

ENVIRONMENTAL IMPACT ASSESSMENT REPORT



EXECUTIVE SUMMARY
THE PROPOSED 288.93 HECTARES (713.96 ACRES) OF FOREST PLANTATION DEVELOPMENT IN PART OF COMPARTMENT 129, 130, 131 AND 132 OF BUKIT IBAM FOREST RESERVE, MUKIM PENYOR, DISTRICT OF PEKAN, PAHANG DARUL MAKMUR

PROJECT TITLE

PROJECT DESCRIPTIONS

The Project site is in part of compartment 129, 130, 131, & 132. Bukit Ibam Forest Reserve with an area of 288.93 hectares (713.96 acres) which is in Mukim Penyor, District of Pekan, Pahang Darul Makmur.

The nearest small town is Chini Town which is approximately 8.6 km from the project site boundary.

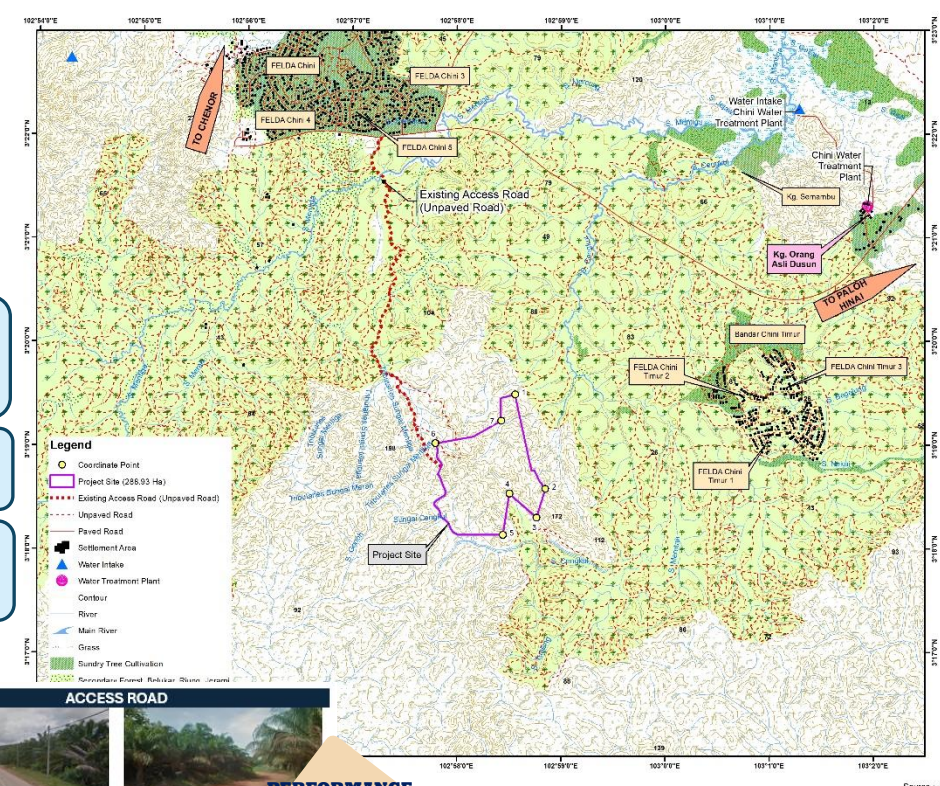
The closest village, Felda Chini Timur 1, is 4.07km from the planned project location. Additional communities located 4.47km and 4.33km from the project site, respectively, are Felda Chini Timur 2 and Felda Chini Timur 3.

ACCESS ROAD

The Project site can be accessed by traversing from Chini town head south, straight 150 meters to the roundabout and take the 2nd exit. Continue straight for 1.0km, turn left onto Jalan Bandar Chini (Route 2484).

Stay on Route 2484 Jalan Bandar Chini for 1km to reach the existing unpaved road on the right side of the road.

Then continue moving forwards for about 7.15km to reach the proposed Project site.



