

ISSUE 02



Silara

BULLETIN



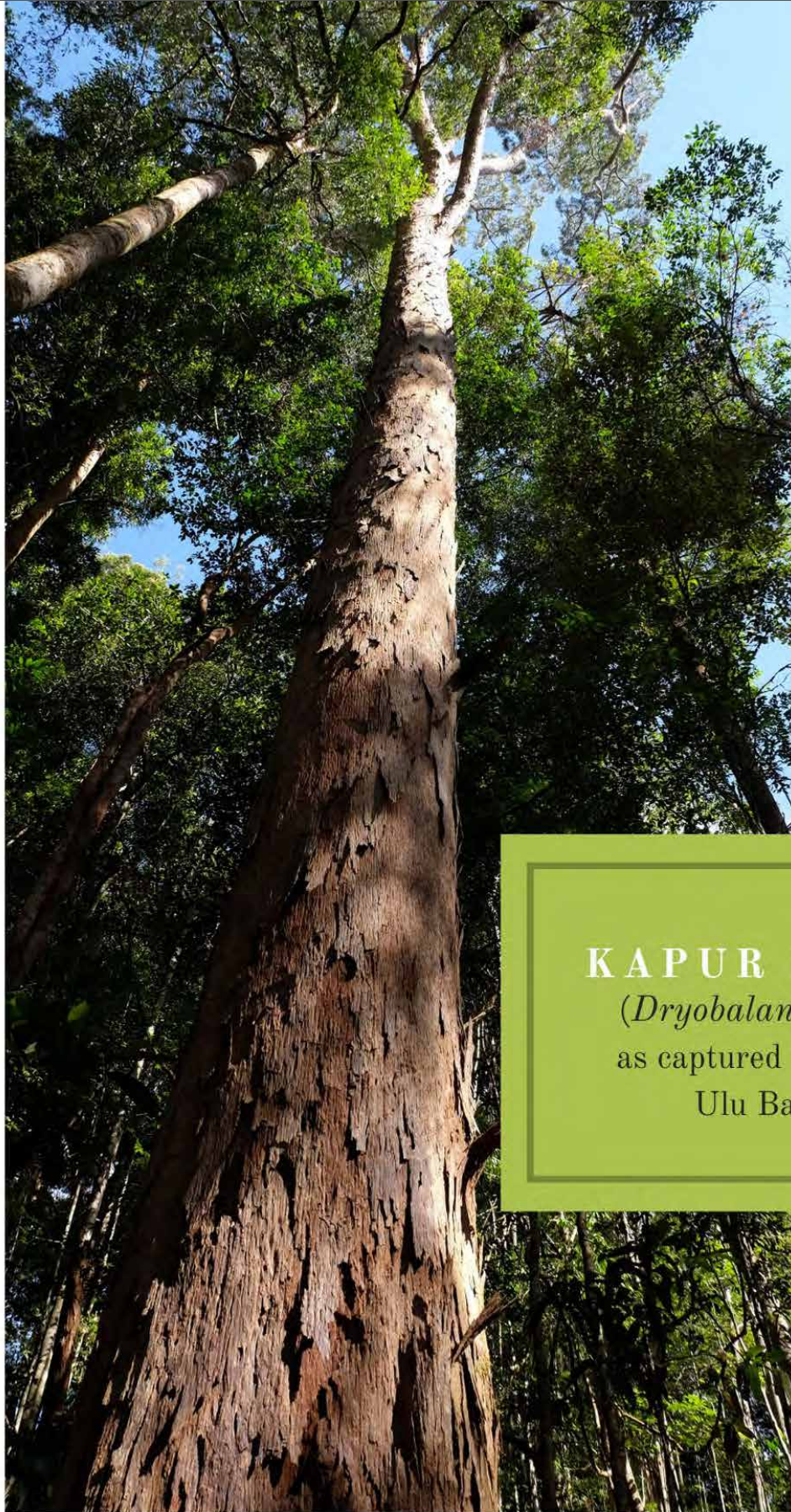
ISSUE 02

A BRIEF LOOK

SEPTEMBER - DECEMBER 2020



RESTORATION & INDUSTRIAL FOREST DIVISION



ON THE COVER

KAPUR PERINGGI
(Dryobalanops aromatica)
as captured in the jungle of
Ulu Baram, Miri.



ISSUE 02

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01 HIGHLIGHTS

WAY FORWARD 2021

The government effort to make Sarawak greener has been proven in the latter half of 2020 through the strong effort and continuous implementation of various programme by RIFD of FDS. The programme such as planting activities, wildings and seedlings collection, nurseries establishment, seminar, and many more are hoped to be carried on more and better in the year 2021 with more collaboration from other divisions, regional forest offices, local and international NGOs, and communities.

Silara is an appreciation to everyone who have contributed and involved in every programmes conducted by RIFD throughout 2020.



