PERPETUAL HAZE

PULP PRODUCTION, PEATLANDS, AND THE FUTURE OF FIRE RISK IN INDONESIA

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Cover source: Auriga. Photo taken in October 2019 of PT Bumi Mekar Hijau's concession area in South Sumatra.

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MAIN POINTS

1. **In 2019, wildfires in Indonesia have burned over 850,000 hectares, posing health risks for millions across the region, and releasing an estimated 708 million tons of CO_2 emissions.**
2. **Over 40,000 fire alerts have been detected inside industrial forest plantation (*Hutan Tanaman Industri*, HTI) concessions, including many that supply wood to Indonesia's major pulp producers, and 60% of the fire alerts in the worst affected concessions have occurred on carbon-rich peatlands.**
3. **Since the catastrophic fires of 2015, both the Asia Pulp & Paper (APP) and APRIL Groups have completed capital investment projects that increase land-use pressure on drained peatlands and expand future fire risk in Indonesia.**
4. **In April 2019, the Government of Indonesia significantly weakened protection measures for peatlands within pulpwood plantation concessions that were enacted following the 2015 fires to avoid future haze episodes.**
5. **Through October 2019, nearly 50% of the fire alerts in the worst affected HTI concessions were located within areas the Ministry of Environment and Forestry had previously designated as Peat Protection Zones.**

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INTRODUCTION

In 2019, Indonesia has burned – again. Forests, plantations, and agricultural lands across several provinces in Sumatra and Kalimantan have caught fire, causing a toxic haze that has sickened people and disrupted daily life in Indonesia, Malaysia, and Singapore. In 2015, catastrophic fires and haze are estimated to have burned 2.6 million hectares,[1] to have caused US$ 16 billion in economic losses,[2] and to have contributed to over 100,000 premature deaths.[3]

An official estimate of this year's burned area through the end of September is 857,756 hectares,[4] and the fires have continued burning for over a month since then. It will be several more months before the damage from this year's fires can be known, but it has already meant that millions of people have been living amidst the noxious smoke for months.

Thus far in 2019, nearly a million people have suffered from acute respiratory infections in Sumatra and Kalimantan.[5] The fine particulate matter released by the fires is particularly dangerous to children, and the United Nations warned that the 2019 fires are putting the health of 10 million children at risk (see Graphic 1).[6] A resident of Pekanbaru in Riau, Sumatra gave an account of the devastating toll: "Children are getting weaker. They do not want to eat, their body heat is high and it can lead to seizures. Finally, we are forced to take them to the hospital, where the doctor finds bacteria in their bodies because of the smog."[7]

The recurring fires in Indonesia are not just a problem for Southeast Asia. Because they are concentrated on carbon-rich peatlands, the fires cause globally significant levels of carbon emissions, which contribute to climate

Graphic 1. Rafa, 50 days old, is held by his mother at an ICU in Palangkaraya, Central Kalimantan while receiving oxygen treatment for exposure to haze in September 2019.

Source: Jurnasyanto Sukarno/Greenpeace.

change. In 2015, the fires released more carbon into the atmosphere than the entire annual emissions of large economies like Japan and the United Kingdom.[8] This year's fires are also releasing huge greenhouse gas emissions, with some daily emissions surpassing those in 2015 (see Figure 1).[9] Through mid November this year, Indonesia's fires released an estimated 708 million tons of CO_2e emissions, according to data from the Copernicus Atmosphere Monitoring Service (CAMS).[10] These emissions are more than those of the entire international aviation industry, and they are projected to make Indonesia the world's sixth largest country for overall annual CO_2 emissions (behind the U.S., China, India, Russia, and Japan).[11]

The fires are largely blamed on smallholders using slash-and-burn methods to clear land and replenish soil.[12] But some of the major culprits are large companies that have drained vast areas of peatlands for monoculture plantations. The industrial scale plantations are primarily planted with oil palm and acacia trees used in pulpwood production. These peatland plantations, as detailed below, have created expansive landscapes that are extremely vulnerable to fire. And compared to fires on dry lands, fires on peatlands generally burn much longer, produce larger volumes of toxic smoke and haze, and release higher amounts of carbon into the atmosphere.

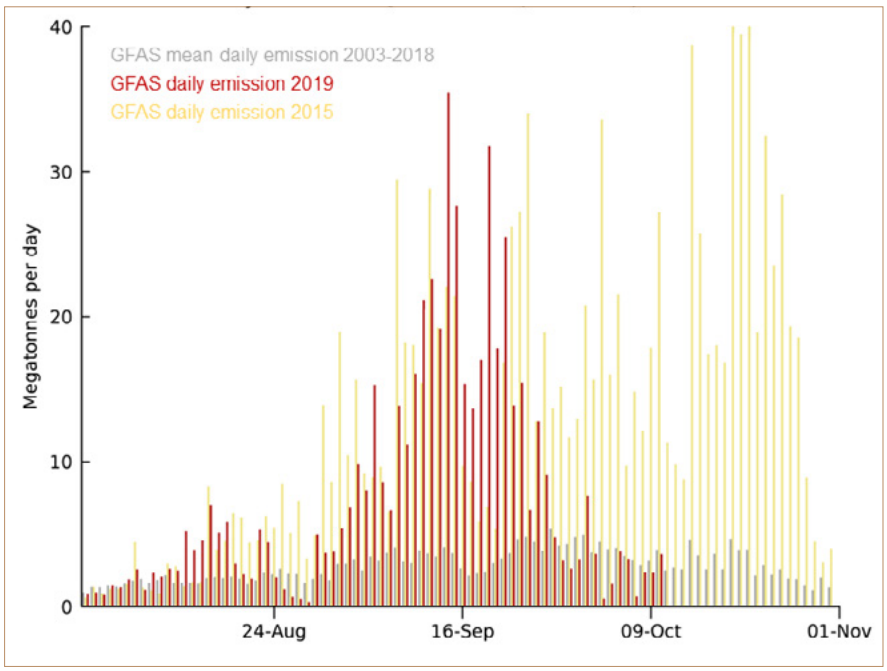


Figure 1. CAMS daily wildfire CO_2 emissions (GFASv1.2) for Indonesia.

Source: Copernicus Atmosphere Monitoring Service (CAMS). 2019.

INDONESIA'S PULP INDUSTRY, DRAINED PEATLANDS, AND FIRE RISK

This report focuses on the contributions of Indonesia's pulp industry to fire risk and recurrent haze episodes in Indonesia. After the 2015 fires, the country's major pulp producers claimed to start addressing the problem. In fact, they since have compounded the land-use pressures their operations put on peatlands, thereby increasing future risk of fires.

Wood suppliers for Indonesia's two largest pulp producers – the Asia Pulp & Paper (APP) and Asia Pacific Resources International Limited (APRIL) Groups – have experienced serious fires this year. As the analysis below indicates, these companies' pulpwood plantations in Sumatra and Kalimantan recorded a significant number of fire alerts which indicate thermal anomalies often associated with fires and burned areas. Media, civil society, and government reports have already highlighted some of these cases,[13] and a fuller analysis is presented below.

Since the 2015 fires, both APP and APRIL have claimed to undertake serious initiatives that address the high levels of fire risk associated with their plantations on drained peatlands.[14] Both groups have one-half or more of their plantations on drained peatlands, amounting to more than 750,000 hectares – equivalent to over 10 times the land area of Singapore.[15,16] The companies' initiatives to address the problem have focused on fire prevention and management, further research into the impacts of drainage on peatlands and alternative species to cultivate on re-wetted peatlands, and collaborations with communities.[17] To the best of our knowledge, however, neither company has committed to nor begun implementing large-scale restoration measures of the hundreds of thousands of hectares of drained peatlands on which they currently grow acacia wood for pulp production.[18] Without taking this fundamental step, it is doubtful these companies can significantly reduce the fire risk from their operations.