PROJECT LOCATION

PROJECT PROPONENT
BETTER TIMBER TRADING SDN BHD

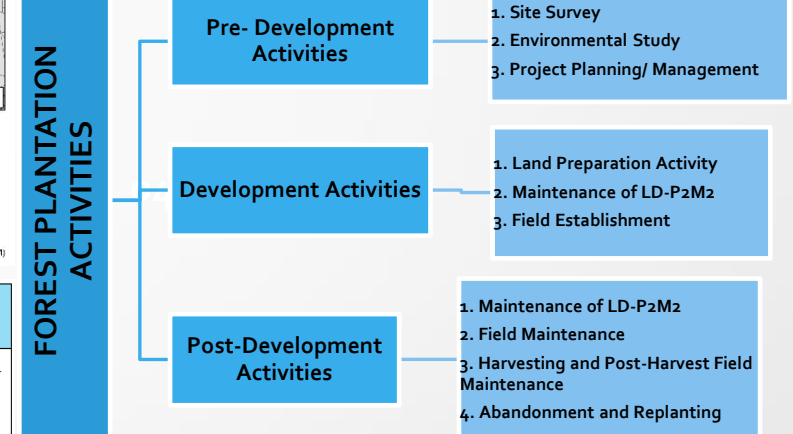
EIA CONSULTANT
ECO SYNERGY SOLUTIONS SDN BHD

LEGAL REQUIREMENT

Subject to Section 34A(1) of the Environmental Quality Act 1974 [127] and Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015, the project site fall under First Schedule;

"Activity 5(e) Forestry: Development of planted forest covering an area of 100 hectares or more but less than 500 hectares"

PROJECT ACTIVITIES



POTENTIAL IMPACTS AND MITIGATION MEASURES

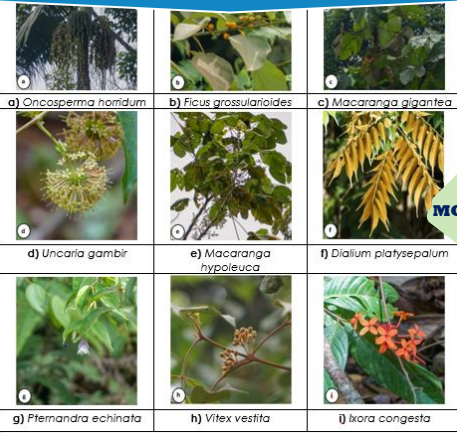
SIGNIFICANT POTENTIAL IMPACTS	MITIGATION MEASURES
Soil erosion and sedimentation	<ul style="list-style-type: none"> Scheduling and staging of the development. Minimizing soil erosion Plant cover crop. Prepare sediment trap. Retain buffer zone
Waste Generation a) Biomass waste b) Solid waste c) Scheduled waste	<ul style="list-style-type: none"> No open burning Provide garbage bins. Composting waste approach Proper storage area
Water Pollution Management a) Fertilizers, Pesticides and Herbicide b) Sewage and sillage c) Accident Spillage from Skid Tanks, Oil & Grease	<ul style="list-style-type: none"> Store fertilizers properly to prevent spills. Provide sanitary toilets, bathing facilities, and a proper piping system. Stored used oil in containers.
Air Pollution Management	<ul style="list-style-type: none"> Maintain the paved road with crushers run/gravel. Regularly service & maintain the vehicles. Strictly prohibit open burning at project site. Use proper personal protection equipment (PPE) on site including mask, glove
Noise Pollution	<ul style="list-style-type: none"> Use proper personal protection equipment (PPE) on site with ear plug. Regularly service and maintain vehicles and machinery. Keep a logbook to compile all complaints to address the issues promptly.
Flora and Fauna	<p>Flora</p> <ul style="list-style-type: none"> Logging planting activities Regularly monitor vegetation (site clearing, earthwork) Manage cut vegetation properly to prevent fires. <p>Fauna</p> <ul style="list-style-type: none"> Wildlife-Human conflict management strategies. Report incident. Prohibition of wildlife poaching Signage on prohibition of wildlife hunting or trapping.
Socio-Economy	<ul style="list-style-type: none"> Provide job opportunities to the community. Update progress & address problems to avoid misunderstanding. Improve signage and traffic guides.



