

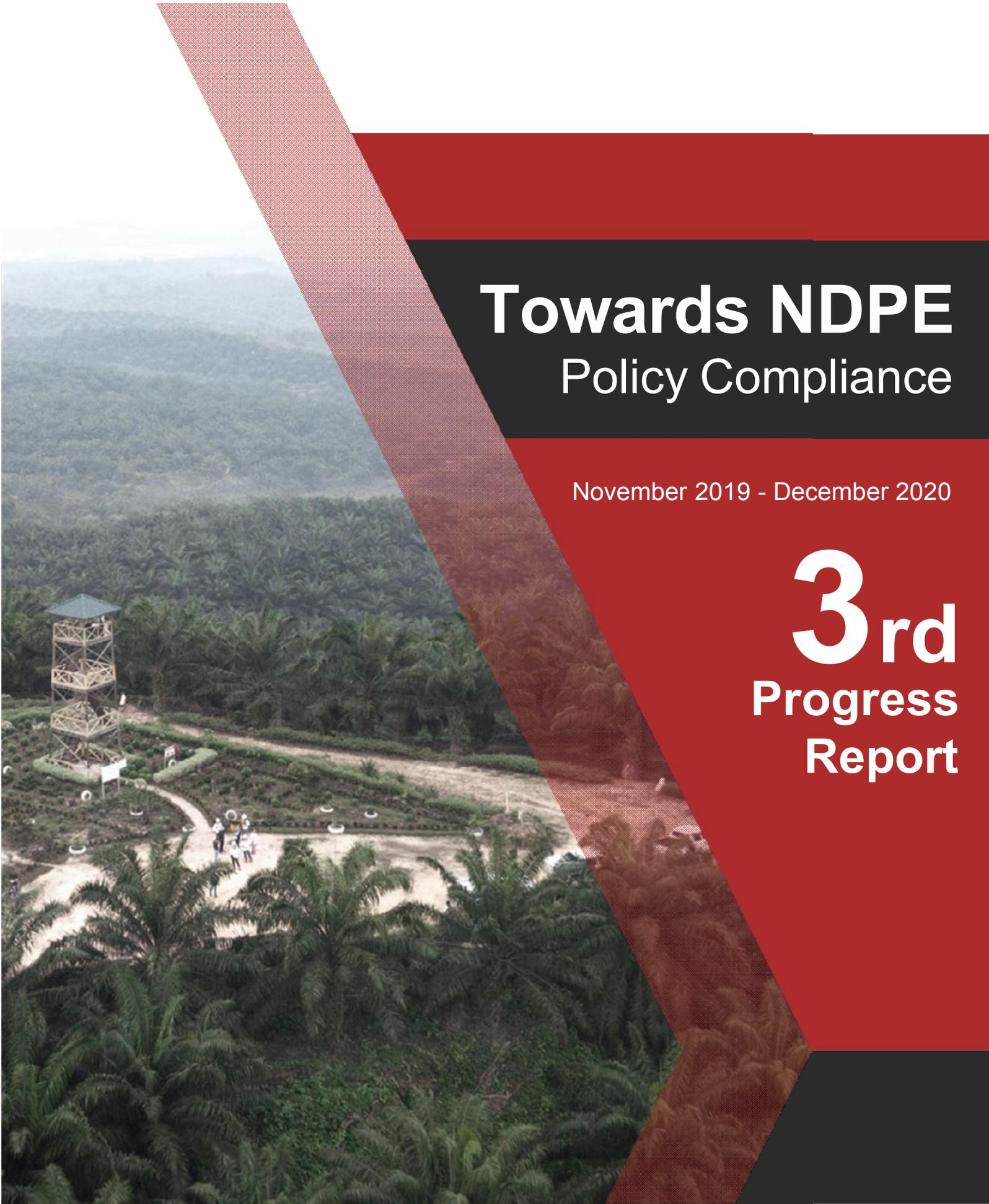


KPN CORP
PLANTATION DIVISION

Towards NDPE Policy Compliance

November 2019 - December 2020

3rd
Progress
Report



FOREWORD

End of 2019, when our Sustainability Team embarked on exciting plans for the coming year, of course, we expected to face challenges. Little did we know then, just how unusual the year ahead would turn out to be. The Covid-19 pandemic had a disruptive impact on countless lives around the world.

Like others, our company has prioritized social assistance programs. We have provided food aid and masks to the local communities and health care workers around our estates as well as in other places of need. The implementation of our Sustainability Program suffered some delays due to travel restrictions. Our commitment to implementing our NDPE policy nevertheless stands firm.

Like our previous progress reports, this Third Progress Report summarizes our compliance to the Re-Entry Requirements for suspended suppliers. There have been no issues of concern with regard to our company's compliance with these requirements.

For the sake of brevity we have chosen not to elaborate on our progress made with our broader NDPE Sustainability Policy such as the phasing out of paraquat, fire prevention, traceability to plantation, grievance procedure and others. We have commenced collecting the baseline data in view of our intention to publish comprehensive Sustainability Reports in the future.

This report also remains brief about our Recovery Plan as I am happy to announce that a detailed brochure on our company's approach to Recovery will soon be published on our website.

Should you have any further questions, do not hesitate to contact our Sustainability Team.

Djuaman Lie
Sustainability Department
KPN Plantation





Summary

This is KPN Plantation's 3rd Progress Report. The Framework used for reporting is based on the "Minimum requirements for supply chain re-entry after suspension due to NDP non-compliance" (right).

A summary of our progress is presented in the table below.

There has been some delay in the completion of HCV-HCSA studies. However, this is immaterial to overall compliance because our Stop Work Order remains firmly in place.

Recovery Plans for two key landscapes have been developed. We will soon publish on KPN Plantation's website a separate booklet detailing our approach and roadmap to Recovery.