02 SECTION 1

FOREST LANDSCAPE RESTORATION

-
- NURSERY AND PLANTING UNIT
 - PLANTING, SILVICULTURE & MAINTENANCE UNIT
 - SURVEY, MAPPING & INFRASTRUCTURE UNIT

Wildings Collection for Seedlings Stock at Established Nurseries



The total number and types of wildings collected by RIFD teams during field trips in September to December 2020 are shown below:

Species Collected	Total Wildings	Location
Belian landak (<i>Strombosia ceylanica</i>) Bawang hutan (<i>Eleutherine bulbosa</i>) Engkabang pinang licin (<i>Shorea mamplexicaulis</i>) Engkabang tikus (<i>Shorea acuta</i>) Kapur peringgi (<i>Dryobalanops aromatica</i>) Kapur paji (<i>Dyrobalanops lanceolata</i>) Kayu hujan panas (<i>Goniothalamus velutinus</i>) Keruing buah bulat (<i>Dipterocarpus globosus</i>) Keruing mempelas (<i>Dipterocarpus carnitus</i>) Lun timbul (<i>Shorea laxa</i>) Lun merkunyit (<i>Shorea spp.</i>) Lun melapi (<i>Shorea rithecia</i>) Lun timbul (<i>Shorea laxa</i>) Meranti putih (<i>Shorea agami</i>) Meranti sepit udang (<i>Shorea myrionerva</i>) Meranti pasir (<i>Shorea paruisdipulata</i>) Meranti sarang punai (<i>Shorea parvifolia</i>) Mersawa kunyit (<i>Anisoptera grossivenia</i>) Menggris (<i>Koompassia malaccensis</i>) Nyatoh (<i>Palaquium sp.</i>) Tapang (<i>Koompassia exelsa</i>) Selangan merah (<i>Shorea kunstleri</i>) Selangan batu tekam kerabak (<i>Shorea crassa</i>) Urut mata runching/daun kecil (<i>Parashorea parvifolia</i>)	13,282	Niah & Lambir National Park, Miri

Wildings Collection for Seedlings Stock at Established Nurseries



Species Collected	Total Wildings	Location
Dadak (<i>Artocarpus dadak</i>) Kapur peringgi (<i>Dryobalanops aromatica</i>) Kayu malam (<i>Diospyrus</i> sp.) KerANJI madu (<i>Dialium laurinum</i>) KerANJI madu/Tanjan (<i>Dialium laurinum</i>) Lun jantan (<i>Shorea multiflora</i>) Luis ribu (<i>Hopea vacciniifolia</i>) Lun paya (<i>Shorea longiflora</i>) Luis kerangas (<i>Hopea microcantha</i>) Meranti kerangas (<i>Shorea revoluta</i>) Meranti pitis (<i>Shorea ovata</i>) Meranti tangkai panjang padi (<i>Shorea venulosa</i>) Merantai melantai (<i>Shorea macroptera</i>) Meranti buaya hantu (<i>Shorea rugosa</i>) Meranti telur (<i>Shorea retusa</i>) Resak Durian (<i>Cotylelobium bruckii</i>) Resak brunig (<i>Catylelobium brunigii</i>) Resak brun/Resak kemudi (<i>Vatica borneensis</i>) Ramin batu (<i>Gonystylus xylocarpus</i>) Selangan batu pinang (<i>Shorea havilandidi</i>) Tampar hantu (<i>Sindora leiocarpa</i>) Yellow meranti (Lun) (<i>Shorea</i> sp.)	17,250	Sabal Forest Reserve, Simunjan
Bintangor beludu (<i>Calophyllum lanigerum</i>) Daun suluk pulu (<i>Aglaiia hiernii</i>) Engkabang bintang (<i>Shorea splendida</i>) Lun jantan (<i>Shorea multiflora</i>) Serai (<i>Cymbopogon citratus</i>)	1,961	STIC Nature Reserve Sibu, Sebangkoi Sarikei

Types of Wildings Collected



Nyatoh (*Palaquium* sp.)



Engkabang tikus (*Shorea acuta*)



Lun timbul (*Shorea laxea*)



Keruing buah bulat (*Dipterocarpus globosus*)



Lun merkunyit (*Shorea collaris*)



Menggris (*Koompassia malaccensis*)

Types of Wildings Collected



Mangrove Propagules Collection

In November, the RIFD team collected loop-root mangroves propagules and planted at temporary nurseries in the coastal area of Kampung Buntal, Kuching.



Type of Wildings	Total
Bakau Kurap (<i>Rhizophora mucronata</i>)	3,382
Bakau Minyak (<i>Rhizophora apiculata</i>)	1,387
TOTAL	4,769



Sabal Agroforestry Centre



STIC Oya



FRC Niah

Seedling Stocks in Existing FDS Nurseries (September – December)

	Sep	Oct	Nov	Dec
Sabal Agroforestry Centre, Simunjan	78,049	81,971	160,020	160,020
Sarawak Tree Improvement Centre (STIC), Oya, Sibü	47,957	43,403	44,003	44,653
Niah Forest Research Centre, Miri	49,405	44,377	41,475	54,107
TOTAL	175,411	169,751	245,498	258,780

Progress of the Nursery in Bintawa, Kuching



As of date, the main structures has been set up and the new sprinkler system has been installed. The main nursery can housed about 20,000 seedlings at one time.



