

CHAPTER 1

CHAPTER 1: INTRODUCTION

1.1 PROJECT TITLE

The project is entitled "**MEMBINA JALAN DARI SUNGAI LEMBING KE JERANTUT (REKABENTUK)**" (hereinafter referred to as "the Project"). It has been changed from the earlier title of "*Membina Jalan Baru Dari Sg. Lembing Ke Jerantut (Fasa 1), Pahang*" following the instruction from the Project Proponent (refer **Appendix 1-1**).

1.2 BACKGROUND

The plan to construct a new road to provide direct linkage between Sungai Lembing and Jerantut has been gazetted in the Kuantan and Jerantut District Local Plans 2004 – 2015. A feasibility study has been conducted in 2000 - 2002, which recommended the construction of about 35 km of new road from Sungai Lembing to Felda Lepar Utara in order to establish a direct road linkage between Sungai Lembing and Jerantut.

Gunung-Ganang Corporation Sdn. Bhd. (GGC) has been appointed by the *Ketua Pengarah Kerja Raya Malaysia* via the *Surat Setuju Terima* [Ref. No.: Bil.(43)JKR.CAST(S).060.100/006 dated 30th January 2013] to conduct a Preliminary Environmental Impact Assessment (PEIA) study for the abovementioned Project.

Penilaian Awal Tapak (PAT) had been submitted to the Department of Environment (DOE) Pahang. The Project is subjected to PEIA procedures as stated in the DOE's letter dated 22nd April 2013 [Ref.: AS:C50/013/500/002(8); as attached in **Appendix 1-2**].

1.3 PROJECT LOCATION AND SCOPE

The location of the proposed Sungai Lembing – Jerantut road is shown in **Figure 1.3.1**. The scope of the Project is to establish a road linkage between Sungai Lembing and Jerantut, via:

i. Construction of Sungai Lembing – Felda Lepar Utara Road

This road section represents the missing link between Sungai Lembing and Jerantut; and is the focus of the Project where road construction work will be undertaken.

A preliminary road alignment has been designed where the proposed road will originate at Kuala Kenau in Sungai Lembing (CH:0+000 at E 103° 02' 58.3" and N 03° 55' 56.7"), crosses Sg. Kenau and navigates westerly in tandem with Sg. Kuantan to reach Felda Lepar Utara to join the existing Felda road at E 102° 47' 50.7" and N 03° 53' 34.4".

The total road length is about 35 km (reduced from the original length of about 55 km), with right-of-way of 60 m width. Therefore, a total land area of about 210 hectares will be affected. The first two kilometres, more or less, of the proposed road will traverse orchards, farmlands and secondary forest. Thereafter, about 26 km of the road will cut through Reman Cereh Forest Reserve and Berkelah Forest Reserve; and the last stretch of about 7 km is traversing the oil palm plantation in Felda Lepar Utara. The 35 km road is located within the District of Kuantan.

ii. Continual Use of Existing Felda Lepar Utara – Jerantut Road

This section comprises of about 35 km of the existing Felda road from Felda Lepar Utara to Jerantut, passes by Felda Sungai Tekam and Felda Kota Gelanggi, with a stretch of about 25 km located within the Tekam Forest Reserve. Most of the existing road is located within the District of Jerantut.

No developmental activity will be undertaken along this section of the road.

1.4 LEGISLATIVE REQUIREMENTS

1.4.1 ENVIRONMENTAL QUALITY (PRESCRIBED ACTIVITIES) (ENVIRONMENTAL IMPACT ASSESSMENT) ORDER 1987

Construction of road and its usage are not listed as Prescribed Activity under the *Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987*. However, evaluation of the Project's scope indicated that:

