

EXECUTIVE SUMMARY

"CADANGAN PROJEK PEMBANGUNAN LADANG HUTAN SELUAS 404.0 HEKTAR DI HSK SUNGAI BROK, KOMPATMEN 68, 69 & 83 (SEBAHAGIAN), MUKIM ULU NENGGIRI, DAERAH BERTAM, JAJAHAN KECIL GUA MUSANG, KELANTAN DARUL NAIM".

PROJECT PROPONENT:
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INTRODUCTION

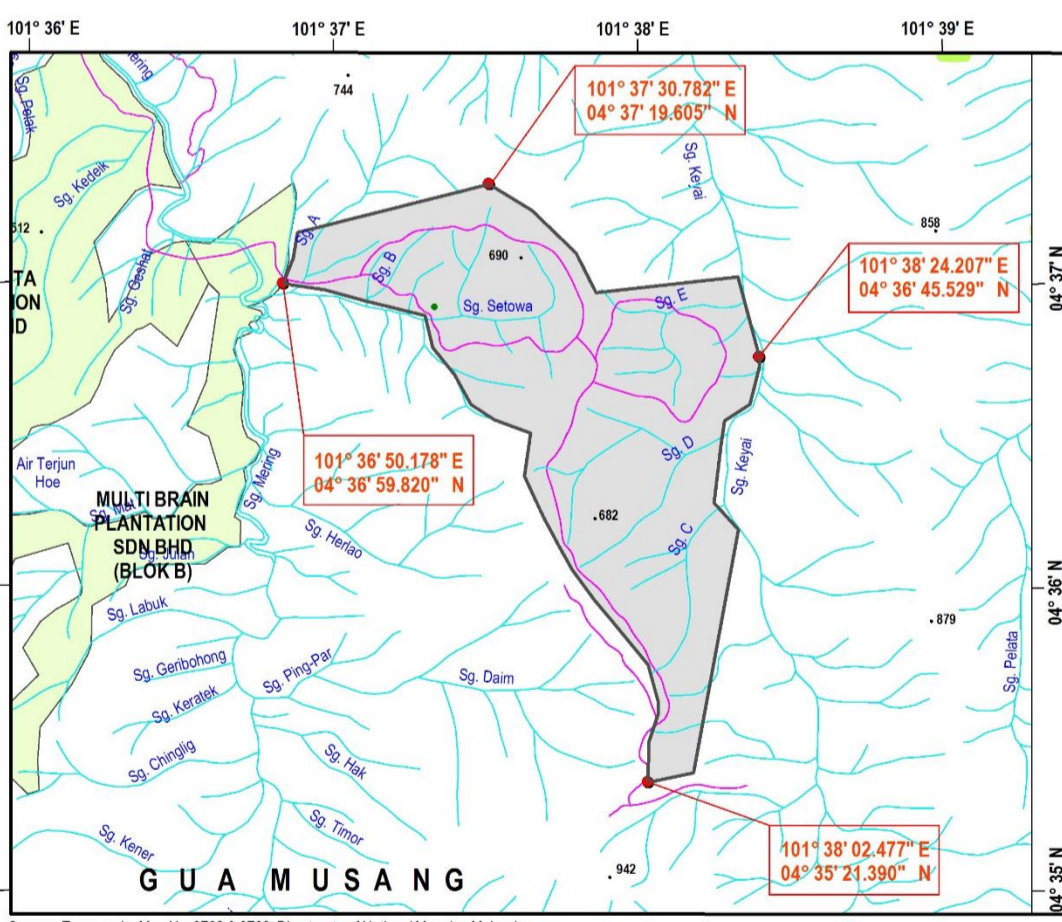
This EIA is prepared for "Cadangan Projek Pembangunan Ladang Hutan Seluas 404.0 Hektar Di HSK Sungai Brok, Kompamen 68, 69 & 83 (sebahagian), Mukim Ulu Nenggiri, Daerah Bertam, Jajahan Gua Musang, Kelantan Darul Naim". Zaman Anggun Sdn. Bhd (ZASB) has been approved by from Department of Forestry (DOF) Negeri Kelantan to undertake a forest plantation project within HSK Sungai Brok. This approval is granted by Kelantan state government through DOF Negeri Kelantan and documented in the official letter dated 8th October 2022, with reference number PHN.KN.200/1/2654(12). The project involves the establishment and management of forest plantation within the specified area under a 50-year land use permit.