PERFORMANCE MONITORING (PM)

LD-P2M2 Tools	Performance Monitoring (PM) Parameters	Recommended Limits	Monitoring Locations	Frequencies
Sediment Basin/Trap	Silt Marker	2/3 depth from sediment trap	Refer LD-P2M2 Conceptual Plan (Attachment 1)	Weekly or after rain event (in-situ) or subjected to the Condition of Approval (COA)
Perimeter Drain	Performance			
Riparian Buffer				
Cover Crop	Sediment Level		Subjected to the Condition of Approval (COA)	
Earth Drain with Check Dam				
Temporary or permanent waterway crossing (culvert/bridge)	Structure and Performance			

FLORA SPECIES FOUND



IMPACT MONITORING (IM)

Component	Regulated Parameters	Monitoring Locations	Frequencies
*Air Quality	PM ₁₀	Refer Figure 9.5.2	Subjected to the COA
**Noise	L _{Aeq}		
***Water Quality	Total Suspended Solids (TSS)	Refer Figure 9.5.2	Subjected to the COA
	Biochemical Oxygen Demand (BOD)		
	pH		
	Turbidity		
	Ammoniacal Nitrogen (NH ₃ -N)		
	Dissolved Oxygen (DO)		
	Chemical Oxygen Demand (COD)		

FAUNA SPECIES RECORDED



Avian: 20 species **Herpetofauna: 5 species** **Mammals: 11 species**

COMPLIANCE MONITORING (CM)

Component	Regulated Parameters	Applicable Standards	Monitoring Locations	Frequencies
*Air Quality	PM ₁₀	100 µg/m ³	Refer Figure 9.5.2	Subjected to the Condition of Approval (COA)
**Noise	L _{Aeq}	Day: 55 dBA Night: 50 dBA		
***Water Quality (Discharged from Sediment Trap/Basin)	Total Suspended Solids (TSS)	50 mg/L	Refer Figure 9.5.2 and LD-P2M2 Conceptual Plan (Attachment 1)	After 12.5 mm rainfall (using rain gauge)
	Turbidity	250 NTU		

NOISE LEVEL RESULT

N	Daytime	48.4
1	Nighttime	37.6
N	Daytime	50.8
2	Nighttime	39.7
N	Daytime	55.2
3	Nighttime	42.0

AIR QUALITY RESULT (PM₁₀)

A1	21.0
A2	32.0
A3	36.0

EXISTING ENVIRONMENT

Station	WQI	Class	Status
WQ1	87.04	II	Clean
WQ2	90.24	II	Clean
WQ3	88.27	II	Clean
WQ4	90.84	II	Clean
WQ5	91.99	II	Clean
WQ6	92.44	II	Clean
WQ7	88.69	II	Clean
WQ8	95.08	I	Clean
WQ9	92.88	I	Clean
WQ10	94.09	I	Clean
WQ11	88.30	II	Clean
WQ12	87.68	II	Clean
WQ13	89.48	II	Clean
WQ14	78.30	II	Slightly Polluted
WQ15	76.20	III	Slightly Polluted
WQ16	93.53	I	Clean
WQ17	88.92	II	Clean
WQ18	77.08	II	Slightly Polluted
WQ19	80.47	II	Slightly Polluted
WQ20	89.65	II	Clean
WQ21	93.96	I	Clean
WQ22	89.85	II	Clean

LAPORAN PENILAIAN KESAN ALAM SEKELING



LOKASI PROJEK

PENGERAK PROJEK
BETTER TIMBER TRADING SDN BHD

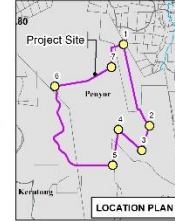
PERUNDING EIA
ECO SYNERGY SOLUTIONS SDN BHD



