Private Sector Initiatives in Carbon Emission Reduction

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APP Sinar Mas

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ABOUT US

- Asia Pulp & Paper (APP) Sinar Mas is a trade name of pulp and paper manufacturing company which delivers quality products to meet the growing global demand for paper, tissue, and packaging.
- We have grown into a global business with operations across Indonesia and China with an annual combined pulp, paper, packaging product and converting capacity of over 20 million tons per annum.
- Today, Asia Pulp & Paper (APP) Sinar Mas markets its products in more than 150 countries across six continents.

Production Capacity

>20

Million of Tons

Total Employee

>60

Thousand People

Total Revenue

$15.4

Billion

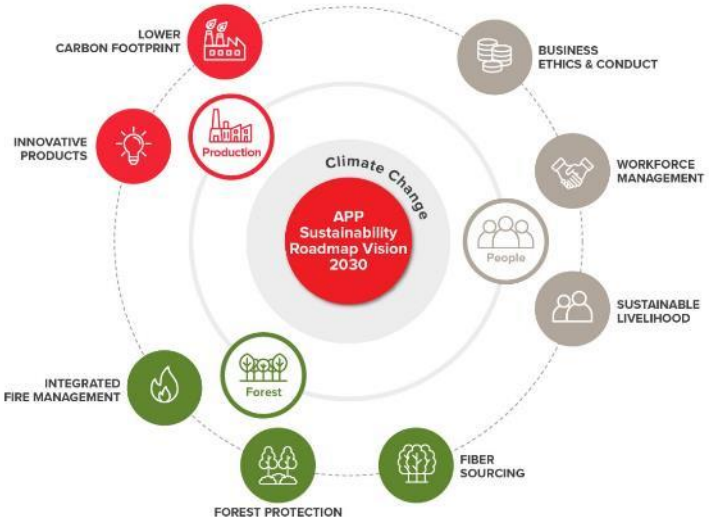
Marketed to

>150

Countries

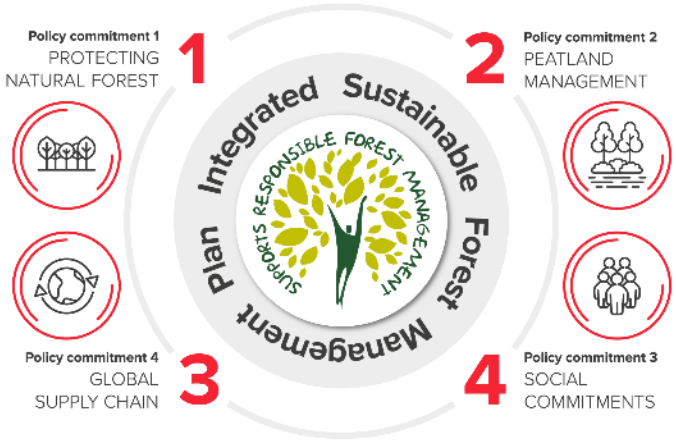
APP'S COMMITMENT TO SUSTAINABILITY – *SRV 2030 & FCP*

APP Sustainability Roadmap Vision (SRV) 2030
Launched in July 2020



1. Sustainability remains at the core of our business and we continue to benchmark ourselves against global standards.
2. SRV 2030 covers an increased range of issues and aligned well with the UN Sustainable Development Goals and the Paris Agreement on Climate Change.

APP Forest Conservation Policy (FCP)
Launched in February 2013



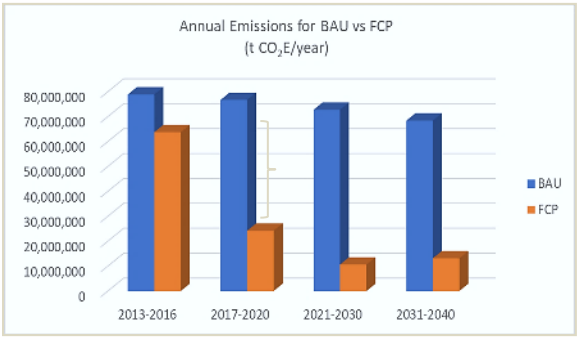
1. We have implemented and enforced Forest Conservation Policy (FCP) to ensure a deforestation-free supply chain.

