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FOREWORD

Seven years ago, we embarked on our Forest Conservation Policy (FCP) - a transformational journey to build a better, more sustainable and responsible business. We set clear rules and measurable targets for the protection of natural forests, managing peatlands better, improving lives and livelihoods of our employees and our neighbours, and ensuring that our supply chain remains free from deforestation.

It hasn't always been easy. There have been challenges to overcome, but also many successes. Through it all, we have made and sustained enormous progress in all areas of our FCP commitments since 2013.

2019 has been a year of challenges, but it too is not without its successes. Looking back at how far we have come, I am filled with confidence that we will overcome.

In 2017, we began working with Maxar Technologies' MDA to provide us with near real time satellite monitoring of the more than 600,000 ha of protected forests we manage. These tools give us the ability to better understand when and where protected forests are being threatened, so that we can lead interventions on the ground to stop the destruction or degradation of our conservation areas.

Compared to 2018, the rate of forest cover loss in protected areas has doubled to 0.35% from 0.14% over the course of 2019. This change was largely caused by both legal and illegal mining operations in East Kalimantan, taking place on disputed land where APP supplier concessions overlapped with those awarded to a mining company. Thanks to the early detection of these encroachments, we have been able to begin working with various parties, including the East



Kalimantan authorities, in the hopes of arriving at a timely solution to this issue.

To advance our transparency on the protection of conserved forest areas, we are now making the data from our forest cover monitoring system publicly available on our newly launched Sustainability Dashboard.

2019 also brought us some extremely dry weather, which increases the risk of unmanaged fires occurring. Armed with forewarning, we stepped up preparations for the dry season much earlier in the year, stepping up firefighting drills, as well as strengthening our community engagement efforts to mitigate the fire risks. Despite these preparations, 1.69% of our total concession area was impacted by fires, up from 0.07% in the previous year. Without these interventions, the impact from fires would have been considerably worse.

These are big challenges and we are not taking them lightly. We have redoubled our efforts on these fronts, and are working with various stakeholders to expand our forest protection efforts.

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2019 has also been a year of successes, for which we are grateful for, having made tremendous progress on all our FCP commitments and have achieved nearly all the targets set out under our Sustainability Roadmap Vision 2020.

This year, we will continue to expand on these accomplishments and will make commitments to ambitious new targets for the next decade.

While we are justifiably proud of the progress that we have made, we want to recognize the contributions of our many partners, including the Government of Indonesia, national and international organizations, academics and researchers, public and private institutions, non-profit organizations and the communities that live and work alongside us. Ending deforestation and addressing the scourge of climate change is not a task that can be accomplished by a single actor, or in a single day. It will take all of us, working together every day to bring about the change we want to see.

Thank you for your support, and we hope that you will continue to accompany us as we work towards a better APP, and a brighter future.

Elim Sritaba

APP Sinar Mas Chief Sustainability Officer July 2020

SUSTAINABILITY ROADMAP VISION 2020 **PROGRESS UPDATE**

Vision 2020 element

FIBRE SOURCING





Target

100% independent 3rd party verification for pulpwood legality

100% sustainable plantation wood for pulp by 2015

100% Sustainable Forest Management (SFM) certified pulpwood

Maintain a sustainable proportion of recovered fibre in addition to renewable virgin fibre

Develop and implement Integrated Sustainable Forest Management Plans (ISFMP's)

Progress

Accelerated progress and achieved by end 2012

All conversion of natural forest was halted in 2013 100% of our fibre is Sustainable Forest

Management certified pulpwood

In 2019 37% of our fibre was from recycled sources

ISFMPs are now completed for all 38 pulpwood suppliers' concessions and has been implemented since 2017





Vision 2020 element

REFORESTATION





Target

Support the national target to preserve designated protected and conservation areas

Progress

APP continued our commitment through supporting the protection and restoration of natural forest inside AAP pulpwood suppliers' concession and outside concession through landscape approach



Vision 2020 element

CONSERVATION & BIODIVERSITY





Target

Zero Fibre from High Conservation Value Forest

Support the national target to increase by 10% the population of 25 specified endangered species

Progress

All conversion of natural forest was halted in 2013. Supplier Evaluation

& Risk Assessment (SERA) tool implemented in 2018.