In their natural state, forested peatlands are waterlogged swamps, which have low fire risk. However, when they are cleared of forest cover and drained of their natural wetness for the development of industrial plantations, peatlands become extremely vulnerable to fires.[19] As peat fires burn below ground in the soil, they are difficult to extinguish and can continue for weeks or even months until heavy rains cause the ground water table to rise.[20] Combustion in peat fires is relatively incomplete due to limited oxygen availability, and this causes large amounts of particulate matter to be emitted, resulting in dense haze.[21] More accurately described as "toxic smoke", according to experts on the issue, the haze includes toxic compounds like benzene and hydrogen cyanide.[22]

Within the scientific community, a broad consensus has emerged on the grave risks posed by the development of peatland areas for large-scale agriculture and commercial forestry. In addition to the burning of peatlands contributing a globally significant source of greenhouse gas emissions, the continual process of subsidence that drained peatlands undergo contributes as much, if not more, greenhouse gas emissions to the atmosphere.[23] In 2016, over 100 peat scientists challenged claims made by agro-industrial companies that tropical peatlands can be sustainably managed for industrial plantations:

> Tropical peat fires are a major contributor to global greenhouse gas emissions and produce transboundary haze causing significant impacts on human health, regional economies and ecosystems (Page et al., 2002[24]; Marlier et al., 2012[25]; Jaafar & Loh, 2014[26]; Chisholm et al., 2016[27]; Huijnen et al., 2016[28]; Stockwell et al., 2016[29]). With future El-Niño events predicted to increase in frequency and severity (Cai et al., 2014[30]) and with fire prevalence now decoupled from drought years (Gaveau et al., 2014[31]), future large-scale fire and haze events are imminent given the extensive areas of now drained fire-prone drained peatlands (Kettridge et al., 2015[32]; Turetsky et al.[33], 2015; Page & Hooijer, 2016[34]).[35]

Despite the scientific evidence indicating that industrial plantations on drained peatlands carry very considerable risks and are not sustainable even with 'best practice' management, companies such as APP and APRIL continue to depend heavily on peatland plantations for much of their wood fiber.[36]

Disturbingly, since 2015 both companies have made large capital investments in new processing capacity which compounds their respective land-use pressures on peatlands. APP opened one of the world's largest pulp mills in South Sumatra in late 2016, sourcing most of its wood from plantations on drained peatlands that include some of the most badly burned areas in 2015.[37] APRIL began producing a new type of pulp, apparently utilizing a production process specifically designed to use *Acacia crassicarpa*, a species of wood that the company only grows on peatlands.[38,39] In both cases, these investments have intensified the companies' dependence on drained peatlands, making it harder for the groups' suppliers to adopt restoration and conservation measures.

Graphic 2. Burnt peatlands in acacia plantation

Source: Rainforest Action Network

FIRE ALERTS IN HTI CONCESSIONS AND OCCURRENCE ON PEATLANDS

Analysis of fire alerts in 2019 using data from NASA's VIIRS sensor indicates 389,048 fire alerts in Indonesia through October 31, 2019.[40] Of this total, 41,073 fire alerts, or 11%, occurred inside industrial forest plantation (*Hutan Tanaman Industri*, or HTI) concession areas, many of which supply wood to Indonesia's pulp industry.[41] Of the 128,239 fire alerts that occurred this year on the island of Sumatra, 16% were within HTI areas. Of the 164,072 fire alerts that occurred this year on the island of Kalimantan, 10% were within HTI areas.

From the total number of fire alerts within HTI areas, 49% were on the island of Sumatra, and 39% occurred in HTI concession areas on the island of Kalimantan, which is the Indonesian part of Borneo. The remaining fire alerts in HTI concession areas were located in eastern Indonesia, mostly on the islands of Sulawesi and Papua. It must be noted that fire alerts, or "hotspots", detected by the VIIRS sensor indicate thermal anomalies and do not always correspond to actual fires.[42] In some cases, multiple alerts may be related to a single hotspot location.

Within individual HTI concessions (see Table 1), the most fire alerts were observed in areas licensed to APP's affiliated supplier, PT Bumi Mekar Hijau, located in South Sumatra province (see Map 1 and Graphic 3).[43] Through the end of October 2019, some 3,064 fire alerts were detected within PT Bumi Mekar Hijau's concession boundaries, according to NASA's VIIRS sensor.

The second highest number were in APRIL-affiliated PT Sumatera Riang Lestari's concession area in Riau province, with 2,075 fire alerts detected in 2019 (see Map 2 and Box 1). The third highest number were in another APP-affiliated concession in Jambi and South Sumatra, PT Rimba Hutani Mas, with 1,284 fire alerts in 2019 (see Map 3). A concession area managed by APP subsidiary PT Wirakarya Sakti in Jambi Province had the fourth highest number of fire alerts with 1,021.

Through October 31, 2019, 40% of the fire alerts inside HTI areas occurred on peatlands, based on peat distribution data from the Government of Indonesia's Peat Restoration Agency. In the eight HTI concessions with the most fire alerts, 60% (6,009 of 10,070 fire alerts) occurred on peatlands (see Table 1 and Maps 1, 2, and 3).[44]

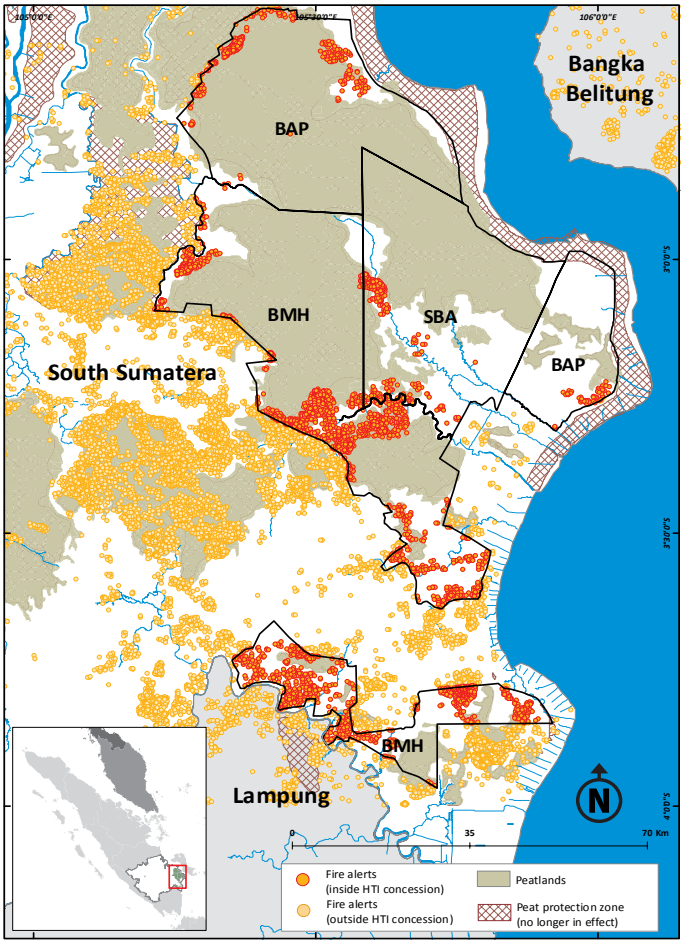
Table 1. HTI concessions with the most fire alerts in 2019 (detected through October 31, 2019), with occurrence on peatlands.

HTI concession company	Province	Group affiliation	Fire alerts	Fire alerts on peatlands	Percentage on peatlands
PT Bumi Mekar Hijau	South Sumatra	APP/Sinar Mas	3,064	1,736	57%
PT Sumatera Riang Lestari	Riau	APRIL	2,075	2,069	99%
PT Rimba Hutani Mas	South Sumatra and Jambi	APP/Sinar Mas	1,284	1,174	91%
PT Wirakarya Sakti	Jambi	APP/Sinar Mas	1,021	555	54%
PT Musi Hutan Persada	South Sumatra	Marubeni Corporation	905	24	3%
PT Acacia Andalan Utama	East Kalimantan	APP/Sinar Mas	707	–	0%
PT Bumi Andalas Permai	South Sumatra	APP/Sinar Mas	538	451	84%
PT Ruas Utama Jaya	Riau	APP/Sinar Mas	476	476	100%
Total			**10,070**	**6,009**	**60%**