APP CARBON EMISSION REDUCTION INITIATIVES – *SUPPORTING INDONESIA NDC TARGET*

FOREST

MILLS

CUSTOMERS



64% ***avoidance compared to BAU***

Equal to removing emission of

9 million vehicle/year

Reference :
https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100U8YT.pdf

Mills Carbon Footprint Assessment

Methodology:
1. WRI/WBCSD GHG Protocol
2. International Panel for Climate Change (IPCC)
3. Calculation Tools for Estimating Greenhouse Gas Emission from Pulp & Paper Mills by ICFPA

Scope:
7 Companies covering 10Pulp & Paper Manufacturing Facilities

Result (2019) :
11,500,000 tCO2e

Next Step:

- Supporting customers' commitment to reduce carbon in supply chain through **low-carbon products initiative.**

FOREST PROTECTION – MONITORING FOREST COVER CHANGE

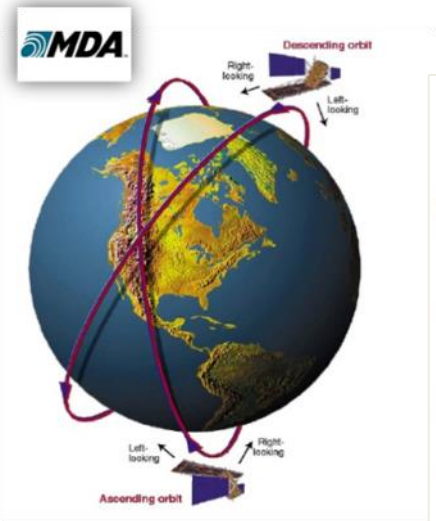
1. Using satellite technology – **RADARSAT 2**
2. Monitoring forest cover change – Early Detection
3. This methodology is able to provide **accurate detection** of clear cuts, selective logging, and natural forest degradation

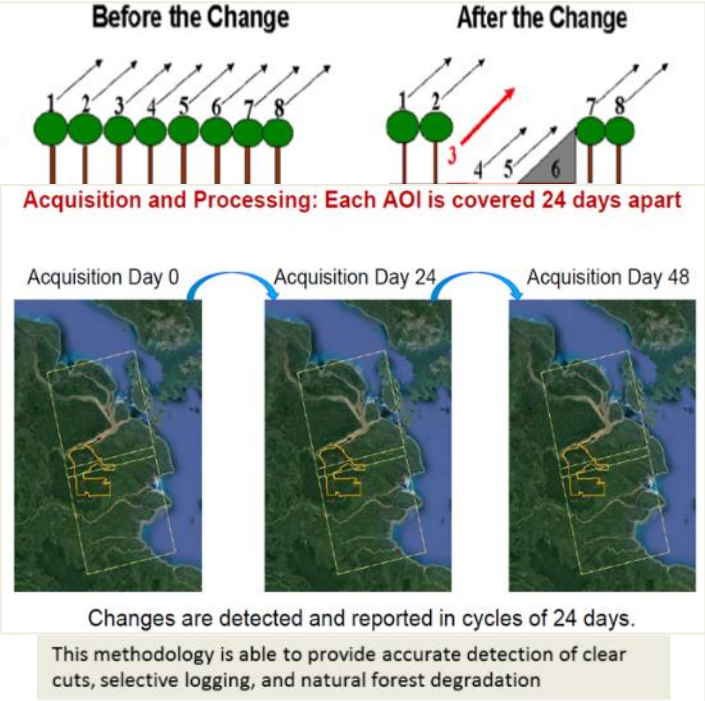
Protecting 600,000 ha of protected forest areas across suppliers concessions

SINCE 2016

APP IN PARTNERSHIP WITH MDA -

- Monitoring forest cover change
- Providing near 'real time' data
- APP is the only company using this technology to monitor forests.