LEGISLATIVE REQUIREMENTS

According to subsection 34A(1) of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015
 The activity 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"

PROJECT LOCATION

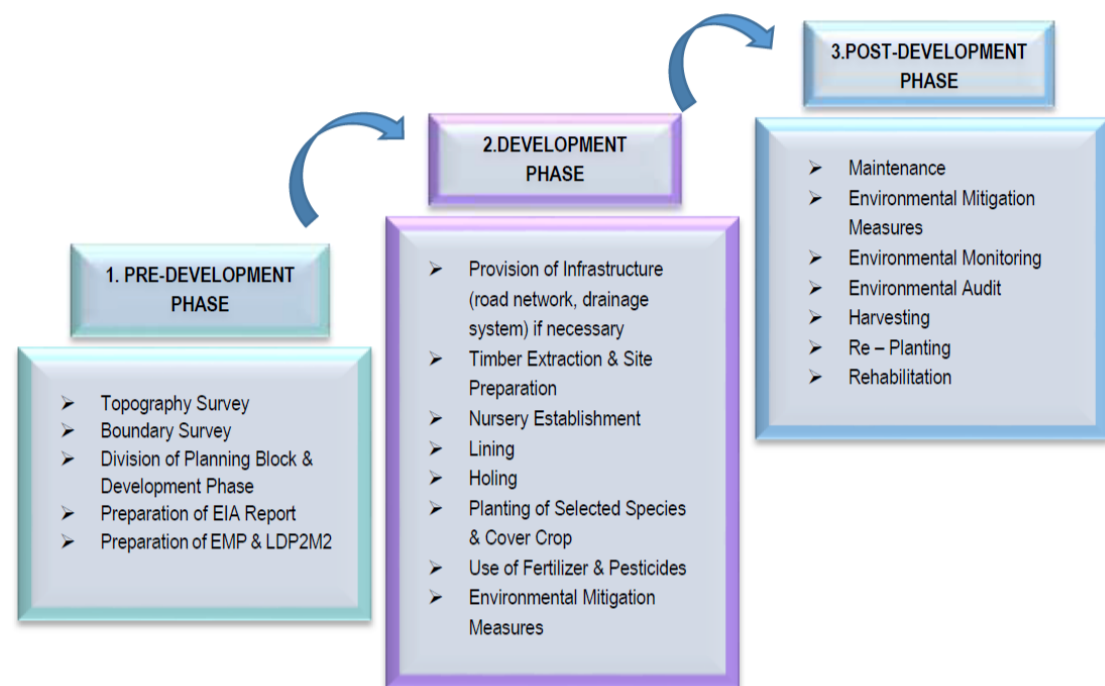
- The proposed project site is located approximately 30.53 km northeast of Cameron Highlands town area and 9.80 km southeast of Orang Asli Kg. Mendrod community area.
- As for detail to reach the proposed project site is through route D185 (Gua Musang - Lojing / Cameron Highlands) and approaching three-way junction at the project site of Nexsyn Plantation Sdn. Bhd., it takes roughly 15.35 km to reach the boundary of ZASB project site.
- Based on "Rancangan Tempatan Jajahan Gua Musang (RTJGM) 2020 (Pelanjutan Tempoh Sehingga Tahun 2025) (No Warta : 583 bertarikh 15 April 2021)", the proposed project site is located in permanent forest reserve area known as HSK Sungai Brok, "Blok Perancangan (BP4): Lojing" and "Blok Perancangan Kecil (BPK) 4.4: Hutan Simpan Sungai Betis & Sungai Berok". – JPBD Negeri Kelantan - JPBD/PP/T/185/6/1110/JLD30 dated on 22nd April 2025 .
- The proposed project does not overlap with any application or approval of mineral tenement. – PTG Negeri Kelantan - PTG.KN.8/2/31Jld.5 (113) dated on 21st April 2024.



STATEMENT OF NEED

One potential approach to mitigate the decreasing availability of natural timber supply from natural forests is the implementation of large-scale forest plantations, commonly referred to as replanting or reforestation. The strategic development plan for the management of Malaysia's forest resources has consistently acknowledged the significant role of forest plantations.

PROJECT DESCRIPTION



EXISTING ENVIRONMENT

Zone of Study (3-5 km Radius)

- Surrounded - HSK Sungai Brok, HSK Sungai Betis & eight (8) neighbouring plantations.

Biological

- Flora = 291 species
- Fauna = Bird-72 species, Mammal-20 species, Reptiles and amphibians-17 species
- CFS = D-Primary Linkages 1 (5.35 km south)
- ESA = Rank 1

Socio-economic

- Population = Daerah Bertam 32,240 individuals with 17,206 male and 15,034 female
- Health and Disease Gua Musang = Malaria-116 case, Dengue-117 case & Leptospirosis-96 case
- Orang Asli Settlement = Kg. Mendrod (9.80 km northwest)

Physico-chemical

- Topography = Elevation 380 m-800 m
- Slope = <35° = 85.80% (346.63 Ha), 35° - 40° = 11.40% (46.06 Ha), > 40° = 2.80% (11.31 Ha)
- Geology = Silurian period
- Soil Series = Steepland
- Drainage System = Sg. Setowa → Sg. Mering & Sg. Keyai → Sg. Brok → Sg. Nenggiri → Sg. Galas → Sg. Kelantan
- Nearest Water Treatment Plant = LRA Lojing (15.64 km west)
- Meteorology = RPS Kuala Betis & Cameron Highlands Meteorology Station
- Baseline Environmental Quality
 - Water (10 stations) = WQI Class I & II (Clean)
 - Air Quality (A1 & A2) = 28 µg/m³ & 14 µg/m³
 - Ambient Noise Level = Day-time = N1-59.0 dB(A), N2-62.3 dB(A), Night-time = N1-48.4 dB(A), N2-46.0 dB(A)