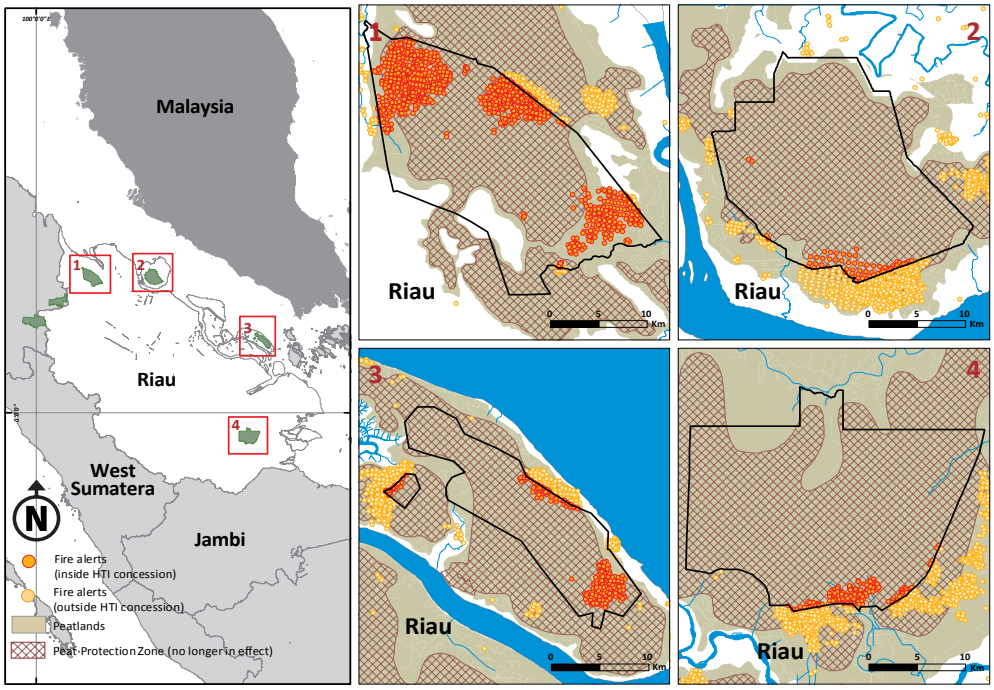
Source: NASA Near Real-Time and VIIRS Active Fire Detections (SHP format). Data set. Available on-line at https://earthdata.nasa.gov/active-fire-data. Data range January 1, 2019 to October 31, 2019. Peatlands map from Indonesia's Peatlands Restoration Agency (*Badan Restorasi Gambut*, or BRG). HTI concession boundaries are from Greenpeace, Kepo Hutan (https://www.greenpeace.org/archive-indonesia/Global/seasia/Indonesia/Code/Forest-Map/data.html) updated by Ministry of Environment and Forestry, Peta Indikatif Arahan Pemanfaatan Hutan Produksi yang Tidak Dibebani Izin Untuk Usaha Pemanfaatan Hutan, SK.4732/MenLHK-PHPL/KPHP/HPL.0/9/2017. Note: Only active HTI concessions, i.e. those harvesting pulpwood and paying PNBP royalties, are included in the ranking of HTI concession areas with the most fire alerts.

Map 1. Concession areas of PT Bumi Mekar Hijau (BMH), PT Bumi Andalas Permai (BAP), and PT SBA Wood Industries (SBA) indicating fire alerts in 2019, peat distribution, and Peat Protection Zone.

Source: NASA Near Real-Time and VIIRS Active Fire Detections (SHP format) data set. Available on-line at https://earthdata.nasa.gov/active-fire-data. Data range January 1, 2019 to October 31, 2019. Peatlands map from Indonesia's Peatlands Restoration Agency (*Badan Restorasi Gambut*, or BRG). Peat "Protection Zone" map from Ministerial Decree 130 of 2017 (SK.130/MENLHK/SETJEN/PKL.0/2/2017). HTI concession boundaries from Ministry of Environment and Forestry, Peta Indikatif Arahan Pemanfaatan Hutan Produksi yang Tidak Dibebani Izin Untuk Usaha Pemanfaatan Hutan, SK.4732/MenLHK-PHPL/KPHP/HPL.0/9/2017.

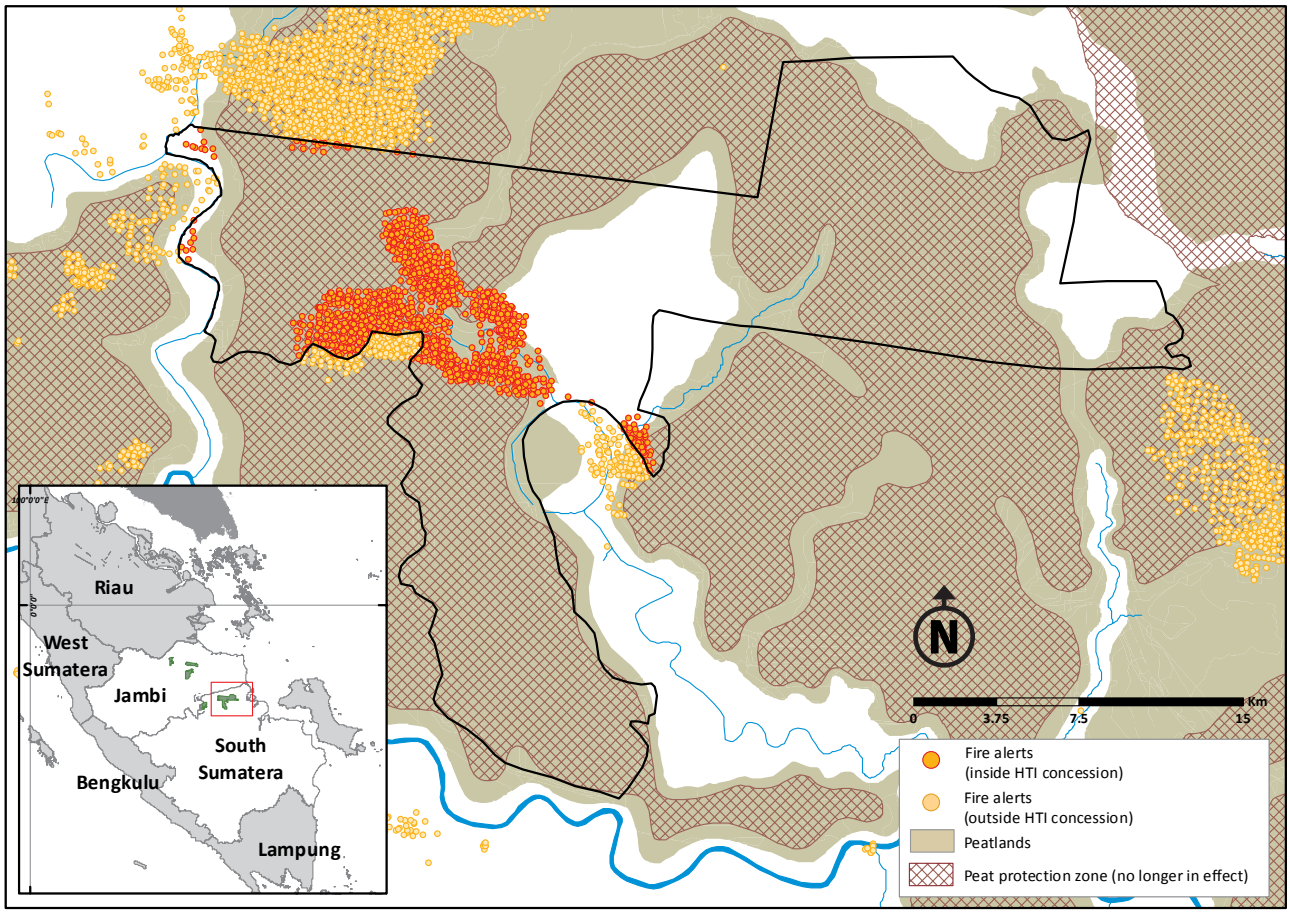


Map 2. Concession area of PT Sumatera Riang Lestari indicating fire alerts in 2019, peat distribution, and Peat Protection Zone.



Source: NASA Near Real-Time and VIIRS Active Fire Detections (SHP format) data set. Available on-line at https://earthdata.nasa.gov/active-fire-data. Data range January 1, 2019 to October 31, 2019. Peatlands map from Indonesia's Peatlands Restoration Agency (*Badan Restorasi Gambut*, or BRG). Peat "Protection Zone" map from Ministerial Decree 130 of 2017 (SK.130/MENLHK/SETJEN/PKL.0/2/2017). Ministry of Environment and Forestry, Peta Indikatif Arahan Pemanfaatan Hutan Produksi yang Tidak Dibebani Izin Untuk Usaha Pemanfaatan Hutan, SK.4732/MenLHK-PHPL/KPHP/HPL.0/9/2017.

Map 3. Concession area of PT Rimba Hutani Mas indicating 2019 fire alerts, peat distribution, and Peat Protection Zone.



Source: NASA Near Real-Time and VIIRS Active Fire Detections (SHP format) data set. Available on-line at https://earthdata.nasa.gov/active-fire-data. Data range January 1, 2019 to October 31, 2019. Peatlands map from Indonesia's Peatlands Restoration Agency (*Badan Restorasi Gambut*, or BRG). Peat "Protection Zone" map from Ministerial Decree 130 of 2017 (SK.130/MENLHK/SETJEN/PKL.0/2/2017). Ministry of Environment and Forestry, Peta Indikatif Arahan Pemanfaatan Hutan Produksi yang Tidak Dibebani Izin Untuk Usaha Pemanfaatan Hutan, SK.4732/MenLHK-PHPL/KPHP/HPL.0/9/2017.