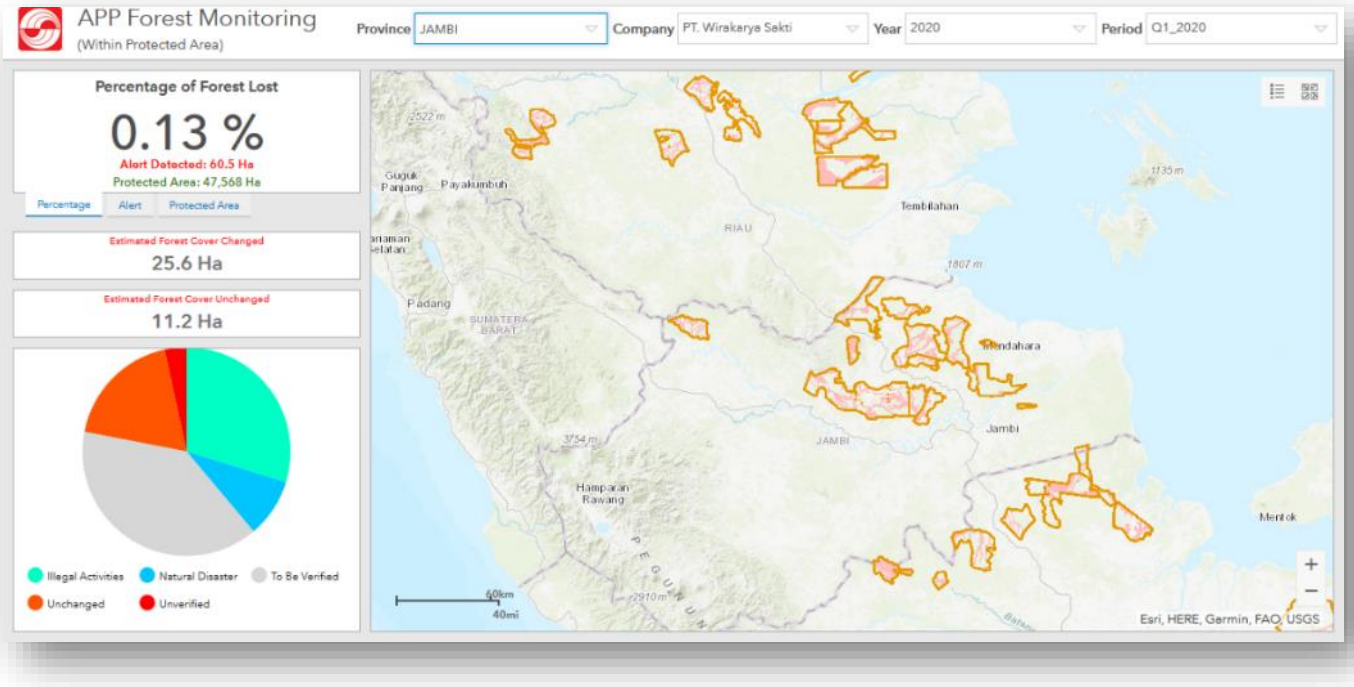




This methodology is able to provide accurate detection of clear cuts, selective logging, and natural forest degradation

FOREST MONITORING DASHBOARD

The Forest Monitoring Dashboard provide access to our stakeholders to monitor the changes in forest cover in the protected areas of our suppliers concessions.



INTEGRATED FIRE MANAGEMENT

INVESTMENT TO IMPROVE FOREST FIRE MANAGEMENT

around **US$ 150** million

- Integrated Forestry & Farming System (IFFS)
- MPA incentives
- Prevention llanning
- Water management

- Infra-red detection cameras
- Satellite trial
- Increased ground patrol
- Integrated Fire Information IT System

- Training
- Situation room
- Patrol routes
- Fire-fighter standby

- Suppression strategy
- Online fire reporting
- Incident room
- Water bombing aircraft

COMPREHENSIVE MONITORING – *SITUATION ROOM*

- Monitors daily hotspots in the landscapes with Modis & NOOA satellite data
- Fire report is produced by the situation room in each supply chain region

FIELD DATA
1. Elevation Data
2. Rain fall Data
3. Wind direction Data
4. Peat Depth Data
5. Moisture Data
6. Land Cover Data

AGENCIES
- ***BNPB*** *(National Disaster Agency)*
- ***BMKG*** *(National Weather Agency)*
- ***BIG*** *(Geospatial Information Agency)*

FIRE FIGHTER
1. Trainings
2. Hired based on Govt approved regulation

HOTLINE
1. Call Center
2. Fire Reporting Online System/ FROS Mobile

EQUIPMENT:
1. Aircraft/helicopter
2. Fire Trucks
3. Tower
4. Drone

RISK MANAGEMENT
1. Task Force
2. SOP
3. Monitorin & Evaluation

APP SITUATION ROOM

FIRE FIGHTING STRATEGY

RESTORING DEGRADED FOREST

2015-2016

- APP and TFT conducted mapping of forested areas in the protected forests and HCS areas in APP suppliers concessions.