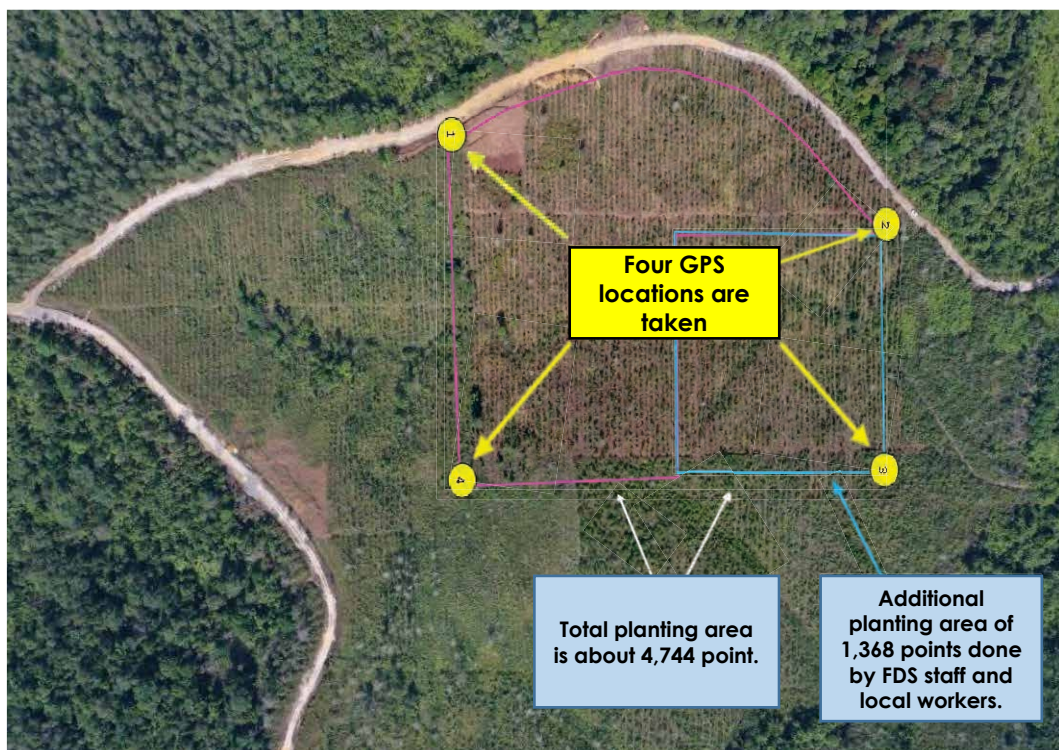
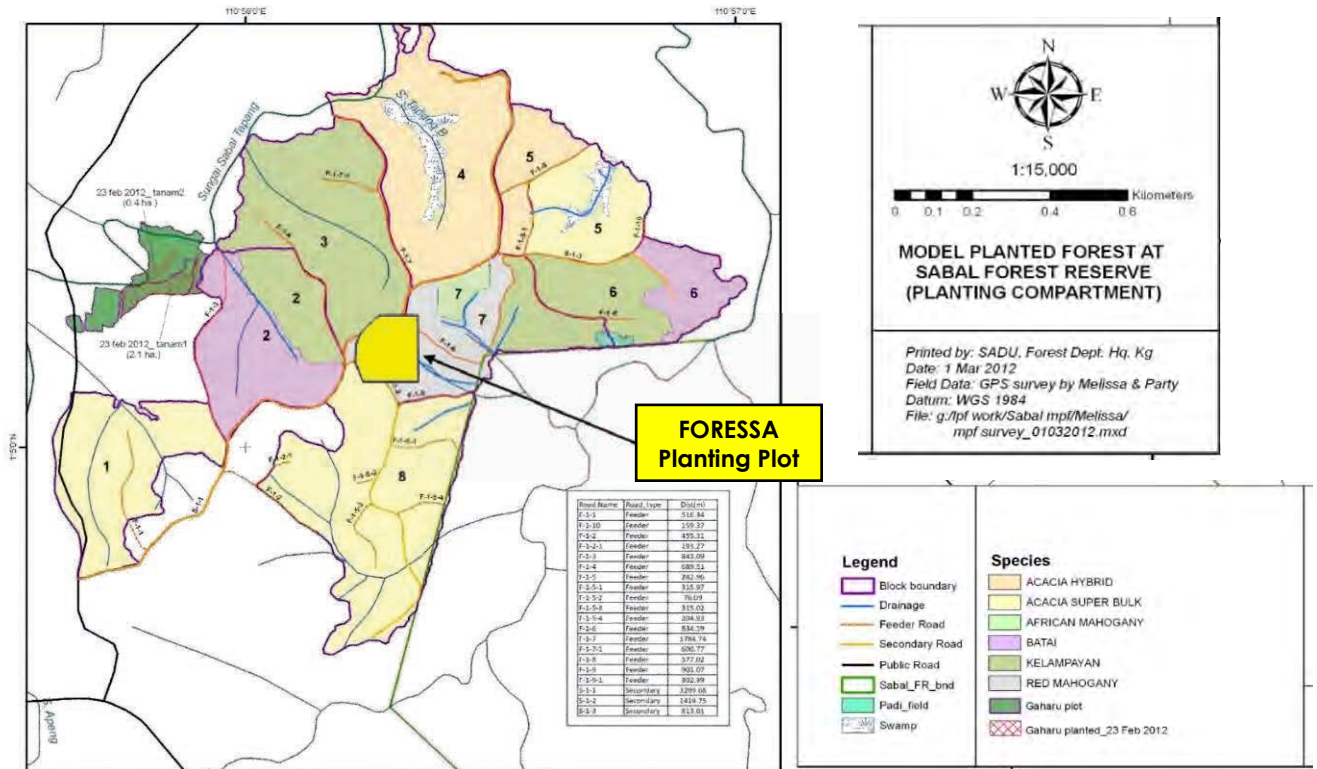
1. View of the structures within the nursery;
2. Water storage tanks were installed for the new sprinkler system;
3. Course briefing on basic management of nursery maintenance;
4. Demonstration of the water sprinkler system.