Graphic 3. Burning peatlands in PT Bumi Mekar Hijau's plantation concession in South Sumatra. Aerial photo taken in October 2019.

Source: Auriga

Box 1. PT Sumatera Riang Lestari

PT Sumatera Riang Lestari's concession areas in Riau, Sumatra have had the second highest number of fire alerts among all of Indonesia's active HTI concessions in 2019, as of the end of October. The concession area has had fires on its land every year since 2015, according to a recent Greenpeace report.[45]

In 2015, the Ministry of Environment and Forestry suspended PT Sumatera Riang Lestari's license to operate in Riau due to the large number of fires within its concession boundaries. At the time, APRIL denied that the company was a subsidiary of PT Riau Andalan Pulp & Paper, the company that controls APRIL's Indonesia pulp mill and directly-owned pulpwood plantation operations.[46]

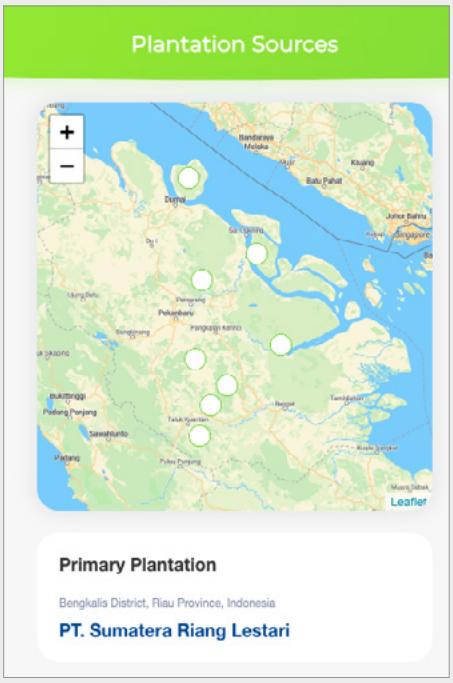
However, APRIL's sustainability website lists PT Sumatera Riang Lestari as a "supply partner", not one of the group's apparently independent "open market suppliers".[47] The majority ownership of PT Sumatera Riang Lestari is held by a holding company named PT Bintang Utama Lestari. The company is registered at the same address as RGE (APRIL's parent company) headquarters in downtown Jakarta, according to corporate profile documents from the Government of Indonesia's Ministry of Law and Human Rights.[48] PT Bintang Utama Lestari is also the controlling shareholder of a company incorporated at the same address as PT Asian Agri, RGE's palm oil company located in Medan, Sumatra.[49]

The direct controlling shareholder of PT Sumatera Riang Lestari is also the controlling shareholder of at least two other companies incorporated at the same address as RGE headquarters.[50] The minority shareholder of PT Sumatera Riang Lestari is listed as Polar Yanto Tanoto (RGE Chairman Sukanto Tanoto's brother), who died in a plane crash in 1997.[51] The address of the sole Commissioner of PT Sumatera Riang Lestari is listed as "Komplek PT RAPP", apparently referring to PT Riau Andalan Pulp & Paper's complex in Riau, Sumatra.[52]

APRIL's apparent reluctance to take full responsibility for the fires within its HTI concessions is particularly stark in light of its public relations campaign claiming to ensure fire-free supply chains through traceability using blockchain technology. In a recent opinion piece entitled "Building 'blocks' to fight the haze", RGE's blockchain partner Perlin describes traceability measures for Asia Pacific Rayon, an RGE textile manufacturer that uses pulp from APRIL's Indonesia mill.[53] Perlin's co-founder Darren Toh writes:

> Timestamp and location data is now recorded at every key point of APR's value chain, providing an unprecedented level of transparency over their operations. This allows any individual, customer or organisation to access this data from Perlin's user-friendly phone app to verify APR's product journey from point of origin to final product bale – ensuring none has been sourced from fire-cleared land.

Graphic 4. Output from Asia Pacific Rayon's traceability system indicating source of fiber for APRIL's pulp mill in Kerinci, Riau.



Source: https://www.followourfibre.com/. Accessed on October 27, 2019. Supply chain information from viscose staple fiber (VSF) batch 190926.

The authors of this report logged onto the traceability system and selected a recent shipment. The "primary plantation" listed as the source of the wood fiber: PT Sumatera Riang Lestari (see Graphic 4).[54]

PULP INDUSTRY INVESTMENTS IN NEW CAPACITY AND INCREASED PRESSURE ON PEATLANDS

Both APP and APRIL have compounded the land-use pressures on Indonesia's peatlands with recent capital investment projects in Sumatra. APP's OKI mill, which started operating in December 2016, is one of the largest kraft pulp mills in the world.[55] APRIL has recently converted around 60% of its existing paper-grade pulp lines to be capable of producing dissolving pulp,[56] and the company now appears to be using a dissolving pulp process that specifically requires a species of wood that APRIL only grows on peatlands.[57]

APP's OKI Mill

By bringing the OKI mill into production (see Graphic 7), APP increased its effective demand for wood in Indonesia by 75% and increased the company's overall pressure on peatlands in two ways.[58] First, the OKI mill sources much of its wood fiber from APP supplier concessions in South Sumatra, 70% of which are composed of peatlands, according to peat distribution data from the Government of Indonesia's Peat Restoration Agency. These concessions include many of the areas most badly burned in the 2015 fires, and again in the 2019 fires.[59] Second, the group's overall wood demand has become significantly larger than it was prior to the construction of the OKI mill.[60] This means APP has much less room to accommodate major peatland restoration initiatives, as these could potentially reduce the group's pulpwood plantation base.[61]

In addition to putting more pressure on peatlands, APP has also avoided taking full responsibility for the negative impacts this has caused.[62] In 2015, the Government of Singapore accused two APP suppliers – PT Bumi Mekar Hijau and PT SBA Wood Industries – of starting fires, under the Transboundary Haze Act. At the time, APP sought to distance itself from the suppliers by claiming they were "independently managed and controlled."[63] An investigation by the Associated Press revealed that the "independent" suppliers were actually owned, apparently as proxies, by APP employees.[64] APP has since acknowledged that these suppliers are "partners" over which they may have ownership and management links.[65] The cases in Singapore against PT Bumi Mekar Hijau and PT SBA Wood Industries, along with two other APP pulpwood suppliers (PT Bumi Andalas Permai and PT Rimba Hutani Mas), are reportedly still open, according to Singapore's National Environmental Agency.[66]

APRIL's Dissolving Pulp Process

APRIL's parent conglomerate, the RGE International Group, has recently constructed a viscose staple fiber (VSF) mill, as part of the group's push into the textile market and to become the world's largest VSF producer.[67] The VSF mill is operated by PT Asia Pacific Rayon (APR) at the group's Kerinci mill complex in Riau Province (see Graphic 8). Along with this new VSF mill, APRIL is converting around 60% of its paper-grade pulp production to dissolving pulp, so it can be used in the APR mill as well as exported to other RGE-owned VSF mills in China under Sateri Group.[68]

The problem is that APRIL appears to be using a dissolving pulp process that requires *Acacia crassicarpa,*[69] a species that APRIL only grows on drained peatlands.[70] The process description specifically mentions that *Acacia mangium*, the predominant species APRIL grows on mineral soils, i.e. non-peatlands, is not suitable for producing high quality dissolving pulp.[71] In 2016, Asia Pacific Rayon submitted a patent application for this process to the European Patent Registry with inventors that include current and former senior management for RGE's operating companies (see Graphic 5).[72]

The patent application describes the process as follows:

> In a first aspect, there is provided a dissolving pulp comprising cellulosic material of Acacia crassicarpa. Advantageously, unlike other taxonomically close species, e.g., Acacia mangium, Acacia crassicarpa has been surprisingly found to comprise relatively low amounts of lipophilic content or lipophilic extractives, which makes it suited for use in preparing a dissolving pulp which meets stringent industrial requirements.

Graphic 5. Excerpt from European Patent application submitted by PT Asia Pacific Rayon (PT Sateri Viscose International at time of submission).

