4,300 tons in a year, generating additional income of IDR 340 million. The mill also provides zero interest loans to financially support building improved storage facilities and purchasing trucks for logistic purposes.

Improving the agriculture sector is another key priority of the local government. To support the government achieving this objective, Lontar Papyrus provided 5 hectares of land which formed a centre for community empowerment activities in an area adjacent to the mill. The land is donated to two farmers groups who developed the area into a watermelon plantation, orange orchard, as well as guava and papaya. In addition to the fruit trees they also use the land to breed cattle. The mill also provided free accommodation for the farmer group to use, equipment, and zero interest loan for the initial capital investment.

Indah Kiat Tangerang

Community economic empowerment



The mill supported the training of 40 farmers in urban farming (hydroponics) across 6 villages. The collaboration involved local collaboration involved local government, community and hydroponic consultants, with the mill providing the materials for urban farming, monitoring, technical assistance and covering the cost of the hydroponic consultant. We also supported marketing activities to improve product sales in local markets and communities. The project has a great potential for growth, in the future we plan to scale up the project to other villages.

Mangrove conservation in Tangerang



In collaboration with local government and a farmer group, an eco-tourism project was established in the Tangerang Mangrove Centre (TMC) area to conserve coastal Mangrove, vital for coastal protection and biodiversity conservation. The mill provided the mangrove seed and the government provided the land, constructed buildings and infrastructure as well as provided technical assistance to the farmer group who provide seedlings, planting and maintenance of the mangrove. A total of 40,000 mangroves were planted in Tangerang North Coastal area and the area has seen positive economic benefits for the community through increased tourism which stimulates economic income and demand for small business and community-owned shops.

Ekamas Fortuna

Community Health Service



Addressing stunted growth is one of Indonesia's development priorities and Posyandu^{5} plays a critical role in this effort. Together with Wava Husada Hospital, Ekamas Fortuna organized a series of trainings to improve the Posyandu teams' skill, who are on the front line in assisting pregnant mothers and infants. One of the training courses offered in 2019 was Baby Massage, chosen to optimise baby growth through specialised massage techniques. 39 cadres took part in the training and they also received a set of training materials and equipment.

In a separate programme, Ekamas Fortuna collaborated with the Wava Husada Hospital, providing awareness raising activities, medical checkups and medicines to the local community. In 2019 this initiative served more than 1,200 people across 4 villages. The health workers also conducted home visit for elderly group who could not travel to the hospital to access the services.

OKI

Educational development



In a collaborative partnership between OKI mill, local government and the Simpang Heran village, educational facilities were improved for the local community. The mill supported the development of the community center (Rumah Pintar), establishing IT resources and a library, the facility also includes a play area for children and a meeting room. Between 20 and 30 children use the community centre every day for studying. The centre also hosts dancing and English classes training for children. The internet access is also used for the final examination at senior high school.

Waste bank



Ekamas Fortuna supported the Gampingan Bersinar Waste Bank by providing funding to improve the infrastructure of the Waste Bank. Established in 2016, the facility only collected household waste from one village. With the support from the mill the facility is serving more than 250 households across two village. Now employing ten people, the facility also has the capacity to collect and process recyclable waste too.

The programme has received external recognition, winning the Climate Resilience Village Program – PROKLIM award from the Ministry of Environment and Forestry in 2019.

In a separate waste project, as part of its commitment to improve the environmental health in the area, Ekamas Fortuna invested in infrastructure and facilities to turn livestock waste into energy. By the end of 2019, the mill had installed 4 biogas production units of biogas facilities which were donated to local farmers. The initiative also reduces the carbon emission from the local cattle industry.

{5} Posyandu: an integrated service center for pregnant mothers, infants, and children under 5.

Indah Kiat Serang

Improving living conditions for the community



Access to clean water is still a challenge for the community surrounding the mill, especially during the dry season. In 2019 the mill helped build 11 wells and related infrastructure such as water tanks and pumps. The clean water is used to supply the latrines to improve the sanitation in the area, reducing risks of various sanitation-related illnesses such as diarrhoea and typhoid for more than 1,000 households. The mill also provided free clean water from PDAM (State-Owned Clean Water Provider) to four sub-districts that suffer from drought during the dry season.

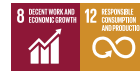
Within the local community in the area surrounding the mill, the district government estimates 700 houses are considered uninhabitable. To address this issue, the mill renovated 10 houses for the communities living under the poverty line to bring their accommodation up to an acceptable standard. The programme is part of a multistakeholder collaboration, with many other contributors working towards the same goal of improving living conditions for the community. The initiative is a collaboration between the district government, military, and Department of Social Affairs.

Mangrove conservation in Serang



In the past several years the Serang north coastal shore has been significantly eroded, with further degradation forecasted. The mill provided 20,000 mangrove seedlings, covering a total of 2 hectares across three sub-districts. By helping to secure the shoreline, Indah Kiat Serang also support securing the livelihood and community infrastructure of the local community.

Economic empowerment through upcycling

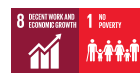


Cipta Handicraft Innovation Product (CHIP) was set up in 2017. The mill spotted the opportunity to utilise waste generated on site by using discarded wood waste from packaging materials to make creative products such as souvenirs. CHIP employs 15 workers, and since receiving the support from the mill, sales have increased by 80%, generating much needed additional income for members of local community. The team were proud to receive an order from the Ministry of Environment and Forestry for personalised gifts for more than 300 high-level delegates across the world during the international environmental conference. In 2019, the mill supported CHIP to construct a showroom from repurposed wood to showcase their products. CHIP also provides an educational facility and workshops for students looking to learn practical skills.

The mill also provides training for a local youth group to make simple furniture such as desks and chairs from the discarded wood waste. In 2019 they made 410 sets of furniture and donated these to local schools, benefitting more than 800 students.

Indah Kiat Perawang

Economic Empowerment through Entrepreneurship



In collaboration with Honda Motorcycle Pekanbaru, the mill supported the training of 10 youths in motorcycle maintenance. Following completion of the training, 8 of them went on to full time employment with several companies while 2 established their own motorcycle maintenance workshop. Indah Kiat Perawang provided soft loans and help in building and equipping a workshop. Overall monthly income for participants in the program is around IDR 3 millions. Future plans include increasing the workshop size to provide the facilities to maintain the mill's motorcycles fleet.

Group level CSR Projects

Case Study: Community Based Total Sanitation (STBM)

The Indonesian Speak Foundation (SPEAK) works with government and communities to enable access to water and sanitation for all through collaborative community focussed programmes. APP work in a collaboration with SPEAK on several sanitation projects through a number of our flagship CSR programmes.

Sanitation remains a challenge in Indonesia, even in urban areas. Only 63% of Jakarta has proper sanitation infrastructure; over 5,000 neighbourhoods need support to develop healthy and proper sanitation. In our Jakarta based programmes we focussed on two areas as an initial pilot; Tebet Timur and Padamangan Barat. In both projects a support team is established, study visits undertaken to identify areas requiring most improvement, then training is provided on sanitation practices, wastewater infrastructure and sanitation care for communities.

A wastewater treatment system based on communal biofilter technology was built in Tebet Timur. The system consists of 6 tanks for processing water and the output is suitable for domestic household use. Other neighbouring communities were supported in building septic tanks and mini treatment facilities too. In total, we improved the sanitation facilities for over 400 families.

In Pademangan Barat, Jakarta Region, the community chose a mini biofilter cylinder waste water treatment system comprising 3 tanks for the Child Friendly Integrated Public Space (known as RPTRA, a public space provided for the local community equipped with games, libraries, and other public facilities), and developing their own family latrines.

We also provide assistance to cadres for the improvement for the community sanitation. They become the extension to support the acceleration of access to proper sanitation for the community itself.

In the village of Kutanegara, Karawang Regency, approximately 300 homes did not have basic sanitation facilities, which creates a risk to both the environment and health. We worked with local stakeholders, representing NGO's, local government and the private sector to construct water sanitation facilities and provide training and awareness raising activities.

We wanted to change behaviour and improve health for the community, but we also saw the opportunity to boost the villages creative economy. The demand for toilet production has stimulated economic growth, as local businesses responded to the demand. The community youth become active in campaigning through art to support Community Based Total Sanitation, spreading the message to neighbouring communities too.