Progress of the Establishment of a New Nursery in Lundu

The RIFD team installing the structures and netting for the new nursery within the compounds of Lundu Regional Forest Office. The nursery has been established in December to cater seedlings for the FLR programme in Southern Region area particularly in Bau, Lundu and Sematan. The seedlings capacity is about 15,000 in one time.



Planting Programme with FORESSA Kuching at Block 2, Sabal Forest Reserve 3 -19 September 2020



Planting Programme with FORESSA Kuching at Block 2, Sabal Forest Reserve 3 -19 September 2020



The road condition at F-1-3, Block 2 leading to the planting programme



The team preparing the planting line



The seedlings chosen to be planted are taken to F-1-3, Block 2

Planting Programme with FORESSA Kuching at Block 2, Sabal Forest Reserve



Aerial shots of the FORESSA members and FDS staff planting trees.



FORESSA is a Social & Recreation Club established by the Department for FDS officers and staff in regional offices. The activities organized by FORESSA includes social, recreational and sports activities.

Planting Programme with FORESSA Regional Miri at Bakam Government Reserve 2 October 2020



Planting Programme with FORESSA Regional Sibul at Kanowit East Forest Reserve 22 October 2020



Aerial view of planting plot in Kanowit East for the planting programme, which spans about 1.5 ha.

Timbalai 1948 1:5,000



HUTAN SIMPAN KANOWIT EAST



SCALE : 1 : 5,000

LEGEND :

- Sempadan Hutan Simpan Kanowit East.....
- Barisan Tanaman Yang Sudah Siap.....
- Barisan Tanaman Untuk Program Restorasi.....
- Kawasan Yang Dicapadangkan Untuk Ditanam.....
- Jalan Masuk Untuk Program Restorasi.....
- Parit.....
- Lokasi Khemah Untuk Program Restorasi.....

Ringkasan :

Kawasan yang sudah ditanam- 3.5 Hektar = 700 Pokok
Kawasan program Restorasi – 1.5 Hakter = 300 Pokok
Sasaran keluasan untuk ditanam sehingga penghujung
Tahun 2020 – 10.0 Hektar = 2,000 Pokok.

Planting Programme with FORESSA Regional Sibuan at Kanowit East Forest Reserve 22 October 2020



Mangrove Planting Programme with the Community in Buntal and Japan Malaysian Association (JMA) 12 December 2020



Map showing the size of the planting area for 1,000 mangrove trees.



Aerial view of planting programme with local communities and JMA on the coastal area of Kampung Buntal.

Mangrove Planting Programme with the Community in Buntal and Japan Malaysian Association (JMA)

12 December 2020



Planting Programme with FORESSA Regional Bintulu at Labang Forest Reserve 17 December 2020



Planting Programme with Bintulu Golf Club 18 December 2020



Malaysia Greening Programme Through 100 Million Tree Planting Campaign at Bukit Siol DBKU



The “100 Million Tree Planting Campaign” is part of Malaysia Greening Programme, which kicked-off simultaneously at the state level by the Prime Minister of Malaysia, Tan Sri Muhyiddin Yassin on the 5th January 2021. The campaign is one of the national agendas for addressing climate change and improving the quality of life of the people.

In Kuching, the pre-recorded tree planting programme was held on the 26th December and was launched by The Right Honorable Datuk Patinggi (Dr) Abang Haji Abdul Rahman Zohari bin Abang Haji Openg, the Chief Minister Sarawak at Bukit Siol DBKU.

Summary of FLR Programme throughout September to December

Month	Programmes (Organisation/Area)	No. of Trees Planted
September	Planting Programme with FORESSA Kuching, Sabal FR	4,744
October	Planting Programme with FORESSA Miri, Bakam GR	5,555
	Restoration Program with Rh. Manggat Community, Batang Ai	4,500
	Planting Programme with FORESSA Sibu, Kanowit East FR	2,000
November	Sarawak Biodiversity (SBC)'s Nature Trail by SBC (seedlings supplied from Sabal Nursery)	520
	Jagoi Heritage Forest by WWF-Malaysia and JADC (seedlings supplied from Sabal Nursery)	1,000
December	Mangrove Planting Programme with JMA & JKKK Buntal, Kuching	1,000
	Planting Programme with FORESSA Bintulu, Labang FR	300
	Planting Programme with Bintulu Golf Club	330
	Samajaya NR by Sarawak Forestry Corporation (seedlings supplied from Semenggok Nursery)	100
	Launching Ceremony of Malaysia Greening Programme, Bukit Siol DBKU, Kuching	10
TOTAL TREES PLANTED		20,059

Total Trees Planted Throughout Sarawak in 2020

	Total Trees Planted	Total Area (ha)
FLR Planting	134,084	444.53
Licence Planted Forest	10,322,856	9291.48
TOTAL	10,456,940	9,736.01

Meeting on Potential FLR Collaboration Project With Other Agencies/Organization/Schools



Potential rehabilitation project in ex-mining area with Sarawak Energy Resources on 7th October 2020.



Initiating an 'Umbrella MoU' signing with Sarawak Energy Berhad on 16th October 2020.



Potential FLR program with Cahya Mata Sarawak on 23rd November 2020.



Tri-parties MoU signing with Sime Darby Sdn Bhd and UPM Bintulu on enrichment planting on 18th December 2020.

