

EXECUTIVE SUMMARY

PROJECT PROPONENT
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INTRODUCTION

This EIA report is prepared for the proposed of **Forest Plantation**. The establishment of the proposed project will be taken place at HSK Balah, Compartment Part of 249, Part of 250, Part of 265 and Part of 266, Mukim Ulu Nenggiri, Daerah Bertam, Jajahan Gua Musang, Kelantan Darul Naim with an area of 306.0 Ha @ 756.13 acres. **Rizqah Plantation Sdn. Bhd. (RPSB)** as project proponent has getting approval by **Kelantan State Government** through **Department of Forestry (DOF) Negeri Kelantan** to develop the proposed project area with leasing period of fifty (50) years as related correspondence reference number: JPNK 200/1/2673 dated on 26th June 2023.

LEGISLATIVE REQUIREMENTS

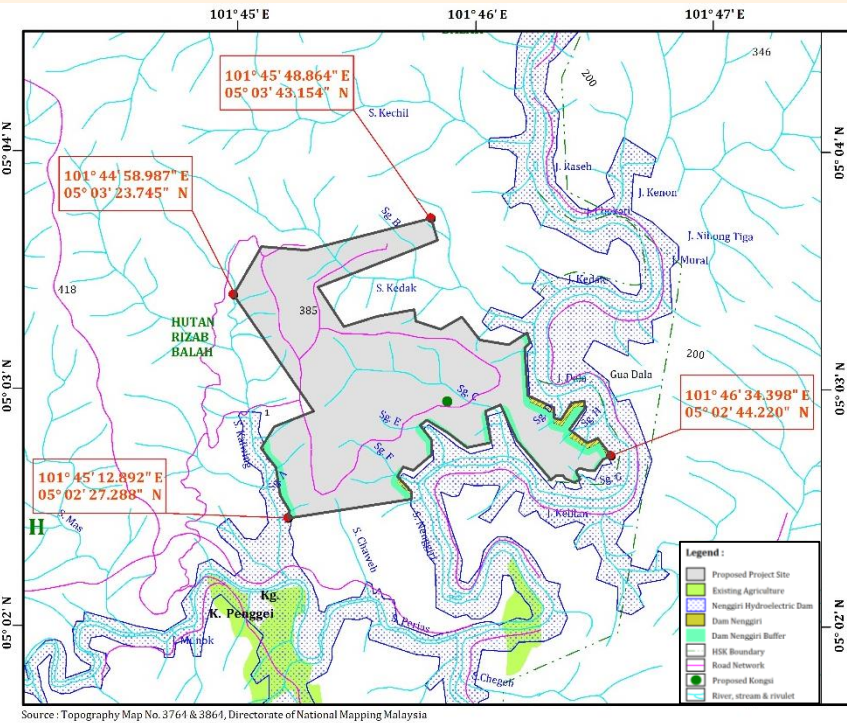
According to subsection 34A(1) of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015

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”

PROJECT DESCRIPTION

The project proponent's goal is to boost the productivity of the current forest by planting of *Albizia* species timber trees. It will consist of three (3) primary development stages which are pre-development, development, and post-development. **RPSB** will undergo the timber extraction, site preparation activity then followed by the planting of *Albizia* trees. Fifteen (15) blocks will be executed in stages, which is divided into three (3) phases of development. The planting activity will be carried out with two (2) method which terracing (slope <25°) and platform (slope >25° - 35°) method. *Albizia* species tree is expected to reach the maturity and ready to be harvested after 10 years of planting.



A PROPOSED OF FOREST PLANTATION (306.0 HA), AT HSK BALAH, COMPARTMENT PART OF 249, PART OF 250, PART OF 265 & PART OF 266, MUKIM ULU NENGGIRI, DAERAH BERTAM, JAJAHAN GUA MUSANG, KELANTAN DARUL NAIM.

STATEMENT OF NEED

In an effort to stop the decline in the amount of lumber available from natural resource forests, replacing the forest with fast-growing, carefully chosen species such *Albizia falcataria* (also known as *Paraserianthes falcataria*) and increase timber marketability for export to foreign markets. Fast-growing species must be planted as part of a compensatory forest plantation initiative to prevent a potential shortage of wood products in Malaysia.

