



FOREST FIRE AND BEYOND:

unleashing the potential for collective actions

04/2021



Introduction

The 2015 mega-fires that raged across the forests and peatlands of Sumatra were the worst in the history of Indonesia, spreading smoke and haze throughout Southeast Asia. In that same year, APRIL (Asia Pacific Resources International) Group, the second-largest pulp and paper company in Indonesia and one of the largest in the world, was experiencing positive results from its Fire Free Village Program pilot: a community-based program to eliminate the use of fire in village communities surrounding APRIL's operations.

The Fire Free Village Program (FFVP) program, piloted in 2014 and formally launched in 2015, is a community engagement program that aims to understand the root causes of forest fires and implement sustainable ways to reduce or eliminate them in the communities neighboring the company's forestry operations and beyond.

By 2018, the program had expanded to include 77 village communities in Riau Province, Sumatra.

Results were immediately positive. Four out of the nine villages participating in the pilot program achieved a fire-free record. Two villages had less than 2 hectares of area impacted by fire during the program period, while three villages still had more than 2 hectares impacted by fire. Overall, within two years of the program, the nine villages were able to reduce fires in their respective areas by 95% (Tribolet, 2020).

Shortly afterwards, in 2016, the Fire Free Alliance (FFA) was formed, a voluntary multi-stakeholder group including forestry and agriculture companies and civil society organisations set up to address the persistent issue of fire and smoke haze arising from the burning of land in Indonesia. While fires and smoke haze have declined in intensity in recent years through government-led national fire prevention efforts, the Indonesian government was determined to find a permanent solution to the annual recurring fires. The FFVP and the FFA support the government's fire prevention efforts in Sumatra and right across Indonesia.

Overview

2014

Fire Free Village Program (FFVP)



Initiated by APRIL, FFVP is a community engagement program launched in the spirit of **reducing fire-related deforestation as well as its disastrous and lasting impact for communities beyond the borders.**

2016

Fire-Free Alliance (FFA) or Aliansi Bebas Api



FFA is a voluntary, multi-stakeholder platform to aid in the solution to land and forest fires in Indonesia.

Dec, 2019



753,604 ha

land area covered

80

community partners



APRIL has invested more than

US\$9 million

in fire suppression resources to date



1080

Rapid Response Team Member

724

Volunteers

including:

260

professional fire fighters

48

villages in Riau Province



39

lookout towers



2

airboats



521

water pumps



1

helicopter

The 3 Stages of APRIL's Fire Free Village Program



1

Fire Aware Community (FAC)



2

Fire Free Village (FFV)



3

Fire Resilient Community (FRC)



The Devastating Impact of Forest Fires



Forest fires have had a long history in Indonesia (Chamorro, et. al. 2017). In 1998, large-scale wildfires in Indonesia brought global attention to the recurring forest fires problem in the region. The problem had already emerged earlier in the decade. Logging of remote forest and peatland areas had begun in the 1970-80s followed by the expansion of large scale plantation forestry and agriculture. These land use patterns interacted with periodic extreme drought caused by El Nino Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) events to create recurring fire risks. Unmanaged peatland drainage, the use of fire as a cheap method of land clearance, and weak law enforcement increased those fire risks (Kitchen, 2017).

Those factors culminated in the calamitous mega forest fires in 2015. Between June and October of that year, 2.6 million hectares of land burned up. Toxic smoke and haze spread to Singapore, Malaysia, the Philippines, and Thailand, causing 19 deaths with over 500,000 people reporting respiratory tract infection in the countries affected. Economic losses, including water resource damage, carbon emissions, flora impairment, biodiversity loss, health expenses, business travel disruption and the cost of ecosystem restoration, were estimated at USD 16.1 billion (Glauber et. al., 2016).

Recent Reduction in Forest Fires



The devastating effects of the fires and haze of 2015 brought a strong response from the new administration of President Joko Widodo. A Presidential Instruction No. 11/2015 that banned burning, including by smallholders, was enforced for those caught burning. However, it was through the combined efforts of the Indonesian government, private sector and civil society, that progress was made in containing fires. These efforts included reorganization and capacity building within government; expanding research and monitoring; systematic outreach and organization at regional and village levels, targeting fire prone areas; comprehensive prevention, suppression and mitigation measures; and the strengthened law enforcement.

While not yet eliminated (the severe haze experienced in 2019 is a case in point), forest and peat fires have been reduced in number in Indonesia.

