

EXECUTIVE SUMMARY

1.0 INTRODUCTION

The proposed project shall be titled “Projek Pembangunan Ladang Tanaman Getah Seluas 400 Hektar, TSK (OA) RPS Banun, Gerik, Perak Darul Ridzuan”. Hereafter in this report, it shall be referred to as the “Project”. The proposed plantation will be on a on a piece of land covering about 400 ha at TSK (OA) RPS Banun, Gerik, Perak Darul Ridzuan.

Wiranda (M) Sdn. Bhd. has been engaged by RISDA Plantation Sdn. Bhd. as the EIA Consultant to compile this report for submission to the Department of Environment, Ministry of Natural Resources and Environment as required by under Section 34A of the Environment Quality Act 1974 for activities prescribed under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 1987 (EIA Order). This report has to be submitted to state DOE for evaluation and approval.

2.0 PROJECT DESCRIPTION

The proposed project site can be accessed by east-west highway connecting the Gerik, Perak and Jeli, Kelantan. The nearest town is Gerik small town about 78 km to the west proposed project site, whilst Jeli, Kelantan located about 69 km to the northeast of the proposed project site.

The proposed project has been designed to maintain and sustain as an agro forestry project. The concept of plantation forest will be the main aim of the project. The main crop to be planted is rubber.

3.0 EXISTING ENVIRONMENT

a) Topography

The proposed project site is located approximately between latitude 5° 32' N and 5° 35' N and longitude of 101° 25' E and 101° 27' E. The proposed project site area is hilly and undulating with elevation between 447 meter and 527 meters above mean sea level.

Generally, land slope of the project site is classified under Class II and Class III (hilly, angel of slope 15° - 25° for Class II whilst 25° - 35° for Class III).

b) Land Use

The surrounding area comprises mainly agricultural activities, forests and a few indigenous community settlement areas 3-km radius. However, the proposed project area is enclosed to virgin forest namely Temenggor Forest Reserve. The nearest human settlement from the proposed project site is Kg. Air Banun and Kg. Sg. Raba.

c) Climate and Meteorology

The site has a tropical monsoon climate with well-distributed mean total annual rainfall of 1862.57 mm (Mean Total Annual Rainfall 1996 – 2006) and the highest rainfall occurs during the north east monsoon. The year generally the mean daily temperature is about 26.7 °C with the highest temperature is 34.1 °C. Mean minimum temperature is 23.1 °C with lowest temperature occurred in December. The highest mean daily relative humidity is about 83% occurs in April and May.

d) Hydrology and Water Resources

The existing drainage in the area marked for development can be demarcated into two catchments. Two main rivers serve these catchment areas. It is Sungai Banun and Sungai Raba. The flood frequency estimates for these rivers just beyond the project boundary were carried out using the Drainage and Irrigation Department Hydrological Procedure No. 5 and Urban Stormwater Management Manual for Malaysia (MASMA).

e) Water Quality

Based on the laboratory analysis carried out on water sampled from the rivers within the proposed project site, all sampling points showed that the existing water quality of the rivers are clean (Class I and Class II).

The range of BOD concentration is between less than 5mg/l to 7 mg/l. From the result, all test parameters were complied with INWQS, Class IIB limits. Average

Suspended Solid (SS) concentration at all stations were also complied with INWQS, Class IIB limits.

f) Air Quality

Generally, the air quality at the proposed site is good due to its existing condition (forest area). There are no industrial activities nearby or other potential pollution sources that might contaminate the existing air quality in the proposed project area.

The existing concentration of the different parameters measured in and around the proposed site complied with the Recommended Malaysian Air Quality Guidelines values and the air quality can be considered as good due to its natural condition.

g) Noise Level

The main sources of noise were from the natural inhabitants such as bird, mammals, and insects. These noise sources can be considered as natural noise which will not affect humans adversely. The readings showed that the noise was complied with the The Planning Guidelines for Environmental Noise Limits and Control.

h) Solid Waste

Solid wastes generated during land clearing and construction phase will accrue from the clearing of trees and other minor vegetation. It is suggested that these plant wastes be mercerized and converted into compost for use later as soil

conditioner in landscaping activities in the project area. Excess wastes may be disposed off into an appropriate landfill.

i) Flora and Fauna

Land clearing and earthwork activities during project development are expected to cause complete destruction of the flora in the proposed site. However, all of the species found within the proposed project site was common vegetation in Malaysia and there should not be danger of extinction as far as biodiversity is concerned. Therefore, land clearing and earthwork activities will not cause any significant lost of flora in the proposed project site.