Women empowerment groups formed community hubs, called 'Buteka' who conduct developed businesses based on recycling activities, turning waste into decorative leaves or flowers.

As we look towards the future, we want to encourage others to participate in similar initiatives, using our pilot projects as templates for further sanitation projects so that other communities can also benefit from the huge improvement the programmes bring to their health and their surrounding environments.

Promoting Water Security and Clean Water for Indonesia

Through international and local collaborations, APP is contributing to Indonesia's advance towards a cleaner and more sustainable water future.

Water is an essential resource for life. The global demand for water has been increasing at a rate of about 1% per year over the past decades as a function of population growth, economic development and changing consumption patterns, and it will continue to grow significantly over the foreseeable future. Despite this, access to clean water and proper sanitation remains a challenge in many communities around the globe. Even the islands of Indonesia, surrounded by water on all sides, face looming water security challenges. It is estimated that 30 million Indonesians have no access to clean water, while another 51 million lack adequate sanitation facilities. Both rural and urban communities also face further water-related complications, including floods and droughts that are worsened by climate change.

As chair of the Indonesia Water Mandate Working Group (IWMWG), a special organization under the United Nations Indonesia Global Compact Network, APP has been working to address these water challenges.

Following the success of a pilot project to improve water access and its quality in Pari Island, the IWMWG is looking to initiate new water projects in UNESCO Biosphere Reserves at Berbak Sembilang, Komodo and Wakatobi. The IWMWG introduced better water storage and sanitation infrastructure, and also provided training to the people of Pari Island to help them better understand the importance of water and waste management.

In Sungsang village in Berbak Sembilang, Asia Pulp & Paper (APP) Sinar Mas and the Belantara Foundation have already begun work, delivering two water treatment machines to produce clean water, and setting up a waste collection centre with special chopping machines to cut up plastic waste to be sold for recycling.

APP and the IWMWG are also exploring alternative technologies, such as biopores, to help mitigate climate-related water issues. Biopores help alleviate floodwater damage by helping funnel excess surface water back into the ground through deep holes drilled into the earth. As a result, biopores both help enhance natural water cycle processes and preserve needed water and land resources for future use.

Through these international and local collaborations, APP is helping Indonesia press on toward a clean and sustainable water future, one project at a time.

Our People

GRI: Disclosure of Management Approach (People, Labour/management relations, Diversity and equal opportunities), 102-14

At APP, we believe business success comes from creating an environment where our employees can thrive. We are committed to providing a collaborative work environment that recognizes and rewards success and where innovation is encouraged.

Our Employee Welfare Policy sets out our commitments to meet the requirement of ILO Standards on employee safety, well-being, human rights, labor rights, skills, and data protection. We strive to position APP as a dynamic company with strong employment benefits that extend past salary, besides health insurance, pension and the ability to earn an additional bonus through various awards and recognition schemes we have in place. All our permanent employees receive career development reviews at least annually.

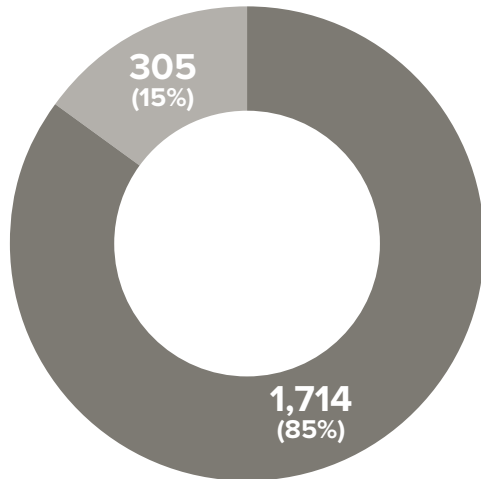
We recognize the challenge of attracting and retaining young talent, so we work actively to make APP an attractive employer. With a loyal and long-serving workforce, the turnover of management is low. We have also stepped up our work to ensure that younger team members are recognized and that they understand that they have a prosperous future at APP.



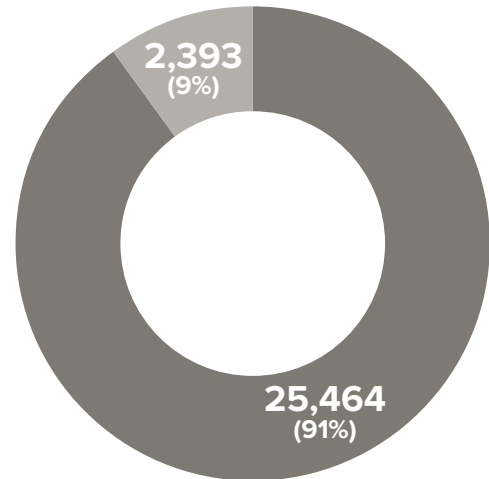
Our Employees

GRI: 102-8, 102-41, 202-1, 202-2, 401-2, 402-1, 403-1, 403-4, 404-3, 405-2, 406-1

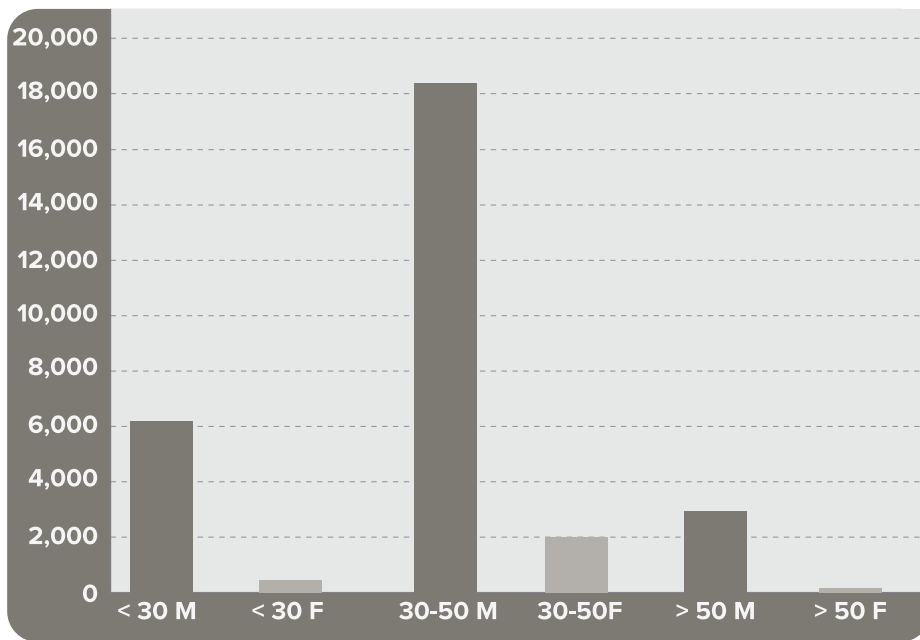
Management composition



Non-Management composition



■ Male ■ Female



At the end of 2019 we employed a total of 29,876^{6} people. While this marked a small decrease (3%) compared to the previous year for mills employee, this was due to natural fluctuations in employment levels and not as a result of any employee reduction programmes.

Amongst our mills, gender diversity decreased slightly, 7% of our workforce were female, a change from 8% in 2019. Amongst mill management, 6% are female, with no change from 2018. In line with the pulp and paper sector in general, gender diversity is a challenge for APP, as we operate in a sector that has traditionally employed a high proportion of males. Amongst our head office roles, 38% of our workforce are female.

{6} In 2019 we included Head Office roles in our employee data

We have committed to increase the number of women in senior management positions to 30% by 2030, as part of our Vision 2030 Sustainability Roadmap commitments.

All mills provide equal pay and benefits, with a salary equal to or greater than the locally determined minimum wage, which varies by location, irrespective of gender. Benefits include paid annual leave, maternal and paternal parental leave, sabbatical leave, health insurance and a company pension plan. Certain benefits are provided to permanent employees only, but this varies by each mill, in line with local regulations.

Maternity and paternity leave is provided to all employees, following the local government guidance at each location. Parental leave data is provided in the social data section of the Report. Our Integrated Call Centre (see page 40) provides the mechanism to report discrimination and other concerns anonymously. Reporting channels indicated no confirmed cases of discrimination in 2019.

In 2019 10% of our employees were hired locally. Our policy is to prioritise hire local people, unless the specific skills for the role are not available. All our permanent employees career development reviews, annually as a minimum. In the event of operational changes, APP allows a minimum of seven days' notice, as per Government of Indonesia regulation. Employees are free to select and join a union of their choice, 99% of employees are covered by collective bargaining agreements.