Over the period 2011-20, annual fire occurrence fell below the 10-year average for the preceding decade (2001-10). Deforestation and fires have been reduced significantly, resulting in most jurisdictions in Indonesia representing 'cool spots' for deforestation and fires (Daemeter, 2021).

APRIL's FFVP played a significant role in the reduction of fire in its jurisdiction and inspired the establishment of the Fire Free Alliance. Its influence spread much further as it became a model of a community-driven forest fire reduction program that evolved into the wider scope of community forest conservation and economic development of communities within the program.

APRIL Group

APRIL (Asia Pacific Resources International Limited) Group belongs to Royal Golden Eagle (RGE) Group, a global resources conglomerate. From its humble beginnings in Medan, Indonesia, RGE has grown into a global business that employs 60,000 people, with assets of more than US\$20 billion and with manufacturing operations in Indonesia, China and Brazil and sales worldwide.

This growth is led by the founder and chairman, Sukanto Tanoto and his belief that a company can only be successful if it is a responsible corporate citizen, where what is “good for the community, good for the country, good for the climate, good for the customer will only then by good for the company”.

Sukanto Tanoto started his first business more than 50 years ago, Toko Motor, supplying spare parts to the oil and construction industries. He entered the plywood business in 1967, which began the growth of the company into eventually a multinational. Controversy surrounding his first pulp company, PT Indoraya Utama, related to allegations of pollution and land disputes in the late 1990’s that made him aware of the necessity of corporate social responsibility (CSR).

In an interview with the Financial Times, Sukanto Tanoto admitted candidly: ‘At that time (the Suharto era), we thought that poverty and society and taking care of the people was a government job. So, we learnt the hard way, we made some mistakes. In the end we realised that when you come to a certain size of operation, you must have a clear sense of social responsibility.’ (Teo, 2007).



APRIL Group and Sustainable Forestry Management Policy 2.0

Innovative as the FFVP was, it nonetheless nestled within an overall sustainability policy context. In June 2015, APRIL Group announced its strengthened Sustainable Forestry Management Policy (SFMP) 2.0.

This set out a range of commitments including: halting the harvest of mixed hardwoods; no deforestation and the development of only non-forested areas; the application of a landscape approach to optimize forest conservation and restoration; the establishment of an Independent Peat Expert Working Group (IPEWG); and processes to ensure engagement with local communities, in line with the established principles of Free Prior and Informed Consent.

The policy also re-committed the company to the maintenance of an independent Stakeholder Advisory Committee (SAC), originally established in 2014 to monitor and provide transparency over the implementation of APRIL’s initial SFMP and to oversee an independent verification of progress.

Fire Free Village Program (FFVP)

The Fire Free Village Program (FFVP) built on APRIL's strict no burning policy for land clearance that has been in place since 1993. The policy arose from the high costs associated with potential losses created by uncontrollable fire, particularly from their high value Eucalyptus and Acacia plantations. APRIL estimated damages caused by fire between 2009 and 2015 at around USD140m. This equated to USD20m per year in addition to the USD 2-3m annually spent on firefighting teams and suppression, plus USD 6m for fire extinguishing equipment (Report, 2015).

However, it was clear that the company's fire suppression efforts were dealing with symptoms not the cause. This led to the undertaking of an extensive root cause analysis to establish the who, what, where, when and why people were using fire for clearing land. The 'when' was clear as fires occurred in Riau in the narrow window of the dry season from July to September. As soon as the rains stop, fires increased. So, the driver of fires was reduced rainfall associated with the annual dry season, which meant the timing could be roughly predicted. In the equatorial setting, natural causes of fire, unlike in dryer regions, could be ruled out, which also meant fires were caused by humans.

Analysing the locations of fires led to the development of a risk map of where fires were most likely to occur, colour coding extreme risk areas red, high risk yellow, medium risk green, and blue free from fire. The communities in red areas were targeted to ascertain why fire was being used.

This intervention was carried out in the spirit of avoiding blame or finger-pointing and focusing on gaining an understanding the root causes of fires.

The analysis established that fires were often caused by small-holder farmers preparing land for cultivation because fires was the most economical method of clearing land. This would inform the company's community engagement strategy and eventually the FFVP.