Re-Entry Requirement	Progress
1. Stop Work Order	✓ Declared (1 Jul 2018), published, enforced and regularly monitored
2. NDPE Policy	✓ Published (Sep 2018) and updated (Oct 2019)
3. SOPs amended	✓ Key SOPs amended, key sections available upon request
4. Concession maps	✓ Previously published on our website; currently available upon request
5. HCV-HCS studies	✓ Externally commissioned and commenced, but progress is delayed due to Covid-19. Note: SWO still in force, no land development is taking place
6. Recovery Plan	✓ Recovery liability confirmed, company has committed to Recovery Plan, Plans are being developed in key landscapes
7. Time Bound Plan	✓ Published (Nov 2019), currently under review for public update
8. Reporting	✓ Third progress report completed; commitment to regular sustainability reporting in future

Group Consolidation

The launch of our NDPE policy in September 2018 (updated in October 2019) went along with the consolidation of corporate entities under (then) Gama Plantation under single management. As of 10 September 2019, the reorganization was formalized. Gama Plantation was renamed KPN Plantation which is part of the KPN Corp. There are 27 oil palm plantation and mill companies operating under KPN Plantation. These are:

1.	BSU	PT Berkat Sawit Utama
2.	THIP	PT TH Indo Plantation
3.	CRS	PT Citra Riau Sarana
4.	JJP	PT Jatim Jaya Perkasa
5.	PANP	PT Perkebunan Anak Negeri Pasaman
6.	SIP	PT Swadaya Indopalma
7.	GAN	PT Graha Agro Nusantara
8.	SUM	PT Sumatera Unggul Makmur
9.	PLD	PT Putra Lirik Domas
10.	AAN	PT Agro Alam Nusantara
11.	NJP	PT Nusa Jaya Perkasa
12.	BAS	PT Bumi Alam Sentosa
13.	PTW	PT Patiware
14.	WKN	PT Wawasan Kebun Nusantara
15.	SAM	PT Sentosa Asih Makmur
16.	CMA	PT Citra Mahkota
17.	WKSM	PT Wahana Karya Sejahtera Mandiri
18.	TSB	PT Tritunggal Sentra Buana
19.	AJP	PT Alam Jaya Persada
20.	ACP	PT Agriprima Cipta Persada
21.	APM	PT Agrinusa Persada Mulia
22.	GSU	PT Ganda Sawit Utama
23.	SUAN	PT Sawit Unggul Agro Niaga
24.	IKU	PT Indokebun Unggul
25.	KAMU	PT Karya Agung Megah Utama
26.	ASGD	PT Agri Sentosa Gandadigo
27.	IBP	PT Intitama Berlian Perkebunan

Concession maps

As previously reported, we had published on an interactive map the concession maps for our plantation estates and mills in 2019. However, we were advised to take these maps offline.

Interested parties may contact our Sustainability Team for shapefiles of the most up-to-date maps.

Our previous progress reports have disclosed which associated plantation companies have chosen to operate under their own sustainability policy. We had also listed the names of two associated trading companies:

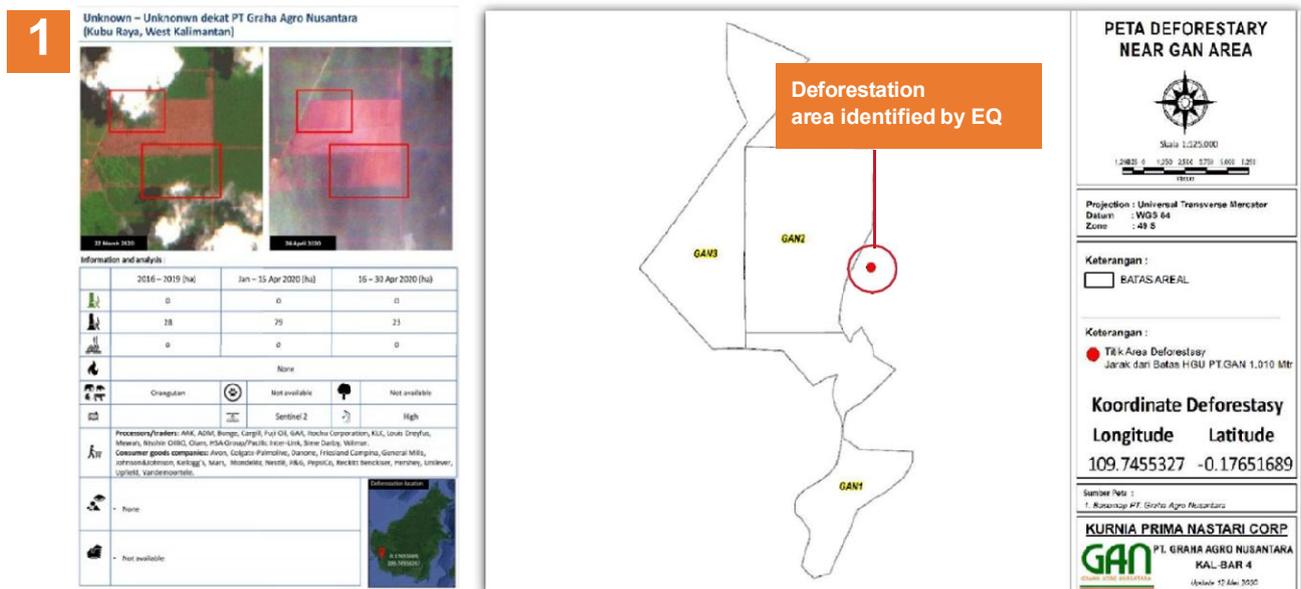
1. PT Energi Unggul Persada (PT EUP) is Energy Trading company under Energy & Power Division
2. AA Star is an affiliate General Trading Company based in Singapore

KPN Plantation have engaged both companies to request them to follow, adopt and commit to NDPE Policy. After some delay, both companies drafted their own procurement policies, which we expect to be finalized in Q1-2021.

Stop Work Order – Bi Weekly Monitoring

Our group-wide Stop Work Order (SWO) came into effect on 1st of July 2018. A formal instruction was issued to managers of all relevant plantation units.

Compliance with the SWO is regularly monitored by Earth Equalizer Foundation who also monitor forest loss in the wider landscapes around our estates as part of the implementation of our Recovery Plans. In year 2020, Earth Equalizer detected five cases involving 1,038 hectares of which 64 ha occurred within the land bank of KPN Plantation subsidiaries. Verification established that these clearings took place in land that was not released by local community members. After verification, the steps to address the remaining cases will be considered in KPN Plantation’s Recovery Plans and Traceability to Plantation work.