Meeting on Potential FLR Collaboration Project With Other Agencies/Organization/Schools



**IBU PEJABAT JABATAN HUTAN,
ARAS 15, SAYAP KIRI,
BANGUNAN BAITUL MAKMUR II,
MEDAN RAYA, PETRA JAYA,
93050 KUCHING,
SARAWAK.**

Kawat : Perhutanan, Kuching
Telefon Am : 082-4951311
Telefeks : 082-495200
Teleks :

Ruj. Tuan : [2] JHS/100.6/5/100/Jld.2
Ruj. Kmti :
Tarikh : 30.09.2020

Guru Besar
Sekolah Kebangsaan Rampangi
Jalan Sultan Tengah
93050, Petra Jaya, Kuching
SARAWAK.

Tuan,

TAKLIMAT PENANAMAN POKOK DI SEKOLAH KEBANGSAAN RAMPANGI

Adalah saya dengan hormatnya merujuk kepada surat luan rujukan JPS(W) SKR [Pent]/ 153/07/09 Jld.4 dan perbualan telefon di antara Pn. Habibah Bt Sahari [SK Rampangi] / Pn. Sili Zolnab Kamal (Jabatan Hutan) pada 29.9.2020.

2. Pihak Jabatan ingin merakamkan ucapan setinggi-tinggi penghargaan dan terima kasih di atas jemputan untuk program berkenaan. Sehubungan itu, pihak Jabatan ingin mercadangkan supaya program berkenaan dapat diadakan pada **6 Oktober 2020 (Selasa)** memandangkan pada masa ini jadual aktiviti-aktiviti di Jabatan yang terlalu padat.

3. Program taklimat mengenai aktiviti penanaman ini nanti akan disampaikan oleh **Pn. Rohani Binti Benan**. Untuk keterangan lanjut, pihak luan boleh menghubungi beliau di talian 013-8480796.

Sekian, terima kasih.

"BERSATU BERUSAHA BERBAKTI"
"AN HONOUR TO SERVE"

Yang benar,

[ABG AHMAD ABG MORNI]
b.p. Pengarah Hutan

SARAWAK

Salinan RIFD
Pn. Rohani Binti Benan
30/09/2020



Lampiran 1

Senarai spesies dan jumlah isihan anak pokok yang diluluskan :

Spesies Kayu Hutan Asli			
No.	Nama Tempatan	Nama Saintifik	Jumlah
1	Kapur Bukit	<i>Dryobalanops beccarii</i>	10
2	Meranti Tembaga	<i>Shorea leprosula</i>	10
3	Engkabang Jantong	<i>Shorea macrophylla</i>	10
4	Selangan Batu	<i>Shorea sp.</i>	10
Bunga-bunga			
5	Goa Tree	<i>Andira surinamensis</i>	10
6	Butterfly Tree	<i>Bauhinia purpurea</i>	10
7	Ubah	<i>Eugenia oleosa</i>	10
8	Bungor Raya	<i>Lagerstroemia speciosa</i>	10
9	Red Palm	<i>Cyrtostachys Lakka</i>	10
10	Yellow Palm	<i>Chrysalidocarpus lutescens</i>	10
			Jumlah
			100



03 SECTION 2

INDUSTRIAL FOREST

-
- LICENSE & CERTIFICATION UNIT
 - AUDITING & MONITORING UNIT
 - FOREST PLANTATION RESTORATION & SALVAGE UNIT

Seminar on Industrial Forest Plantation: 'Advancing Sustainable Forests Through Aggressive Industrial Forest Plantation' 4 - 5 November 2020

On 4th November 2020, the Department have successfully organized a Seminar on Industrial Forest Plantation: Advancing Sustainable Forests Through Aggressive Industrial Forest Plantation at Pullman Miri Waterfront.

The event was officiated by The Right Honourable Datuk Patinggi (Dr) Abang Haji Abdul Rahman Zohari bin Tun Abang Haji Openg, the Chief Minister of Sarawak and was attended by other honorable guests.



Seminar on Industrial Forest Plantation: 'Advancing Sustainable Forests Through Aggressive Industrial Forest Plantation'

4 - 5 November 2020

The seminar have also witnessed the signing of Memorandum of Understanding (MoU) between the State Government of Sarawak represented by Forest Department Sarawak (FDS) and Forest Research Institute Malaysia (FRIM), and another MoU between FDS with 13 LPF License Holders for enhanced collaboration in R&D for Industrial Forest.

The two-day seminar was joined by 200 participants and have successfully discussed various issues happening within the Industrial Forest Plantation industry which was categorized into four different sessions :

- Current Development in International Forest Plantation (4 papers);
- Current Development of Research and Development in Sarawak Plantation (6 papers);
- Community, Technology and Certification (3 papers);
- Other Potential Industrial Tree Species (4 papers).