All employees are free to associate with their chosen labor union. Our mills encourage active and collaborative communications, facilitating discussions between the employees and labor unions on a regular basis, ensuring issues raised are dealt with and the appropriate follow up and action if necessary. The most regular topics are issues related to salary, scholarships, PPE and leave entitlement.

		2019	2018	2017
New employee hire rate	Total	6	6	5
	Male	6	6	5
	Female	7	5	2
Turnover rate	Total	11	6	13
	Male	11	7	10
	Female	22	25	37
Senior Management hired locally		9	6	7

GRI: 401-1

Training

GRI: Disclosure of Management Approach (Training), 404-1, 404-2

To build and maintain a world class workforce, we invest heavily in training and competency development for our employees. Developing broad, technical skills, management techniques and leadership qualities requires a dedicated companywide training effort. APP's training and development is managed at group level through the APP Academy, with each mills developing their own supplementary programmes to meet their own needs. A separate leadership programmes exist from supervisor to divisional management level, ensuring our leaders are equipped with the skills and competency to lead and succeed. In 2019 we conducted an average of 26 hours of training per employee.

At Lontar Papyrus we focussed on diversifying our employee's skillsets through a number of dedicated training programmes through 2019. Targeting 600

employees we have so far passed 174 through the courses. The aim was to improve productivity, as more employees became skilled in new areas of mill operations. By broadening employee's skills we become more flexible, improve business contingency for critical tasks and also found that employee confidence and satisfaction grew too.

A dedicated programme is in place for employees approaching the end of their working careers. We run courses that include farming techniques, entrepreneur training, husbandry, handicrafts and home industries, designed to provide sources of income once their work at APP comes to an end. We also provide life skills training, for example in financial planning. Where possible, we embed these programmes within established CSR projects at our mills.

Human Rights

GRI: Disclosure of Management Approach (Human Rights Assessment), 412-1, 412-2, 412-3

Through audits and risk assessments conducted across all our mills, APP recognises that our operations are exposed to human rights related risks. These risks are present both at our mills and through the operations and activities of our suppliers. The way we manage these risks is informed by the United Nation's Guiding Principles on Business and Human Rights and the International Labour Organisation (ILO). Our Forest Conservation Policy aims to deliver community development, transparent conflict resolution and Free, Prior and Informed Consent (FPIC). We incorporate resolution action planning into professional performance indicators of site managers. In 2019 we conducted 26,860 hours of human rights training amongst our employees., with participation covering 90% of our employees.

APP Policies explain our commitments, procedures, and expectations on human rights. This includes policies that all suppliers must comply :

- APP Corporate Social Responsibility Policy sets out our overall commitment to human rights
- APP Employee Welfare Policy sets out how we respect and protect our employees' human rights, as well as our responsibility towards contractors
- APP Responsible Fibre Procurement & Processing Policy explains our commitment on wood legality and compliance by our fibre suppliers
- APP Forest Conservation Policy includes our grievance mechanisms through which stakeholders can raise concerns related to our fibre supply

Scholarship and Talent retention programmes

At APP we see it as our social commitment to support educational development in our local communities. We also recognise that by supporting our employee's families through education we demonstrate a long-term commitment to our workforce. Strategic support for scholarships and talent retention programmes also help to secure the long term sustainability our workforce, bringing in the next generation of skilled employees into our organisation.

Three scholarship programmes are currently ongoing at Indah Kiat Serang. Scholarships are awarded to employees' children who have passed administrative, academic, psychological tests, and interviews conducted by Mill and HQ. We have three programmes in place, the Dr Anne C. Cleveland scholarship with 7 students, the ITSB Scholarship with 1 student and the Tali Kasih programme (for the children of employees who have passed away) with 116 students. The latter can be applied at any level of education, from kindergarten through to university. All scholarships provide financial support through education and culminate in employment at the mill and we hope a long and successful career at APP.

At Tjiwi Kimia we aim to award at least three ITSB scholarships each year. The mill CSR team work closely with several local schools and involve the ITSB in the selection process too. A group of students are selected for the final exam, with the highest scores receiving the scholarship award. Vocational training is also provided in the form of 3 months industrial apprenticeships. By participating in this program students are expected to have more abilities and of course become trained to face the workforce when they graduate later. This program is attended by more than 50 students from vocational high schools each year who come from several vocational schools. Roles include Office Administration, Animation and Multimedia and Automotive Engineering.

The Skilled Operator Training programme is aimed at graduates of vocational or high school equivalent who have graduated from school but been unable to find employment. Under the guidance of a dedicated mentor, the participants are given 6 months of On Job Training. After successful completion the students get the opportunity to be recruited as employees at Tjiwi Kimia if they pass the competency test. And during 2019, 90% of training participants have successfully passed and become permanent APP employees.

Health and Safety

GRI: 403-1, 403-2

We are committed to ensuring every employee and contractor returns home safe, every day.

Each of our mills manages health and safety at a local level, supported by a dedicated team of experts at Group level. The Mill Head is directly accountable to APP's Chairman for health and safety performance at each mill. All mills except for OKI and Univenus Perawang, have OHSAS 18001 certification for occupational health and safety, and five mills have moved to aligning with the new ISO 45001 in 2019. All mills have SMK3, the Indonesia national standard for health and safety in the workplace. Joint safety

committees are in place at all mill sites, representing the whole workforce and providing one mechanism for all employees to communicate concerns, provide input into safety management systems and for safety messages to be communicated. We don't currently have employees whose work, or workplace involves in occupational activities which have a high incidence or high risk of specific diseases.

Safety Performance Index (SPI) became fully established in 2019, with full support from APP's Chairman. The SPI is designed to systematically measure and monitor mill occupational health and

safety performance, while also considering precautionary measures, preventive measures and near misses. 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 and SPI scores are part of each employees personal KPIs.

Process Safety Management was a key programme for APP in 2019. We conducted a pilot at three mills and will expand to others in the coming years. It covered 14 elements of process safety, including hazard analysis, operating procedures, training, contractor management, work safety permits, incident investigation and emergency planning and response. It sits alongside our Safety Performance Index as an important tool in monitoring performance.

We also conducted an OHSMS Performance Audit in 2019. We reviewed strategy and leadership, planning, level of support available, as well as operational and performance aspects too. The results enabled us to target improvements in process safety management systems, contractor management, permit to work systems, emergency response, behavioural based safety and compliance with various regulations.

Performance in 2019

		2019	2018	2017
Injury rate	Male	2	2	2
	Female	2	0.2	0.1
Lost Day rate	Male	5.2	5	4.7
	Female	0.1	0	2.4
Fatalities	Male	11	10	8
	Female	0	0	1
Absentee rate	Male	0.1	0.1	0.1
	Female	0.03	0.01	0.03
Frequency rate		8	8	8
Severity rate	Total	24	23	22
Occupational disease rate		0	0	0

We report no significant change in performance against key Health and Safety metrics in 2019, compared to previous years. For performance at a mill level, please refer to the social data tables on page 123 of this report. We failed to meet our Vision 2020 target of zero fatalities, each incident and our response is detailed below.

Incidents

We are saddened to report 11 fatalities in 2019, these involved 6 employees and 5 contractors. In addition to the improvement actions identified from each and every case, a fatality prevention program is part of the Safety Performance Index (see page 113). We involve the mill leadership team in inspections and risks assessments as part of the response, demonstrating to all employees and contractors that our focus on safety improvement is supported from senior management.

At Lontar Papyrus an employee fell from a walkway. Following the incident, the mill inspected all walkways for corrosion and other unsafe conditions. Where required, additional warning signs and access restrictions were put in place. We also installed permanent lifelines to provide anchoring for body harnesses and reviewed all Standard Operating Procedures to ensure adequate control measures are in place for all activities involving working from height.

In a second incident a contractor was hit by a falling concrete wall, after entering an area without the required permission, following demolition works. In response we conducted a review of all cast designs to ensure that the designs are in accordance with civil engineering principles. We assigned a team who are responsible for conducting supervision of any activities in high risk zones and introduced audits and periodic inspections to ensure lifting procedures are conducted as per the relevant Standard Operating Procedure. We appointed and assigned a dedicated team of Riggers, certified according to the relevant regulations. Because the incident involved a contractor we reinforced the procedure that all contractors working in the mill must prepare a HSE plan in accordance with the exact scope of work being undertaken, and safety briefings are conducted before each shift begins.