2 KPN Plantation addressed a Rapid Response alert from Mighty Earth in June 2020. The report detected the clearance of 11 hectares of forest in PT Sumatera Unggul Makmur concession between 10 March to 4 May 2020. A detailed clarification was made available on our website on June 16, 2020



HCV & HCS Assessments

As previously reported, we have commissioned integrated HCV-HCS assessments for three plantation companies in Kubu Raya and Merauke. The assessment process was suspended due to the Covid-19 related travel restrictions. The current progress status and amended planning is presented below:

Comp.	Consultant	Status as of December 2020	Follow up Action	Completion Target <small>(subject to pandemy)</small>
ACP & APM	Ekologika 	<ol style="list-style-type: none"> The MOU was signed on 25 Mei 2019 Preliminary assessments were carried out on 17-25 June 2019 MOU for activities: FPIC, Tenure study and participatory mapping was conducted on January 30, 2020 	<ol style="list-style-type: none"> FPIC, Land Tenure Review, participatory mapping and Social Impact Assessment of 16 clans in 28 villages surrounding the concession Full assessment HCV & HCS Integrated Conservation Land Use Plan Submit report to HCVRN 	Q3 – 2021 Q4 – 2021 Q4 – 2021 Q4 – 2021
GAN	Kyara 	<ol style="list-style-type: none"> The MOU was signed on 26 August 2019 Social impact assessment activities have been carried out from 6 to 15 January 2020 Currently reviewing the MOU with the following scope: FPIC, Tenure study and Participatory mapping 	<ol style="list-style-type: none"> FPIC, Land Tenure Review & Participatory mapping in 6 villages around the concession Preliminary assessment Full assessment HCV & HCS Integrated Conservation Land Use Plan Submit report to HCVRN 	Q3 – 2021 Q3 – 2021 Q4 – 2021 Q4 – 2021 Q4 - 2021

The delay has no material consequences because our Stop Work Order remains in place and land use change within and in the vicinity of our land bank is being monitored.





Commitment to Recovery

Our company acknowledged liability for non-compliant land clearing after December 2015 in February 2019.

In 2020, Earth Equalizer Foundation requested our company to complete its Confirmation Procedure, to reaffirm Group-level weighted liability for non-compliant land development after December 2015. This has set our liability area at 11,900 hectares.

As the Confirmation Procedure is behind us, we can now focus on fulfilling our commitment to Recovery Plans.

SWO
1st July 2018

Land development

- Stop Work Order suspends all new plantation development until completion of peer reviewed HCV-HCS assessments.

NDPE
Policy



Forest Protection

- No new plantation development until we have identified and can protect areas of High Conservation Value (HCV) and High Carbon Stock (HCS) within our land bank.
- Develop and implement a Remediation and Compensation Program (ReCoP) to deliver tangible and long-term benefits to conservation and local communities, and to indemnify some of past harm caused by our operations



Peat Management

- NO New plantation development on peat land regardless of depth
- Implementation of Best Management Practices for existing plantation

Confirmation
Procedure
Liability
Calculator

Total Recovery Liability Assessment Calculation

Group: KPN Plantation
Date and version: v03 - September 2020

Liability Assessment	Land cover type (ha)			Liability (ha)	
	Forest	Peat forest	Peat	Unweighted	Weighted *)
Drained, not cleared	n.a	3,571	0	3,571	3,571
Cleared, not planted	552	275	0	827	1,102
Cleared and planted	5,313	926	31	6,270	7,227
Total liability	5,865	4,772	31	10,668	11,900

*) The IPCC estimates that draining peat emits 95 t of CO2 per hectare per year. Because of the severity of these emissions, restoration and compensation should occur at a ratio of hectares restored or protected for each hectare cleared or developed (Source: Recovery Plan Decision Tree for Non-Compliance on Peat Soils, 2019)

GAN = 5,727 Ha
&
ACP-APM = 5,771 Ha

Prepared for Confirmation Procedure

Recovery
Plan

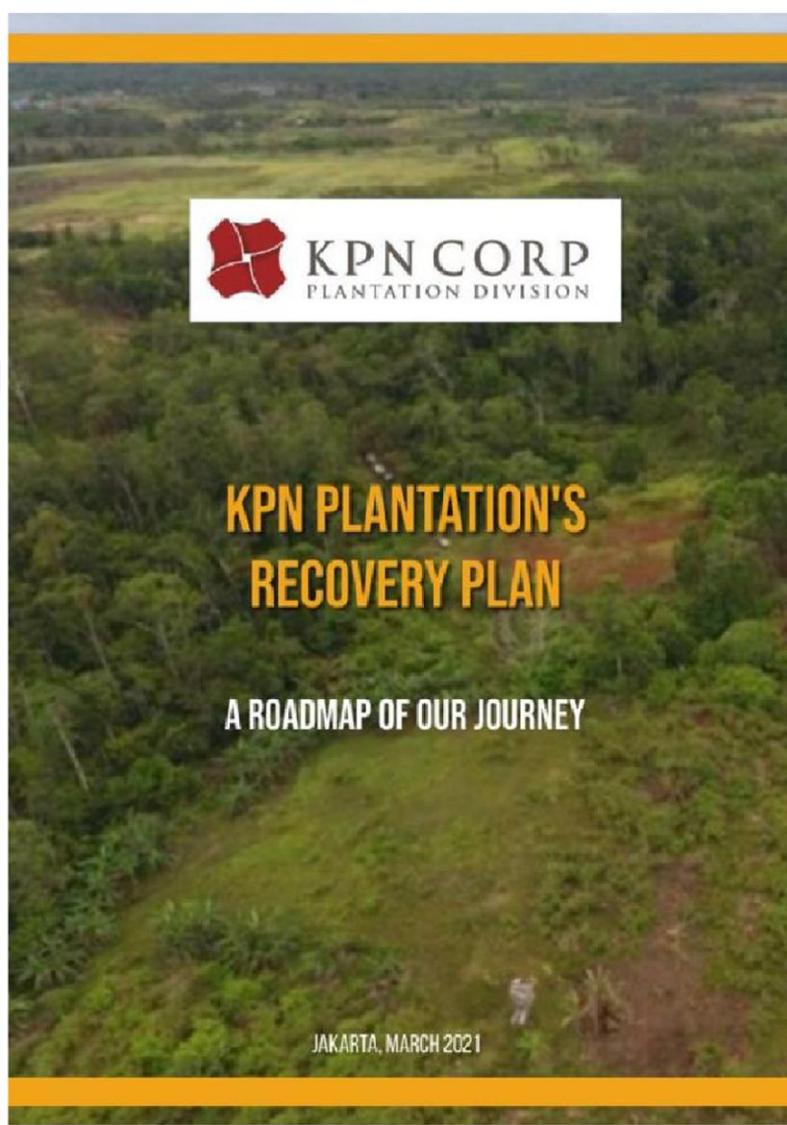
Recovery Plans and ongoing Conservation work

- Priority landscapes: Kubu Raya, Merauke
- Other ongoing and expanded Conservation Programs: Sambas, Jambi, Riau

Recovery Plan

KPN Plantation is one of the first company groups in the industry to develop and implement a comprehensive Recovery Plan. Our Plan prioritizes the landscapes where most liability was accrued, namely the peatswamp forests in Kubu Raya District in West Kalimantan and the dryland forests in Merauke District in Papua.