2017

- APP engaged with Gadjah Mada University to develop restoration strategy for different soil types (mineral, peat, marine clay)

2018

- APP and UGM completed the restoration strategy for each soil type. Strategy is implemented on the ground with target of 30,000 ha in 2019.

2019

- **70%** out of total target of 30,000ha were determined to have reached **Young Regeneration Forest (YRF)** stage. 12,000ha of this are on peat.

Challenges:

1. *Propagation process of local tree species.*
2. *Fragmented and remote area*

DEVELOPING BEST PRACTICE MANAGEMENT ON PEAT

1 Immediate moratorium for new development on peat since February 2013

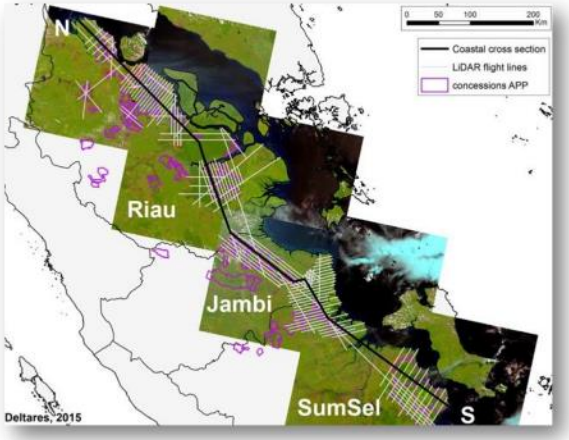
2 Data collection

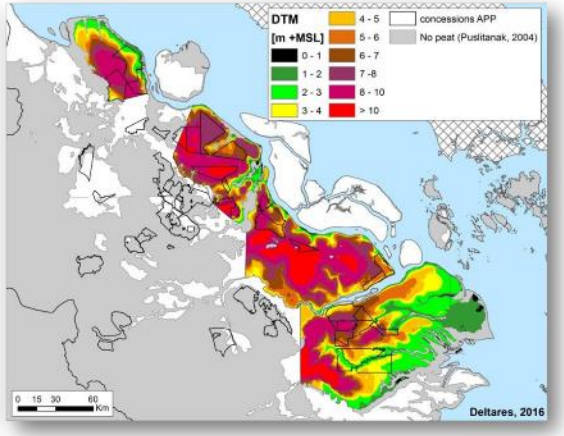
3 Data analysis

4 Design & implementation

LiDAR Mapping to map peat distribution and topography:

1. Some 11,000 km flown over East Sumatra and West Kalimantan, in 2015
2. Flights are over APP suppliers' concessions and surrounding areas on peat
3. LiDAR data coverage effectively ~4.5 million hectares