At OKI mill, an employee was fatally injured whilst performing cleaning on the tissue machine. Following the incident lockout/tagout (LOTO) procedures were introduced for specific tasks, including cleaning. Additional physical barriers were also put in place, with improved guarding and revised engineering procedures. Training was also provided to all employees involved in cleaning activities.

In a separate incident at the mill, a contractor drowned after slipping and falling between two boats. In response we improved boat access to reduce the risk of falling during transfer at the pickup points. Training on lifejacket use was repeated to all employees and will be conducted every month as part of an ongoing

refresher training. All employees involved in river or sea activities were checked to ensure their Sea Survival certificates are up to date.

In a third incident a contractor was fatally injured after being struck by a truck. The incident prompted revised driver safety training, identifying, and implementing clear pedestrian zones within the mill site, inspections for vehicle safety compliance and increasing speed checks for all vehicles. We also reiterated through mill wide communications the mandatory requirement for all motorcycle riders to wear helmets at all times. At Indah Kiat Serang an employee was fatally injured after becoming trapped between two winder drums on the paper machine. The winding process was updated following the incident to ensure activities are always supervised by a properly trained employee. Additional guarding was installed and signing improved. Finally, Standard Operating Procedures were revised, and refresher training provided to all employees in the effected section of the mill.

At Pindo Deli Karawang a contractor was struck by a paper roll as it was moved by crane. After the incident was investigated, we installed a safety fence to prevent employees accessing high risk areas without the necessary process stops in place. We also installed additional warning alarms to indicate equipment is moving or about to move. Training was improved and a revised competency standard introduced.

At Indah Kiat Perawang an employee was killed following a fall from height whilst conducting maintenance on air fan ducting. In response we installed a barricade and improved safety signs in hazardous open work zones. We improved safety equipment and revised the risk assessment for this particular activity. We provided additional training on our Working at Height Procedure and introduced periodic inspection and audits too. We also developed Lone Worker Procedures and disseminate information to all employees. Finally, we carried out training on the correct procedure to rescue victims from confined spaces to the emergency response team.

In a second incident at the mill, an employee was drowned after becoming trapped in a excavator vehicle. In response we improved under water rescue training and revised the safety induction for high risk activities. We worked to ensure pre job safety briefings included specific discussion and consideration for activities involving water and action plans for 'person overboard' are discussed and rehearsed.

Safety Improvement Programme

Indah Kiat Serang ran several safety improvements in 2019. We worked hard to improve our risk assessment process, enhancing our employee's ability to identify hazards and develop the appropriate response and Standard Operating Procedures. A Safety Ambassador programme was updated to involve the victims of workplace accidents, sharing their experiences, and learning with a wider team to drive awareness and encourage a more collaborative approach to health and safety. We also developed a 'Tarpaulin Centre', a dedicated area with proper fall protection for transported goods to be properly secured before leaving the mill. Inspection rate was increased too, with walkways, railings, ladders, doors and gates all closely inspected for defaults or areas of risk.

Contractors Safety Management

We have a responsibility to ensure our third-party contractors have a safe working environment. Contractor safety is an integral part of our overall approach to health and safety management, which is now in place across all mills. Before any contractual arrangement begins, an in depth assessment for each contractor takes place. Once we are comfortable that the contractor has the correct approach to safety that aligns with our principles we then consider the leadership and behavioural aspects of safety. Where opportunities to improve are identified we work with our contractors to help them address these gaps. We introduced the SPI for contractors in 2019 too, expanding the index from our employees only, covering – job safety analysis, behaviour based safety, inspections and corrective actions, safety inductions and meetings. In 2019 we conducted audits at six of our mills.

About This Report

GRI: 102-51, 102-56

This report continues Asia Pulp & Paper (APP) Sinar Mas long-term commitment to annual sustainability reporting. Our most recent report, the 2018 Sustainability Report, was published in October 2019.

Asia Pulp & Paper's Sustainability Report 2019, published in November 2020, 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 introduce our future sustainability strategy, Vision 2030, and we will report progress against our updated commitments in our 2020 Report, based on performance to date.

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 contribute towards the UN Sustainable Development Goals (SDGs) and activities to support the UN Global Compact's CEO Water Mandate.

This report has been externally assured to the internationally recognised AA1000(AS) standard for assurance. 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 145.

Defining Report Content

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

Report scope and boundary

GRI: 102-1, 102-5, 102-10, 102-47, 102-48, 102-49, 102-50, 102-52, 102-53, 102-54, 102-55

Asia Pulp & Paper (APP) Sinar Mas is a brand name under which our products are sold. The scope of the report covers APP Sinar Mas pulp and paper manufacturing operations in Indonesia. There were no significant changes to the organisation’s size, structure, ownership, or supply chain during the reporting period. We have restated carbon footprint emission data (scope 1 and scope 2) for 2017 and 2018 due to a change in the methodology we apply to energy allocation between our mills located in Perawang. This change does not impact our overall total carbon emission.

Unless stated otherwise, information in this report relates to the period 1st January 2019 to 31st December 2019 (“the reporting period”). Continuing the approach first applied in 2016, we report mill production capacity based on quoted capacity in relevant legal documentation (business permits).

The following operational facilities are within scope of this report.

Legal entity	Mill (s) known as ^{7}
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

{7} For the purpose of GRI definitions, each mill is a ‘significant location of operation’.

On page 37 we set out our material topics, which relates to the following GRI disclosures. For each, we state the topic boundary. There are no significant changes to this list from our previous Sustainability Report.

		Topic boundary		
	GRI topic	Suppliers	APP	Customers
201	Economic Performance			
202	Market presence			
203	Indirect economic impacts			
205	Anti-corruption			
206	Anti-competitive behaviour			
301	Materials			
302	Energy			
303	Water			
304	Biodiversity			
305	Emissions			
306	Effluents and waste			
307	Environmental compliance			
308	Supplier environmental assessment			
401	Employment			
402	Labor/management relations			
403	Occupational health and safety			
404	Training and education			
405	Diversity and equal opportunity			
406	Non-discrimination			
410	Security practices			
411	Rights of indigenous peoples			
412	Human rights assessment			
413	Local communities			
414	Supplier social assessment			
417	Marketing and labelling			

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, 2018 and 2019.

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. The majority of pulpwood is provided by 'continuous suppliers' which have a contract to supply to APP on an ongoing basis. Occasionally we also use 'one-time suppliers', on a per-contract basis. All our suppliers, both continuous and one-time, must first be approved through our Supplier Evaluation and Risk Assessment (SERA) process.

Our continuous pulpwood suppliers currently comprise 33 pulpwood supplier companies who manage 38 concessions (forest management units based on government forest concession licenses). In addition, there are three Community Forest suppliers, and a small number of one-time suppliers, also supported by our forestry management team. Despite not being under APP's direct ownership (although we have shared ownership in nine of our continuous 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.

Group Environmental Data Table

		Unit	2019	2018	2017
Water	Total water withdrawn by source (all mills withdrawn water from surface water only)	m ³	289,266,411	277,027,035	279,846,791
	Percentage water recycled	%	14%	15%	14%
	Effluent discharge to river	m ³	211,218,625	225,303,756	227,403,254
Waste	Landfill	tonnes	511,844	518,696	513,988
	Utilised by licensed third party		175,889	251,899	283,392
	Recycled		442,819	486,892	380,755
	Temporary storage		10,076	8,522	3,563
	Total hazardous waste		1,140,629	1,214,416	1,181,697
	Landfill		1,793	0	3
	Utilised by licensed third party		242,219	240,731	228,313
	Recycled		7,762	910	5,588
	Temporary storage		16,923	50,224	41,668
Total non-hazardous waste	262,496	291,865	275,572		
Others	ODS emissions in CFC-11 eq	tonnes	0.79	0.88	1.06
Environmental expenditure	Waste disposal, emissions treatment, and remediation costs	US\$	28,379,532	30,210,689	31,171,296
	Prevention and environmental management costs		10,208,559	6,272,320	10,275,563