FFVP Implementation

In 2014, APRIL identified nine high fire risk villages that neighbored its concession areas, and began engaging the communities in discussions around fire prevention. APRIL soon found its main challenge in the initial design of the program was to change traditional community practices in land use that led to the setting of fires.

The biggest roadblock for the FFVP team was the lack of fundamental understanding among communities about the impact of burning, in particular, the disastrous impact that smoke haze has on individual health. So rather than pointing fingers, the initial approach was to show how fires were contributing to smoke haze and was harming their health, including the health of their children.

The FFVP pilot program was officially launched in Pangkalan Kerinci in 2014, covering nine communities and spanning 427,876ha of land under Memorandums of Understanding (MOUs) with communities. The pilot project tested an incentive mechanism as a community engagement tool, where fire free communities would receive shared community assets such as roads, bridges, buildings and other infrastructure, and to show village participants immediate benefits of not burning.

Over the course of the program, a significant reduction in burnt areas occurred, with an unaudited estimate of 1,039ha of burnt areas in 2013 falling to 618ha in 2014, and then down to only 53.6ha in 2015. This represented a reduction of more than 90% in burnt areas. (2017)

The successes enjoyed by the FFVP in 2015 and the challenges presented by the concurrent fire seasons led APRIL to expand the FFVP program to cover 18 communities in 2016 across around 592,080ha of land (an increase of 38%) under new MOUs.

Burnt Areas Reduced



Engaging Communities

The initial engagement process with the communities was very slow, as it took a long time to develop trust with the communities, to the point they could join in facilitating solutions. The FFVP's fire prevention manager, Sailal Arimi, conducted many 'in-village engagement' sessions involving "sitting around, drinking tea and generally discussing the issues with the communities, rather than trying to push too hard." These very early stages of early problem formulation was necessary to capture the community's endorsement of the solutions proposed.

Another major challenge in engaging communities was that local dialects were often used. That influenced a key aspect of the program, which was to hire a fire crew leader within each village, ensuring a measure of trust by **providing access to knowledge of the local context, and ensuring the program had the best interests of the village in mind.**

For the first two years, in order to engage and motivate the villages that were invited to participate, each village was offered a reward of IDR 100,000,000 for every year they remained fire free within their village boundaries. If the village could maintain up to, but not more than, two ha of fire during the year, the village would get half of the reward, amounting to IDR 50,000,000.

But no reward would be given if forest fire burned an area larger than two ha of the village. The reward did not have to be used for fire prevention, fire suppression activities, or fire equipment. The receiving villages were given the freedom to use the reward in any way deemed beneficial for the village, with those decisions made through village communal deliberations.

Solutions given to the farmers were not limited to fire suppression and land clearing. The FFVP also provided training in modern farming methods to improve the productivity of farmers in the communities. For oil palm farmers, the program provided seedlings that produced better yielding oil palm plants, which reduced the need to open larger land areas for oil palm.

The FFVP comprised a three-stage programme that supported communities in developing their social and economic capabilities - without using the traditional method of using fire as a tool to clear and prepare land.

The three stages were 'Fire Aware Community' (FAC), 'Fire Free Village' (FFV), and 'Fire Resilient Community' (FRC).

Fire Aware Community (FAC)

Fire Aware Community (FAC) is the first stage of the FFVP, allowing fire-free concepts and initiatives to be introduced to new communities through a range of community awareness and engagement activities.

Fire Free Village (FFV)

Fire Free Village (FFV), the second and cornerstone stage of the FFVP, focuses on educating, equipping, and supporting villages to adopt no-burn agricultural practices. At this stage, participating villages were eligible to receive rewards, if communities were successful at achieving a zero-burn target for the year. In this stage, the importance of individuals from local communities serving primarily as fire prevention advocates and fire suppression specialists at their respective villages became of paramount importance. Communities also received assistance from APRIL to adopt sustainable agricultural alternatives - such as mechanical land clearing tools - in lieu of fire for land clearing.

Fire Resilient Community (FRC)

Fire Resilient Community (FRC), the final stage, comprised of villages that had graduated from the FFV stage of the program after spending two years at that stage. All FFV villages would eventually progress to the FRC stage, including villages that did not receive any rewards during their FFV phase. FRC villages were no longer eligible for rewards, but would have ongoing sophisticated and specifically developed fire management engagement with APRIL.

