

Forest Conservation Policy

September 2017



Introduction

It gives me great pleasure to introduce APP's Forest Conservation Policy progress report for September2017.

It has been over four years since our company set out on an unprecedented path to transform our business to eliminate deforestation from our supply chain. Since then, the four pillars of our FCP – protect natural forest, implement best practice peatland management, resolve social conflict and ensure sustainable sourcing throughout our supply chain – have become an integral part to people within the company, almost as familiar to us as our national anthem.

We have always said that when we set out there was no blueprint, but the best resources we had at our disposal was the support of our partners and stakeholders. They continue to be our most important resource – a source of support but also of challenge – guiding us as we continue in this challenging journey.

2017 continues to be a busy time for APP, and we wanted to use this progress report to share some of our achievements – and also our challenges – with you.

Highlights include improvements in the way we monitor forest cover change, the expansion of our agro-forestry programme to more villages (with encouraging initial results), the establishment of regional platforms to engage local stakeholders in improving conflict resolution process, the completion of a second round of LiDAR mapping covering 5.5 million hectares of peatland across Indonesia, and the implementation of our integrated fire management plan. I hope you will take the time to read more about these developments in the following pages.

The last four years have not been easy – far from it – but we have learned many things along the way. I am happy to say that the challenges we face are made easier by the commitment we all share to making our company better and more sustainable and having a positive impact on our environment, and the local communities and regional economies where we operate.

Elim Sritaba

Thank you for being with us on our journey. I hope we can continue to count on your support in the years to come.

Director of Sustainability September 2017

Progress report: February – September 2017



PILLAR 1

NATURAL FOREST PROTECTION

In February 2013, APP and our pulpwood suppliers announced our Forest Conservation Policy (FCP). At its core, the policy aims at protecting natural forest, committing APP and its suppliers to developing only non-forested areas, as determined through High Conservation Value (HCV) and High Carbon Stock (HCS) assessments, and the sustainable management of all of our forest resources.

ISFMPs

The first step in our FCP journey was to assess which forest areas needed to be protected. APP completed all HCV and HCS assessments in our own and suppliers' concessions in 2015. Public summaries, including maps and data, were made available on APP's FCP monitoring dashboard. Recommendations and findings from these assessments formed the basis for new, spatial plans for each Forest Management Unit (FMU) that supplies to APP. These plans are called the Integrated Sustainable Forest Management Plans (ISFMP).

The ISFMPs developed for each forest area set out how that area should be managed, balancing stakeholder needs, key risks and opportunities. They were the culmination of a lengthy development process that involved compiling and consolidating data and recommendations from a range of assessments - HCV, HCS, Social Conflict Mapping, productivity – as well as necessary due diligence on legal requirements and input from all relevant stakeholders including local communities, government, academia and civil societies. The spatial plans based on ISFMP for all 38 suppliers' concessions were completed in 2016 and are now with the government for approval. Additional revisions on these spatial plans have been made following the Government's process related to the new peat regulations. APP is closely coordinating with the Ministry of Environment and Forestry on this matter. Further, APP is planning to engage the Regional ISFMP Task Force when the revised spatial plans have been approved.

The manuals to guide field staff on implementation of the ISFMP were completed in May 2017. Currently APP is training and educating the operational staffs in each of its suppliers on the use of these manuals.

APP continues to socialize the work plans with suppliers' employees and communities living in and around our concessions. APP gives training and support, to staff and communities in our supplier concessions to ensure all stakeholders support the plans and are equipped to implement them effectively.





HCV/HCS Monitoring

Forest Monitoring

In order to monitor the effectiveness of our management of High Carbon Stock (HCS) areas, APP has built more than 400 HCS permanent sampling plots (as of September 2017) to monitor the condition of and changes to HCS areas. Using the Winrock method, calculating the size of the HCS areas in APP's suppliers' concession, a total of 824 sampling plots are planned, and with a target completion date of mid-2018.

The first field visits for monitoring purposes and sampling tests of HCS were conducted in Q4 2016. Monitoring will continue on an annual basis and will help to improve the implementation of the management plans and monitoring going forward.



Effective monitoring and implementation requires us to know exactly what is happening in the forests in and around our concessions. To this end, in May 2017 we started using the Forest Alert Service provided by MacDonald, Dettwitler and Associates (MDA) to track changes in forest cover within APP's suppliers' concessions. MDA technology provides a near real-time Forest Alert Service, including 5 metre resolution forestry change detection provided by satellite images. The service gives us access to monthly reports on forest changes that include geospatial information showing the exact location and estimated size of changes. helping us to monitor areas that are difficult to access.

