

EXECUTIVE SUMMARY



"CADANGAN PROJEK PEMBANGUNAN LADANG HUTAN PELBAGAI SPESIS SELUAS 202.0 HEKTAR DI HSK GUNUNG STONG SELATAN, KOMPATMEN 73 (SEBAHAGIAN), 74 (SEBAHAGIAN) & 93 (SEBAHAGIAN), MUKIM ULU NENGGIRI, DAERAH BERTAM, JAJAHAN GUA MUSANG, KELANTAN DARUL NAIM."

PROJECT PROPONENT
CAHAYA HASIL JAYA SDN. BHD.
 PT 3461,
TAMAN DESA IMPIAN,
17500 TANAH MERAH,
KELANTAN DARUL NAIM.
 Tel / Fax : 09-9550437

ENVIRONMENTAL CONSULTANT
GREEN HOPE CONSULTANCY SDN. BHD.
 LOT 809, TINGKAT 2,
JALAN SRI CEMERLANG,
15400 KOTA BHARU,
KELANTAN DARUL NAIM.
 09-748 6848 09-747 6848
 EMAIL: greenhopecsb@gmail.com

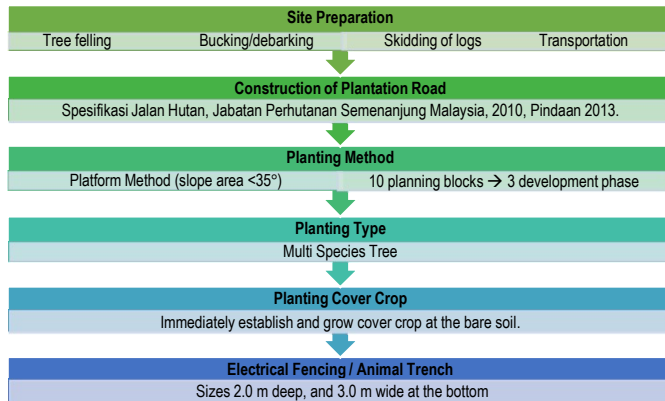
PROJECT LOCATION

- The proposed project site is located approximately 36.65 km north of Gua Musang town area and 5.30 km northwest of Kg. Jerek Baru community area.
- As for detail to reach the proposed project site is by using route D29 (Jelawang – Gua Musang). Then, it will take about 500 m of actual distance to reach the boundary of CHJSB.
- Based on "Rancangan Tempatan Jajahan Gua Musang (RTJGM) 2020", the proposed project site is located in permanent forest reserve area known as **HSK Gunung Stong Selatan, "Blok Perancangan (BP3): Bertam"** and **"Blok Perancangan Kecil (BPK) 3.7: Hutan Simpan Gunung Stong"**. – JPBD Negeri Kelantan - JPBD/PP/TT/185/6/110/JLD29 dated on 15th July 2024.
- No overlapped with any application or approval mineral tenement. – PTG Negeri Kelantan - PTG.KN.8/2/31Jld.5 (117) dated on 5th June 2024.

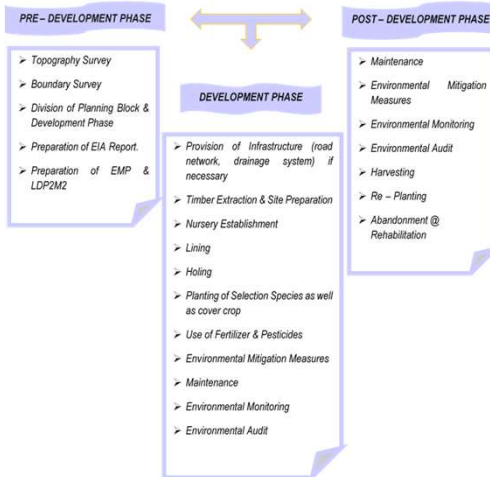
INTRODUCTION

This EIA report is prepared for "Cadangan Projek Pembangunan Ladang Hutan Pelbagai Spesies (202.0 hektar) Di HSK Gunung Stong Selatan, Kompamen 73 (sebahagian), 74 (sebahagian) & 93 (Sebahagian), Mukim Ulu Nenggiri, Daerah Bertam, Jajahan Gua Musang, Kelantan Darul Naim". The development of proposed project site will be carried out by project proponent **Cahaya Hasil Jaya Sdn. Bhd. (CHJSB)** after getting approval by **Kelantan State Government** through **Department of Forestry (DOF) Negeri Kelantan** for leasing period of fifty (50) years as related correspondence ref: PHN.KN.200/1/2750 (9) dated on 3rd March 2024 as attached in **Appendix A**.