Mill Environmental Data Table

Environmental Parameters			Indah Kiat Perawang			Indah Kiat Serang			Indah Kiat Tangerang			
			2019	2018	2017	2019	2018	2017	2019	2018	2017	
Water Emissions	pH	mg/l	8.00	7.75	7.58	7.92	7.89	7.81	7.55	7.33	7.40	
	TSS		40.08	63.08	69.50	32.97	31.64	24.72	5.82	5.56	6.08	
	BOD		46.42	46.67	51.08	41.08	38.22	32.97	7.91	13.89	11.15	
	COD		205.17	230.33	230.08	167.83	150.19	135.36	34.45	65.67	40.72	
	AOX		0.97	2.53	4.00	NA	NA	NA	NA	NA	NA	
Air Emissions	NO2	mg/N m3	210.20	202.96	151.81	460.00	369.11	171.63	150.25	203.13	165.25	
	SO2		217.83	173.81	193.16	260.13	219.22	9.13	19.25	32.50	27.83	
	ClO2		1.46	35.99	29.60	NA	NA	NA	NA	NA	NA	
	HCl		0.15	3.11	2.61	NA	NA	NA	NA	NA	NA	
	Cl2		0.22	5.41	5.28	NA	NA	NA	NA	NA	NA	
	Opacity		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	TRS		1.09	8.59	10.08	NA	NA	NA	NA	NA	NA	
Total Particulate	57.64	101.77	100.25	24.38	48.78	15.25	47.26	60.58	65.58			
Air Emissions Load	NO2	kg/t	0.91	0.08	0.98	2.71	2.23	1.04	0.28	2.76	5.13	
	SO2		0.89	1.21	1.76	1.48	1.29	0.83	0.03	0.40	0.82	
Others	Distance to protected area	km	Tesso Nilo National Park (50)			Halimun Mountain National Park (40)			Rawa Danau Tukung Gede Conservation Area (20)			
	Local water source & discharge		Siak River			Cijung River			Cisadane River			

Environmental Parameters			Lontar Papyrus			Pindo Deli Karawang			Pindo Deli Perawang		
			2019	2018	2017	2019	2018	2017	2019	2018	2017
Water Emissions	pH	mg/l	7.00	6.94	7.00	7.71	7.56	7.43	Discharge via Indah Kiat Perawang		
	TSS		25.67	38.00	32.33	64.48	33.99	19.69			
	BOD		56.33	69.50	81.33	63.99	16.19	21.17			
	COD		127.00	232.08	181.00	149.25	62.89	76.06			
	AOX		3.67	3.33	3.27	0.10	0.08	0.17			
Air Emissions	NO2	mg/N m3	134.68	72.99	87.49	236.30	227.57	81.16			
	SO2		245.62	176.15	172.32	72.18	36.00	35.29			
	ClO2		1.58	2.17	8.74	NA	NA	NA			
	HCl		1.21	0.21	1.61	NA	NA	0.06			
	Cl2		0.71	1.23	3.54	NA	NA	NA			
	Opacity		< 20	< 20	< 20	< 20	< 20	< 20			
	TRS		9.34	8.23	7.63	NA	NA	NA			
Total Particulate	141.31	150.89	130.77	40.49	41.33	75.61					
Air Emissions Load	NO2	kg/t	4.39	1.90	2.41	4.95	3.58	4.76			
	SO2		1.11	1.92	5.17	1.82	0.78	1.29			
Others	Distance to protected area	km	Bukit Tigapuluh National Park (30)			Natural 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		
			2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Water Emissions	pH	mg/l	7.42	7.36	7.42	Discharge via Indah Kiat Perawang	7.45	7.33	7.50	7.82	7.42	7.15		
	TSS		19.00	13.55	16.92		8.27	18.00	19.17	39.00	38.67	24.40		
	BOD		28.83	14.82	10.42		32.27	27.17	20.67	51.55	51.25	101.23		
	COD		59.25	36.45	32.50		98.00	75.50	70.58	198.00	210.08	219.67		
	AOX		0.00	0.00	0.00		NA	NA	NA	3.00	4.00	3.67		
Air Emissions	NO2	mg/Nm3	199.06	72.27	153.67		143.50	53.03	35.00	322.00	379.50	105.00		
	SO2		39.20	156.42	146.83		51.50	206.61	234.80	186.25	53.00	8.53		
	ClO2		NA	NA	NA		NA	NA	NA	0.00	72.27	43.81		
	HCl		1.32	1.34	0.58		NA	NA	NA	0.50	1.25	0.80		
	Cl2		0.00	0.00	0.31		NA	NA	NA	1.00	1.60	0.41		
	Opacity		< 20	< 20	< 20		< 20	< 20	< 20	< 20	< 20	< 20		
	TRS		NA	NA	NA		NA	NA	NA	1.67	6.50	7.72		
	Total Particulate		12.13	29.83	14.50		22.70	110.33	128.00	21.38	21.25	17.69		
Air Emissions Load	NO2	kg/t	8.20	1.41	0.07	4.51	0.96	1.01	2.39	1.11	0.18			
	SO2		1.84	0.37	9.98	1.60	5.27	8.64	1.03	0.96	0.02			
Others	Distance to protected area	km	Bromo Tengger Semeru National Park (80)			Tesso Nilo National Park (50)			Pulau Sempu Nature Reserve (30)			Berkak Sembiland National Park		
	Local water source & discharge		Brantas River			Siak River			Lesti River			Baung River		

Mill Social Data Table

			Indah Kiat Perawang						Indah Kiat Serang					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	11	27	124	1	1	11	245	64	1	10	0	0
	Rate of new employee	%	1.0%	0.7%	14.7%	2.9%	0.4%	5.6%	20.0%	2.9%	0.2%	17.5%	0.0%	0.0%
	Employee turnover	#	175	247	90	8	40	8	124	111	52	4	8	6
	Rate of employee turnover	%	13.3%	6.0%	9.6%	18.6%	14.7%	30.8%	9.2%	4.8%	10.2%	6.6%	7.8%	26.1%
Health & Safety	Fatality	#	4			0			1			0		
	Frequency rate		7.2			0.9			6.0			0.0		
	Severity rate		21.6			2.3			27.7			0.0		
	Injury rate		1.4			0.2			1.2			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		4.3			0.5			5.5			0.0		
	Absentee rate	%	0.7%			0.7%			0.7%			1.3%		

			Indah Kiat Tangerang						Lontar Papyrus					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	14	5	0	5	0	0	101	15	11	3	0	1
	Rate of new employee	%	9.3%	0.9%	0.0%	16.7%	0.0%	0.0%	27.1%	1.4%	6.8%	23.1%	0.0%	33.3%
	Employee turnover	#	11	31	28	4	7	5	34	93	61	2	4	0
	Rate of employee turnover	%	6.8%	5.5%	33.7%	11.8%	8.5%	71.4%	8.4%	8.0%	27.4%	13.3%	12.1%	0.0%
Health & Safety	Fatality	#	0			0			2			0		
	Frequency rate		6.0			1.8			3.7			0.0		
	Severity rate		6.8			0.0			40.6			0.0		
	Injury rate		1.2			0.4			0.7			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		1.4			0.0			8.1			0.0		
	Absentee rate	%	2.4%			1.7%			1.1%			0.4%		

			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	#	201	60	1	9	2	0	12	0	0	0	0	0
	Rate of new employee	%	35.2%	2.0%	0.2%	12.2%	0.9%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
	Employee turnover	#	63	121	50	5	11	1	50	78	1	4	5	0
	Rate of employee turnover	%	9.9%	3.9%	7.5%	6.3%	4.7%	6.7%	8.8%	6.2%	4.2%	28.6%	12.5%	0.0%
Health & Safety	Fatality	#	1			0			0			0		
	Frequency rate		10.9			3.0			14.9			0.0		
	Severity rate		17.1			0.0			0.9			0.0		
	Injury rate		2.2			0.6			3.0			0.0		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		3.4			0.0			0.2			0.0		
	Absentee rate	%	1.2%			0.9%			1.7%			2.2%		

			Univenus Perawang						Tjiwi Kimia					
			Male			Female			Male			Female		
			<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Employee	New employee	#	0	0	0	0	0	0	420	46	4	21	0	0
	Rate of new employee	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	44.0%	1.1%	0.7%	29.2%	0.0%	0.0%
	Employee turnover	#	1	2	0	1	0	0	53	481	104	8	316	9
	Rate of employee turnover	%	10.0%	50.0%	0.0%	3.0%	0.0%	0.0%	5.3%	10.6%	15.2%	10.0%	27.0%	16.4%
Health & Safety	Fatality	#	0			0			0			0		
	Frequency rate		113.4			0.0			4.6			0.3		
	Severity rate		56.7			0.0			10.2			0.0		
	Injury rate		22.7			0.0			0.9			0.1		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		11.3			0.0			2.0			0.0		
	Absentee rate	%	11.7%			0.5%			0.9%			1.6%		