**Seminar on Industrial Forest Plantation:
'Advancing Sustainable Forests Through Aggressive
Industrial Forest Plantation'**
4 - 5 November 2020

Session	Paper Title & Presenter
Current Development in International Forest Plantation Chairperson: Dr. Paul Chai	1. The Progress of Eucalyptus Hybrid Breeding in China by: Jian Zhong, Luo from China Eucalyptus Research Centre, Zhanjiang, China
	2. PAULOWNIA – The Cash Cow of Chinese Nation by: Prof. Jin San, Ye from Paulownia Research Centre of China, Zhengzhou, China
	3. Dipterocarps Plantation for Future Timber by: Andrian Fernandes from Dipterocarps Research Centre, Indonesia
	4. Prospect for Profitable Tree Plantation in Malaysian Borneo: The Importance of Research & Development by: Yani, Japaruddin from Sabah Softwood Sdn. Bhd., Tawau, Sabah
Current Development of Research and Development in Sarawak Plantation Chairperson: Dr. Arno Brune GP Pusaka Sdn. Bhd., Bintulu, Sarawak.	5. Survey and Assessment of Acacia mangium with Disease Incidence in Sarawak by: Dr. Mohd Farid Ahmad from Forest Research Institute Malaysia (FRIM)
	6. Genomic Resources for Accelerating Acacia Breeding by: Prof. Dr. Wickneswari Ratnam from Universiti Kebangsaan Malaysia (UKM)
	7. Taxa and Seed Source Trial Program by: Milicent Abdullah from Forest Department Sarawak (FDS)
	8. Mapping the Incidence of Ceratocystis spp. In Planted Acacia mangium Stands in Sarawak by: Jessica Diana from Forest Department Sarawak (FDS)
	9. Site, Species Choice and Breeding Strategy Deployed in GP Pusaka Sdn. Bhd. by: David B. James from GP Pusaka Sdn. Bhd., Bintulu, Sarawak
	10. R&D: A Key-Factor in Growing Sustainable Industrial Tree Plantations by: Francois Blignaut from Samling Reforestation, Bintulu, Sarawak

SEMINAR ON INDUSTRIAL FOREST PLANTATION Advancing Sustainable Forestry Through Aggressive Industrial Forest Plantation

18 NOVEMBER 2020

MAN, MIRI, SARAWAK, MALAYSIA

Session	Paper Titles & Presenters
Community, Technology, and Certification Chairperson: Mr. Paul Valentine Sarawak Planted Forest Sdn. Bhd.	11. Forest Management Certification of Industrial Tree Plantations in Sarawak – A Samling Perspective by: David Marsdsen from Samling Group, Miri, Sarawak
	12. Development of <i>Eucalyptus pellita</i> Volume Table for Sarawak Forest Plantation by: Ajmal Asraff Ibrahim from Forest Department Sarawak (FDS)
	13. DAIKEN: Conflict Resolution, Daiken Experiences by: Friendie Su from Daiken Sarawak Sdn. Bhd., Bintulu, Sarawak
Other Potential Industrial Tree Species Chairperson: Tuan Haji Hamzah bin Haji Morshidi Sarawak Timber Industry Development Corporation (STIDC)	14. Revotropix Paulownia: A New Sustainable Resource for Wood Industry by: EL Law from Green Afforestation International Network Sdn. Bhd.
	15. Potential of <i>Paulownia</i> sp. as A Plantation Species: Case Study of Paulownia Tree at Selangor Fruit Valley by: Prof. Madya Dr. Mohd Zaki Hamzah from Faculty of Forestry and Environment, Universiti Putra Malaysia (UPM)
	16. Paulownia as an Alternative Source of Wood for the Furniture Industry by: Prof. Dr. Jegatheswaran Ratnasingam from Faculty of Forestry and Environment, Universiti Putra Malaysia (UPM)
	17. Forest Plantation in Sabah with Emphasis Given on Three Selected Indigenous Tree Species by: Tuan Haji Anuar Mohammad from Sabah Forestry Department

**Seminar on Industrial Forest Plantation:
'Advancing Sustainable Forests Through Aggressive Industrial Forest Plantation'**
4 - 5 November 2020



Exhibitors from Sarawak Timber Industry Development Centre (STIDC), Sarawak Timber Association (features Ta Ann, WTK, KTS, ShinYang & Samling), TSG Green and Forest Department Sarawak.

Seminar on Industrial Forest Plantation:
'Advancing Sustainable Forests Through Aggressive Industrial Forest Plantation'
4 - 5 November 2020



The 'Question & Answer' sessions after every presentation by presenters.

"Zoom" application is used for participants from Sabah, West Malaysia, Indonesia and China.



Audit and Verification Works at License Planted Forests (LPF)



Top left photo:
Audit and Verification
Works at LPF/0027
Billion Venture Sdn. Bhd.

Bottom 1, 2, 3 & 4 photo:
Audit and Field
Verification on Progress
Planting at LPF/0011
KTS Sdn. Bhd.



Audit and Verification Works at License Planted Forests (LPF)



Continuation of Audit and Verification Works at
LPF/0017 Shin Yang Reforestation Sdn. Bhd.

Visit to TS Green Sdn. Bhd. – *Paulownia* spp. Tissue Culture Lab



Presentation of New Revised Policy to All Forest Regional Offices



The New Revised Policy was presented on 15 December 2020 via “Zoom” application.

Anap Sustainable Development Unit (ASDU) Meeting at Anap Muput Camp



On the 6th December 2020, the Anap Sustainable Development Unit (ASDU) meeting was organized at Anap Muput Camp. This meeting was also joined by Assistant Directors from Social Forestry Division and Preventive & Enforcement Division.

A photograph of two people in a forest. In the foreground, a person wearing an orange shirt, a wide-brimmed hat, and green and white striped socks is using a tool to cut a piece of bark from a tree trunk. In the background, another person wearing a green hijab and a patterned jacket is smiling and holding a piece of bark. The forest has many trees and green foliage.