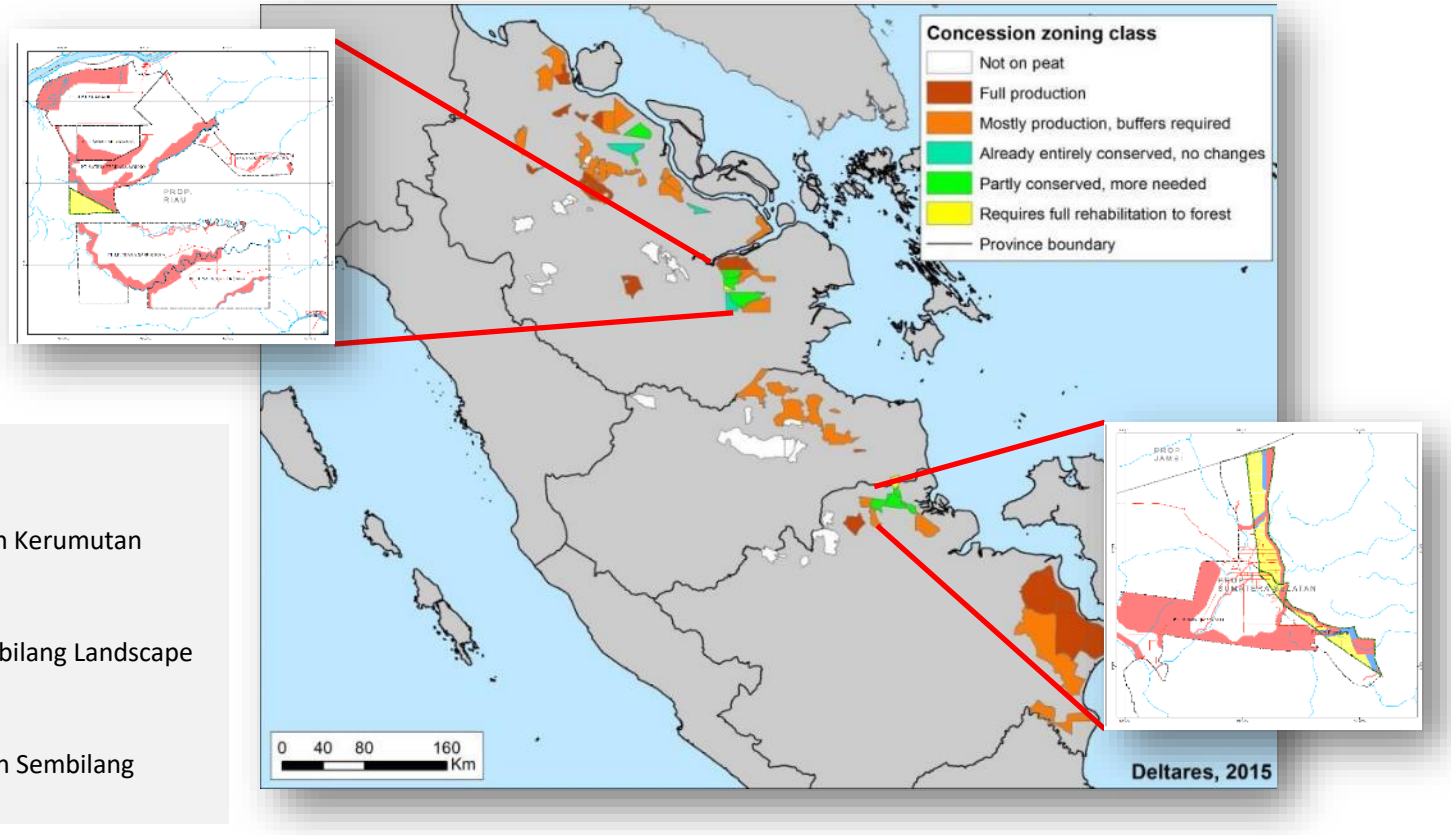


6 Major peat domes in Sumatra:

1. Senepis, Riau
2. Giam Siak Kecil – Bukit Batu, Riau
3. Kampar Peninsula, Riau
4. Kerumutan, Riau
5. Berbak Sembilang National Park, Jambi and South Sumatra
6. Ogan Komering Ilir (OKI), South Sumatra*

(Source: Mapping deep peat carbon stock from a LiDAR based DTM and field measurements, with application to eastern Sumatra , accessed on 24 July 2020)

RETIREMENT OF PRODUCTION AREAS ON CRITICAL PEAT



Retirement of Plantation Area :

- PT Satria Perkasa Agung Riau in Kerumutan landscape **1.994** ha
- PT Tripupa Jaya Sumsel in Sembilang Landscape **4,834** ha
- PT Rimba Hutani Mas Sumsel in Sembilang landscape **477** ha

RESEARCH ON ALTERNATIVE SPECIES

APP Forestry R&D team conducts research on:

1. **alternative tree species** to replace current plantation crops, to be planted on peat with high water level.
2. **Mychorizae**, to help trees grow better on soil that lacks nutrients such as peat.

APP will continue to work with peat experts and researchers on peat restoration.