PROJECT DESCRIPTION



MULTI SPECIES FOREST PLANTATION ACTIVITIES



LEGISLATIVE REQUIREMENTS

According to subsection 34A(1) of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015
 The project is subject to under First Schedule,
 *Activity 5(e) : development of planted forest covering an area of 100 hectares or more but less than 500 hectares"

STATEMENT OF NEED

Replanting or reforestation through the establishment of large-scale forest plantations is currently the best option for offsetting the supply of natural wood products from natural forests. Forest plantations have long been recognized as an important part of Malaysia's strategic development plan for effective management of forest resource. Forest plantation development is considered a strategic vehicle in supplementing sustainable timber supply for the wood-based industries in Malaysia.

Zone of Study (3-5 km Radius)

Socio-economic

- Population = Daerah Bertam 32,240 individuals with 17,206 male and 15,034 female
- Health and Disease Gua Musang = Malaria-114 case, Dengue-76 case & Leptospirosis-9 case
- Orang Asli Settlement =
 - Orang Asli Kuala Wok = 9.32 km (southwest)
 - Orang Asli Kuala Lah = 9.93 km (southeast)

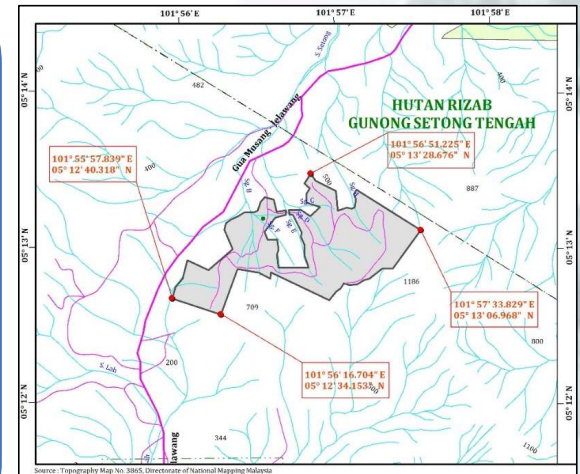


Biological

- Flora = 233 species
- Fauna = Bird-75 species, Mammal-30 species, Reptiles and amphibians-17 species
- CFS = D-Secondary Linkages 1 = 2.76 km northeast
- ESA = Rank 2

Physico-chemical

- Topography = Elevation 260 m-980 m
- Slope = <35° = 73 % (147.46 Ha), > 35° = 27 % (54.54 Ha)
- Geology = Silurian period
- Soil Series = Steepland
- Drainage System = **Sg. A, Sg. B, Sg. C, Sg. D, Sg. E and Sg. F** entering **Sg. Setong**. Secondly, Sg. Lah will move to enter **Sg. Nenggiri**. Next, both Sg. Setong and Sg. Nenggiri will flow into **Sg. Galas** and finally discharge into **Sg. Kelantan**.
- Water Treatment Plant = LRA Dabong/Stong = 11.07 km northeast
- Meteorology = Kuala Krai Meteorology Station
- Baseline Environmental Quality Water (8 stations) = WQI Class I & II
 Air Quality (A1 & A2) = 28 µg/m³
 Ambient Noise Level =
 Day-time = N1-54.1 dB(A), N2-62.9 dB(A),
 Night-time = N1-41.6 dB(A), N2-48.0 dB(A)