However, the MDA only provide data on the location and size of the forest cover changes. It does not have information on the cause of the forest cover change, and for that, a field verification is required to determine the cause of the forest cover change and the next steps that need to be taken to address these changes. The challenge lies on the ground verification process, as most of the areas identified are difficult to access. APP is currently looking into effective ways to verify the data provided by the MDA alert.

Supporting community livelihoods

As well as protecting natural forest, our FCP aims to improve the livelihoods of communities living in and around our concessions while at the same time trying to address some of the drivers of deforestation.

The Integrated Forestry & Farming System (IFFS) was developed as a programme for us to engage indigenous and local communities, who are integral to our efforts to manage forest resources sustainably and to build a sustainable business.

Forest communities are on the front line of preventing forest fires. Additionally, when local communities obtain better incomes and improved livelihoods, they are less likely to encroach into natural forest areas to expand crop production. By investing in local community development and better livelihoods, companies working in forests can help to make local communities into important allies in forest conservation.

The IFFS was launched during COP 21 in Paris in November 2015. APP committed to investing US\$2 million per year in the initiative over a period of 5 years. The target was to roll out the program in 500 villages located in and around APP's and our suppliers' concessions. Target communities are invited to define the type of activities they want to develop. These range from production of rice, legumes and fruits, animal rearing and aquaculture to commercial production of coffee, cocoa, spices, coconut and pulpwood. APP provides financial support, facilitates access to market when required, and ensures that communities get the technical support they need through local NGOs and experts.

As of August 2017, the programme has been rolled out in 96 villages, benefitting more than 3000 households. The programme aims to deliver improvements including increased incomes for farmers and a greater awareness of the need to tackle deforestation at a community level. `

There have been challenges along the way, including persuading communities to change traditional practices such as using fire to clear land, as well as establishing a village institution that would manage the fund. We continue to work together with various government agencies, local NGOs and the local communities to address these challenges and to improve our own performance in the implementation of this programme.



Forest Protection & Security

Protecting forests means putting in place measures to guard against encroachment, illegal logging, and fires. These measures are set out in our standard operating procedures (SOPs), which also provides guidelines on sensitive issues including managing security in areas with a history of conflict.

As of May 2017, we have finalised and implemented new improved SOP on Forest Protection in all APP supplier concessions, while an SOP on Security Vendor Monitoring & Evaluation has been updated and implemented in end of 2016

APP understands that in order to strengthen internal capacity for forest protection, engagement with communities is critical. In August 2017, we developed, together with one of our security vendors, a community-based forest security programme as part of which community members will be engaged in patrol activities. The program is due to be finalized with pilot implementation expected to start in December 2017.



Integrated Fire Management



APP has and will continue to invest significantly in improving our capacity to prevent and fight forest fires. The Integrated Fire Management (IFM) strategy brings together all of our initiatives, and aims to equip us and our partners with the skills, knowledge and infrastructure to prevent fires and to put them out more quickly when they occur.

Fires are a complex challenge and fighting them requires a multi-stakeholder approach. As such we have placed great emphasis on working closely with our suppliers, local communities and all relevant stakeholders on a holistic approach.

We have redoubled efforts this year to improve our ability to fight fires, including:

- the deployment of 3 large water bombing helicopters and 1 helitack rapid response team;
- new fire suppression strategies;
- use of mini satellites to deliver higher quality and more frequent hotspot data, to aid a faster and more accurate fire detection;
- operational testing of thermal camera detection;
- and comprehensive staff training.

As well as fighting fires, we need to understand how and why they happen. In the last year we have conducted assessments to identify high fire risk areas using fire spot data from June 2016 – March 2017 overlaid with a map of conflict and encroachment areas. Initial results indicate that 80% of fire spots originated from areas where land is being opened up for community agriculture.

To address this, APP has begun developing a new community-based program called SIGAHKAR (Siaga Pencegahan Kebakaran Lahan & Hutan – Forest Fire Prevention Alert Program). As part of this programme, APP will work with 65 villages identified as at high risk of fire.

The first SIGAHKAR program was implemented across these 65 villages in June – September 2017, during the critical dry season. Through this programme, APP provides:

- Assistance with tractors and herbicides for non-fire-based land clearance;
- Establishment of village level teams and provision of community training to patrol protect areas from fires.
- Financial rewards (IDR 10 million) for villages that remain free of fire during the dry season.



PILLAR 2

PEATLAND BEST MANAGEMENT PRACTICES

APP remains committed to best practice in peatland management in order to support the Government of Indonesia's efforts to reduce greenhouse gas emissions.

Since 2014, APP has worked closely with Deltares, the leading experts in the field of peat and water management, to develop and refine our Best Practice Peatland Management Plan (PBPMP). The plan aims to reduce impacts on peatland forest ecosystems; reduce peatland CO2 emissions; and reduce peat subsidence.