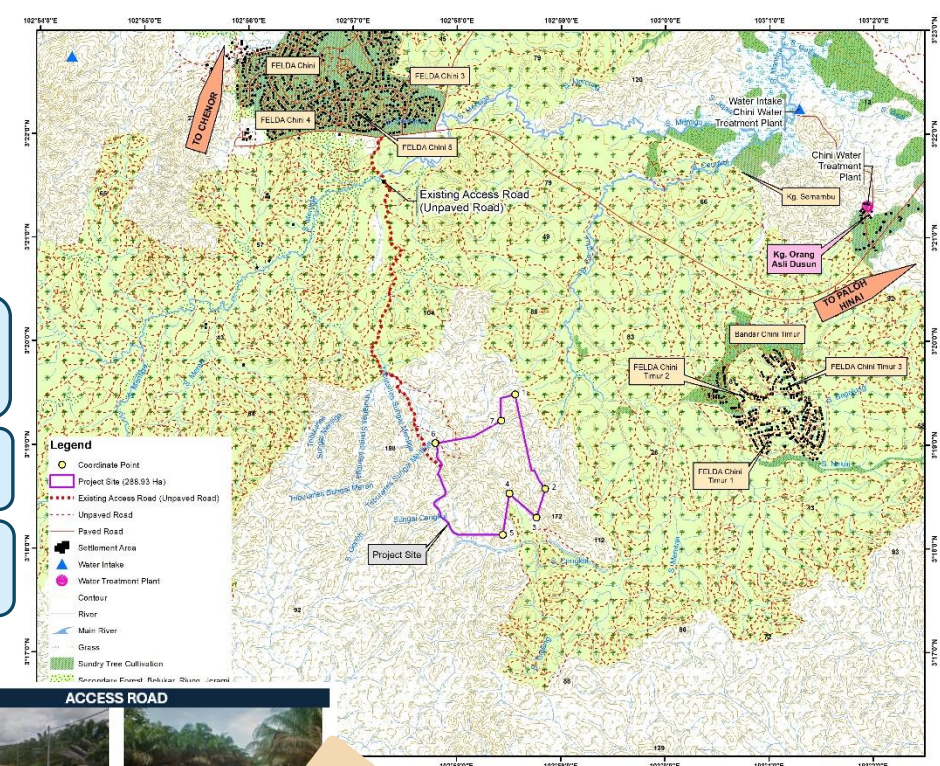
KEPERLUAN UNDANG-UNDANG

Tertakluk kepada Akta Kualiti Alam Sekeliling 1974 (Akta 127) dan Perintah Kualiti Alam Sekeliling (Aktiviti Yang Ditetapkan) (Penilaian Kesan Kepada Alam Sekeliling) 2015, kawasan kajian projek tertakluk pada Jadual Pertama:

"Aktiviti 5(e) Perhutanan: Pembangunan ladang hutan yang meliputi kawasan seluas 100 hektar atau lebih tetapi kurang daripada 500 hektar"



Source : Jabatan Lukur dan Pemetaan Malaysia (JUPEM)



Legend
 Coordinate Point
 Project Site (288.93 Ha)
 Existing Access Road (Unpaved Road)
 Unpaved Road
 Paved Road
 Settlement Area
 Water Intake
 Water Treatment Plant
 Contour
 River
 Main River
 Grass
 Sundry Tree Cultivation

RINGKASAN EKSEKUTIF
 CADANGAN PEMBANGUNAN LADANG HUTAN SELUAS 288.93 HEKTAR (713.96 EKAR) DI SEBAHAGIAN KOMPARTMEN 129, 130, 131 DAN 132 HUTAN SIMPAN BUKIT IBAM, MUKIM PENYOR, DAERAH PEKAN, PAHANG DARUL MAKMUR

TAJUK PROJEK

PENERANGAN PROJEK

Tapak Projek adalah sebahagian daripada kompartmen 129, 130, 131, & 132. Hutan Simpan Bukit Ibam berkeluasan 288.93 hektar (713.96 ekar) iaitu di Mukim Penyor, Daerah Pekan, Pahang Darul Makmur.

Pekan terdekat ialah Bandar Chini iaitu kira-kira 8.6 km dari sempadan tapak projek.

Kampung terdekat iaitu Felda Chini Timur 1 terletak 4.07km dari lokasi projek yang dirancang. Komuniti tambahan yang masing-masing terletak 4.47km dan 4.33km dari tapak projek ialah Felda Chini Timur 2 dan Felda Chini Timur 3.

LALUAN AKSES

Tapak projek boleh diakses dengan melalui selatan bandar Chini, lurus 150 meter ke bulatan dan mengambil jalan keluar ke-2. Terus lurus sejauh 1.0km, belok kiri ke Jalan Bandar Chini (Laluan 2484).

Tetap di Laluan 2484 Jalan Bandar Chini sejauh 1km untuk sampai ke jalan yang tidak berturap sedia ada di sebelah kanan jalan.