Based on trial at nursery, on average **>50%** better growth when treated with Mycorrhizae

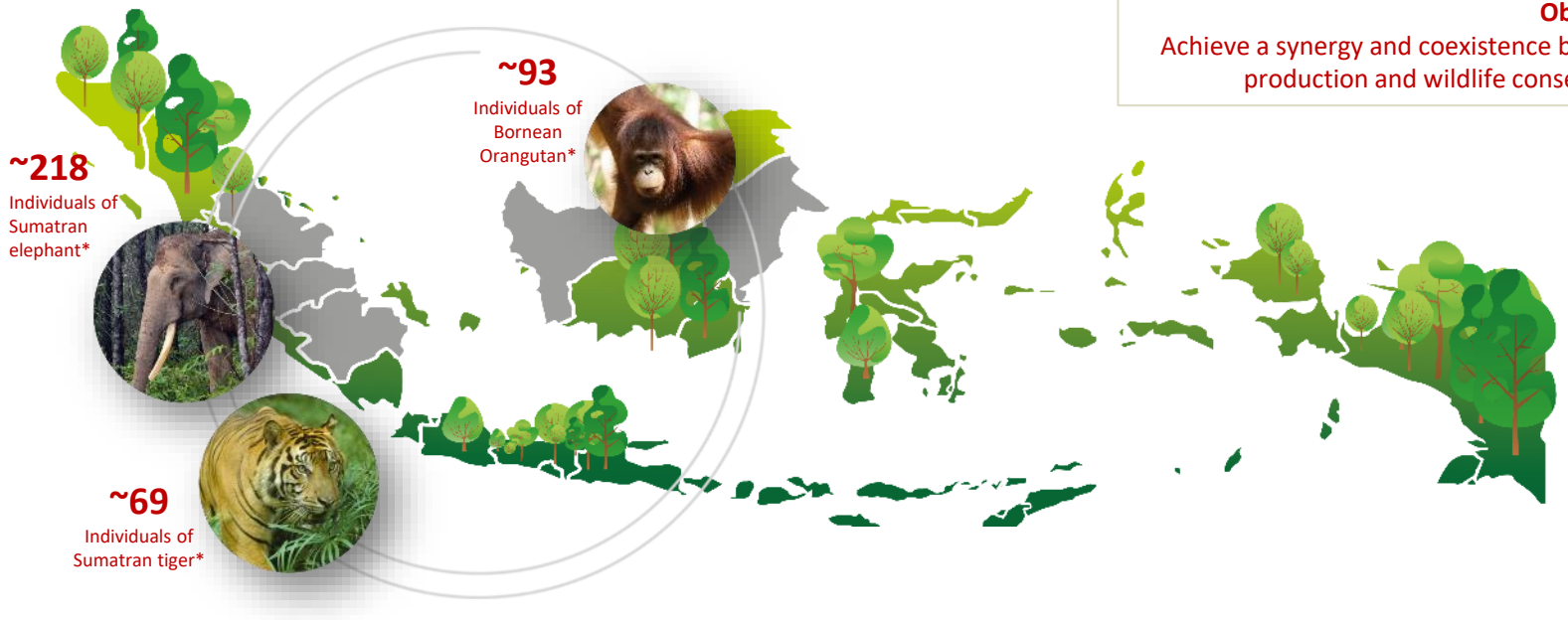
APP's Forestry R&D - Nursery for rare native species and alternative species with the capacity of more than 300,000 seedlings/year.

Species includes:

1. Geronggang (*Cratoxylon sp.*)
2. Balangeran (*Shorea balangeran)*
3. Ramin (*Gonystylus bancanus*)
4. Gaharu (*Aquilaria malaccensis*)

PROTECTING WILDLIFE AND ITS HABITAT

Objective:
Achieve a synergy and coexistence between production and wildlife conservation



1. Sharing space
2. Provide connectivity
3. Minimize human-wildlife conflicts with fatalities
4. Best management practices
5. Community empowerment
6. Landscape scale

"estimation number of individuals using APP suppliers concessions as roaming area".

COLLABORATIVE CONSERVATION MANAGEMENT (CCM)

1. The CCM program was piloted in 2018 in one district as a measure to **reduce the deforestation incidences** and maintain forest cover and function.