The basis of the plan is a good understanding of the nature of the peatlands in the landscapes in which we operate. 2017 saw the completion of our second LiDAR mapping exercise, which covered 5.5 million hectares across Riau, Jambi, Musi Banyuasin (Muba), Ogan Komering Ilir (OKI) and West Kalimantan. Compared to our first LiDAR mapping exercise carried out last year, the second iteration comprised a more refined grid and higher resolution surface model and water zonation. We are also exploring using LiDAR as an ongoing monitoring tool, working with Deltares to refine the Digital Terrain Model (DTM) to ascertain whether it can be used to monitor water levels in the future. Analysis will be complete by the end of 2017.

With regards to the new regulation on peat management, APP is following the Government of Indonesia's process in revising its suppliers' spatial maps. This will also include on-ground verification of both the Government's peat map and the company's peat map, in order to further determine peat areas that need to be protected and restored within APP's suppliers' concession areas.

Retirement of production areas

In 2015, acting on recommendations from peat experts Deltares, APP announced the retirement of ~7,000 hectares of commercial plantations on peatlands which were deemed to be vulnerable. This has provided a large area for experimenting with strategies for peat restoration, comparing natural regeneration with assisted restoration methods.

In August 2015, the decision was taken to set aside four smaller areas of existing acacia plantations in the concessions of PT Tripupa Jaya (TPJ) and PT Rimba Hutani Mas (RHM) concessions in Berbak-Sembilang peatland landscape, South Sumatra, for restoration to natural forest. We have piloted two strategies: natural regeneration and intervention planting (also known as enrichment), and compared results from the two.

For natural regeneration, we monitored sample plots and allowed the vegetation grow naturally. For intervention planting, we actively planted 14.5 hectares with indigenous species compatible with the conditions of the local area.

Two years after the beginning of the programme, in areas closer to production areas, where the water level is lower, we have seen wild acacia have better growth and survival rate compared to the indigenous species. To address this, in August 2017, we took the additional step of adding 99 canal blocks in the retirement area of Tripupa Jaya in order to increase the water level to improve the performance of indigenous species.

Alternative Species & Mycorrhiza Development Programs

APP has collaborated with researchers and experts, including with Gadjah Mada University, to identify species that can grow and thrive in peatlands with higher water tables. This alternative species programme not only include species for commercial purposes, but also species for restoration and community production (paludiculture). Ten species have been identified with four of those have already been planted in a trial site in Riau. Based on initial assessments conducted every six months, the peat species show good survival rate in high water level, however the growth rate is still much slower than the current species used for production (Acacia Crassicarpa).

complement the alternative То species programme, APP has also conducted research on applying mycorrhiza which helps to restore and maintain soil in forest ecosystems. Mycorrhiza facilitates a symbiotic association between a fungus and the roots of a vascular host plant, helping to transform carbon and nutrients in acid peatland, creating a rich store while reducing emissions and subsidence. Currently APP is in the process of selecting and propagating local mycorrhiza (especially endomycorrhiza) that can associate with local plants. The mycorrhiza is expected to help the growth and survival ability of local plants on peat soil.



PILLAR 3

SOCIAL CONFLICT RESOLUTION

Land conflict is a major driver of deforestation. APP continues to place great focus on resolving social conflict in and around our concessions.

As of August 2017, about 43 percent of conflicts have reached agreement. In April 2017, APP reached agreement for the conflict in Riding village in South Sumatra, which, following the resolution of the conflict in Senyerang, Jambi and with Datok Rajo Melayu in Riau, marks the resolution of all pilot projects for conflict resolution agreed in the beginning of FCP implementation. We continue to monitor the effectiveness of our approach. In 2017, we conducted a pilot to assess FPIC implementation in South Sumatra; a report of progress is due to be released shortly.

All of APP's suppliers have begun to use the SOPs for FPIC and land tenure issues in preparing their Annual Work Plans. An FPIC process is also underway at our new OKI Mill, where we have plans to construct a new terminal. To date (August 2017), APP has formed and conducted Regional Social Working Groups (RSWG) on social issues in Jambi, South Sumatra and Riau provinces. The RSWGs gather stakeholders, including community representatives, government CSOs, representatives and academics, to discuss social conflicts in the region. Ad hoc groups were formed to find solutions for several key cases selected by members of the groups to identify improvements in the current conflict resolution process of the forest management companies. These RSWGs will maintain routine meetings to discuss progress and challenges of those conflict resolution process.



PILLAR 4

SUSTAINABLE FIBRE SUPPLY & SOURCING

APP's commitment to zero-deforestation is clear. All existing and potential APP suppliers must comply with the FCP and the Responsible Fibre Procurement & Processing Policy (RFPPP).