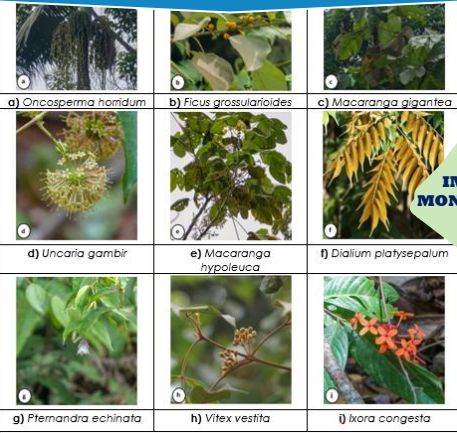
Kemudian terus bergerak ke hadapan sejauh kira-kira 7.15km untuk sampai ke tapak Projek yang dicadangkan



PERFORMANCE MONITORING (PM)

Alatan LD-P2M2	Parameter Pemantauan Prestasi (PM)	Had yang Disyorkan	Lokasi Pemantauan	Frekuensi
Lembangan Sedimen/Perangkap	Penanda kelodak	Kedalaman 2/3 dari perangkap sedimen	Rujuk Pelan Konsep LD-P2M2 (Lampiran 1)	Acara mingguan atau selepas hujan (in-situ) atau tertakluk kepada syarat kelulusan (COA)
Parit Perimeter	Prestasi			Tertakluk kepada syarat kelulusan (COA)
Penanaman Riparian				
Tanaman Penutup				
Parit tanah berserta Check Dam	Tahap Sedimen			
Laluan lintasan air sementara atau kekal (cuvert/jambatan)	Struktur dan Prestasi			

SPESIS TUMBUHAN YANG ADA



IMPACT MONITORING (IM)

Komponen	Parameter yang dikawal selia	Lokasi Pemantauan	Frekuensi
*Kualiti Udara	PM ₁₀	Rujuk Rajah 9.5.2	Tertakluk kepada COA
**Kualiti Bunyi	L _{Aeq}	Rujuk Rajah 9.5.2	Tertakluk kepada COA
	L _{max}		
	L _{min}		
	TSS		
	BOD		
	pH		
***Kualiti Air	Turbidity	Rujuk Rajah 9.5.2	Tertakluk kepada COA
	NH ₃ -N		
	DO		
	COD		

SPESIS HAIWAN YANG DIJUMPAI



Avian: 20 species **Herpetofauna: 5 species** **Mammals: 11 species**

COMPLIANCE MONITORING (CM)

Component	Parameter yang dikawal selia	Piawaian yang Berkenaan	Lokasi Pemantauan	Frekuensi
* Kualiti Air	PM ₁₀	100 µg/m ³	Rujuk Rajah 9.5.2	Tertakluk kepada syarat kelulusan (COA)
** Kualiti Bunyi	L _{Aeq}	Day: 55 dBA Night: 50 dBA	Rujuk Rajah 9.5.2	Tertakluk kepada syarat kelulusan (COA)
***Kualiti Air (Dilapaskan dari Perangkap Sedimen/Lembangan)	TSS	50 mg/L	Rujuk Rajah 9.5.2 dan Pelan Konsep LD-P2M2 (Lampiran 1)	Selepas hujan 12.5 mm (Mengggunakan tolok hujan)
	Turbidity	250 NTU		

NOISE LEVEL RESULT

N	Daytime	Nighttime
1	48.4	37.6
2	50.8	39.7
3	55.2	42.0

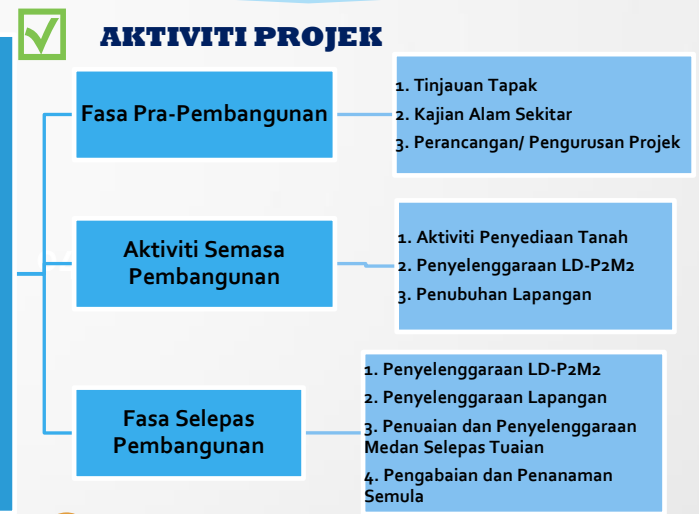
AIR QUALITY RESULT (PM₁₀)