(19) Europäisches Patentamt / European Patent Office / Office européen des brevets

(11) **EP 3 093 389 A1**

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D21H 11/02 (2006.01) *D21H 13/08* (2006.01)

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(54) **DISSOLVING PULP**

(57) There is provided a dissolving pulp, a cellulosic composition, a composition, regenerated cellulose fibre and a textile comprising Acacia crassicarpa. There is provided the use of the compositions for preparing a dissolving pulp. There is provided a method of preparing dissolving pulp, comprising: (a) hydrolysing a composition comprising cellulosic or a lignocellulosic material of Acacia crassicarpa to thereby form a treated cellulosic or lignocellulosic composition; (b) heating the treated composition under conditions to produce said dissolving pulp; and a method of producing regenerated cellulose fibres, comprising: (a) base treatment of a dissolving pulp of Acacia crassicarpa to produce cellulose xanthate; (b) neutralizing said cellulose xanthate to produce said regenerated cellulose fibres.

Source: PT Asia Pacific Rayon. 2016. EP3093389A1. European Patent Application. November 16. https://patents.google.com/patent/EP3093389A1/en. Note: PT Asia Pacific Rayon's name was PT Sateri Viscose International at the time of submitting the patent application. It has since been renamed PT Asia Pacific Rayon (see corporate profile "PT Asia Pacific Rayon" obtained from Director General AHU of the Ministry of Law and Human Rights, Government of Indonesia).

In April 2019, Mongabay, an environmental news service, reported, "The tree from which APRIL derives its dissolving pulp is an acacia species, *Acacia crassicarpa*, [which] grows best on peatland."[73] *Acacia crassicarpa* is the main pulpwood species that APRIL grows on peatlands,[74] and *Acacia mangium* is the main pulpwood species that APRIL grows on mineral soils, according to APRIL's Sustainability Reports in 2017 and 2018 (see Graphic 6). APRIL also notes in its most recent Sustainability Report that it is "currently expanding its use of Eucalyptus on dry, mineral soils"; however, to the best of the authors' knowledge, APRIL has not publicly reported how much of its plantations on mineral soils in Indonesia have been planted with eucalyptus. Fiber from eucalyptus is usually suitable for producing dissolving pulp.

To the best of our knowledge, neither APR nor APRIL has acknowledged or denied it is using the patented process described above to produce dissolving pulp at the Kerinci mill, despite repeated questions from NGOs about its feedstock for dissolving pulp production.[75] If the Kerinci mill is, in fact, using this dissolving process that relies on *Acacia crassicarpa*, it means that APRIL has expanded its processing capacity in a way that effectively locks in its demand for pulpwood from peatlands to supply over 50% of its pulp processing capacity.[76] With APRIL acknowledging that around 55% (242,465 ha) of its current plantation base is on peatlands, this apparent

Graphic 6. Excerpt from Glossary section of APRIL's 2018 Sustainability Report.

Acacia crassicarpa and Acacia mangium	Two species of Acacia, characterised by fastgrowing and good pulping qualities. APRIL plants Acacia crassicarpa on peatlands and Acacia mangium on dry, mineral soils.

Source: APRIL. 2019. *Advancing Sustainability: Sustainability Report 2018*. https://www.aprilasia.com/images/pdf_files/sr/APRIL_SR-2018_EN.pdf.

structural demand for peatland species for dissolving pulp production provides a strong incentive for APRIL to continue draining, planting/replanting, and harvesting on these peatland areas – rather than reducing its operational footprint on peatlands.

This may have been what, in part, motivated APRIL to resist the Government of Indonesia's attempts to restore and conserve peatland areas inside pulpwood plantations following the disastrous 2015 fires. In November 2017, APRIL's subsidiary PT Riau Andalan Pulp & Paper reportedly sued the Ministry of Environment and Forestry to maintain its operations on peatlands, in defiance of the Ministry's regulation to revise annual work plans to restore and conserve the peatlands.[77] In December 2017, Indonesia's Supreme Court upheld the Ministry's authority, rejecting the petition by PT Riau Andalan Pulp & Paper.[78] (According to APRIL, "PT Riau Andalan Pulp & Paper did not sue the Ministry of Environment and Forestry. It sought legal clarification on overlapping regulations and subsequently agreed its revised work plans with the Ministry." See Appendix A.)

At the time of the petition against the Ministry, APRIL's parent company RGE was investing over US$ 1 billion in a new VSF mill in Riau (PT Asia Pacific Rayon),[79] and an additional, undisclosed amount in converting a paper-grade pulp line to dissolving pulp capabilities. All of this new investment apparently relies on the use of a tree species that APRIL, according to its own sustainability reports, grows only on peatlands.

In August 2019, APRIL released a "Summary Report on the Strategic Wood Fiber Supply Review" that appears to highlight the risk that management of its plantations on drained peatlands poses to its wood supply. The report states, "Key contributing factors to achieving the future plantation productivity target will be maintaining the optimal water table management at every phase of tree growth for *Acacia crassicarpa* in the peatlands."[80] The report adds, "Target timeframe for reaching the supply goals is strict and allows little space for setbacks or recession in growth development."[81]

Graphic 7. Asia Pulp & Paper's OKI Mill being built in South Sumatra. It opened as one of the world's largest pulp mills in December 2016.

Source: BankTrack.org

Graphic 8. APRIL's mill complex in Kerinci, Riau province, where Asia Pacific Rayon's VSF mill is now located.

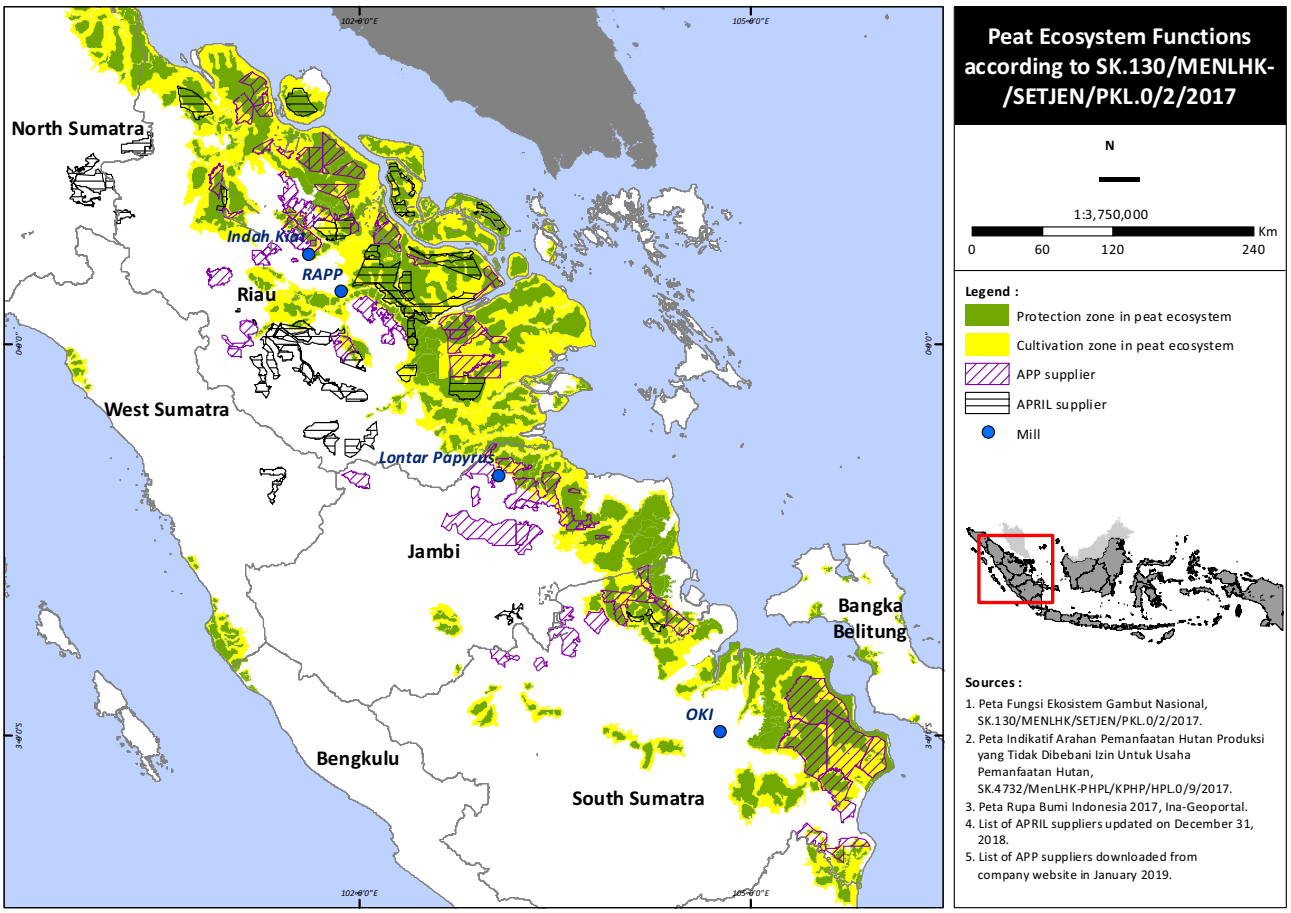
Source: Asia Pacific Resources International

GOVERNMENT POLICY TO RESTORE AND PROTECT PEATLANDS RECENTLY WEAKENED

The fires now blazing across Indonesia are highly disturbing, but unsurprising. The conditions that led to the catastrophic fires of 2015 largely remain intact: Vast plantation areas in Indonesia continue to be managed on drained peatlands, which are highly combustible environments.