Dedicated conservation programmes focussed on 'umbrella species' of Orangutan, Elephant and Tiger conservation continue, with the support of NGOs and conservation

Vision 2020 element

HUMAN RIGHTS & INDIGENOUS PEOPLE





Target

Adopt international guidelines for the protection of indigenous people's customary rights in the forest

Progress

specialists



· Responsible Conflict Management · Implementation of HCV 5 & 6 through ISEMP

Vision 2020 element

COMMUNITY **EMPOWERMENT**



Target

Increase welfare of indigenous & local communities and maintain good relations

Progress







Vision 2020 element

CLIMATE CHANGE



Target

Target

Implement Peatland Best Practice Management Programme

Progress

We continue to develop and improve our approach to Peatland Best Practice Management Programme. See page x for more details



Vision 2020 element

EMISSIONS



10% reduction in carbon intensity by 2020, based on 2012 baseline

Progress

Carbon Intensity decreased 23% in 2019 compared to 2012 baseline



10% reduction in energy intensity by 2020, based on 2012 baseline

Energy intensity decreased 11% in 2019 compared to 2012 baseline



10% below national and/or regional limits for annual SOx and NOx

All mills achieved in 2019



Vision 2020 element

WATER MANAGEMENT



6 moneta

Target

Achieve 10% reduction in water intensity by 2020, based on 2013 baseline

Progress

Water intensity decreased 29 % in 2019 compared to 2013 baseline



10% below national and/or regional limits for COD and BOD

All mills achieved in 2019



Improve management of water use in line with the UN Global Compact CEO Water Mandate Programme

Water footprint completed in all mills



Vision 2020 element

SOLID WASTE



12 100000

Target

25% reduction in solid waste to landfill, based on 2010 baseline

Progress

37% reduction achieved



Vision 2020 element

EMPLOYEE WELFARE



Target

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

Progress

Not achieved in 2019



*This data is based from an internal calculation. Verified ata will be shown in Sustainability Report 2019





On Progress



Not Achieved

SUSTAINABILITY ROADMAP VISION 2030

Our Sustainability Roadmap Vision (SRV) 2020 was launched in 2012, and we have made substantial progress in the years since. By the end of 2019, a vast majority of our sustainability targets were achieved, and it was time to look ahead to new challenges.

Vision 2030 is an evolution of our commitment to sustainability, not only setting new ambitious targets, but also expanding the range of issues

we cover, remaining aligned with the United Nations Sustainable Development Goals and the Paris Agreement on Climate Change.

Our expanded Vision 2030 covers governance, fire prevention and management, gender equality, anti-corruption, and environmental footprint, organized into three key pillars of Forest, People and Production.















Sustainability **Progress Achievement** in 2019



ZERO

Natural forest conversion by APP Pulpwood supplier since Feb 2013



100%

Pulpwood supply from plantation



Forest cover loss in protected areas



Concession areas impacted by fire



Land disputes resolved

Certification

PEFC

Programme for the **Endorsement of Forest** Certification

Coverage

2018

2019

91 %

100 %





SVLK, Timber Legality Assurance System



2018

100 %

2019

100 %

*As per December 2019

FOREST PROTECTION



In 2017, following a collaborative process, APP engaged with MDA, a Canadian-based satellite surveillance and intelligence provider, to establish a system to analyze, verify and archive data from MDA's RADARSAT-2 satellite. The RADARSAT-2 radar imaging sensor tracks disturbances on the forest cover in the conservation areas as they happen over time, This Forest Alert Service (FAS) provides timely information about forest cover changes, which can then be verified by teams on the ground.

Throughout 2019, forest cover change of approximately 0.35% was detected across the protected areas in APP's and its suppliers' concessions, an increase from 2018's estimate of 0.14%.

On ground verification determined that one of the major causes of the increase was significant forest conversion in East Kalimantan, due to overlapping licenses with mining concessions, as well as the activities of illegal mines in the area. APP is currently in discussion with the East Kalimantan provincial government, local regencies and law enforcement to address these issues.