To help us comply with this target, we have developed the Supplier Evaluation & Risk Assessment (SERA) as a tool to continuously ensure compliance and to monitor risks associated with potential suppliers entering our supply chain. Details of existing and potential suppliers are listed on the FCP Monitoring Dashboard.

APP's new suppliers – Community Forests

As part of our effort to integrate local communities into our supply chain, and in line with the Government of Indonesia's ambition to boost social forestry, APP has focused in the last year on supporting communities to supply pulpwood to our operations.

To become a pulpwood supplier to APP, the community forest has to pass the SERA process and commit to implement the values and principles of the FCP as well as our Responsible Fibre Procurement & Processing Policy (RFPPP). In conducting the SERA assessment, APP is assisted by The Forest Trust (TFT). The result of a field assessment and verification is then submitted to the Joint Steering Committee (JSC), who then take the decision on whether or not to accept the community forest into our supply chain.

In May 2017, JSC approved the acceptance four community forests as APP pulpwood supplier, for more details please see our FCP Dashboard. These community forests will supply pulpwood to APP mills, bringing in additional income for the communities managing these forests.





Stakeholder Dialogues

In line with our commitment to transparency and engagement with all stakeholders, beginning in 2015, APP has held a Stakeholder Advisory Forum (SAF) twice a year, to report on FCP implementation and seek feedback from stakeholders. The SAF brings together APP, local, national and international organizations and other relevant stakeholders to discuss, address issues, and to develop solutions. The fourth SAF was held on May 31st 2017. APP's presentation was led by the new Director of Sustainability, Ms. Elim Sritaba. During interactive breakout sessions, stakeholders raised questions and made suggestions to further improve the implementation of the FCP. Minutes of these meetings are available on the FCP Monitoring Dashboard. In addition, APP published a report on all previous SAF recommendations and how they were addressed through adjustments to the FCP.

Landscape Conservation

APP's ambition is not just to protect the forests within our concessions but to support the protection and conservation of critical ecosystem across the 10 landscapes in Indonesia where our pulpwood suppliers operates.

To realise our efforts to have an impact beyond the borders of our own concessions, in November 2015 APP initiated a new independent organisation, the Belantara Foundation. The Foundation's aim is to channel public and private sector funding directly to local communities and other actors implementing forest conservation projects outside of APP's concessions. The Belantara Foundation will work with communities, civil society organisations, government and businesses to help ensure a careful balance is found between economic development, the livelihoods of people and environmental conservation. APP has committed initial seed funding totaling USD 10 million per year for the first five years.

Below is an outline of the ongoing collaborations that APP through the Belantara Foundation is engaged in across the 10 landscapes:

PROGRAM	LANDSCAPE	PROGRAM
Revitalisation of Biosphere Reserve and formation of Secretariat	Giam Siak Kecil Berbak Sembilang	Partner : MAB LIPIPreparing for institutional and work program evaluation
Community-based Peatland Ecosystem Restoration in Tahura Sekitar Tanjung	Berbak Sembilang	Partner : ZSL, Gita Buana, IDH3 villages trained in fire prevention and community livelihood
Conservation finance model to protect an at-risk landscape	Berbak Sembilang	Partner : GAL, Forest Carbon Grant disbursed in May 2017

PROGRAM	LANDSCAPE	PROGRAM
Human – Elephant Conflict Mitigation	Giam Siak Kecil Bukit Tiga Puluh Padang Sugihan	 Partners: BBKSDA, FKGI, HIPAM, YKSLI Multistakeholder forum on elephant conservation Population and distribution study Enrichment planting for feeding stations (Bukit Tiga Puluh only) Elephant Monitoring (Giam Siak Kecil dan Bukit Tigapuluh) Integrated patrols (Giam Siak Kecil dan Bukit Tigapuluh)
Restoration and Protection of Protected Peat forest in Paduan River and surrounding	Kubu Raya	Partner : Konsorsium Palung • Grant disbursed in April 2017
Improving sustainable coastal forest governance through village business model development	Kubu Raya	Partner : Perkumpulan Sampan, IDH 10 villages began trialling nypa flour production
Restoration, protection and community development in protected forest	Dangku Meranti	 Partner : K KPHP Meraranti, Yayasan YAPEKA Installment of 2 biogas digesters to encourage behavioral change Mapping for restoration initiative.
Human – Tiger Conflict Mitigation	Kerumutan Giam Siak Kecil Berbak Sembilang Padang Sugihan	 Partner : BBKSDA, FHK Establishing human-tiger rapid response team Training on human-tiger conflict mitigation Tiger distribution study in Kerumutan landscape



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