			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	#	20	6	0	0	0	0	21	26	11	3	3	0
	Rate of new employee	%	23.8%	1.0%	0.0%	0.0%	0.0%	0.0%	2.5%	3.4%	8.7%	5.4%	20.0%	0.0%
	Employee turnover	#	4	11	29	0	0	1	218	204	82	22	17	1
	Rate of employee turnover	%	4.5%	1.8%	13.2%	0.0%	0.0%	20.0%	25.5%	26.4%	65.1%	39.3%	113.3%	100.0%
Health & Safety	Fatality	#	0			0			3			0		
	Frequency rate		13.2			9.9			21.3			1.9		
	Severity rate		3.4			0.0			77.5			0.0		
	Injury rate		2.6			2.0			4.3			0.4		
	Occupational disease rate		0.0			0.0			0.0			0.0		
	Lost day rate		0.7			0.0			15.5			0.0		
	Absentee rate	%	0.9%			1.0%			0.7%			1.4%		

GRI Index

Aspect	General Standard Disclosures					
		Disclosure	Reference	Page	Notes	
Organizational Profile	102-1	Name of the organization	About Us	6		
	102-2	Activities, brands, products, and services		6 - 7		
	102-3	Location of headquarters		9		
	102-4	Location of operations		8 - 9		
	102-5	Ownership and legal form	Governance	39	For more information refer to https://www.asiapulppaper.com/legal-notice	
	102-6	Markets served	About Us	6		
	102-7	Scale of the organization	Governance	39		
	102-8	Information on employees and other workers	About Us	8 - 9	Permanent and temporary employee statistics are collected but not published as there are commercially sensitive. Employee numbers are shown for each mill to show regional breakdown. APP does not employ part time employees therefore this data is not available to disclose	
	102-9	Supply chain	Forest	56		
	102-10	Significant changes to the organization and its supply chain				
	Strategy	102-11	Precautionary Principle or approach	Strategy	32	APP abides by the Precautionary Principle, demonstrated through our comprehensive Sustainability Roadmap Vision 2020 and associated commitments.
		102-12	External initiatives		33	This report was developed in accordance with the Global Reporting Initiative are we are a signatory of the United Nations Global Compact.
102-13		Membership of associations		35		
102-14		Statement from senior decision-maker	Senior Statement		18	
Ethics and Integrity	102-15	Key impacts, risks, and opportunities	Forest, People, Production	40	In each section of this Report (Forests, People and Production) we describe key impacts, risks and opportunities relevant for each issue area.	
	102-16	Values, principles, standards, and norms of behaviour	Strategy			
Governance	102-17	Mechanisms for advice and concerns about ethics	Governance	38		
	102-18	Governance structure				
	102-19	Delegating authority				
	102-20	"Executive-level responsibility for economic, environmental, and social topics"		39		
	102-21	"Consulting stakeholders on economic, environmental, and social topics"	Strategy		33	
	102-23	Chair of the highest governance body	Governance		39	
	102-24	Nominating and selecting the highest governance body				
	102-25	Conflicts of interest	Strategy		40	
	102-26	Role of highest governance body in setting purpose, values, and strategy	Governance	39		
	102-27	Collective knowledge of highest governance body				

Aspect	General Standard Disclosures				
	Disclosure	Reference	Page	Notes	
Governance	102-28	Evaluating the highest governance body's performance	Governance	39	
	102-29	"Identifying and managing economic, environmental, and social impacts"	Strategy	24 - 26	
	102-30	Effectiveness of risk management processes		40	
	102-31	Review of economic, environmental, and social topics	Governance	39	
	102-32	Highest governance body's role in sustainability reporting			
	102-33	Communicating critical concerns			
	102-34	Nature and total number of critical concerns		41	
Stakeholder Engagement	102-40	List of stakeholder groups	Strategy	35	
	102-41	Collective bargaining agreements	People	114	
	120-42	Identifying and selecting stakeholders	Strategy	35	
	120-43	Approach to stakeholder engagement			
	102-44	Key topics and concerns raised		35 - 36	
Reporting Practice	102-46	Defining report content and topic Boundaries	Report scope and boundary	116	
	102-47	List of material topics			
	102-48	Restatements of information			
	102-49	Changes in reporting			
	102-50	Reporting period			
	102-51	Date of most recent report			
	102-52	Reporting cycle	117		
	102-53	Contact point for questions regarding the report		Inside front cover	1
	102-54	Claims of reporting in accordance with the GRI Standards		Defining Report Content	117
	102-55	GRI content index		GRI Index	126
102-56	External assurance	Assurance	141		

Aspect	Specific Disclosures					
		Disclosure	Reference	Page	Notes	
201 Economic performance	103-1	Topic boundary	APP does not produce consolidated financial statements. For the management approach of our three listed mills, please refer to their Annual Reports [link]	n/a	APP does not produce consolidated financial statements. For the management approach of our three listed mills, please refer to their Annual Reports (page 40)	
	103-2	Explanation of management approach				
	103-3	Evaluation of management approach				
	201-1	Direct economic value generated and distributed		GRI Index	APP own operations	
202 Market presence	103-1	Topic boundary		GRI Index		
	103-2	Explanation of management approach	People	6		
	103-3	Evaluation of management approach				
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage		110		
	202-2	Proportion of senior management hired from the local community			APP own operations	
203 Indirect economic impacts	103-1	Topic boundary		GRI Index		
	103-2	Explanation of management approach	People	100		
	103-3	Evaluation of management approach				
	203-1	Infrastructure investments and services supported				
	203-2	Significant indirect economic impacts				APP own operations / APP suppliers
205 Anti-corruption	103-1	Topic boundary		GRI Index		
	103-2	Explanation of management approach	Strategy	41		
	103-3	Evaluation of management approach				
	205-1	Operations assessed for risks related to corruption				
	205-2	"Communication and training about anti-corruption policies and procedures"				APP own operations
	205-3	Confirmed incidents of corruption and actions taken				

Aspect	Specific Disclosures				
	Disclosure	Reference	Page	Notes	
301 Materials	103-1	Topic boundary		GRI Index APP own operations / APP suppliers	
	103-2	Explanation of management approach	Forest	48, 56 - 58	
	103-3	Evaluation of management approach			
	301-1	Materials used by weight or volume	Data table	49	
	301-2	Recycled input materials used	Forest		
	301-3	Reclaimed products and their packaging materials		GRI Index Not applicable for APP products	
302 Energy	103-1	Topic boundary		GRI Index APP own operations	
	103-2	Explanation of management approach	Production	45	
	103-3	Evaluation of management approach			
	302-1	Energy consumption within the organization	Production and Data table	45 - 47	- Methodology refer to IPCC - Fuel conversion factors refer to net calorific value of internal or external analysis List of energy outside of organization included in the report: 1. Purchased goods and services 3. Fuel- and energy-related activities not included in scope 1 or scope 2 4. Upstream transportation and distribution 6. Business travel 9. Downstream transportation and distribution 10. Processing of sold products 12. End-of-life treatment of sold products Calculation method : The total emissions value is calculated based on activities data and multiplied using energy factors for each activities using Simapro Software.
	302-2	Energy consumption outside of the organization			
	302-3	Energy intensity	Production	- Energy intensity denominator : production of pulp and paper - Energy intensity included in intensity ratio is within the organization - all type of energy included in the calculation	
302-4	Reduction of energy consumption	Production and Data table	- all type of energy included in the calculation - 2012 baseline which is based on the first year of Sustainability Roadmap Vision 2020 implementation		
303 Water	103-1	Topic boundary		GRI Index	
	103-2	Explanation of management approach	Production	50	
	103-3	Evaluation of management approach			
	303-1	Water withdrawal by source			
	303-2	Water sources significantly affected by withdrawal of water	Data table	120	
	303-3	Water recycled and reused	Production	50	
304 Biodiversity	103-1	Topic boundary		GRI Index APP suppliers	
	103-2	Explanation of management approach	Forest	74	
	103-3	Evaluation of management approach			
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		56	