Our Recovery Plan is executed in addition to our ongoing, expanded conservation work in other provinces, notably Jambi (tiger conservation) and Riau (mangrove restoration). Our Recovery Plan in Kubu Raya furthermore builds on the peat rehabilitation efforts that we commenced after intervention of the Indonesian Ministry of Environment and Forestry in May 2017.



A critically important part of our Recovery efforts is to offer villages / land owners affected by our SWO and NDPE policy, acceptable economic alternatives to oil palm based livelihoods. This is why we integrate Recovery with our Corporate Sustainability Program.

MoUs or Co-Management Agreements (CMAs) with communities, government agencies and neighboring companies are equally essential. They help regulate long term collaboration that is required to save, restore and sustainably use remaining forests and peatlands in the wider landscape where our companies operate.

In the coming weeks, we will publish a booklet that elaborates on our approach to Recovery in detail.

Recovery Progress

KPN Plantation Recovery Plan, covers the following aspects: Social, Environmental and Landscape Initiative. We enhance and diversify our CSR Program to deliver our Recovery commitments

A. Social

1. Social Forestry
2. Agroforestry
3. Community Empowerment

B. Environment - Remediation:

1. Rewetting : Degraded Peat Forest (PT GAN)
2. Restoration : Degraded Peat Forest & Riparian (PT ACP, PT APM & PT GAN)

C. Landscape Initiative :

1. Kapuas Delta : Peat Protection, Fire Prevention & Orangutan Conservation (Kuburaya – West Kalimantan)
2. Jambi Landscape : Tiger Conservation (Batanghari – Jambi)
3. Sungai Guntung Water Catchment Area – Mangrove ecosystem conservation (Indragiri Hilir – Riau)

RECOVERY

hullum : Saulatri

Aspect	Program	Location	Objectives
A. SOCIAL	1. Social Forestry 2. Agroforestry 3. Community Empowerment	West Kalimantan Priority, adjacent with the concession of PT GAN Kalibandung Village, Kuburaya Muara Baru Village, Kuburaya In discussion & planning Semanga Village, Sejangkung District – Sambas Bukit Sigoler Village, Tebas District – Sambas Papua ACP & APM – Merauke	1. Land Title 2. Community Organization 3. Livelihood Improvement
B. ENVYRONMENT	1. Rewetting 2. Restoration	Kuburaya, West Kalimantan Kuburaya, West Kalimantan & Merauke, Papua	1. Peat Remediation – Rewetting: a. Forest with canals b. Forest w/o canals 2. Reforestation at degraded area in peat forest 3. Riparian Remediation
C. LANDSCAPE	1. Delta Kapuas 2. Sustainable Landscape Development 3. Sungai Guntung Water Catchment Area	Muara Baru, Sungai Asam, Kalibandung Villages – Kuburaya, West Kalimantan Batanghari, Jambi Sungai Guntung Village, Indragiri Hilir, Riau	1. Fire Prevention 2. Peat Management 3. Orangutan Conservation Sumatran Tiger Conservation Mangrove Conservation





A. Social

1. Social Forestry

Through the CSR program, KPN will support Social Forestry activities after the legalization process (the social forestry decree is issued by the Ministry of Environment and Forestry) and appropriate for each village:

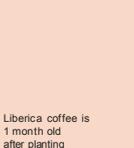
Location	Area (Ha)	Status as of Dec'20	Follow up Action	Target
Kalibandung Village, Kuburaya - West Kalimantan	6,417	<ul style="list-style-type: none"> Government release Social Forestry Decree - Hak Pengelolaan Hutan Desa (HPHD): No. SK.4769/MENLHK-PSKL/PKPS/PSL.0/7/2018, date on 16th July 2018 	<ul style="list-style-type: none"> Community Organization will be formed and managed by Lembaga Pendamping Hutan Desa (LPHD) 	In Progress
		<ul style="list-style-type: none"> Workshop to formulate RKHD (Rencana Kerja Hutan Desa) has conducted by Aide & JARI on 11-12th November 2019 	<ul style="list-style-type: none"> Livelihood Improvement 	In Progress
		<ul style="list-style-type: none"> The Signing of the MoU between PT GAN and Kalibandung Village conducted on 19th November 2020 		

2. Agroforestry

Agroforestry is a form of resource management/utilization that combines forest management activities or timber trees with the planting of short-term commodities or plants, such as agricultural crops, referring to the Regulation of the Minister of Environment and Forestry No. P.49 / MENLHK / SEJTEN / KUM.1 / 9/2017 concerning Cooperation on Forest Use in Forest Management Units.

Location	Area (Ha)	Status as of Dec'20	Follow up Action
Muara Baru Village, Kuburaya, West Kalimantan	±2000	<ul style="list-style-type: none"> The Signing of the MoU between PT GAN and Muara Baru Village conducted on 18th November 2020 	<ul style="list-style-type: none"> Community Organization will be formed and managed by Bumdes (Badan Usaha Milik Desa) Livelihood Improvement

3. Community Empowerment in PT GAN: West Kalimantan

No.	Activity	Location	Progress
1.	Chicken Farming	Dusun Re'es Teluk Bakung Village - Kuburaya	 Support Chicken Feed Processing machine, November 2019  Training - Feed Production from sago, November 2019  Facilitating incubator, December 2019
2.	Honey bee farming	Dusun Re'es Teluk Bakung Village - Kuburaya	 Training - Bee farming, November 2019  Facilitating bee colony of 10 on boxes, December 2019  Facilitating bee colony of 10 boxes, December 2020
		Dusun Buntut Limbung Muara Baru Village – Kuburaya	 Facilitating bee colony of 10 boxes, December 2020  Facilitating bee colony of 10 boxes, December 2020
3.	Fresh water Fish	Dusun Buntut Limbung Muara Baru Village – Kuburaya	 Develop a demonstration plot for fish farming  Next Plan (Start Q2-2021), developing snakehead fish farming in economic scale  Next Plan (Start Q2-2021), developing snakehead fish farming in economic scale
4.	Agroforestry in collaborate with Forest Management Unit (KPH-Kesatuan Pemangku Hutan) Kuburaya: a. Lemongrass (<i>Cymbopogon sp.</i>) b. Liberica coffee (<i>Coffea liberica</i>)	Dusun Buntut Limbung Muara Baru Village – Kuburaya	 Facilitating 43,750 seeds of Lemongrass, on October 2020  Lemongrass is 1 month old after planting  Facilitating Steam-Hydro Distillation (SHD), on October 2020
			 Facilitating 700 seeds of Liberica coffee, on October 2020  Liberica coffee is 1 month old after planting  Liberica coffee is 1 month old after planting
5.	Horticulture farming: a. Sponge cucumber (<i>Luffa sp.</i>) b. Corn (<i>Zea mays</i>), c. Chili (<i>Capsicum sp.</i>), d. Banana (<i>Musa sp.</i>)	Dusun Buntut Limbung Muara Baru Village – Kuburaya	 Sponge cucumber (<i>Luffa sp.</i>), planted on Nov 2020  Corn (<i>Zea mays</i>), planted on Nov 2020  Banana (<i>Musa sp.</i>)  Chili (<i>Capsicum sp.</i>), planted on Dec 2020