The cost of mitigating the fire risk by re-wetting and restoring peatlands in APP and APRIL's supplier concessions could constrain lucrative profits for some of Indonesia's most powerful companies and potentially jeopardize their recent investments in capacity expansion. Even so, the 2015 fires caused such a nexus of health, economic, and diplomatic disasters that the Government initially had enough political will to limit the use of drained peatlands by corporate actors. In 2016 and 2017, the Ministry of Environment and Forestry issued regulations to protect and restore peatlands that included a map of peat hydrological units covering 24.7 million ha – half of which the Ministry designated for cultivation (12.3 million ha) and the other half for protection (12.4 million ha) (see Map 4).[82]

Map 4. APP and APRIL suppliers' HTI concessions and peat cultivation and protection zones in Sumatra.



Note: This map indicates peat cultivation and protection zones only on the island of Sumatra, a subset of the peat hydrological units covering 24.7 million ha.

The Peat Protection Zones designated by the Ministry of Environment and Forestry included large areas in Sumatra and Kalimantan that had been drained for industrial pulpwood plantations and palm oil estates over many years. Under Government Regulation Number 57 in 2016 on the Protection and Management of Peatland Ecosystems (PP. 57/2016), the Ministry required forestry license holders with working areas in the protection zones to revise their long-term management plans (*rencana kerja umum,* RKU) and annual work plans (*rencana kerja tahunan*, RKT).[83]

But those efforts gave way in the months before the 2019 fires got worse. In April 2019, the Ministry of Environment and Forestry issued Decree 10 concerning the Definition, Determination and Management of Peat Dome Peaks Based on Peat Hydrological Units.[84] According to media and civil society reports, this regulation substantially weakened peat protection established under PP. 57/2016 and related regulations.[85]

Mongabay reported in July 2019:

> Existing regulations, issued in the wake of devastating fires in 2015, require that plantation companies and other concession holders whose land includes areas with peat layers 3 meters (10 feet) or deeper must restore and conserve those areas. Subsequent policies and restrictions have tended to support this prohibition on clearing deep peat. However, a new regulation issued by the Ministry of Environment and Forestry redefines the area that must be protected, essentially opening up large areas of peatlands to exploitation.[86]

It appears that industry lobbying, at least in part, caused the regulation governing peat protection, PP. 57/2016, to be weakened. The Mongabay article explains:

> It's also a recipe that appears to have been cooked up in part by the very plantation and pulpwood companies that hold concessions in peat areas. The government's rationale for protecting only the tops of the peat domes is that they will act as natural "water towers" to help keep water levels in lower-lying plantations from falling too low during the dry season. An identical approach known as "eko-hidro" is already in use by companies such as Asia Pacific Resources International Limited (APRIL), Indonesia's second-largest pulp and paper firm.[87]

Wetlands International, a global NGO focused on wetlands research and conservation, and Tropenbos International, a consultancy hired by APRIL to conduct High Conservation Value studies on its concession areas, published a research paper on the *eko-hidro* approach in 2016. The report concluded, "the 'eko-hidro' and controlled drainage water management systems do not provide an option for sustainable peatland management but ultimately lead to significant loss of peat in line with studies of peatlands globally."[88] Wetlands International compared this approach to peatlands management to be "like allowing smoking on the left side of a plane and forbidding it on the right side."[89]

A report by Eyes on the Forest, a coalition of environmental and social NGOs on the island of Sumatra, found that the protection of peat dome peaks as mandated under the revised regulation (P.10/2019) amounts to "a tiny fraction of what the previous peat regulations zoned for protection and restoration."[90] The Eyes on the Forest report states:

> All remaining areas of peat could be developed as before. This effectively wastes all efforts for peat restoration by the Government since the President committed to solve the peat issue once and for all within 3 years after the catastrophic fires. Instead of solving the peat issue, the Government now legally allows companies to go back to business as usual as if 2015's global haze emergency never happened.[91]

It is not known yet how this new regulation will impact the work plans of APP and APRIL pulpwood suppliers, which were reportedly revised in accordance with the peat restoration and conservation mandate.[92] Under the

previous regulation, PP. 57/2016, APP suppliers were required to restore and/or protect 793,293 ha of peatlands within their concession areas, and APRIL suppliers were required to protect 418,670 ha of peatlands within their concession areas.[93] For example, PT Bumi Mekar Hijau, the APP-affiliated supplier in South Sumatra that was badly burned in 2015 and again in 2019, was required to restore and/or protect 123,534 ha of peatlands, reducing its main plantation area to 35,125 ha.[94] APP and APRIL, to the best of our knowledge, have yet to comment on how the revised regulations impact the areas of peat they are required to protect.

What is clear is that a large number of fire alerts in the worst fire-affected concessions occurred on areas the Government had earlier protected under the previous regulation, PP. 57/2016 (see Table 2). Through October 2019, 25% of the 41,073 fire alerts detected within HTI concession boundaries were located inside areas the Ministry of Environment and Forestry had previously designated as Peatland Protection Zones. In the HTI concessions with the most fire alerts, 46% of fire alerts occurred within the Peat Protection Zones mandated in PP. 57/2016. For example, in PT Sumatera Riang Lestari, 83% of the fire alerts occurred on peat areas protected under the previous regulation (see Map 2). In the APP affiliated pulpwood supplier concessions around OKI mill in South Sumatra, which includes PT Bumi Mekar Hijau's concession area, 50% of the fire alerts occurred on peat areas protected under PP. 57/2016 (see Map 1).[95] And in PT Rimba Hutani Mas's concession area, 64% of all the fire alerts occurred on the areas previously designated as Peat Protection Zones under PP. 57/2016 (see Map 3).

Table 2. Fire alerts and occurrence on Peat Protection Zones mandated under PP. 57/2016 (no longer in effect)

HTI concession company	Province	Group affiliation	Fire alerts	Fire alerts on Peat Protection Zones (PP. 57/2016)	Percentage of fire alerts on Peat Protection Zones
PT Bumi Mekar Hijau	South Sumatra	APP/Sinar Mas	3,064	1,239	40%
PT Sumatera Riang Lestari	Riau	APRIL	2,075	1,742	84%
PT Rimba Hutani Mas	South Sumatra and Jambi	APP/Sinar Mas	1,284	822	64%
PT Wirakarya Sakti	Jambi	APP/Sinar Mas	1,021	439	43%
PT Musi Hutan Persada	South Sumatra	Marubeni Corporation	905	20	2%
PT Acacia Andalan Utama	East Kalimantan	APP/Sinar Mas	707	–	0%
PT Bumi Andalas Permai	South Sumatra	APP/Sinar Mas	538	401	75%
PT Ruas Utama Jaya	Riau	APP/Sinar Mas	476	65	14%
Total			**10,070**	**4,728**	**47%**

Sources: NASA Near Real-Time and VIIRS Active Fire Detections (SHP format). Data set. Available on-line at https://earthdata.nasa.gov/active-fire-data. Data range January 1, 2019 to October 31, 2019. Peat Protection Zone map from Ministerial Decree 130 of 2017 (SK.130/MENLHK/SETJEN/PKL.0/2/2017).

CONCLUSION

Four years after Indonesia's 2015 fire and haze disaster, many of the underlying causes of those fires have not changed. In 2019, another fire and haze disaster has occurred, and once again, large numbers of hotspots have been detected on drained peatlands within HTI concessions that supply Indonesia's pulp industry.

In this context, small holders continue to be blamed for centuries old practices of slash-and-burn agriculture, while large plantation companies are lauded for organizing community collaborations to control the traditional practice. These community collaboration initiatives, while helpful, seem to distract attention from the companies' unsustainable peat plantation management. The companies' peat management practices, meanwhile, continue largely unimpeded, even though they play a significant part in creating landscapes that are extremely vulnerable to fire.