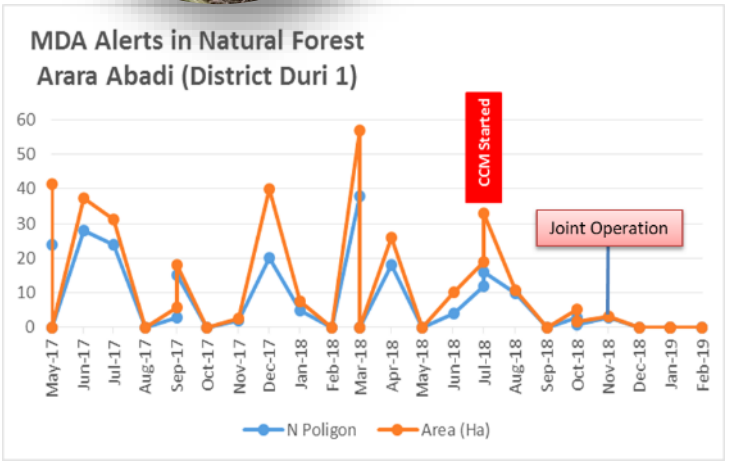
2. Focus to **engage collaboratively with villages** in and around the district to create resilient communities through economic empowerment.

3. Identification of NTFP as livelihood, such as Benzoin trees which are commonly found in the villages areas, honey, rattan and other medicinal plants.

4. The community farmer groups are expecting the first sapping of the benzoin trees in June 2020. The sap of the trees can be used to make traditional perfumes or aromatherapy.

5. Combined with other intervention in the area, this has managed to **significantly reduces the forest cover loss** in the area.

Training for the farmer groups member to sap the benzoin trees. (photo doc. Earthworm Foundation)



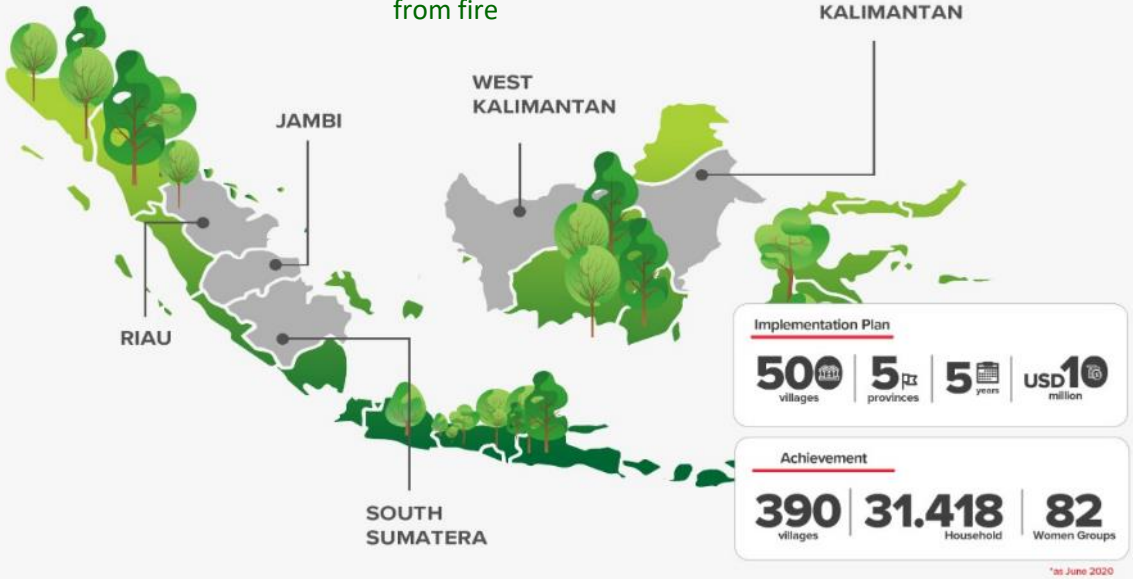
APP DESA MAKMUR PEDULI API (DMPA/ IFFS) – *HELPING IMPROVING PEOPLE LIVES*

At APP, we have set ambitious targets for forest and wildlife conservation, and these **communities play an important part** in helping us achieve these goals. Communities that have good, sustainable livelihoods are natural partners in conservation, and are less likely to turn a blind eye to encroachment or deforestation.