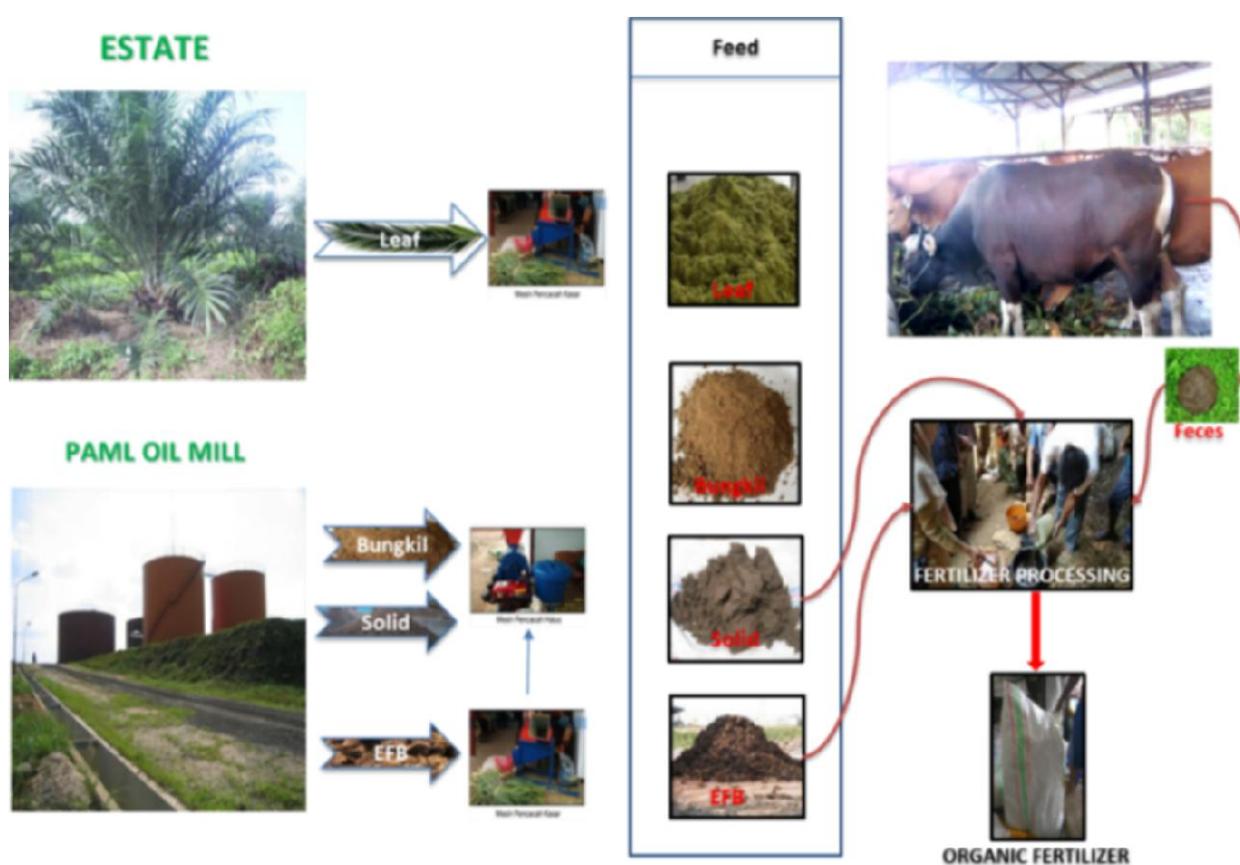


Community Empowerment: Merauke

I. Integration Farming (oil palm with cattle)

PT ACP & APM developed a program in collaboration with the Merauke Regency Animal Husbandry Office. Livestock waste is processed into organic fertilizer for horticulture.

Flow Process integration of oil palm with cattle at PT ACP



Progress

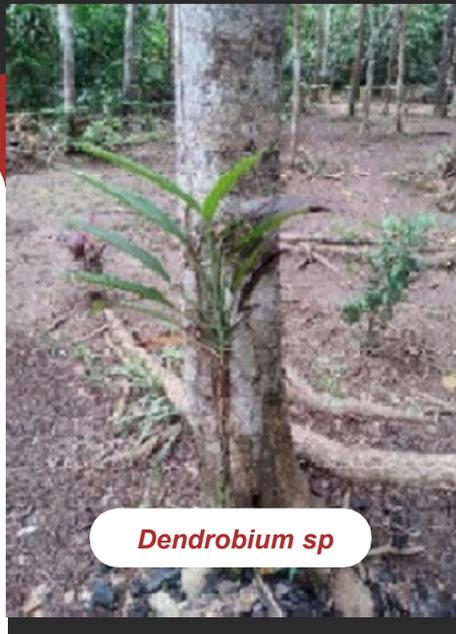
1. Program socialization held on 7 August 2019
2. Provided barns with capacity of 50 cattle
3. Developed 3 Ha land of feed grass and animal feed processing facility
4. Provided 15 cattle, 5 for each clan in PT ACP (Mahuze besar, Ndiken Zenuf, Ndiken Kezan, Basik basik, Ndiken Malindan)
5. Provided 10 cattle, 5 for each clan in APM (Keijai Harun & Keijai Natalis)
6. Develop Horticulture Farming in Cooperation of Ndiken Zenuf