A1	A2	A3
21.0	32.0	36.0

PERSEKITARAN SEDIA ADA

Station	WQI	Class	Status
WQ1	87.04	II	Clean
WQ2	90.24	II	Clean
WQ3	88.27	II	Clean
WQ4	90.84	II	Clean
WQ5	91.99	II	Clean
WQ6	92.44	II	Clean
WQ7	88.69	II	Clean
WQ8	95.08	I	Clean
WQ9	92.88	I	Clean
WQ10	94.09	I	Clean
WQ11	88.30	II	Clean
WQ12	87.68	II	Clean
WQ13	89.48	II	Clean
WQ14	78.30	II	Slightly Polluted
WQ15	76.20	III	Slightly Polluted
WQ16	93.53	I	Clean
WQ17	88.92	II	Clean
WQ18	77.08	II	Slightly Polluted
WQ19	80.47	II	Slightly Polluted
WQ20	89.65	II	Clean
WQ21	93.96	I	Clean
WQ22	89.85	II	Clean

AKTIVITI PEMBANGUNAN PERLADANGAN HUTAN



IMPAK KETARA DAN LANGKAH KAWALAN

IMPAK KETARA	LANGKAH KAWALAN
Hakisan tanah dan pemedapan	<ul style="list-style-type: none"> Penjadualan dan pemantauan pembangunan. Mengurangkan hakisan tanah Tanaman penutup tumbuhan. Sediakan perangkap sedimen. Mengekalkan zon penanaman
Penjanaan Sisa a) Sisa biojisim b) Sisa pepejal c) Buangan sisa terjadual	<ul style="list-style-type: none"> Tiada pembakaran terbuka Menyediakan tong sampah. Pendekatan pengkomposan sisa Kawasan penyimpanan "storage" yang betul
Pengurusan Pencemaran Air 1. Baja, racun perosak dan racun herba 2. Kumbahan dan sullage 3. Tumpahan Kemalangan dari Tangki Skid, Minyak & Gris	<ul style="list-style-type: none"> Simpan baja dengan betul untuk mengelakkan tumpahan. Menyediakan tandas, kemudahan mandi, dan sistem perpaipan yang betul. Menyimpan minyak di dalam bekas.
Pengurusan Pencemaran Udara	<ul style="list-style-type: none"> Kekalkan jalan berturap dengan "crushers run/gravel." Sentiasa menyelenggara kenderaan. Melarang keras pembakaran terbuka di tapak projek. Gunakan peralatan perlindungan diri (PPE) yang betul di lokasi termasuk topeng, sarung tangan
Pencemaran Bunyi	<ul style="list-style-type: none"> Gunakan peralatan perlindungan diri (PPE) yang betul di tapak dengan "ear plug". Sentiasa menyelenggara kenderaan dan jentera. Simpan buku tog untuk menyusun semua aduan untuk menangani isu dengan segera.
Flora dan fauna	<p>Flora</p> <ul style="list-style-type: none"> Aktiviti penanaman pembalakan Sentiasa memantau tumbuh-tumbuhan (pembersihan tapak, kerja tanah) Mengurangkan tumbuh-tumbuhan yang dipotong dengan betul untuk mengelakkan kebakaran. <p>Fauna</p> <ul style="list-style-type: none"> Strategi pengurusan konflik Hidupan Liar-Manusia. Larangan pemburuan haram hidupan liar Papan tanda larangan memburu atau perangkap hidupan liar.
Sosio-Ekonomi	<ul style="list-style-type: none"> Memberi peluang pekerjaan kepada masyarakat. Mengemaskini kemajuan & menangani masalah untuk mengelakkan salah faham. Meningkatkan papan tanda dan panduan lalu lintas.