Fire-Free Alliance (FFA) or *Aliansi Bebas Api*

The Fire-Free Alliance (FFA) was established in March 2016. The FFA is a voluntary organization comprising of forestry and agriculture companies designed to facilitate the sharing of experiences in resolving Indonesia's persistent fire and haze, primarily through an emphasis on community fire and haze prevention. The FFA also aims to improve monitoring and detection of fire hot spots.

The initial membership consisted of the APRIL, Asian Agri, IDH, Musim Mas, PM. Haze, Sime Darby, Wilmar International Limited and IOI. Since its inception, more than 200 villages, covering at least 1.5 million ha of land in various parts of Indonesia, have participated in community-based fire prevention initiatives through the FFA.

“ FFA members collaborate to share information, knowledge and resources to achieve the most economically efficient lasting solutions that would lead to a fire and haze-free Indonesia.

Recent efforts by FFA partners have significantly reduced the number of fires and the impact of smoke haze on children, the elderly and other vulnerable members of society.

Fitrian Ardiansyah, Executive Chairman of IDH and Chairperson of Green Trade Initiative Foundation (YIDH), said: “As part of our landscape approach and to support the government's program, we're already involved in a number of fire management initiatives, such as the Fire Prevention Program we run in Jambi and West Kalimantan. The value of the FFA is that it helps scale up fire prevention programs on a regional basis and this is essential for addressing the outbreak of fires and hot spots in Indonesia.”

Musim Mas, another FFA partner, runs its own dedicated Fire Free Village Program in Indonesia. Since 2016, the company has signed agreements with 71 villages covering approximately 500,000 hectares - about twice the size of the company's concession areas.

Olivier Tichit, sustainable supply chain director at Musim Mas, said: “ Like other companies in the FFA, we work to promote awareness among communities of the negative impacts of using fire, and of alternative methods of clearing fire. We believe the FFA has a crucial role to play in supporting fire prevention, in terms of sharing resources and best practices between the public and private sectors, especially at the present time.



>200
villages

1.5 million ha
land area covered

Community of Purpose

While fires in Indonesia remain a problem, that the impact of the 2019 fires were less severe than in 2015 shows that progress has been made, through efforts such as the FFVP and the FFA. Specifically, the fire free approach demonstrates the importance of allowing communities time to understand key issues, accept the impacts of fire on community health, and develop their own responses.

This remains the basic foundation of community engagement related to fire prevention. The governance that is a necessary and integral part of the program is more sustainable when it is combined with learning processes such as participatory monitoring and evaluation, networking and sharing experiences, as it was in the case of the FFVP.

The 'community of purpose' that supports the community engagement comprises of community, government and business. The government has played a major role as well in taking preventive measures against the use of fire in land management, strengthened law enforcement, and supported awareness campaigns. Surveys show that the dissemination of fire regulations to communities and the threat of sanctions was a major factor in villages not setting fires (Watts et. al., 2019).

In the future, attention on fire prevention may shift from major industry companies and communities to engage small and medium size companies into the community of purpose. While the activities of smallholder farmers and local village communities are still a concern, many of the 2019 fires in Indonesia appeared to be set to clear land for commercial planting.

Major industry businesses with strong international links argue that such additional costs are justified to keep their reputational risks low. Most major business groups in the plantation and forestry sector are members of international industry bodies such as the RSPO and publish annual sustainability reports that outline their public commitments to No Deforestation, No Peat and No Exploitation (NDPE) and other sustainability standards.

Unlike major companies, many small and medium-sized companies are not accountable to international certification schemes, resulting in weaker oversight of their activities. Many are focused on the domestic Indonesian market, which places a smaller premium on sustainable practices than international buyers. Small and medium sized players may also be more capital constrained. They are therefore less likely to invest in preventative measures against fires, and more likely to use fires for short-term financial gains.

Despite such concerns, clearly progress has been made. While a 2019 assessment issued by the New York Declaration of Forests showed the targets of 2020 have fallen short, it highlighted the relative success of Indonesia showing that an integrated and comprehensive effort to protect forests can work. There is clear evidence of a sharp decline in forest loss in Indonesia over the past two years.

Various measures taken over several years - including the country's international commitments to reduce emissions, the bilateral agreement with Norway, and the government's reactions to the fires of 2015, as well as private sector-led sustainability and zero-deforestation initiatives - all contributed to bring forest loss under control.