II. Ecotourism Development

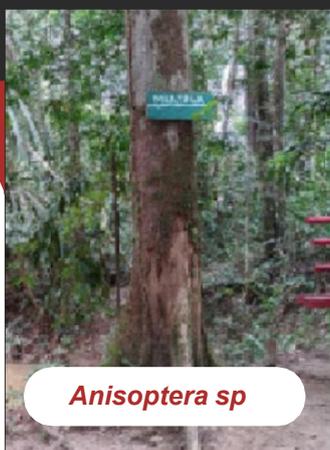
PT APM develop ecotourism in Conservation area / riparian Buffer Zone. Some facilities were constructed to support conservation education, namely:

1. Mini Demonstration Plot (demplot) for Orchid species, for example: *Dendrobium sp*, *Bulbophyllum sp*.
2. Mini Arboretum – Local species , for example : *Shorea sp*, *Anisoptera sp.*, *Asteromyrtus sp*.
3. Bird Watching, for example: *Peltops blainvillii*, *Haliastur sphenurus*, *Tree House - ecotourism*

Mini Demplot – Orchid Species



Mini Arboretum



B. Environment

1. Rewetting - PT GAN

Based on topographical and soil surveys, we have revised our wetting program from 442 peat dam units to 642 units.

- 227 peat dams had been completed as of 31st December 2020.
- Completion of the remainder peat dams, targeted by the end of 2021.

2. a. Restoration (Degraded Land) - PT. GAN

Following are the 3 phases of restoration of a degraded area :

- Phase I : Natural Regeneration conducted the Stop Work Order (June 2018) and is still on going,
 - a. Ex- Roads & Canals (Total area : 92 Ha)
 - b. Riparian buffer zone (Total area : 20 Ha)
 - c. Forest Regeneration – ex land clearing (Total area : 370 Ha)
- Phase II : Revegetation of the open areas carried out in the first to the fifth year. Nurseries were developed since Nov. 2019 and planting of local tree species and agroforestry was done since March 2020. Nursery and planting of local species is on going. Degraded forest area restoration (Phase II) progress as of Dec 2020 :
 - a. Ex- Roads & Canals (± 2,8 Ha)
 - b. Riparian buffer zone (± 1 ha)

b. Restoration (Riparian) - Papua

Riparian buffer zone of Kali Afkaf (± 110 Ha) is one of the remediation area in PT ACP. Natural remediation has been conducted since Stop Work Order (Jun 2018) and is still on going.

Enrichment is still on going with planting of local tree species, for example: ***Areca Sp.***, ***Mangifera sp.***, ***Asteromyrtus sp.***, ***Melaleuca sp.***, ***Syzygium sp.***, ***etc.*** Progress as of Dec 202 : 1.689 seedlings planted.

C1. Landscape Initiative :

1. Delta Kapuas, Kuburaya – West Kalimantan

Co-Management Peat Protection

On December 4, 2019, Forum Group Discussion (FGD) was formed to follow up the policies of peat conservation and restoration in the Kapuas Delta Landscape.

The FGD members are : Natural Capital Foundation, Tanjung pura University, Earthqualizer, Government Forestry Agency (Dinas Kehutanan Kalbar), Government Environmental Agency (DLH Kubu Raya), Government Plantation Agency (Dinas Perkebunan-Kubu Raya), Kubu Raya Forest Management Unit (KPH-Kubu Raya) and Peat Restoration Agency (Badan Restorasi Gambut- BRG).

Action Plan of FGD :

- On 25th Feb 2020, PT GAN surrendered the uncultivated land in the formerly Converted Forest Zone and applied to the government to change the land status into Forest Zone (HP) to support the Social Forestry Program for local communities.
- In future these areas will be managed as Social Forestry- Agroforestry for local communities

Co-Management Fire Prevention

1. On 11th November 2019, PT GAN, NJP, BAS, SUM & PLD collaborate with the Army and Police and conducted prevention and emergency response of fires handling <https://pontianak.tribunnews.com/2020/11/12/apel-tanggap-darurat-karhutla-kpn-group-tuai-apresiasi>
2. Multi-stakeholder agreement (PEMDA Kubu Raya with Plantation and HTI concession) "Fire Prevention and Handling" in Kubu Raya held on 26th , November 2019
3. Action plan Multi stakeholder agreement Land fire emergency response preparedness will be carried out once a year:
 - Multistakeholder fire emergency respond simulation and the joint commitment signing in PT PLD, SUM & AAN was carried out on 12th Nov 2020, namely (District Police & Military of Sui Raya & Rasau Jaya, Disbun, DLH, BNPB, Village Head & Masyarakat Peduli Api of Mekar Sari, Kuala Dua, Rasau Jaya Umum, Bintang Mas & Pematang Tujuh Village)
 - PT GAN, BAS and NJP will carry out the program in Q1-2021

Co-Management Borneo Orangutan Protection

Since February 2018, PT. GAN (KPN Plantation Group) initiate the collaboration with the West Kalimantan Natural Resources Conservation Agency-BKSDA with scope of work:

1. Biodiversity monitoring (Orangutan and its habitat)
2. Routine patrol to protect Conservation Area
3. Socialization-Dissemination of protection of Borneo Orangutan and its habitat
4. Training to improve employee competences.
5. Corridor management options - connectivity the conservation area PT GAN with the Ambawang River Protected Forest.

In Feb 2020, PT GAN with BKSDA conducted annual evaluation. One of the follow-ups of the meeting, PT GAN in collaborate with BKSDA, Forest Management Unit (KPH) of Kuburaya) and related stakeholder carried out Orangutan Protection Workshop on 18th -19th November 2020 in Muara Baru and Kalibandung Village.



2. Batanghari (Jambi – Sumatera)

Collaboration with Jambi University & CRC: Sustainable Oil Palm Research

PT. BSU signed MoU with CRC 990 – EfforTS Indonesia on 7th January 2020, and a Kickoff Meeting was conducted on April 2020. CRC 990 – EfforTS Indonesia is a research consortium center between Indonesia (IPB University, Jambi University, and Tadulako University) and German (Georg – August University of Goettingen). Scope of the MOU is :

1. Ecological and socio economic researches
2. Education and Capacity building of human resources

In 14th August 2020, PT BSU with PT REKI (Rehabilitation of Indonesian Ecosystems) also signed a MOU to collaborate on the Landscape Initiative - Sumatran Tiger Conservation.