Another major cause is the illegal logging activities. To address this, in addition to improving our forest security patrols, APP and our pulpwood suppliers continue to implement Collaborative Conservation Management (CCM), together with Earthworm Foundations (EF), which has seen some success.

At PT Arara Abadi's Duri district, for example, the CCM process has resulted in significant reduction of illegal activities following joint efforts by APP, local authorities, and community leaders in three villages in the area.



*As per December 2019

Since 2018, Indonesian weather has gradually become dryer. 2019 saw very low rainfall in Sumatra, with South Sumatra recording the lowest rainfall since 2015.

Anticipating drier weather, APP and our pulpwood suppliers intensified the fire prevention preparations from the beginning of 2019. This included stepping up community socialization and education in our Desa Makmur Peduli Api (DMPA) program, based on the Integrated Forestry & Farming System concept, to reduce fire risk, and raising the tempo of preparations under the Integrated Fire Management system, increasing the number of patrols by our firefighter brigades, and commissioning as many as ten water bombing helicopters to support our more than 3,000 firefighting personnels.

From August 2019 onwards, Indonesia experienced extremely dry weather, with some areas having no rainfall at all for more than 60 days, which is a major fire risk factor. Despite early preparations, concession lands were still vulnerable to encroachment of fires from beyond APP's concession boundaries and buffer zones. One of the most damaging fires of the 2019 season was a huge fire in Jambi, spreading from the Londerang area and eventually encroaching on the concession area of an APP supplier. Days earlier, additional firefighters and helicopters were activated to slow the advance of the fire.

while excavators were deployed to build fire breaks in the projected path of the fire. Despite this, strong westerly winds pushed the blaze towards APP's concession area, damaging both plantation and conservation areas.

Resources deployed included 202 firefighters with associated pumps, vehicles and other equipment, 15 excavators and three helicopters running 560 water-bombing sorties in the 5km buffer zone around our concession area. The training and rapid mobilization of these resources were instrumental in containing and suppressing the fire. Even so, it took three days for the fire to be controlled and put out.

In 2019, approximately 1.69% of total concession area was impacted by fire. This was up from just 0.07%, in 2018. Without stepping up preparations, the damage from fires would undoubtedly have been substantially greater.

Drier conditions are expected to persist in 2020, with the greater associated fire risk. APP and our pulpwood suppliers are increasing focus on prevention, implementing DMPA programs in more villages with high fire risk. A scheme to provide incentive to high-risk villages that are able to maintain zero fire is also being considered. At the same time, we are strengthening our firefighting capability and increasing patrols.

REFORESTATION



In 2015, APP and The Forest Trust (now Earthworm Foundation) undertook a mapping project of protected and High Carbon Stock (HCS) areas to identify the areas where natural forests are still in good condition and areas that have been degraded. From the assessment, we determined that around 78,000 ha of degraded forests were not subjects of disputes, and thus restoration measures could be taken immediately.

Through 2017 and 2018, APP worked with a local university as well as the research and development team under the Ministry of Environment and Forestry to develop restoration strategies for each type of soil – mineral, marine clay and peat.

By the end of 2019, around 21,000 hectares from the total restoration target of 30,000 ha were determined to have reached the level of Young Regenerating Forest (YRF) based on the HCS Approach stratification. More than 12,000 ha of these regenerated areas are on peatlands.

The YRF stage is considered as a stable condition with high potential to grow to Forest. This was achieved through a combination of natural regeneration and enrichment. On ground verification is done routinely by establishing sampling plots as reference points.

Despite this progress, challenges remain. Restoration initiatives can be hampered by the lack of seedlings for suitable local tree species. Restoration areas are also often located in fragmented or hard to reach areas, which can cause difficulties for the necessary ground verification. To address these challenges, APP has invested in the development of seed stands for key local species to ensure continued availability of seeds.

In 2020, APP is targeting to restore a further 25,000 ha of degraded land.