Concluding Remarks

To maintain this positive trend, a national comprehensive, proactive fire prevention plan, involving all stakeholders - government, business, and NGOs - is necessary to ensure that Indonesia's forests can contribute to the economic development of the country without sacrificing its social and environmental benefits. Minister Nurbaya explained that the permanent solution for handling the fires, as instructed by President Widodo, would be gradually established based on test cases, and all the evidence associated with them, that have been underway for the past five years:

“Relevant test cases have been painstakingly carried out in an effort to formulate an appropriate solid permanent solution involving law enforcement actions, regulatory reforms and other technical measures. However, the reactions that arise from these test cases also vary. These must be addressed seriously even though they are often not easy for us to deal with. This includes court battles with some companies. A solid permanent solution must of course be based on these test cases and the reactions to them. This is what we've prepared for testing this year.” (Foresthints.news, 2020).

APRIL's Fire Free Village Program and the Fire Free Alliance are examples of such test cases. As Anderson Tanoto, Director RGE, noted in a post published by the World Economic Forum:

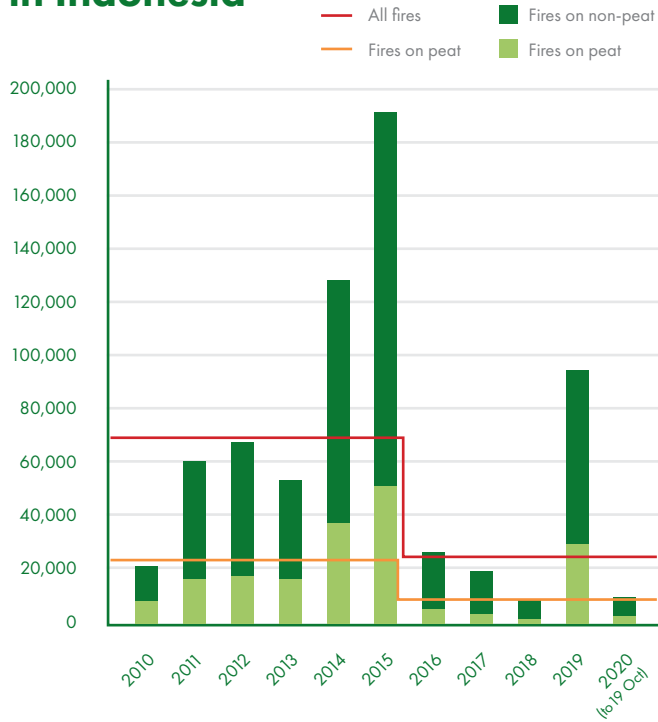
“ By the time of the UN Climate Change Conference in Paris (COP21), it was clear to most that tackling climate change required a common purpose. Society at large embraced goals such as keeping global warming to below 2°C. ”

But as we move into 2021, top-down advocacy is insufficient to make the necessary difference. Sustainability must be both embedded in approaches to policy-making and aligned with bottom-up business growth to solve the climate challenge ahead of us. This is especially critical in emerging countries, where the global climate and sustainability agenda can be perceived as a barrier to development under their sovereign agenda.

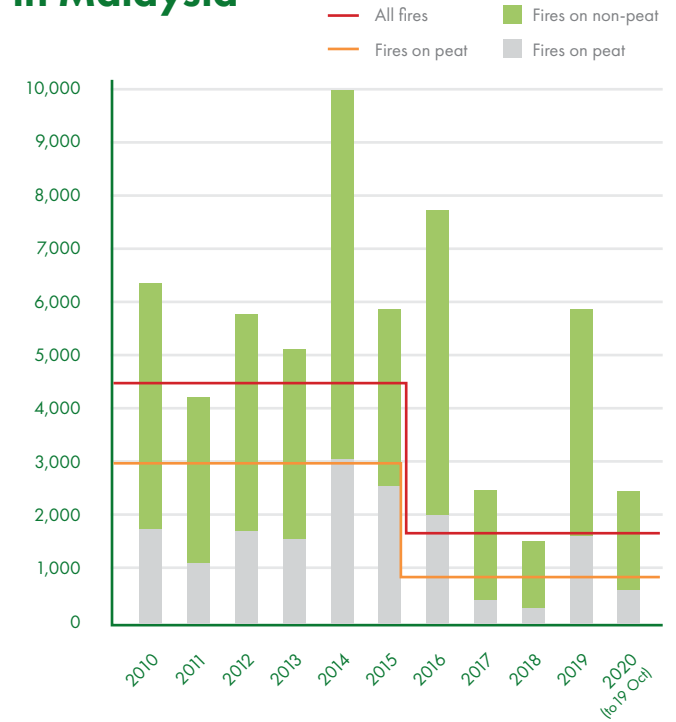
NGOs, civil society organizations and multilateral agencies must partner alongside governments and companies to jointly walk this challenging and complex path of policy implementation. Not all models and methods will succeed, but out of this - by taking a learning-by-doing approach - a number of successful pilots will emerge that can be replicated at scale. Only through such a journey can comradeship be forged and trust earned across organizations to jointly tackle the climate and sustainability agenda.” (Tanoto, 2021).