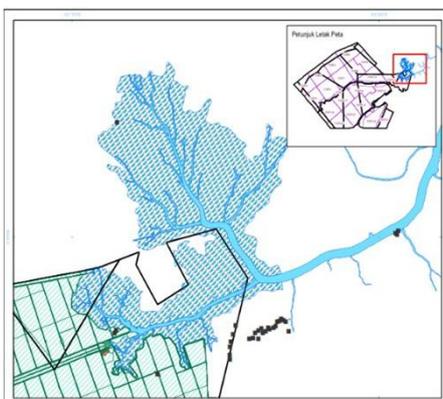
3. Sungai Guntung Water Catchment (Indragiri Hilir – Riau)

Mangrove Conservation – Migrant Bird Habitat

PT THIP developed a program to protect a mangrove ecosystem in the Sungai Guntung Water Catchment area, Indragiri Hilir-Riau, as follow:

1. Restoration degraded area
2. Conservation and environment education, such as ; bird watching, mangrove ecosystem education & Planting Mangrove
3. Biodiversity monitoring conducted every semester

The next plan is to collaborate with third parties to manage the area, such as NGO, Government Agency and Community around concession.



Sungai Guntung Water Catchment Location



Mangrove Nursery, start Q1-2020

Conservation Management

During the period of Q3 2019 and Q4 2020, a camera trap has been set-up to monitor fauna in the conservation and boundary area of PT BSU and THIP, with following result :

No.	Species		Protection Status			BSU
	Local Name	Scientific Name	PermenLHK No. P.106 Th 2018	IUCN Red List	Appendix CITES	
1	Pig-tailed macaque	<i>Macaca nemestrina</i>	-	VU	-	V
2	Long-tailed macaque	<i>Macaca fascicularis</i>	-	VU	-	V
3	Wild Boar	<i>Sus scrofa</i>	-	LC	-	V
4	Bearded pig	<i>Sus barbatus</i>	Protected	VU	-	V
5	Sambar deer	<i>Cervus unicolor</i>	Protected	VU	-	V
6	Barking deer	<i>Muntiacus muntjak</i>	Protected	LC	-	V
7	Sun bear	<i>Helarctos malayanus</i>	Protected	VU	I	
8	Sumatran Tiger	<i>Panthera tigris sumatrae</i>	Protected	CR	I	
9	Asian tri-colored squirrel	<i>Callosciurus prevostii</i>	-	LC	-	
10	Asian palm cive	<i>Paradoxurus hermaphroditus</i>	-	LC	II	
11	Leopard cat	<i>Prionailurus bengalensis</i>	Protected	LC	I	
12	Small-clawed civet	<i>Aonyx cinerea</i>	Protected	VU	I	
13	Water Monitor Lizard	<i>Varanus salvator</i>	-	LC	II	
14	Purple heron	<i>Ardea purpurea</i>	-	LC	-	

Camera trap at the Conservation area PT BSU



Ardea Purpurea



Prionailurus Bengalensis



Macaca Nemestrina



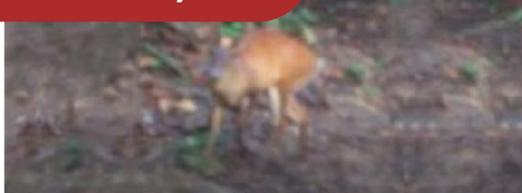
Cervus Unicolor



Helarctos Malayanus



Muntiacus Muntjak



Panthera Tigris Sumatrae



Aonyx Cinerea

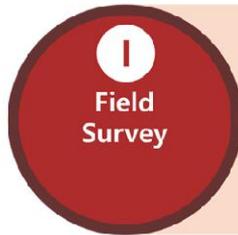


Sur Barbatus



Peat Management & Protection

Peat Management and protection approach :



- Topography Survey
- Soil Survey
- Mapping of Survey result
- Report writing



- Water management zone based on topography
- Planning of peat dams and other WM infrastructures, including hydrological buffer at degraded peat forest
- Construct peat dams and restoration of degraded peat forest
- Development of Android & iOT based monitoring system



- Monitoring:
 - Water Table
 - Water level
 - Rainfall
 - Flood level
 - Peat subsidence
- Continuous improvement

Topography survey



Canal Blocking with Spillway



Soil survey

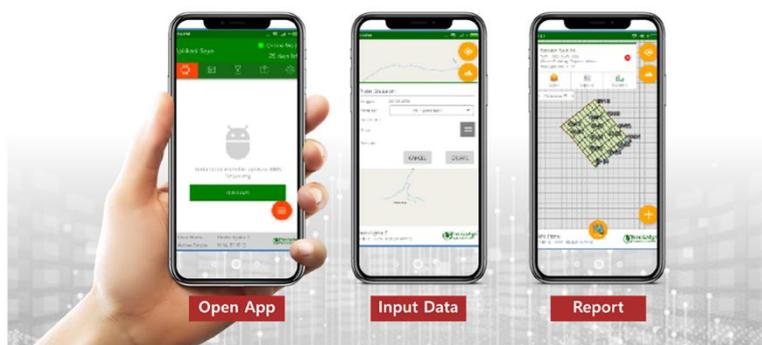


Monitoring System

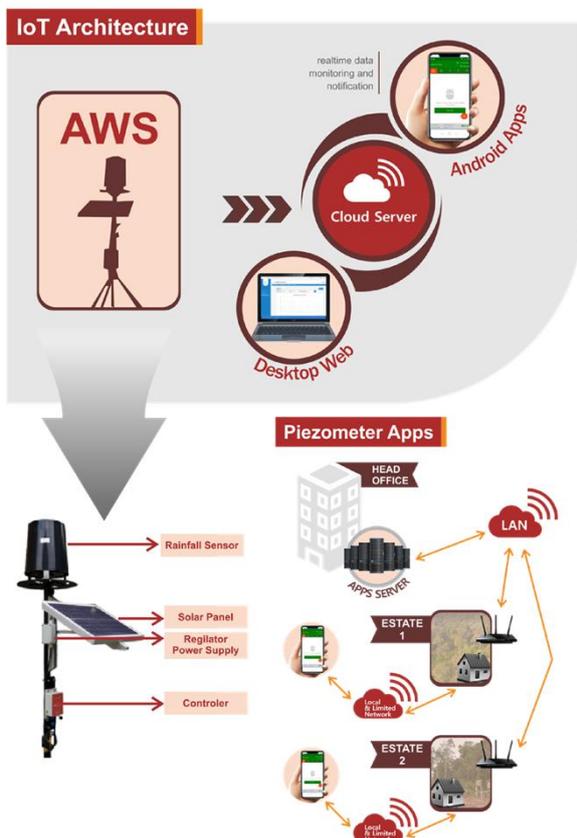
KPN develops a monitoring system of water management, as below :