CONSERVATION & BIODIVERSITY

Monitoring of the key species is done through patrol as well as installing camera traps in areas with high indication of endangered animal species based on the High Conservation Value (HCV) assessment. APP conducted internal assessment on the distribution of Sumatran tiger, Sumatran elephant and Bornean orangutan across its suppliers' concession areas. From this exercise, we found that at least 68 Sumatran tigers, 218 Sumatran elephants and 93 orangutans use APP pulpwood suppliers' concession areas as corridors or roaming areas. Our team together with partners identified that since 2012 there has been more than 40 births of Sumatran tiger cubs throughout our suppliers concession areas.

There were three fatalities from human-wildlife conflicts in 2019. Two contractors were attacked by a Sumatran tiger at PT RIA in May and October 2019, while an elephant was found dead in with its tusks missing as a result of poaching incident in PT Arara Abadi, Riau on 19 November 2019.

APP and our pulpwood suppliers continue to work to mitigate the human – wildlife conflicts within our operation areas. This is done through routine socialization and education on conflict prevention and mitigation to staff, contractors and local communities, which is done in collaboration with local NGOs and the local biodiversity conservation offices.

From April to July 2019, APP also participated in the island-wide survey of Sumatran tiger together with other international organizations, led by SINTAS Foundation. This survey aims to update the population status and distribution of the tigers, including the potential threats to the habitat

APP is also actively involved in the development of SOP on Human – Elephant Conflict Mitigation for Bukit Tiga Puluh landscape in Jambi



province, led by Jambi's provincial biodiversity conservation office. It is expected that the SOP will be adopted and implemented by companies operating in the Bukit Tiga Puluh landscape. APP continues to maintain the elephant corridor and feeding pockets in PT Tebo Multi Agro, a supplier in Bukit Tiga Puluh landscape. Meanwhile, a survey to determine locations for the elephant feeding pockets have been done in APP's ecosystem restoration concession areas in South Sumatra, with planting of the elephant feed plants scheduled in 2020.

Sweeping of animal traps in the forest was also done in landscapes in Riau, Jambi and South Sumatra together with Tiger Heart, HarimauKita Forum, the local biodiversity conservation office and the local national park office.

In 2019, APP has also supported the local conservation offices to relocate 5 conflict animals, in collaboration with the local NGOs and local police. APP is also actively contributing to the development of national conservation strategy and action plan on tigers, elephants and orangutans.

Conservation of Indigenous Tree Species

Part of APP's restoration activities is the planting the indigenous tree species. This is done in order 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 our pulpwood suppliers mostly planted Ramin (*Gonystylus bancanus*) and Balangeran (*Shorea balangeran*) species in the restoration areas where these two species are native. The focus on Ramin and Balangeran was due to the lack of availability of seedlings from the other key indigenous species.

To address this, APP and our pulpwood suppliers have been working to establish seed stands for several indigenous tree species. PT Arara Abadi's seed stands for Kulim trees in Riau have been certified, which means that there are sufficient quantities of Kulim trees in the seed stand to provide good quality Kulim seeds. Good quality seeds are genetically rich and will be able to add to the generic richness in the ecosystems where they will be planted.

Belantara Foundation

In 2019, the Belantara Foundation adopted a new strategy for the selection of project areas to ensure maximum impact from its programs. With the majority of its funding coming from APP, Belantara Foundation will now focus on programs located in a 20 km radius around APP's pulpwood suppliers' concession boundaries.

This new approach has resulted in a reassess of the programs the Foundation was involved



in throughout 2018. Beyond the 20 km radius, critical and well-performing programs will be continued, while programs that are relatively new, not critical, or have not shown significant progress were put on hold or cancelled.

At the end of 2019, Belantara Foundation is actively involved in programs for forest protection in 419,759 hectares, 2,808 hectares of restoration activities, and 51,277 hectares of social forestry. The Foundation has also implemented community empowerment programs in 96 villages across its target grant areas.





PEATLAND MANAGEMENT

APP continues to engage partners to further the work in research on peat restoration. In 2019, we continued working with P3SEKPI, a division under the Ministry of Environment and Forestry's Research and Development, to develop peat restoration strategies.