IMPACT MONITORING

Impacts	Regulated Parameter	Monitoring Locations	Frequencies
Water Quality Level	pH, Temperature, Turbidity, Dissolved Oxygen, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solid, Oil & Grease, Ammoniacal Nitrogen, Iron, Manganese, E.Coli	Eight (8) water sampling location has been selected for this proposed project site.	Quarterly
Noise Quality Level	Leq, Lmax, Lmin	Two (2) noise sampling location has been selected for this proposed project site.	Quarterly
Air Quality Level	Particulate Matter with the size of less than 10 micron(PM ₁₀)	Two (2) air sampling location has been selected for this proposed project site.	Quarterly

PERFORMANCE MONITORING

Monitoring Aspect	Monitoring Parameter	Compliance Limits	Monitoring Locations	Frequencies
- Sediment Trap - Sediment Basin	TSS, Turbidity	As per COA	At proposed sediment trap and sediment basin location as per shown in LD-P2M2 plan	Every two (2) weeks or when rainfall more than 12.5 mm
- Silt Fence - Road Side Drain - Sump	NA	NA	At location of silt fence, road side drain and sump within project site and sump	Every week or per rainfall event

SIGNIFICANT POTENTIAL IMPACT & POLLUTION PREVENTION AND MITIGATION MEASURES (P2M2)

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Surface Runoff Soil Erosion Sedimentation </div>	<ul style="list-style-type: none"> ➤ Regular inspection and maintenance of the structures to ensure their performance efficiency, especially after heavy storm events. ➤ Ensuring drainage, soil erosion and sediment control measures are properly designed, constructed and maintained to provide water quality protection and to prevent the transportation of sediment. ➤ Implementation of activity by planning block and development phase. ➤ Do a scheduling to reduce the amount and duration of soil exposed. ➤ Preserving of existing vegetation or also known as sensitive areas have been identified within the proposed project area namely buffer zone, riparian zone and slope areas of more than 35°. ➤ Prepare sediment fence, sump, check dam, silt trap and sediment basin at appropriate location as shown in LDP2M2 plan.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Water Pollution </div>	<ul style="list-style-type: none"> ➤ Fertilizers and agrochemical such as pesticides and weedicides must not be applied during the rainy days and monsoon season. ➤ Workers must use fertilizers and agrochemical following the prescribed dosage and should be split to minimize losses. ➤ The entire storage area should be surrounded by a concrete dike or other equivalent structure designed to contain any spillage of the waste. ➤ Any surface water runoff should be directed to an appropriate drainage system in order to keep water out of the storage area. ➤ Use environment-friendly insecticides or pesticides. ➤ Septic tank facility provided shall comply with all regulations stipulated in the Environmental Quality (Sewage) Regulations 2009. ➤ Recycled oil, grease, and lubricant from machinery or other equipment may not be dumped into the river, adjacent waterway, or surrounding ground. ➤ The workshop's drainage system needs to have an oil and grease trap installed. ➤ Skid tanks have to be placed at least 50 meters away from a river on stable ground that is not prone to flooding. They also need to be bunded. ➤ Carry out water quality monitoring every three (3) months. ➤ No open burning can be carried out within the proposed project site. ➤ Organize a recycling campaign at the base camp so that employees can separate recyclable wastes.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> WASTE PRODUCTION Biomass Wastes Solid Wastes Scheduled Wastes </div>	<ul style="list-style-type: none"> ➤ Solid wastes are banned being discharged into river systems. ➤ Project proponent should notify workers not to burn the solid waste. ➤ Empty agrochemical and fertilizer containers need to be stored in a designated place away from heat sources to prevent explosions. ➤ Clear signage must be placed at appropriate area to reduce risks of explosions. ➤ The entire storage area must be fenced-in and regarded as restricted area. ➤ Empty container is prohibited from being disposed into river system and onto ground. ➤ Label all containers as scheduled waste with clear label according to the type of waste. ➤ All scheduled waste must be disposed off at a licensed premise. ➤ The notification, inventory and consignment note of scheduled waste generated should register on Electronic Scheduled Waste Information Systems (eSWIS) at https://eswis.doe.gov.my.