DESA MAKMUR PEDULI API

Through the program of Desa Makmur Peduli Api, APP aim to provide the communities surrounding APP's concession areas. By providing alternatives to improve their livelihood through climate-smart agro-ecological practices in order to reduce pressure on natural forests.

70% of DMPA beneficiaries location are free from fire



CHALLENGES

- Illegal activities which causes forest cover loss and forest fires

- Forest restoration requires high investment.

TRANSPARENCY & MOVING FORWARD

ENSURING TRANSPARENCY

As a form of transparency and public monitoring system, the company carries out the following efforts :

a. Establishing **APP Sustainability Dashboard** that can be accessed by the public to monitor APP Sustainability progress : www.sustainability-dashboard.com

b. **APP Sustainability Report**, providing progress update on the implementation of Sustainability Roadmap.

c. Regular **Stakeholder Advisory Forum (SAF)** to update and share Sustainability Roadmap implementation progress with all stakeholders.

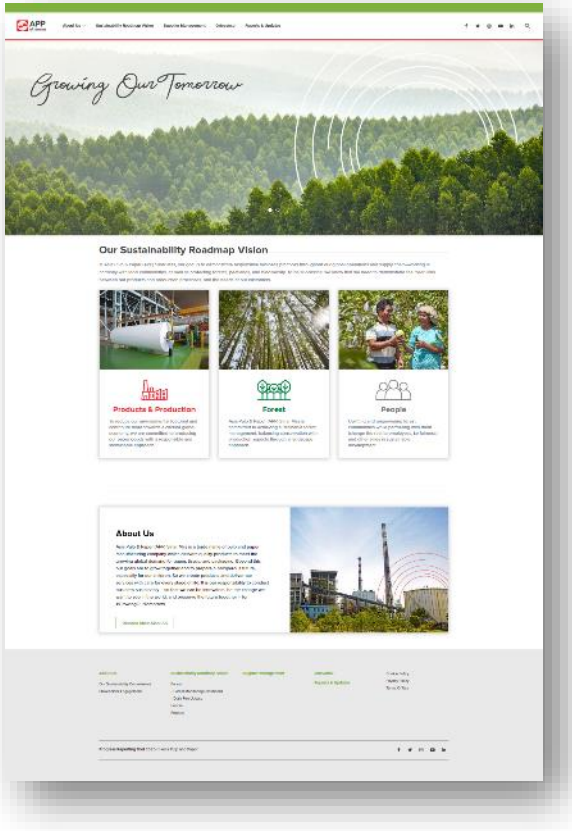
d. **Grievance mechanism** to allow internal and external stakeholders to report the grievance related to the commitment's implementation.

e. The **Independent Observer** by inviting the relevant stakeholders to have field visit showing the real on the ground company's commitment implementation

MONITORING AND REPORTING

- APP carbon reduction initiatives are reported to the GoI through **Ministry of Environment and Forestry (forest carbon assessment project)**.

- APP's new **Sustainability Dashboard** (www.sustainability-dashboard.com) will also have updates on each SRV2030 pillar.



CDP DISCLOSURE INSIGHT ACTION

2020 score :
Forest : **B**
Climate Change : **B**

GRI Empowering Sustainable Decisions

SPOTT

GOVERNMENT SUPPORTS FOR INDUSTRY PLAYERS

- **Education and socialization**
- Establish **Government-led platforms** for multistakeholder collaboration.
- **Enable carbon trading** : accelerate the regulation on carbon trading for businesses in Indonesia.
- **Incentive to business** : Accelerate the regulations to provide incentive to businesses who have managed to reduce their GHG emission.

MOVING FORWARD - 2021

Looking ahead, APP will continue to improve its sustainability programs in an effort to support the Government of Indonesia to achieve its NDC targets.

- Continue the programs to protect and restore the natural forests inside APP suppliers conservation areas.
- Continue the research on restoration best practice on peatland.
- Working with communities to improve livelihood and enhance environmental protection.
- Implement climate change adaptation measures through multi-stakeholder collaborations.

THANK YOU