Since 2017, APP has started the research into alternative tree species that thrive on peat with high water level and can be used for production purposed. We have shortlisted 12 local species as our research focus, and in 2019 we have identified 4 species with potential good performances. We combine that with our research on mychorizae, a type of fungi that is used on soil with lack of nutrients, such as peat,

in order to improve the growth rate of the trees. Based on trial at nursery, on average the trees treated with mychorizae have 50% better growth (in terms of height) compared to those that are not treated with mychorizae.

In 2019 APP started dialogue with National University of Singapore (NUS) Environmental Research Institute (NERI) to develop and implement an Integrated Tropical Peatlands Research Program (INTPREP). This collaboration was signed in Q1 2020 and will focus on smart restoration strategy combining on-ground field study and multi-scalar data.



PEOPLE

























*As per December 2019

DISPUTE RESOLUTION

As part of APP's dispute resolution process, APP has categorized the land disputes into 6 typologies: (1) Villages inside concession, (2) Indigenous people, (3) Livelihood, (4) Land speculators, (5) Non-procedural usage, and (6) overlapping licenses. These typologies were presented and publicly consulted in APP's Stakeholder Advisory Forum 7 in October 2018, which was attended by various stakeholders.

More than half of the land disputes identified during the land dispute mapping assessment in 2013-2015 fall under "Villages Inside Concession" category. This consists of 426 villages located inside APP's and its suppliers' concession areas which have legitimate claim to the area. The issues captured in this category mainly related to the need to have formal recognition of the functional boundaries of the villages. This has been a main focus in our work in resolving dispute cases in 2019.

The resolution for land disputes under "Village inside concession" category is done through accelerating the recognition of areas used by the community by the Ministry of Environment and Forestry (MoEF). To achieve that, APP has developed strategy and process for dispute resolution, which is followed by all of its pulpwood suppliers. This includes delineation

of areas that had been used by community for settlement, rice paddy field, rubber plantation, palm oil plantation and so on. This process involves the local community not only for the mapping of the areas used by community, but also to find resolutions whenever disputes arise during the mapping process. Once the mapping is completed and agreed by both APP and the community, APP will communicate the result to the MoEF for further policy making in regard to the villages located within APP's and its suppliers' concessions.

The obstacles that we continue to encounter during the process to resolve disputes under "village inside concession" category includes communities' need for technical assistance in conducting boundary mapping.

As of the end of 2019, 51% of the mapped disputes have reached resolution, with 31% falls under the category of "Village inside Concession" and an additional 13% under the category of "Speculators". The remaining 7% consists of resolved disputes under the other 4 categories. Throughout 2019 we have also gained significant progress through collaboration with law enforcement and by targeting to resolve claimed areas located in production forest areas and where the legitimacy of the community claims is low.





REGIONAL SOCIAL WORKING GROUP (RSWG)

APP's Regional Social Working Group (RSWG) continues to be a platform where multiple stakeholders can work together on conflict resolution

In 2019, two cases were resolved through the RSWG platform, at Bukit Batu village in South Sumatra that reached resolution with the OKI mill, and Terjun Gajah village that has signed MoU with PT. Wirakarya Sakti, an APP pulpwood supplier in Jambi. Each regional forum were also able to progress several priority cases to discussion on draft agreements. Dialogue amongst parties is maintained through regular meetings and discussion via instant messaging. Jambi's RSWG members also collaborated

to conduct an assessment for the Suku Anak Dalam, an indigenous tribe in Jambi. This included focus group discussion on beneficial topics such as economy empowerment for the tribe and recommendation to resolve land disputes.

Moving forward, we are focusing on strengthening the capacity of each SWGR group's mobilizer to encourage increased engagement amongst members, improving the monitoring of the progress of each case, as well as increasing consolidation with other relevant stakeholders in the dispute resolution cases.