04 SECTION 3

RESEARCH AND DEVELOPMENT

-
- FLR RESEARCH & DEVELOPMENT UNIT
 - INDUSTRIAL FOREST RESEARCH & DEVELOPMENT UNIT

Maintenance of Existing Plantation in Sabal (*Eucalyptus pellita* block – Block 7)



Photo caption:

- 1: *E. pellita* stands ;
- 2: Selective thinning of defective trees;
- 3: Grass cutting at main road shoulder;
- 4: Herbicides spraying;
- 5: Under brushing at *E. pellita* block.



Maintenance of Existing Plantation in Sabal (AEON & PBSM compartments – Block 2)



Counting of dead saplings along the planting line.



Putting up temporary shelter at site.



Line weeding at AEON compartment.



Establishment of Permanent Sample Plot at AEON compartment which includes activities of measuring sapling height (*left photo*) and tree tagging (*right photo*).

Maintenance of Existing Plantation in Sabal (Karas block – Block 3)



1

- 1: Briefing on field procedures to workers;
- 2: Blanket slashing;
- 3: Girdling of unwanted trees;



3



2

Release operation or liberation thinning were conducted at Karas block which includes removal of unwanted competing trees that over-topping the Karas trees.

Maintenance of Existing Plantation in Sabal Other Activities



Maintenance works such as weeding and grass cutting at Engkabang Jantung plot under the planting trial in Acacia block – Block 8.



The team collected terbulan (*Endospermum diadenum*) seeds.

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Monitoring and Assessment of Research Trial

There are 12 research trials that have been monitored and assessed between September to December 2020 and the activity comprises assessment for two progeny trials, and nine taxa-seed source trials at four plantations namely: Subur Tiasa, Billion Venture, Shin Yang and Polima.



*On-going assessment of stand (left) and trial ground-view (right)
at Subur Tiasa plantation.*

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Monitoring and Assessment of Research Trial



Photo 1 & 2:
The trial
monitoring and
assessment at
Billion Venture
plantation

Photo 3 & 4:
The trial
monitoring and
assessment at
Polima
plantation



Photo 5 & 6:
The trial
monitoring and
assessment at
Shin Yang
plantation

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Trial Conversion for Seed Production Areas



Selection within taxa-seed source trial were carried out for conversion purpose as SPAs establishment. Inferior trees were marked and removed during thinning exercise as shown in photos. Two new SPAs were established, which are:

F. moluccana at LPF/017 Shin Yang and *A. crassicarpa* at LPF/042 Polima, respectively in September and October 2020.



Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Coppicing of Tree Stands

Coppice induction was carried out at established SPAs, in preparation of cuttings for hedge garden establishment. The activity was carried out on *Acacia mangium* and *Eucalyptus pellita* at LPF/042, Polima in October. Few coppice induction methods were attempted such as stem girdle, branch cuttings, pollarding and marcotting.



Branch marcotting



Stem girdle



Stem pollarding



Coppices collection, 2-months after induction.

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Stem Borer Control and Mitigation in *Eucalyptus* sp.

- Status: On-going
- Location: LPF0042, Polima Lundu
- Plot assessed : *Eucalyptus pellita* stem borer management trial plot
- 180 trees in stem borer trial plot were assessed for pest and diseases incidence apart from targeted stem borer



Traps' servicing
during 2nd and
3rd assessment.



Sample
collection
during 3rd
assessment.



Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Stem Borer Control and Mitigation in *Eucalyptus* sp.



Stains found inside the tree trunk shows attacked by stem canker.



Borer tunnel found inside the tree trunk, however, no borer was found,
and the species is unknown

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Screening Disease Resistance of *Falcataria mollucana* (Batai) Seed Source Against Gall Rust Disease



The screening study location was chosen at LPF/0018 Seping, Shin Yang Bintulu. The nursery was selected because of the history in gall rust incidence which is an airborne disease.



The sowing activities were done at IFRC nursery due to poor germination of 1st batch seed lot sowed in LPF/0018, Seping's nursery.



Sowing is repeated at IFRC nursery with the addition of 13 seed lots originated from Indonesia, the Philippines, and local collection. Total of seedlings used are 325. Survival rate is 34.3 – 97.1%, with one seed lot showed poorest germination rate.

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Screening Disease Resistance of *Falcataria mollucana* (Batai) Seed Source Against Gall Rust Disease



Daily monitoring has been conducted since the screening study on October 2020. Then, monitoring and assessment were done by Shin Yang Forest (LPF/0018 Seping).

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Establishment of New Seed Production Area for *Cratoxylum arborescens* (Geronggang)



- Established at LPF42 (Polima) through Sampadi Forest Reserve area;
- During this trip we managed to recruit 35 mother trees, 13 trees at LPF42 Polima and 22 trees at Sampadi FR respectively;
- All the selected mother trees were numbered, assessed and recorded accordingly in the mother tree registration form;
- Only one tree was flowering at early stage.

Activities by the Researchers from Industrial Forest Research Centre (IFRC)

❑ Phenology Monitoring Works for *Cratoxylum arborescens* (Geronggang)

Phenology monitoring works were done at Sabal FR in October and Sabal FR & Sampadi FR in November 2020.

From the first trip to Sabal, out of the 24 mother trees, 5 trees (00007, 00018, 00019, 00020 & 00021) were found to be flowering at early stage in small quantity - code 1. Meanwhile, tree number 00013 at code 2 (medium) and lastly tree number 00011 at code 3 (abundance). Fruiting season was over for tree number 00001, 00005 and 00015.