1. Asset Management WM Objects	2. Rainfall	3. Water Table Recording	4. Water Level Recording
<p>GIS Survey Apps (GSA-WM),</p> <p>To maintain up to date information on distribution and condition of WM objects, scattered over the plantation.</p>	<p>Automatic Weather Station (AWS)</p> <p>IoT enabled, to relay hourly rainfall information to server.</p>	<p>Piezometer Apps,</p> <p>Data collection apps installed in Android phone, record piezometer data together with location and time stamp. Database upload and managed centrally in a server.</p>	<p>Water Level Apps,</p> <p>Data collection apps installed in Android phone, record daily water level elevation at various checkpoints. Data are checked by GPS and time stamps. Database upload and managed centrally in a server.</p>

Flow Process Data Recording with Android system



Automatic Weather Station – AWS



3rd Party Engagement

Water management implementation in PT GAN is under technical Supervision from the Peatland Restoration Agency (BRG):

1. Webinar on 27th -29th April 2020.
2. Site visit verification has been conducted on 10th – 12th August 2020 with scoring result 178 from max. 200.



Site visit





Fire Prevention

1. KPN developed an automatic early warning system (EWS) - hotspot monitoring. The EWS uses a windows scheduler for processing hotspot data and automatic email delivery

Hotspot data source:

- [http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=LPN-MODIS&tgl=\[tanggal\]](http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=LPN-MODIS&tgl=[tanggal])
- [http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=NOAA18&tgl=\[tanggal\]](http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=NOAA18&tgl=[tanggal])
- [http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=LPN-NPP&tgl=\[tanggal\]](http://sipongi.menlhk.go.id/action/history_hotspot/txt/hotspot.txt?area=1&satelit=LPN-NPP&tgl=[tanggal])

Early Warning System (all processes run automatically on the server)



Data Hotspot via Satellite

- TERRA/AQUA (LAPAN)
- SNPP (LAPAN)
- NOAA20 (LAPAN)
- LANDSAT8 (LAPAN)

Download

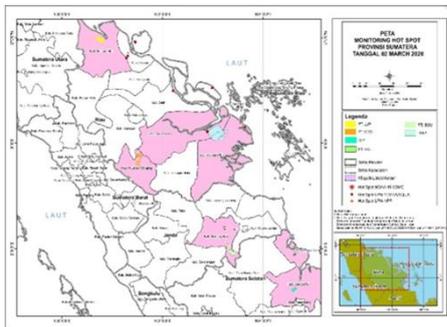
Lat	Long	Satellite	Time_UTC	Date	Source	PROV	K
0.21535504	102.8879776	LPN-NPP	6:23:15 AM	20200301	LAPAN	RIAU	P
0.21938363	102.891243	LPN-NPP	6:23:15 AM	20200301	LAPAN	RIAU	P
0.78911281	102.5094605	LPN-NPP	6:24:41 AM	20200301	LAPAN	RIAU	K
0.99953502	102.2120132	LPN-NPP	6:24:41 AM	20200301	LAPAN	RIAU	S
1.05951715	102.9912415	LPN-NPP	6:05:45 AM	20200302	LAPAN	RIAU	K
1.00016868	102.2113876	LPN-NPP	6:05:45 AM	20200302	LAPAN	RIAU	S

Downloaded hotspot coordinates

Sourcing :

<http://sipongi.menlhk.go.id/>

Overlay Hotspot with Concession boundary



Maps are created automatically when there are hotspots within the concession

Generate Map



No	Lat	Long	Satellite	Time_UTC	Date	Source	PROV	K
1	0.21535504	102.8879776	LPN-NPP	6:23:15 AM	20200301	LAPAN	RIAU	P
2	0.21938363	102.891243	LPN-NPP	6:23:15 AM	20200301	LAPAN	RIAU	P
3	0.78911281	102.5094605	LPN-NPP	6:24:41 AM	20200301	LAPAN	RIAU	K
4	0.99953502	102.2120132	LPN-NPP	6:24:41 AM	20200301	LAPAN	RIAU	S
5	1.05951715	102.9912415	LPN-NPP	6:05:45 AM	20200302	LAPAN	RIAU	K
6	1.00016868	102.2113876	LPN-NPP	6:05:45 AM	20200302	LAPAN	RIAU	S

Generate Email

Emails are automatically sent to each PIC estate which has hotspots



Social Assistance During Covid-19 Pandemic in 2020

We realize that the Covid-19 pandemic has a huge impact on the communities around the company. During 2020 we was distributed social assistance in the form of 20.000 food packages to 112 surrounding villages and other community.

We also collaborate with several government agencies to distribute food packages, personal protected equipment – PPE (Hazmat, Google, Glove and Masker):

- Indragiri Hilir, Riau (Masker 5000 pcs)
- Kuburaya, West Kalimantan (Masker 1000 pcs).
- Hospital in Central Mamuju, West Sulawesi (Hazmat, Facemask, Glove, Sanitizer and Masker, total 1.650 pcs)
- Provide prevention action to local communities (disinfectant) in Pasaman, West Sumatera.
- In September 2020, we also provide personal protected equipment – PPE (Hazmat 250 pcs, Google 250 pcs, Glove 1.250 pcs and Masker 1.000 pcs) to healthcare facility in Jakarta
- Social Assistance in form of operation funds through Satuan Tugas Penanganan COVID-19



PPE assistance to healthcare in Jakarta on September 2020



Social Assistance in Jakarta Area





PT CRS – Kuansing, Riau



PT JJP – Rokan Hilir, Riau



PT KAMU – AGAM, West Sumatra



PT BSU – Batanghari, Jambi for SAD



PT SIP – Banyuasin, South Sumatra



Social assistance for indigenous people in Merauke



PPE (masker) assistance to Indragiri Hilir Government - Riau



PT. IKU Batanghari, Jambi



PT THIP– Indragiri Hilir, Riau



**PT PTW– Bengkayang,
West Kalimantan**



**PT BAS – Kuburaya,
West Kalimantan**



**PT. GAN – Kuburaya,
West Kalimantan**



**PT SUM – Kuburaya,
West Kalimantan**



**PT TSB – Muara Badak,
East Kalimantan**



Disinfectant spraying to local community PT. PANP - Pasaman

Time Bound Plan

We published our comprehensive [Time Bound Plan](#) (TBP) in November 2019. The scope of this plan is based on our full NDPE policy and as such beyond the Reporting Framework of this Progress Report.

Our TBP will be amended to address delays incurred over the past year and it will be realigned with our priorities. We will release the update on our website together with this Progress Report.





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