Zone of Study
(3-5 km Radius)

- ❖ Surrounded - HSK Balah, HSK Nenggiri & 8 neighbouring plantations.
- ❖ Community Settlement = Kg. Kuala Penggei, Kg. Kuala Jenera & Kg. Kuala Cha
- ❖ Tandak Air = Dam Kg. Tohoi Baru, Tandak 1 & Tandak 2

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 =
 - a) Pos Tohoi = 1.20 km (north)
 - b) Gemalah = 3.16 km (southeast)
 - c) Khlong Jenera = 3.52 km (south)

EXISTING ENVIRONMENT

Biological

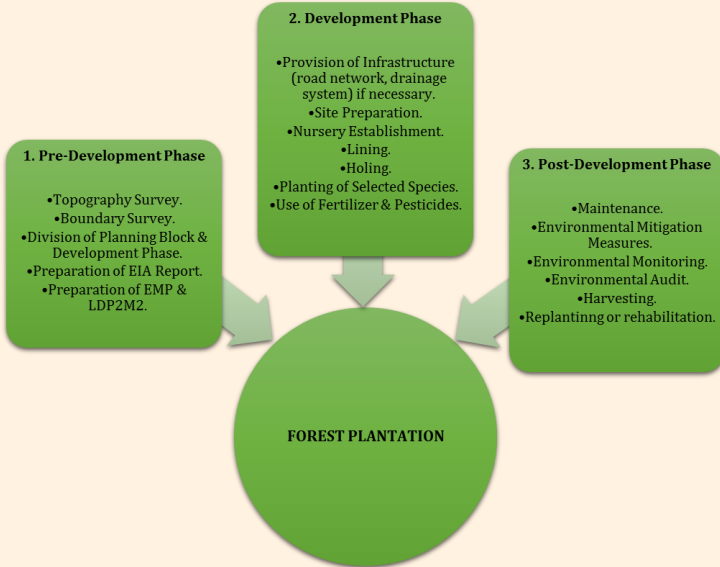
- ❖ Flora = 219 species
- ❖ Fauna = Avian-82 species, Mammals-23 species, Herpetofauna-20 species
- ❖ CFS = D-Secondary Linkages 1 = 29.12 km northeast
- ❖ ESA = Level 2 & Level 3

Physico-chemical

- ❖ Topography = Elevation 140 m-380 m
- ❖ Slope = <25° = 69% (211.14 Ha), > 25° = 31% (94.86 Ha)
- ❖ Geology = Permian period
- ❖ Soil Series = Steepland
- ❖ Drainage System = Sg. Kalwing, Sg. Chaweh → Sg. Perias, Sg. Kedak, Sg. Dala → Sg. Nenggiri → Sg. Galas → Sg. Kelantan
- ❖ Water Treatment Plant = LRA Panggung Lalat = 16.15 km south
- ❖ Meteorology = RPS Kuala Betis & Cameron Highlands Meteorology Station
- ❖ Baseline Environmental Quality Water (9 stations) = WQI Class I & II
- ❖ Air Quality (A1 & A2) = 14 µg/m³
- ❖ Ambient Noise Level =
 - Day-time = N1-62.2 dB(A), N2-49.9 dB(A), Night-time = N1-44.8 dB(A), N2-42.4 dB(A)

PROJECT LOCATION

- ❖ The proposed project site is located approximately 27.86 km west of Gua Musang town area, 0.74 km north of Kg. Kuala Penggei community area and 1.20 km north of Orang Asli Pos Tohoi community area.
- ❖ As for detail to reach the proposed project site is by using route at Kg. Kuala Betis and D185 (Gua Musang - Lojing). Then, the proposed project site can be accessed through SK Kuala Betis and it will take about 21.06 km journey to reach the site boundary of **RPSB**.
- ❖ Based on “Rancangan Tempatan Jajahan Gua Musang (RTJGM) 2020”, the proposed project site is located in permanent forest reserve area known as HSK Balah, “*Blok Perancangan (BP4): Lojing*” and “*Blok Perancangan Kecil (BPK) 4.5: Hutan Simpan Gunung Stong Selatan & Sungai Betis*”.



COMPLIANCE MONITORING

Environmental Components	Regulated Parameter	Applicable Standards	Monitoring Locations	Frequencies
River Water Quality	pH, Temperature, Turbidity, Dissolved Oxygen, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solid, Oil & Grease, Ammoniacal Nitrogen, Iron, Manganese, E. Coli	Refer to Condition of Approval	Nine (9) water sampling location has been selected for this proposed project site	Quarterly
Noise Level	Leq, Lmax, Lmin	Refer to Condition of Approval	Two (2) noise sampling location has been selected for this proposed project site	Quarterly
Air Quality	Particulate Matter PM ₁₀	Refer to Condition of Approval	Two (2) air sampling location has been selected for this proposed project site	Quarterly

PERFORMANCE MONITORING

P2M2 Tools	Performance Monitoring (PM) Parameter	Recommended Limits	Monitoring Locations	Frequencies
Silt Trap	TSS	50 mg/L	Refer LD-P2M2 plan	Quarterly
	Turbidity	250 mg/L		