Exhibits

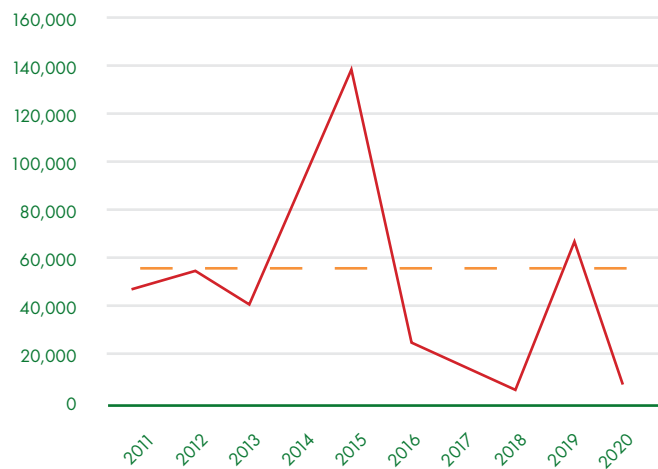
Annual Fire Occurrence in Indonesia



Annual Fire Occurrence in Malaysia



Fire Occurrence 2011-2020 vs 2001-2010 Mean in Indonesia



Fire Occurrence 2011-2020 vs 2001-2010 Mean in Malaysia

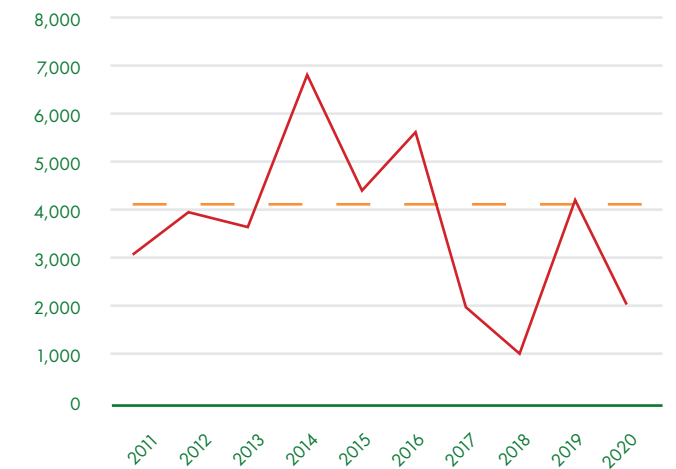












Figure 1. Patterns of annual fire occurrence in Indonesia (left panels) and Malaysia (right panels) since 2010. Upper panels show annual fires on peat (light shading) and non-peat from 2010 to present, with horizontal “step down” lines indicating mean from 2010-15 compared to 2016-2020. Lower panels show annual fire number 2011-20 (orange line) vs the mean number fires per year over previous decade (2000-10).