Aspect	Specific Disclosures				
	Disclosure	Reference	Page	Notes	
304 Biodiversity	304-2	Significant impacts of activities, products, and services on biodiversity	Forest	56	
	304-3	Habitats protected or restored			
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		74 - 79	
305 Emissions	103-1	Topic boundary		GRI Index	APP own operations / APP suppliers
	103-2	Explanation of management approach		44	
	103-3	Evaluation of management approach			
	305-1	Direct (Scope 1) GHG emissions			
	305-2	Energy indirect (Scope 2) GHG emissions	Production	45	<ul style="list-style-type: none"> - All gases included in the calculation - 2012 baseline emission which is based on first year of Sustainability Roadmap Vision 2020 implementation - Fuel emission factors is based on the Intergovernmental Panel on Climate Change (IPCC) ; GWP refer to 5th Assessment Report of IPCC - Imported electricity emission factor using country (Indonesia) specific factors (ESDM Ministry) - Consolidation approach by operational control - Methodology using IPCC and WRI/WBCSD Greenhouse Gas (GHG) Protocol
	305-3	Other indirect (Scope 3) GHG emissions			
	305-4	GHG emissions intensity			
	305-5	Reduction of GHG emissions			
	305-6	Emissions of ozone-depleting substances (ODS)		120	<ul style="list-style-type: none"> - all refrigerants type included in the calculation - ODS emission factors refer to US EPA
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Data table	121	Calculation method in accordance with the Regulation of the Minister of Environment No. 6/2013 on PROPER	
306 Effluents and Waste	103-1	Topic boundary		GRI Index	APP own operations
	103-2	Explanation of management approach	Production	48	
	103-3	Evaluation of management approach			
	306-1	Water discharge by quality and destination	Data table	121	
	306-2	Waste by type and disposal method	Production and Data table	49	
	306-3	Significant spills	Production		
	306-5	Water bodies affected by water discharges and/or runoff	Data table	121	Data table

Aspect	Specific Disclosures					
		Disclosure	Reference	Page	Notes	
307 Environmental compliance	103-1	Topic boundary		GRI Index	APP own operations	
	103-2	Explanation of management approach	Production	44		
	103-3	Evaluation of management approach				
	307-1	Non-compliance with environmental laws and regulations		48, 50		
308 Supplier Environmental Assessment	103-1	Topic boundary		GRI Index	APP suppliers	
	103-2	Explanation of management approach	Forest	68		
	103-3	Evaluation of management approach				
	308-1	New suppliers that were screened using environmental criteria				
308-2	Negative environmental impacts in the supply chain and actions taken					
401 Employment	103-1	Topic boundary		GRI Index	APP own operations	
	103-2	Explanation of management approach	People	108		
	103-3	Evaluation of management approach				
	401-1	New employee hires and employee turnover			110	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		108		
402 Labor/ management relations	103-1	Topic boundary	APP Suppliers	GRI Index	APP suppliers	
	103-2	Explanation of management approach		112		
	103-3	Evaluation of management approach				
	402-1	Minimum notice periods regarding operational changes		110		
403 Occupational Health and Safety	403-1	Workers representation in formal joint management–worker health and safety committees	People	112		
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities			112	
	403-3	Workers with high incidence or high risk of diseases related to their occupation				

Aspect	Specific Disclosures				
	Disclosure	Reference	Page	Notes	
404 Training and education	103-1	Topic boundary		GRI Index	APP own operations
	103-2	Explanation of management approach		111, 112	
	103-3	Evaluation of management approach			
	404-1	Average hours of training per year per employee	People	111	
	404-2	Programs for upgrading employee skills and transition assistance programs			
	404-3	Percentage of employees receiving regular performance and career development reviews			108
405 Diversity and equal opportunity	103-1	Topic boundary		GRI Index	APP own operations
	103-2	Explanation of management approach	People	110	
	103-3	Evaluation of management approach			
	405-1	Diversity of governance bodies and employees		123	<small>People The composition of our Boards are available in our Annual Reports*</small>
	405-2	Ratio of basic salary and remuneration of women to men	People	110	
406 Non-discrimination	103-1	Topic boundary		GRI Index	APP own operations
	103-2	Explanation of management approach	People	110	
	103-3	Evaluation of management approach			
	406-1	Incidents of discrimination and corrective actions taken			People
410 Security practices	103-1	Topic boundary		GRI Index	APP suppliers
	103-2	Explanation of management approach	Forest	67	
	103-3	Evaluation of management approach			
	410-1	Security personnel trained in human rights policies or procedures		GRI Index	Training is in place for all contractors. However due to turnover of contractors we are currently unable to report an accurate %.
411 Rights of indigenous peoples	103-1	Topic boundary		GRI Index	APP suppliers
	103-2	Explanation of management approach	Forest	65	
	103-3	Evaluation of management approach			
	411-1	Incidents of violations involving rights of indigenous peoples			66 - 67
412 Human rights assessment	103-1	Topic boundary		GRI Index	APP own operations / APP suppliers
	103-2	Explanation of management approach	People	111	
	103-3	Evaluation of management approach			
	412-1	Operations that have been subject to human rights reviews or impact assessments			
	412-2	Employee training on human rights policies or procedures			

Aspect	Specific Disclosures				
		Disclosure	Reference	Page	Notes
413 Local communities	103-1	Topic boundary		GRI Index	APP own operations / APP suppliers
	103-2	Explanation of management approach		100	
	103-3	Evaluation of management approach			
	413-1	Operations with local community engagement, impact assessments, and development programs		101 - 107	
	413-2	Operations with significant actual and potential negative impacts on local communities	People	100	
414 Supplier social assessment	103-1	Topic boundary		GRI Index	APP suppliers
	103-2	Explanation of management approach			
	103-3	Evaluation of management approach			
	414-1	New suppliers that were screened using social criteria	Forest	68	
	414-2	Negative social impacts in the supply chain and actions taken			
417 Marketing and labelling	103-1	Topic boundary		GRI Index	APP own operations / APP customers
	103-2	Explanation of management approach			
	103-3	Evaluation of management approach	About Us	12, 13	
	417-1	Requirements for product and service information and labelling			
	417-2	Incidents of non-compliance concerning product and service information and labelling		GRI Index	No incidents in reporting period
	417-3	Incidents of non-compliance concerning marketing communications			

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.	
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	
	Principle 4: the elimination of all forms of forced and compulsory labour;	
	Principle 5: the effective abolition of child labour; and	
	Principle 6: the elimination of discrimination in respect of employment and occupation	
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;	Strategy
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	



UN GLOBAL COMPACT

COMMUNICATION ON PROGRESS

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
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. 	Production
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. 	
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. 	
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.” 	

UNGC CEO Water Mandate		Section
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. 	Production
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. 	

SDG's Indicator Mapping

Goals and targets	Indicators	Status	Vision 2030 target
Goal 1. End poverty in all its forms everywhere			
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)	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession and it's supplier's concession area by building capacity on natural resources management and facilitate product market placement.
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		
	1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions		
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		
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture			
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	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession and it's supplier's concession area by building capacity on natural resources management and facilitate product market placement
	2.3.2 Average income of small-scale food producers, by sex and indigenous status		
Goal 3. Ensure healthy lives and promote well-being for all at all ages			
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-5 mortality rate	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession and it's supplier's concession area by building capacity on natural resources management and facilitate product market placement..
	3.2.2 Neonatal mortality rate		
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations		
	3.3.3 Malaria incidence per 1,000 population		
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease		

Goals and targets	Indicators	Status	Vision 2030 target
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all			
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	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession and it's supplier's concession area by building capacity on natural resources management and facilitate product market placement.
4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex		
Goal 5. Achieve gender equality and empower all women and girls			
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	Vision 2030 target directly addresses this indicator	Increase number of women in senior management positions to 30% (level 12 and above) by 2030
	5.5.2 Proportion of women in managerial positions		
Goal 6. Ensure availability and sustainable management of water and sanitation for all			
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	Vision 2030 target directly addresses this indicator	Reduce water consumption
	6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources		
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)		
	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation		Conserve critical peatland ecosystem in APP's suppliers concession areas.
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		
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all			
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	Vision 2030 target directly addresses this indicator	Increase renewable energy.
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		Reduce energy consumption.
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all			
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	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession and it's supplier's concession area by building capacity on natural resources management and facilitate product market placement.