Since the catastrophic fires of 2015, Indonesia's largest pulp and paper producers have not undertaken a significant shift away from using drained peatlands. On the contrary, both APP and APRIL have largely continued with business as usual, insisting that more research must be done and continuing to promote initiatives for "responsible" peatlands management that studies by the companies' own consultants and experts have shown to address the issue only marginally.[96] The Government has facilitated the pulp industry's continued reliance on drained peatlands by issuing regulations in April 2019 that effectively rolled back the Government's earlier initiative to restore and protect 12.4 million hectares of priority peatlands.

Will this situation change? Yes – but likely not for the better. Instead of systematic efforts to re-orient their pulpwood plantation operations to non-peatland areas, Indonesia's pulp producers are heading in the opposite direction: Both APP and APRIL have recently made large capital investments to expand their processing capacity in ways that compound, rather than reduce, the pressures they place on peatlands. And, by doing so, they are likely to perpetuate elevated levels of fire and haze risk in Indonesia for many years to come.

Graphic 2. A canal in burned peatlands, covered by thick haze from forest fires, in a concession belonging to PT Wirakarya Sakti (WKS) in East Tanjung Jabung, Jambi. Photo taken on September 21, 2019.

Source: Muhammad Adimaja/Greenpeace

RECOMMENDATIONS

Recommendations for APP and APRIL and for HTI concession companies:

1. Commit to a moratorium on capital investments in new processing capacity that would intensify pressures on peatlands.
2. Adopt an accountable, time-bound plan for phasing-out pulpwood plantations on peatland sites, which includes independent verification mechanisms.
3. Implement large-scale restoration and protection measures for peat landscapes within HTI concession areas, including immediate steps to block drainage canals and rewet drained areas.
4. Strengthen capacity to prevent fires within HTI concession areas on peatlands, and implement fire mitigation and management with full transparency.
5. Demonstrate leadership in private sector initiatives to ensure communities directly affected by fires and haze receive adequate health care and economic compensation.

Recommendations for the Government of Indonesia:

1. Adopt a rigorous risk assessment process for new capital investments in pulp production and downstream processing industries that would intensify pressures on peatlands.
2. Impose a permanent ban on the development of new HTI plantations on drained peatlands, including phasing-out of existing sites and restoration of these areas.
3. Restore legal and regulatory protections for the 12.4 million hectares of priority peatlands previously designated as Peat Protection Zone under PP. 57/2016, and allocate sufficient resources to ensure these are implemented accountably and effectively.
4. Strengthen law enforcement to hold pulp producers and HTI license-holders legally accountable for creating high risk conditions for peatland fires.
5. Ensure public access to data on peatland restoration in HTI concessions, as well as the revision of ten-year and annual work plans (RKU/RKT) of HTI companies.
6. Develop a national map of fire prone areas and conduct targeted fire mitigation measures annually before the dry season.

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15. APP's 2018 sustainability report indicates "approximately 50% of APP's pulpwood suppliers' concessions are on peatland." However, this may underestimate the company's operational footprint on peatlands, as the plantation area is a subset of the gross concession area, which includes set asides for community use, conservation areas, and other categories. In November 2016, then APP Stakeholder and Sustainability Manager Kavickumar Muruganathan told Eco-Business, "About 60 per cent of our plantation areas are on peat, so we are heavily dependent on it." (See https://www.eco-business.com/news/healthy-forests-zero-burning-prosperous-economy-can-indonesia-have-it-all/).

16. APRIL's 2018 sustainability report indicates that 54% of its plantations are on peatlands (242,465 ha). APRIL's "Sustainability Dashboard" indicates that 56% of its total plantations of 445,660 ha are on peatlands (accessed on October 29, 2019). It is not clear if APRIL's total includes "Open-market suppliers" that have concessions on peatlands, such as PT Adindo Hutani Lestari located in North Kalimantan.

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95. This includes the three concessions, PT Bumi Mekar Hijau, PT Bumi Andalas Permai, and PT SBA Wood Industries. Together, these concessions had 480 fire alerts, 239 or 50% of which occurred on areas designated as "protection zones" in the SK 130 map issued by the Ministry of Environment and Forestry.

96. For example, APRIL supported research published in 2019 indicates that keeping water levels at 40 centimeters could reduce subsidence rates by only 25–30%. Even with this, APRIL's "Strategic Wood Fiber Supply Review" indicates that levels should be maintained for maximum productivity, which is below the 40 cm, if APRIL is to achieve its wood supply requirement. Similarly, APP's peatlands consultant Aljosja Hooijer concluded in a 2012 research paper: "A relationship with groundwater table depth shows that subsidence and carbon loss are still considerable even at the highest water levels theoretically possible in plantations. This implies that improved plantation water management will reduce these impacts by 20% at most, relative to current conditions, and that high rates of carbon loss and land subsidence are inevitable consequences of conversion of forested tropical peatlands to other land uses." For APRIL supported research, see "Evans, Chris D. et al. 2019. "Rates and spatial variability of peat subsidence in Acacia plantation and forest landscapes in Sumatra, Indonesia." *Geoderma*. 338, 410-421. https://doi.org/10.1016/j.geoderma.2018.12.028. For Aljosja Hooijer's research, see Hooijer, A., S. Page, J. Jauhiainen, W.A. Lee, and others. 2012. "Subsidence and carbon loss in drained tropical peatlands." *Biogeosciences* 9: 1053–1071, www.biogeosciences.net/9/1053/2012/.

APPENDIX A: APRIL'S COMMENTS ON MAIN FINDINGS

15 November, 2019

Syahrul Fitra
Director of Communications
Auriga Nusantara

Re: Response to letter 1911.13/Auriga-IV/PRO2019

Dear Syahrul,

Thank you for your letter and the opportunity to comment on your report's findings in relation to fires occurring in 2019 within HTI concession areas. We have based our comments on whatever findings you have shared in your letter, noting that we have not had the opportunity to sight the report itself prior to its public release.

We also note that 7 of your findings below focus on APR's viscose rayon facility and peatland, drawing on various published sources. While we can confirm these statements or excerpts are mostly correct, we would please refer you back to earlier correspondence and our detailed replies regarding APR's operations and supply needs.

Responses to your 'main findings':

Fire incidents in PT Sumatera Riang Lestari, PT Riau Andalan Pulp & Paper and PT Korintiga Hutani
First, it is essential to clarify in the interest of accurate reporting that the number of hotspots reported in your report does not correlate to actual fires. (Please see 'APRIL's Fire Record in 2019' and 'Hotspot and Fire Ratios' further below). Based on years of hotspot monitoring and ground verification we know that there is a poor correlation between hotspots and fires. In APRIL's concessions, 92% of hotspots are not fires, and some fires do not register as hotspots at all.

In relation to actual confirmed fires in the concession areas you cite, there were two fire incidents – one in an APRIL (PT RAPP) concession and the other in a concession belonging to a supply partner PT Sumatera Riang Lestari (PT SRL) which have both been reported to the Indonesian government. The specific fire sites within these concessions were subsequently enclosed by the Ministry of Environment and Forestry so that their cause can be further investigated. This is in compliance with relevant Indonesian Government's regulations.

Both fire incidents have seen multiple deliberate ignitions as part of local agricultural development since late August. APRIL fire teams in coordination with local authorities have been detecting and rapidly responding to these fires as well as assisting with post fire investigations. These areas continue to be subject to ongoing land claims.

The PT RAPP fire incident occurred in Pelalawan North – Block Dayun in an area that overlaps with an area managed by PT Caltex Pacific Indonesia that has been the subject of an ongoing land dispute between local communities and is mostly planted with community oil palm.

The supplier concession that suffered fire damage is PT SRL Block 3 (Kubu), which has a long history of unresolved land claims and encroachment dating back to when the HTI (industrial plantation forest) permit was obtained. As a result, the supplier has not been able to carry out any operational activities, including plantation development and the area has been frequently encroached for oil palm plantation establishment. The most recent fires occurred in late September and supported the continuation of oil palm plantation expansion on the concession. We are cooperating fully with the investigations in both cases.

PT Korintiga Hutani is an open market supplier and is responsible for directly reporting fire incidents to the MoEF. We note that these are not peatland concessions.

The fact that these hotspots are recorded on peatland is a function of where PT. RAPP and PT. SRL are located. Historically the bulk of fires in and around APRIL and its supply partners are on mineral soil.