Engagement with Stakeholder Groups

Stakeholder Group	Objective	Engagement Approach	Key Issues Raised	Actions
Industry Associations 	Share best practices Explore opportunities for collaboration	Executive committee meetings Multi-stakeholder forums and events Direct engagement and one-to-one meetings Sustainability Dashboard	Alignment with SDGs Status of sustainability commitments	Speaking opportunities at conferences Bilateral meetings Shared updates on SDG programs
Customers 	Communicate updates on sustainability commitments Understand customer perspective on ESG issues	Industry groups Presentations and meetings Field visits APRIL website Sustainability Report Social media Sustainability Dashboard	Status of sustainability commitments	Bilateral meetings Q&A responses
Communities 	Understand community concerns Maintain levels of engagement and partnership	Community development programs Grievance mechanism Consultation with community leaders Outreach programs to support fire prevention Community forestry schemes Multi-stakeholder forums Direct dialogues Sustainability Dashboard	Company support for community programs Updates on sustainability commitments Specific requirements (e.g.: support for infrastructure)	Community gatherings Operational support (e.g.: infrastructure) Expansion of partnerships Updates on issues of concern
Employees 	Maintain employee morale and performance Provide updates on company policies	Annual appraisals Townhall meetings Internal campaigns Trade union meetings APRIL website Social media and digital signage Celebration of major festivals HR training Material assessment Sustainability Dashboard	Training programs Updates on operational developments	Updates provided through meetings with managers or through employee communication materials (e.g.: newsletter)
Local & National Government 	Maintain compliance with government policies and regulations Communicate updates on company policies	One-to-one meetings Field visits to Pangkalan Kerinci complex Multi-stakeholder forums and events APRIL website Sustainability Report Sustainability Dashboard	Alignment with regulatory infrastructure	Updates via bilateral meetings with Ministry of Environment and Forestry and provincial authorities
Media 	Clarify scope and scale of APRIL's operations Provide updates on specific areas of operations	1:1 briefings Site visits Group meetings	Fire management Supplier compliance Impact of proposed site development of new capital Land tenure	Briefings with leader/subject matter experts Written responses to questions

Stakeholder Group	Objective	Engagement Approach	Key Issues Raised	Actions
NGO 	Communicate updates on sustainability commitments Explore opportunities for collaboration	Multi-stakeholder forums and events Direct engagement and dialogue APRIL website Sustainability Dashboard Sustainability Report	Fire management Land claims Supplier compliance Legacy issues	Written responses to questions Bilateral meetings
Research Institutions & Academics 	Communicate updates on science and research projects (e.g.: on peatland)	Field visits Direct engagement and one-to-one meetings Multi-stakeholder forums and events Sustainability Dashboard	Status of sustainability commitments Updates on research	Invitations for field visits Bilateral and multilateral meetings Speaker platforms
Business Partners 	Address queries on company performance and responsible practice Communicate company policies	One-to-one communications Field visits APRIL website APRIL Sustainability Report Materiality assessment Sustainability Dashboard	Status of sustainability commitments Historical issues	Formal Q&A responses Bilateral engagement
Suppliers 	Ensure compliance with SFMP 2.0 Support capacity development	Annual supplier visit to APRIL operational site Annual visits to operation sites by APRIL's Sustainability team Trainings and focus group discussions Regular one-to-one communications	Updates on SOPs and sustainability commitments	Visits to Pangkalan Kerinci complex Onsite engagement

Map of Riau Province, Indonesia



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The Tropical Forest Alliance

TFA is a global multistakeholder partnership platform initiated to support the implementation of private-sector commitments as well as to amplify demand-side engagement in major economies towards the transition to reduced deforestation commodity supply chains. Hosted by the World Economic Forum, TFA partners with 170+ organizations - companies, government entities, civil society, indigenous peoples, local communities and international agencies. TFA operates regional platforms in Latin America, West and Central Africa, China, and Southeast Asia.

IPMI Case Center

The IPMI Case Center, established in February 2016, represents the distinguishing character of the IPMI International Business School, the pioneer in adopting the case method approach in Indonesia. Benchmarking itself to cases from the Harvard Business School, the Center aspires to produce a continual flow of new and relevant cases of such caliber, made possible through its various strategic partnerships with a wide array of leading organizations on topics currently critical to the business world as well as to the future leaders in IPMI's various management programs.

The Partnership for the Business Cases

TFA Southeast Asia partners with the IPMI Case Center to co-produce evidence-based business and investment cases primarily to catalyze the realization of multistakeholder's shared-responsibility commitments. Objectively developed with references to relevant working groups, the cases are to reflect interpretations and implementation of sustainability values of companies, alongside the lessons learnt and key takeaways for others in the industry to refer to and be inspired by. The cases aim to recognize initiatives already taken as well as to present real opportunities for actors across commodity supply chains to join hands in pursuing a Forest-Positive shared agenda. As important, the case approach aims to encourage leadership despite the multiple controversies surrounding the shared agenda of combating climate crisis and co-creating long-term sustainable innovative solutions that fit both economic and environmental considerations.

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It is our hope that this study could inspire scaled sustainability commitment and further collective actions across all stakeholders in our journey towards deforestation free commodities supply chain, other forest-positive shared agendas, and eventually our pursuit towards net zero.

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