Goals and targets	Indicators	Status	Vision 2030 target
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	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession area by building capacity on natural resources management and facilitate product market placement.
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		
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation			
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	Vision 2030 target directly addresses this indicator	Reduce carbon footprint by 30% [note wording tb]
Goal 10. Reduce inequality within and among countries			
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 percent of the population and the total population	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession area by building capacity on natural resources management and facilitate product market placement.
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		
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		Zero involvements in gross violation of human rights of employees, contractors, and suppliers in accordance with the UN OHCHR Guidelines through implementation of UN Guiding Principles on Business and Human Rights, monitored through regular independent audits
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		Increase number of women in senior management positions to 30% (level 12 and above) by 2030.
Goal 12. Ensure sustainable consumption and production patterns			
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	Vision 2030 target directly addresses this indicator	Maintain 100% fiber source from certified Sustainable Forest Management as well as increase fiber productivity growth.
	12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment		Zero waste to landfill.
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1 National recycling rate, tons of material recycled		
Goal 13. Take urgent action to combat climate change and its impacts			
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	Vision 2030 target directly addresses this indicator	Improve the welfare of local communities within APP's concession area by building capacity on natural resources management and facilitate product market placement.

Goals and targets	Indicators	Status	Vision 2030 target
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)	Vision 2030 target directly addresses this indicator	Relates to multiple targets in production and forest pillars
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss			
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 15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type		Conserve critical peatland ecosystem in APP's suppliers concession areas.
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		Maintain 100% fiber source from certified Sustainable Forest Management as well as increase fiber productivity growth. Increase recycled fiber composition (linked to efficient use of fibre/frowth and yield).
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		Protect Indonesia's three priority wildlife and other critically endangered species, including 10 rare tree species.
15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	15.9.1 Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020	Vision 2030 target directly addresses this indicator	Conserve critical peatland ecosystem in APP's suppliers concession areas. Conserve natural forest (HCV/HCS) in APP's suppliers concession areas and continue restoration efforts in degraded areas. Protect Indonesia's three priority wildlife and other critically endangered species, including 10 rare tree species.
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		Conserve critical peatland ecosystem in APP's suppliers concession areas.
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		
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels			
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		Best practice implementation in business code of conduct
	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	Vision 2030 target directly addresses this indicator	
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		Increase women in management position by 30% by 2030.

APP Assurance Statement 2020

INDEPENDENT ASSURANCE STATEMENT



To: The Stakeholders of Asia Pulp & Paper (APP) Sinar Mas

Introduction and objectives of work

Bureau Veritas Indonesia ("Bureau Veritas") has been engaged by Asia Pulp & Paper (APP) Sinar Mas ("APP") to provide independent assurance over the APP's Sustainability Report 2019 ("the Report"). Bureau Veritas UK Ltd. conducted this work along with Bureau Veritas Indonesia. 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, 2019 to December 31, 2019. Subject to the limitations and exclusions listed in the next section, our review included the following (the 'Selected Information'):

- Data and text included in the Report for the calendar year 2019;
- Assessment of the appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported;
- Alignment of the reported data and information to the requirements of the GRI Standards for sustainability reporting and the corresponding GRI index;
- Evaluation of the Report against the AA1000 Assurance Principles, 2018 Standard (2008)¹
 - Inclusivity
 - Materiality
 - Responsiveness
 - Impact
- Review of disclosures related to APP Forest Conservation Policy in the Report.

Reporting criteria

The Selected Information has been prepared in accordance with The GRI Sustainability Reporting Standards, and The Greenhouse Gas (GHG) Protocol Corporate Accounting Standard (revised edition) for GHG data. Further, other performance and information has been prepared in accordance with the internal definitions set by APP against their targets in their published Vision 2020 strategy.

Assessment Standard

The assurance process was conducted in line with the requirements of the AA1000 Assurance Standard (2008) with 2018 addendum, Type 2² at a moderate level of assurance.

Limitations and exclusions

Our work was limited to APP Indonesia's head office and mills activities covered under the reporting boundary as defined by APP in the Report.

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

¹ Published by AccountAbility: The Institute of Social and Ethical Accountability <https://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, Responsiveness and Impact and on the reliability of specified sustainability performance information - AA1000AS (2008) with 2018 addendum Standard). <https://www.accountability.org/standards/aa1000-assurance-standard>



- 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 information which was unchanged from previous years;
- 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 pages under <https://asiapulppaper.com/sustainability>; sustainability-dashboard.com/;
- Appropriateness of commitments and objectives chosen by APP Indonesia;
- Determination of which, if any, recommendations by Bureau Veritas during the course of the engagement should be implemented by APP;
- Selection of the external stakeholders to be interviewed during the assurance; which was done by APP themselves;
- Appropriateness of definitions and any internal reporting criteria adopted by APP Indonesia for its disclosures;
- Scope 3 emissions data;
- 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.

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 (EF), Yayasan Konservasi Alam Nusantara (YKAN), Indonesia Global Compact Network (IGCN), The Belantara Foundation (BF), Center for International Forestry Research (CIFOR), World Agroforestry (ICRAF), and Martha Tilaar Group (MTG);
- 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 virtual site audits for 3 mills - PT Lontar Papyrus Pulp and Paper Industry in Jambi, PT Indah Kiat Pulp & Paper Tbk in Serang, PT Ekamas Fortuna in Malang;
- 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 review of various documents such as minutes of meetings and presentations conducted in various forums. Direct interviews with community stakeholders could not be arranged because of ongoing COVID-19 pandemic.

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 2019;
- The Report does not adhere to the principles of inclusivity, materiality, responsiveness and impact as per the AA1000 Accountability Principles (2018);
- The Report has not been prepared in accordance with the the ‘Reporting Principles for defining report content and quality’, as defined within the GRI Standards; and
- The underlying systems and processes for the collection, aggregation and analysis of the Selected Information are not appropriate.

Reported GHG Emissions
Scope 1 (Direct) Emissions: 10,739,506 tonnes of CO ₂ e
Scope 2 (Indirect) Emissions: 814,041 tonnes of CO ₂ e

Alignment with the AA1000 assurance principles, 2018

Inclusivity³

APP Indonesia engages with its global stakeholder network on a regular basis through various channels. In 2019, APP conducted its Annual Stakeholder Advisory Forum, consultations on their Vision 2030 strategy, public consultations through their SERA process, continuous engagement with NGOs and government, participation in COP 25 etc. APP Indonesia has been able to demonstrate its consistent stakeholder engagement process.

Materiality⁴

APP Indonesia conducted a full materiality analysis with the help of a third party in 2019. This has led to realigning the relevance of their materiality issues as well as widening the scope and definition for some of the issues. The material issues are also well aligned with the APP’s Vision 2030 sustainability strategy. APP has taken new commitments and targets and is also aligning their activities towards SDGs. We believe that the materiality assessment conducted by APP is relevant and appropriate to their reporting in 2019.

Responsiveness⁵

APP Indonesia has been responsiveness to stakeholders through various activities. APP included its stakeholders in their Vision 2030 sustainability strategy decision making through consultations. APP has been acting upon stakeholders’ feedback in many forms which includes introducing a public consultation process for SERA, simplifying the land dispute resolution process typology, as well as acting on the comments being received during various consultations.

Impact⁶

APP Indonesia measures and reports on its various impacts based on the performance against various targets set as part of their Sustainability strategy (Vision 2020) and the Forest Conservation Policy. Some of the examples include measuring and reporting against the targets on Fibre Sourcing, Sustainable Forest management, Conservation and biodiversity, GHG emissions and other environmental impacts.

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.

⁶ Impact relates to the organisations approach to monitor, measure and be accountable for how their actions affect their broader ecosystems.



Key areas for ongoing development

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

- APP Indonesia has unveiled the key elements of their Vision 2030 sustainability strategy. APP Indonesia is encouraged to publish the detailed targets under each area and also consider more ambitious approach in line with global sustainability demands;
- APP should work towards improving their performance on safety as well as employ disruptive innovation to reduce and bring fatalities to zero;

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.



AA1000
Licensed Assurance Provider
000-17

Jakarta, 27 October 2020

Yours sincerely,

Lucky Lee
CIF Indonesia Country Chief Executive