APRIL's Fire Record in 2019

Overall, there has been no significant impact on our operations during the recent fire season. APRIL's concession areas remained comparatively free of fire, including our restoration and conservation areas. Global Forest Watch Data indicates that approximately 88% of all hotspots in Riau occurred outside wood fibre concessions, with APRIL and its suppliers accounting for around 2%.

At the end of August this year, APRIL had identified 384 hotspots, with 8% confirmed as fires. Breaking this down further, 102 of these hotspots were associated with 15 unique fire incidents. These were mostly small fires of less than one hectare and were rapidly detected, suppressed, reported and investigated. In all cases the fires were contained before the hotspot alert was received. In September, we recorded 18 hotspots across APRIL and our suppliers' concession areas, 14 of which were related to the same fire incident in PT SRL's Kubu Block referenced above, that we continued to suppress, carrying over from September.

There were no new fires inside APRIL or supplier concession areas.

See also:
https://www.aprildialog.com/en/2019/09/27/update-on-current-fire-season-in-indonesia/
https://www.aprildialog.com/en/2019/08/29/fire-free-alliance-collaborates-with-industry-and-civil-society-to-advance-fire-prevention-in-sumatra/

Hotspot and Fire Ratios

This overall ratio of hotspots to fires cited above confirms to the historical pattern for our operational area. The hotspot data referenced in your letter are likely representing an aggregation of alerts, with only a small percentage connected to fires, and noting that multiple alerts may be related to a single hotspot location.

APRIL gathers hotspot and fire data from two NASA-based systems – NOAA and MODIS satellites that indicate a thermal anomaly within a 1.1 km^2 area – as well as Aqua, Terra and SNPP (Ministry of Environment and Forestry) data, supported by our own inputs from fire monitoring towers, CCTV and active ground patrol.

Every hotspot is ground-truthed and reported within 24 hours to confirm the risk or incidence of fire. WRI and NASA all issue caveats around satellite data which is why ground-truthing is required.

We remain vigilant with our fire response and suppression in and outside our concessions, supporting the suppression of 14 fire incidents during the recent dry period from April to early October, up to 5km outside our concessions areas.

Our fire incident reports are assured by KPMG as part of the annual audit of the implementation of the Sustainable Forest Management Policy, noting that stakeholders – from large banks to customers – demand accuracy and transparency. As an example, the 2018 independent audit of APRIL's Sustainable Forest Management Policy 2.0 by KPMG PRI reported that "Very low levels of fire were observed on APRIL and Supply Partner concessions in 2018, consistent with observations in 2017." (https://www.aprildialog.com/wp-content/uploads/2019/07/APRIL-2019-SFMP-Assurance-Report.pdf)

APRIL's Fire Prevention, Monitoring and Suppression Capability

APRIL declared a Fire Danger Period across all its concession areas in Riau Province, Indonesia, from 1 July through to 30 September 2019. The declaration is a key tool in the company's efforts to restrict the use of fire by third parties in at-risk landscapes and supports its commitment to working with government agencies, other concession holders and communities during the annual dry season.

Across all of its concession areas, APRIL has three 30-metre fire monitoring towers, 50 18-meter towers and 50 65-meter CCTV towers.

APRIL has invested more than US$9 million in fire suppression resources, including two helicopters, two airboats, 39 lookout towers, 482 water pumps, and firefighting training for 724 volunteers across 39 Riau villages. Last year, we finalised the development of a new Fire Coordination Centre, located near the company's production operations, to support the management of fire monitoring and suppression activities across all APRIL and supplier concessions.

Our fire management operations are closely integrated with those of our supply partners. In addition, we assist the Indonesia government with fire suppression activities, including loan of aerial assets, as and when called upon.

While suppression is critical, fire prevention remains a key focus. APRIL's flagship Fire Free Village Programme and the Fire Free Alliance are central to our prevention efforts. Our Fire Free Village Program or FFVP is the core of our approach to fire prevention in the Riau community. Since 2014 we have worked with 77 communities in Riau Province to stop fires, spanning more than 622,112 hectares – an area about 9 times the size of Singapore. Riau Province is around 14 times this size at 8.7m hectares.

The program is working: we have reduced burnt area in participating villages by 90% since 2014. Local communities are provided with tools for alternative farming systems that do not involve the use of fire, and this is complemented with educational and awareness initiatives to encourage behavioural change.

In 2015, we helped set up the Fire Free Alliance, a voluntary multi-stakeholder group made up primarily of forestry and agriculture companies with NGOs and other concerned collaborators and partners including APRIL, Asian Agri, IOI, Musim Mas, Sime Darby, Wilmar, IDH and Singapore NGO, PM Haze.

We continue to remain vigilant and support local government in responding to fires around our concessions. More notably, there has been **zero fire** in our Riau Ecosystem Restoration (RER) despite other ecosystem restoration areas struggling to prevent encroachment and burning in this particularly dry season.

Comment on Additional Findings

Following the 2015 fires, APRIL has conducted research on peatland management by supporting the IPEWG. It has supported community collaboration through the FFVP. And it has undertaken fire management efforts on its concession areas. APRIL is also 'leading an ecosystem restoration project on 150,852 hectares of peatland located on Sumatra's Kampar Peninsula and neighbouring Padang Island.'

The Independent Peat Expert Working Group was established as part of the commitment under APRIL's Sustainable Forest Management Policy 2.0, not as a reaction to the 2015 fire and haze crisis in Indonesia.

As noted above, the effectiveness of APRIL's Fire Free Village Program has been well documented in our Sustainability Report and media, as has our ecosystem restoration project, Restorasi Ekosistem Riau.

See also:
https://www.aprilasia.com/images/pdf_files/sr/APRIL_SR-2018_EN.pdf
https://www.rekoforest.org/rer-2018-progress-report/

APRIL's 2018 sustainability report indicates that 54% of its current plantation base is on peatlands.

APRIL's 2018 Sustainability Report notes that 54% of APRIL and its supply partners' plantation area is on peatland. This amounts to 242,465 hectares and are balanced by 297,720 hectares of peatland area under conservation or peatland restoration (p.12). This means we operate on 6.1% of Riau's 4 million hectares of peatland and conserve 7.4%.

See also:
https://www.aprilasia.com/images/pdf_files/sr/APRIL_SR-2018_EN.pdf

APRIL's 2017 and 2018 sustainability reports indicated that the group's pulpwood suppliers grow Acacia crassicarpa on peatlands.

and

APRIL's 2018 Sustainability report indicates that its pulp wood suppliers are expanding the use of Eucalyptus on mineral soils.

APRIL's owned and managed plantations grow close to 200 million trees a year, including *Acacia crassicarpa* on peatlands and Eucalyptus on mineral soil. MAI can be up to 28 m^3 per ha/year, depending on species and land type. Pulp production across product types will employ a mix of both fibers.

The "Summary Report on the Strategic Wood Fiber Supply Review" made publicly available on its Sustainability Dashboard states, "Key contributing factors to achieving the future plantation productivity target will be maintaining the optimal water table management at every phase of tree growth for Acacia crassicarpa on peatlands."

This is correct.

In 2015, the Ministry of Environment and Forestry suspended PT SRL's licence to operate in Riau due to the large number of fires within its concession boundaries. APRIL has described PT SRL as a 'supply partner'.

PT SRL is a long-term supply partner and a section of its concessions was subject to an operation freeze between 2 December 2015 and 31 March 2016 while the Ministry investigated the fire incidents. It retained its concession licences.

APRIL has converted approximately 60% of the Kerinci Mill's BHKP capacity to be capable of producing dissolving pulp. RGE International has invested over US$1 billion to build a viscose staple fiber (VSF) mill in Riau, which is now being operated by PT Asia Pacific Rayon.

As explained in the responses shared by APRIL to Auriga et al on 13 June and 16 July 2018, there is no dedicated production capacity as such for dissolving pulp. DP production will be done within the current pulp production capacity of 2.8 million tons, owned and managed by APRIL Group. Volume will be periodically determined based on market demand. Information on specific fiber line that supports DP production is commercially sensitive.

In November 2017, APRIL's subsidiary PT RAPP sued the ministry of Environment and Forestry over the Ministry's regulation (PP. 57/2016) to conserve and protect peatlands, which required revision of HTI companies annual and ten-year work plans.

PT RAPP did not sue the Ministry of Environment and Forestry. It sought legal clarification on overlapping regulations and subsequently agreed its revised work plans with the Ministry.

See also:
https://www.aprildialog.com/en/2017/12/06/statement-pt-rapp-application-state-administrative-court-ptun/

Kind regards,

Lucita Jasmin
Director of Sustainability and External Affairs
APRIL Group