The impacts on fauna due to this development are expected to be non significant. It is anticipated that most of the larger reptiles, mammals and the birds' population would safely migrate out of the proposed project site into adjacent area during land clearing activities. Perhaps, there would be a very minimal indirect impact to the fish population through changes of water quality. Since the impact would be very minimal, it could be easily overcome.

4.0 POTENTIAL IMPACT

a) Soil Erosion

During the land clearing stage of the Project, the potential of soil erosion and subsequent sediment pollution are anticipated to occur. However the potential of the soil erosion at the proposed project can be reduce through the application of all mitigation measures to control the erosion.

b) Water Pollution

As a result of soil erosion, the finer soil particles may be washed into the watercourses. This will reduce surface water quality as the total suspended solid level increases. Naturally, along with these changes, the colour and turbidity may also deteriorate. Besides, the impacts of agricultural fertilizer and chemicals that find their ways into the groundwater and surface water on water quality of these water sources are of major concern.

c) Air Pollution

Air pollution as a result of plantation development will not be significant as the impacts are mostly temporary and short term in nature. The air pollution may arise from the use of machinery and vehicles, such as excavators, lorries, trucks, tractors, bulldozers, cranes, chainsaws, and pile drivers in different stages of the development such as land clearing and preparation and construction of infrastructure. This may cause temporary air pollution from emission of exhaust gases and smoke from the combustion of fossil fuels.

Besides, the spraying of agrochemicals in controlling weeds, pests and diseases will inevitably introduce chemical pollutants into the air in the form of spray droplets suspended in the air and swept away by wind. Again, this source of atmospheric pollution is temporary in nature and can be easily minimized with proper mitigation.

d) Noise Pollution

Noise pollution could be associated with the use of various machinery and vehicles. Noise emission from machinery and vehicles is rather short term and relatively insignificant in the plantation which is far away from any residential area.

The impacts of noise, whether negative or positive, would depend on the sentiment of the individual affected. Noise emitted from machinery and vehicles is normally considered to be nuisance and may prove disturbing to some people.

e) Floods

Land clearing, felling and underbrushing activities, and other acts of removing surface ground cover will result in a decrease in rain interception and therefore surface retention of rain water. Amount of runoff will increase and time of concentration (collection) of storm water in the catchment will decrease. Hence, it is anticipated to increase the river discharge and thus potential for flooding. However, the impacts as such are only temporary in nature and non significant when the rubber trees and cover crops are established.

The project proponent may have to provide sufficient number of silt ponds at various strategic locations to trap silts from cleared areas.

f) Loss of Biomass from Ecosystem

The project will require the clear felling of the forest. Such activities will trigger migration of fauna such as reptiles, avian and large mammals into the surrounding

forest. Clearing of rivers and streams to mitigate floods may have adverse effect on the habitats of aquatic life. However, these impacts are anticipated to be transient as the rivers and streams will be recolonized eventually when the aquatic environment stabilizes.

5.0 RESIDUAL IMPACTS

The proposed development shall have some residual impacts on the environment. Negligence, oversight and low maintenance practice could result in incidences related to geology such as soil erosion, sedimentation, and soil loss. Meanwhile the hydrology impacts (siltation and water quality deterioration), air pollution, noise and solid waste problems probably may occur. Hence, a comprehensive and integrated environmental planning is required to ensure that all the residual impacts on the human environment can be minimized.

6.0 MONITORING AND AUDIT

Monitoring is necessary to ensure that environmental quality objectives both, within and outside of the project area are being met. Environmental audit shall be carried out at least once a year to look for non-compliance to the DOE procedures and standards. The following list shows the areas that would require monitoring either for the purpose of compliance with regulations or for The Project Proponent's management policies (within an EMP framework):

- Water quality upstream, within and downstream of the project area;
- Hydrology and soil erosion;
- Wastewater discharges into nearby streams from the planting area;
- Efficiency of solid waste management practices.

7.0 CONCLUSION AND RECOMMENDATION

The EIA study has attempted to clarify and address the environmental impacts associated with the project with regard to physical, ecological and socio-economic issues. The deductions and interpretations were based on the best available information and the studies carried out as outlined in earlier sections of the EIA report. Several measures are recommended throughout the planting and maintenance phase of the proposed project and it is concluded that the potential environmental impacts that would be created by the various project activities will be mostly insignificant. Some of the more significant issues can be mitigated to acceptable levels. The project's potential beneficial impacts far outweigh the residual impacts. Therefore, from the environmental and socio-economic standpoint, this project is indeed highly acceptable.