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

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
➤ Surface Runoff ➤ Soil Erosion ➤ Sedimentation	➤ Install crossing drain with certain interval at the plantation road for minimising the overland flow occur during rainstorm event. ➤ Ensuring that all 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 block basis and development phase. ➤ Do a scheduling to reduce the amount and duration of soil exposed. ➤ The preserved 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° for planting activity. ➤ Prepare sediment fence, sandbag barrier, sediment basin, check dam and sediment trap at appropriate location.
Water Pollution	➤ 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 run-off should be channeled to a proper drainage system to avoid the water from entering the storage area. ➤ Use environment-friendly insecticides or pesticides. ➤ The septic tank facility provided shall comply with all regulations stipulated in the Environmental Quality (Sewage) Regulations 2009. ➤ Used oil and 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 waterways.
WASTE PRODUCTION ➤ Biomass Wastes ➤ Solid Wastes ➤ Scheduled Wastes	➤ Zero burning technique enhances the soil organic matter status, thus help to restore and improve the fertility and physical status of soils. ➤ Solid waste must be segregated by the waste type. ➤ Implement recycling campaign at the base camp where recycling campaign at the base camp where workers can segregate the recyclable wastes into PET bottles, glass bottles, and other waste (mixed wastes). ➤ Solid wastes are prohibited from being discharged into river systems. ➤ Project proponent should notify workers not to burn the solid waste. ➤ Proper storage area must be built to store empty agrochemical and fertilizer container and must be kept away from heat to prevent explosion. ➤ 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.

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
Air Pollution	➤ 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. ➤ Regularly service and maintained the vehicles to reduce undesirable emissions. ➤ Workers are strictly prohibited to carry out open burning at site. ➤ 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 areas. ➤ Reduce the speed limits on unpaved surfaces . ➤ Rinsing vehicles before they leave the project site and tightly cover loaded trucks.
Noise Pollution	➤ 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 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)	➤ Strictly no burning of biomass which jeopardize the flora community. ➤ Preservation of riparian zones with existing natural vegetation along stream. ➤ Original forest and habitat especially along rivers are preserved to serve as refuge/habitat for some medium and small sized wildlife and fauna ➤ Set up rules to strictly prohibit any workers and outsiders from hunting in any part of the project or the surrounding areas. ➤ If the fauna are to feed on or damaging the crops, they should be dealt humanely with the advice and in compliance to regulations by the authorities.

CONCLUSION

- ✓The development of proposed project could enrich back the tree sources and directly increase the productivity of *Albizia* species & 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.

SIGNIFICANT POTENTIAL IMPACTS	POLLUTION PREVENTION & MITIGATION MEASURES (P2M2)
Socio-economy	➤ Project proponent should advertise the job offer to the community. ➤ The project proponent also has to monitor the level of air pollution in order to anticipate any fugitive dust generation from the operations that are being evaluated. ➤ Existing road condition needs to be upgraded by having proper signage and traffic guides. ➤ Supply 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.
Health and Disease	➤ The project proponent is also obligated to provide them with the essential amenities and benefits on the proposed project site, such as worker housing for short-term stays with a proper bathroom, as guidelines by National Water Service Commission (SPAN). ➤ The project proponent shall make effective use of the hygiene element to assist plantation workers in preventing infections at work and maintaining a clean environment in accordance with DOE requirements. ➤ All heavy machinery and vehicles used on the project site, including trucks, tractors, excavators, and others, should always be maintained in the best possible condition. ➤ Workers must receive comprehensive training on how to operate equipment and follow safe operating procedures. ➤ To protect people from hazards in the workplace and to make sure they are using something correctly, workers should be given suitable clothing, boots, and personal protective equipment (PPE). ➤ Carry out scheduled inspections on the workplaces, to identify dangers, including unsafe actions by the employees at the workplace, and subsequently discuss the result of the inspection with the employer and suggest necessary improvement measures. ➤ Reviewing injury and illness, first aid and workers compensation records. ➤ Changing the equipment or processes (for example, replacing rotating taps with lever taps, replacing bars of soap with disposable liquid hand-wash dispensers or cloth hand towels with paper towels) ➤ Good housekeeping to establish and maintain hygienic environments. ➤ Development and implementation of safe work practices and procedures.
Traffic	➤ Road entrance must properly maintain and must 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. ➤ Improvements in road infrastructure necessary to ensure traffic to and from the project site is smooth with low congestion. ➤ Materials should be moved in and out of the project site without impeding the road traffic.