COMMUNITY EMPOWERMENT



As of December 2019, the Desa Makmur Peduli Api (DMPA) program, based on the Integrated Forestry & Farming System (IFFS) concept, has been implemented in 335 villages in and around APP supplier concession areas. More than 1,600 economy empowerment programs have been running under the DMPA scheme, which are expected to benefit nearly 22,000 households. While there are still programs that need improvement, some farmers have been able to increase incomes by as much as 1.5 times. The income of these farmers are significantly above the provincial minimum wage.

To scale up the program in 2019, APP continued to collaborate with CIFOR-ICRAF and The Nature Conservancy (TNC) Indonesia. A list of key performance indicators was developed by CIFOR-ICRAF to measure the success of the community program according to village typologies. In addition, we also engaged with Yayasan Konservasi Alam Nusantara (YKAN), the Indonesian arm of TNC, and its strong conservation-based community empowerment

program called SIGAP. Working together with these organizations, success measurement was piloted in six villages with different characteristics and typologies in Riau, South Sumatra and West Kalimantan.

In 2020, we expect to develop several business models catering to the different typologies, with monitoring systems and specific KPIs.



APP is also working with the Martha Tilaar Group (MTG) on a three-pronged community empowerment program aimed at creating better economic opportunities for women. This includes training to identify and process herbs, and a scholarship program for spa therapists. More than 1,000 women have joined the

program, with participants chosen by the local or village authorities.

Both the DMPA and MTG programs help build self-sufficient communities that are able to earn sustainable livelihoods from the natural resources available to them.

EMPLOYEE HEALTH AND SAFETY

APP mills are managed at a local level governance by the respective mill head. In 2019 five of APP's mills, Pindo Deli Perawang, Indah Kiat Perawang, Indah Kiat Tangerang, Eka Mas Fortuna and Tjiwi Kimi achieved ISO 45001 on Occupational Health and Safety, while Lontar Papyrus Jambi, Indah Kiat Serang and Pindo Deli Karawang hold OHSAS 18001 and will transition to ISO 45001 in 2020.

In 2019, APP launched the Safety Performance Index (SPI) in order to systematically measure and monitor its mills' performance while also considering precautionary and prevention measures. SPI has been made part of the mill employees' KPI, to encourage the employees to be actively involved in risk identification and assessment, high-risk activity inspection as well as behavior-based safety. In particular, the program is focused on Serious Injury and Fatalities (SIF) prevention to ensure systematic approach on prevention of serious incident or fatality.

However, in 2019, we continued to face the challenges as there were 11 work-related fatalities at our mills the same year. These were mostly were caused by insufficient implementation of risk management program and monitoring, as well lack of safety awareness amongst the mill employees.



Moving forward SIF prevention remains a priority for the mill operations as the Safety Performance Index has been integrated as a primary KPI on operational level. We will continue to accelerate our focus towards behavior-based safety training in the form of feedback, self-evaluation and assessment for all visitors and employees. Aside to that we've also been conducting safety talks and appointing safety ambassadors for the mills. To ensure that our employees and workers are working without any risk behavior, further awareness improvement program as well as Occupational Skills-based Competence Development program will be implemented throughout our operations.



PRODUCT & PRODUCTION



Waste, Water & Energy Management

Across 2019, APP continued to seek improvements in reducing production emissions, and the intensity of water and energy use. With no new facilities or infrastructure coming online, these improvements were gained from process efficiencies and from intens a regular equipment maintenance regimen to ensure they are operating at peak efficiency.

In line with principles of Bio-circular Economy, we have also expanded our exploration of waste and by products reutilization across the stages of our operations, in order to reduce production waste.



Sustainable Products

Plastic straws received a lot of attention in 2019, with many companies and cities issuing bans on the product. While the environmental impact of such a ban is negligible, it did create a lot of awareness and demonstrated consumer willingness to do something about irresponsible plastic waste.



In response to the growing demand, APP embarked on focused research and development to improve its existing Foopak range of biodegradable, food safe, food packaging. By adapting techniques and materials, we were able to quickly produce a paper board that can be converted for use as drinking straws. Our paper straw board has seen substantial interest, including in markets across South America.

APP continues to invest in research and development to produce more biodegradable, compostable and recyclable paper products, and to produce such products more efficiently, at scale.