For the second trip in November, number of flowering trees at Sabal FR were increasing from 5 to 13 trees with codes varying from 1-3. The trees are expected to bear matured fruits in early January 2021. While in Sampadi FR, 9 trees were found to be flowering at early stage, also with varying codes 1-3.



In Sampadi, three mother trees were uprooted (00002, 00012, and 00023) most probably due to strong wind, leaving mother trees left with only 32.

SUMMARY

LIST OF ACTIVITIES

Summary of Activities/Programmes under Section Forest Landscape Restoration

DATE	ACTIVITY	REMARKS
12 September	Tree planting programme with FORESSA and EMS Progress Sdn. Bhd. at Block 2, Planted Forest Model area of Sabal FR, Simunjan	4,744 trees are planted
14 – 27 September	Maintenance of Mangrove Planting Area in Coastal Areas, Kpg Jalan Giat Mara, Sebuyau	705 trees are planted
2 October	Tree planting and restoration programme at Bakam Government Reserve, Miri	1,890 trees are planted
1- 13 October	Maintenance and Monitoring of Tree Growth from FLR Programme with Samling	Kelesa Camp, Ulu Baram
22 October	Tree planting and restoration programme with FORESSA at Kanowit East FR, Sibul	1,614 trees are planted
8 – 23 October	Tree planting and restoration programme with the communities of Rh. Manggat, Batang Ai, Sri Aman	4,500 trees are planted
27 Nov – 6 Disember	Wilding Programme at Niah and Lambir	13,282 seedlling
12 December	Tree planting and restoration programme at Buntal Mangrove with Japan-Malaysia Association (JMA), Buntal Mangrove, Kuching	1,000 trees are planted
17 December	Tree planting and restoration programme at Labang FR,	320 trees are planted
18 December	Tree planting and restoration programme at Bintulu Golf Club, Bintulu	300 trees are planted
23 December	Program Penghijauan Malaysia: Kempen Penanaman 100 Juta Pokok Peringkat Negeri Sarawak	11 trees are planted

Summary of Activities/Programmes under
Section Industrial Forest

DATE	ACTIVITY
4 September	Dialogue session with local communities in Kampung Pa Puteh, Lawas.
5 - 8 September	Audit and Verification of Planting Progress at LPF/0027 Billion Venture Sdn. Bhd.
3 – 15 September	Maintenance work and research at Sabal Model Planted Forest
19 - 24 September	Audit in LPF/0011 Pusaka KTS Forest Plantation Sdn. Bhd. & LPF/0017 Shin Yang Forestry Sdn. Bhd.
15 October	Visit to TS Green Sdn. Bhd. – <i>Paulownia</i> spp. Tissue Culture Lab
19 – 21 October	Audit and Field Verification on Progress Planting at LPF/0011 PUSAKA KTS Sdn. Bhd.
22 – 24 October	Continued Audit for LPF/0017 Shin Yang Reforestation Sdn. Bhd.
4 - 5 November	Seminar on Industrial Forest Plantation: 'Advancing Sustainable Forestry Through Aggressive Industrial Forest Plantation, Pullman Miri Waterfront Hotel
6 December	ASDU Meeting at Anap Muput Camp
15 December	Presentation of New Revised Policy to All Forest Regional Offices via Zoom Meeting

Summary of Activities/Programmes under

Section Research & Development

DATE	ACTIVITY	REMARKS
FOREST DEPARTMENT SARAWAK		
September	<ul style="list-style-type: none"> Under-brushing at <i>Eucalyptus pellita</i> Block. Activities includes blanket slashing, low pruning and selective thinning and herbicides spraying. 	<i>Eucalyptus pellita</i> block, Sabal
	<ul style="list-style-type: none"> Maintenance works at AEON Compartment 	AEON Compartment, Sabal
October	<ul style="list-style-type: none"> Establishment of Permanent Sample Plot at AEON Compartment 	AEON Compartment, Sabal
	<ul style="list-style-type: none"> Weeding at Engkabang Jantung plot at Block 8 (under planting trial in Acacia Block) 	Block 8 (under planting trial in Acacia Block), Sabal
November	<ul style="list-style-type: none"> Release operation or liberation thinning at Karas Block (Block 3): removal (cutting or girdling) of unwanted competing trees that over-topping Karas trees 	Karas Block (Block 3), Sabal
December	<ul style="list-style-type: none"> Maintenance circle weeding and line weeding at PBSM compartment 	PBSM compartment, Sabal
	<ul style="list-style-type: none"> Selective thinning and low pruning at <i>Eucalyptus pellita</i> block 	<i>Eucalyptus pellita</i> block, Sabal
	<ul style="list-style-type: none"> Replacement planting at PBSM and AEON compartment 	PBSM and AEON compartment, Sabal
	<ul style="list-style-type: none"> Collection of Terbulan (<i>Endospermum diadenum</i>) seeds 	
INDUSTRIAL FOREST RESEARCH CENTRE (IFRC)		
September - December	<ul style="list-style-type: none"> Monitoring and assessment of 12 research trials Trial conversion for the establishment of Seed Production Areas (SPA) Coppicing of Tree Stands Stem borer control and mitigation in <i>Eucalyptus</i> Establishment of New SPAs for Geronggang trees Wilding collection 	



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