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Air Pollution </div>	<ul style="list-style-type: none"> ➤ Reducing the dispersion of dust from unsealed road by limiting the vehicles speed. ➤ Maintain the sealed road with crusher run or gravel to protect the earth surface from precipitation and dry weather. ➤ Vehicles should be regularly serviced and maintained to reduce undesirable emissions. ➤ Open burning is absolutely forbidden for employees to do. ➤ The usage of generator set in the site has to comply with the Environmental Quality (Clean Air) Regulation 2014. ➤ Apply dust suppression measures when required. ➤ Clean up dusty spills immediately. ➤ Pave haul roads and storage areas. ➤ Reduce the speed limits on unpaved surfaces . ➤ Rinsing vehicles before they leave the project site and tightly cover loaded trucks.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Noise Pollution </div>	<ul style="list-style-type: none"> ➤ Installing silencers or using quieter machinery. ➤ Modifying existing old equipment with damping materials and mufflers. ➤ Work should be limited to daytime hours only. ➤ Maintaining noise barriers to reduce the diffusion of noise. ➤ Vehicles and machineries shall be regularly serviced and maintained. ➤ The supervisor must keep a logbook to compile all complaints and address the issues immediately.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Ecology (Flora & Fauna) </div>	<ul style="list-style-type: none"> ➤ Allocation of riparian buffer zone and other potential preserved areas. ➤ Tree Protection Zone (TPZ) for protected species. ➤ Open burning as a means of disposing of cut vegetation is strictly prohibited. ➤ The site preparation should be heading towards to the existing remaining forest and habitats and must not be fragmented. ➤ Any trapped, disoriented and injured wild animal must be rescue and relocate to nearest suitable and secured habitats. ➤ Installing a "No Hunting" and "No Trespassing" signage at appropriate locations. ➤ Any illegal hunting and poaching activities should be informed to the project management immediately and must be reported to related enforcement agencies.

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Socio-economy </div>	<ul style="list-style-type: none"> ➤ Project proponent need to spread the news of job vacancy to the local community especially living adjacent to the proposed project site. ➤ Construct a new access route or make improvements to the existing one to the advantage of the labour force. ➤ The route's present condition might be improved with the addition of suitable signage and traffic signals. ➤ Provide enough utilities and amenities to the base camps. ➤ The contact between workers and local inhabitants must also be monitored in order to avoid any problems caused by a lack of awareness of local culture and values. ➤ Foreign workers must undergo a Fomema checkup before entering site to prevent the spread of vector disease.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Health and Disease </div>	<ul style="list-style-type: none"> ➤ To stop the disease from spreading among development workers or the surrounding population, the project's proponent should implement appropriate hygiene measures. ➤ Workers must receive comprehensive training on how to operate equipment and follow safe operating procedures. ➤ To routinely evaluate the laws governing what must be done to protect employees' welfare and health while they are at work. ➤ Carry out scheduled inspections on the workplaces, to identify dangers, including unsafe actions by the employees at the workplace. ➤ Observing and evaluating current existing precautions such as hand washing and food-handling practices. ➤ Creating and enforcing explicit guidelines about attendance at institutions, such as barring or quarantining infected clients and personnel. ➤ Immunization of workers at significant risk of infection.
<div style="border: 1px solid #4a7ebb; padding: 5px; width: fit-content; margin: 0 auto;"> Traffic </div>	<ul style="list-style-type: none"> ➤ Road entrance must properly maintain and have to follow Department of Forestry (DOF) guidelines. ➤ The traffic movement of vehicles should be done during working hours only. ➤ Provide a proper safety road signage system. ➤ Undertake regular maintenance of road network to minimize and control road damage. ➤ A traffic management plan is necessary to accommodate heavy vehicular traffic to and from the project site. ➤ To ensure future traffic to and from the project site is smooth and congested-free, improvements to road infrastructure are required. ➤ Materials should be moved in and out of the project site without impeding the road traffic.

CONCLUSION

✓The development of proposed project could enrich back the tree sources and directly increase the productivity of forest & could generate state government revenue.

✓The significant impacts that predicted for the project can be mitigated, managed and minimized.

✓The success of the development in integrating with the surrounding areas will contribute to the social acceptability.

✓It is anticipated that the development can be conducted with the context of a sustainable development through strict commitment and supervision on-site.