COMPLIANCE MONITORING

Environmental Component	Regulated Parameter	Applicable Standards	Monitoring Locations	Frequencies
River Water Quality	Total Suspended Solids (TSS)	National Water Quality Standards for Malaysia (NWQSM)	Ten (10) water monitoring location has been selected for this proposed project site.	Quarterly
Noise Level	Leq	Permissible Sound Level	Two (2) noise monitoring location has been selected for this proposed project site.	Quarterly
Air Quality	Particulate Matter with the size of less than 10 micron (PM10)	Malaysia Ambient Air Quality Standard	Two (2) noise monitoring 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 12.5 mm
- Silt Fence - Road Side Drain - Sump	NA	NA	At location of silt fence, road side drain and sump within project site	Every week or per rainfall event

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

POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
-Surface Runoff -Soil Erosion -Sedimentation	<ul style="list-style-type: none"> Implemented and maintain the overall of LDP2M2 component. Regular inspection and maintenance of the structures to ensure their performance efficiency, especially after heavy storm events. All drainage, soil erosion and sediment control measures must be properly designed, constructed and maintained to provide water quality protection and prevent the transportation of sediment. Implementation of activity by block basis and development phase. 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° and classified as "undeveloped area". Prepare sediment fence, sump, check dam, silt trap and sediment basin at appropriate location as shown in LDP2M2 plan. Workers must use fertilizers and agrochemical following the prescribed dosage and should be split to minimize losses. Any surface water run-off should be channelled to a proper drainage system to avoid the water from entering 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. Used oil, grease and lubricant from machineries or other equipment should not be disposed into the river, water channel nearby or ground. Drainage system around the workshop area must be equipped with oil and grease trap. Skid tanks must be located on stable ground which not prone to flood phenomenon with bunding and sited at least 50m away from the waterway.
- Water Pollution	<ul style="list-style-type: none"> Open burning is prohibited. Project proponent should notify workers not to burn the solid waste. Implement recycling campaign at the base camp where workers can segregate the recyclable wastes. Proper storage area must be built to store empty agrochemical and fertilizer container and must be kept away from heat to prevent explosion. 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. All scheduled waste must be disposed off at a licensed premise. The notification, inventory and consignment note of scheduled waste generated should register on eSWIS at https://eswis.doe.gov.my.
- Air Pollution	<ul style="list-style-type: none"> Vehicles should be regularly serviced and maintained to reduce undesirable emissions. Maintain the sealed road with crusher run or gravel to protect the earth surface from precipitation and dry weather. The usage of generator set must adhere to Environmental Quality (Clean Air) Regulation 2014. Apply dust suppression measures when required. Clean up dusty spills immediately. Reduce the speed limits on unpaved surfaces. Rinsing vehicles before they leave the project site and tightly cover loaded trucks.
- Noise Pollution	<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. Noise barriers like existing vegetation shall be maintained to minimize noise diffusion. Vehicles and machineries shall be regularly serviced and maintained. The supervisor must keep a logbook to compile all complaints and address the issues immediately.
-Ecology (Flora & Fauna)	<ul style="list-style-type: none"> Allocation of riparian buffer zone and best management practices. Prohibition of wildlife poaching and trapping. Any human-wildlife conflict in the proposed project site should be reported to the DWNP. Installing unharmed deterrent such as ditch or electric fence for larger species. Seek consultation with the DWNP for developing a contingency plan to resolve potential wildlife encroachment to the plantation area.
- Socio-economy	<ul style="list-style-type: none"> Project proponent to advertise and hire people from the communities to work in the proposed project site. Construct a new access road or expand the existing road for the workers. Existing road condition needs to be upgraded by having proper signage and traffic guides. Supply enough utilities and amenities to the base camps. The interaction between staff and local citizens must also be supervised in order to prevent any issues created by a lack of understanding of local culture and values. Foreign workers must undergo a Fomema checkup before entering site and have to be vaccine in order to prevent the spread of vector disease.
- Health and Disease	<ul style="list-style-type: none"> The hygiene factor should be a good practice by the project proponent to guide the plantation worker to avoid any disease in workplace and maintain a good environment. Workers should receive proper and sufficient instruction in the use of machinery as well as appropriate working procedures. Must regularly evaluate the legal requirements in order to guarantee the health and well-being of employees while they are at work. Conduct routine workplace inspections to find hazards, such as employee behaviour that puts them at risk. Assist in the organization of safety and health encouragement and education programmes at the workplace. Avoid contact with others while you are sick with an infectious disease. Do not drink from or swim in water that could be contaminated.
- Traffic & Transportation	<ul style="list-style-type: none"> Road entrance must properly maintain and must follow DOF guidelines. The traffic movement of vehicles should be done during working hours only. A proper safety road signage system shall also provide. 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. 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.