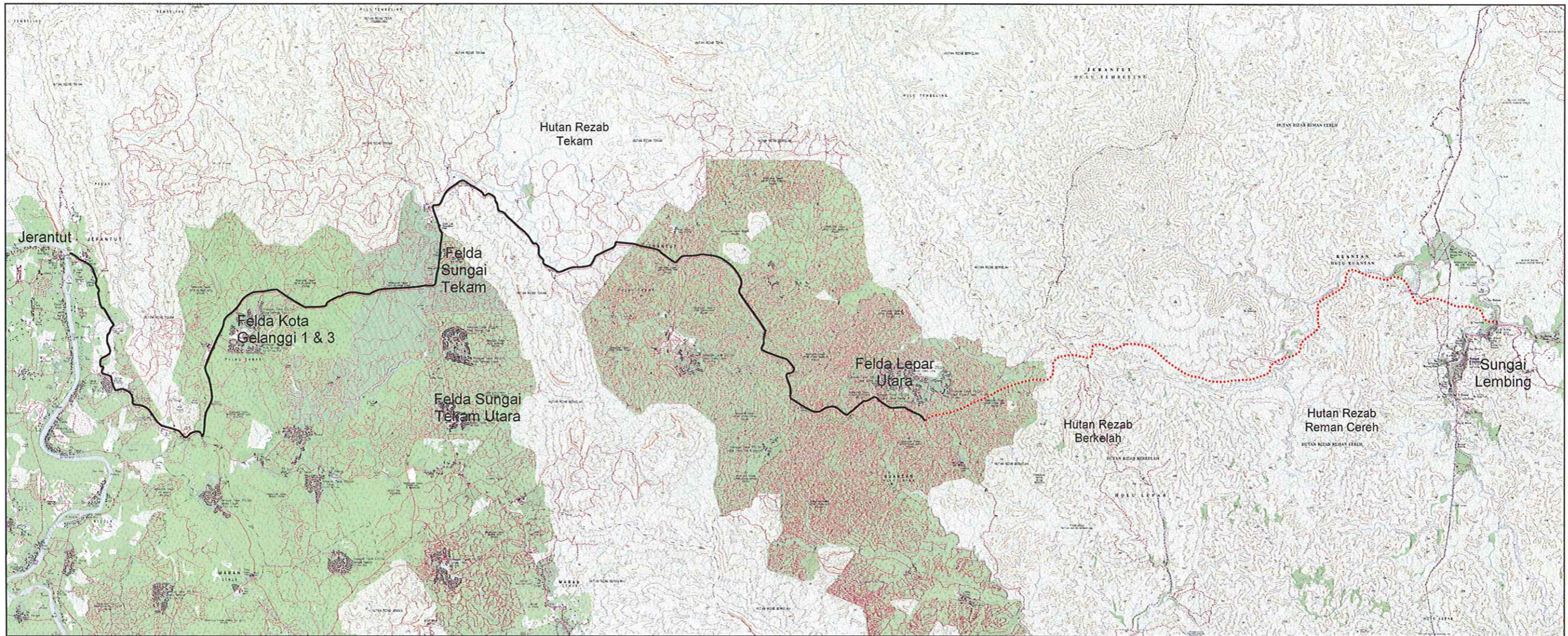
i. Construction of Sungai Lembing – Felda Lepar Utara Road

Construction of the 35 km Sungai Lembing – Felda Lepar Utara road section will convert about 156 ha of hill forest land in Reman Cereh and Berkelah Forest Reserves to other land use. The road construction activity will also affect about 42 ha of Felda oil palm plantation and 12 ha of private and State lands at Sungai Lembing.

This development activity meets the prescription as a Prescribed Activity in accordance to *Item 6: Forestry (a) Conversion of hill forest land to other land use covering an area of 50 hectares or more of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 under Section 34A of the Environmental Quality Act 1974 (EQA)*. To this respect, impact assessment and submission of an Environmental Impact Assessment (EIA) Report to the Director General of Environmental Quality is mandatory.

The EIA Report shall contain descriptions of the existing environment, emphasising on the environmental components within the corridor that may be affected by the road construction activity, and are of particular significance to the Project. The report will be completed with assessment of the impacts or likely impacts of the road construction

Figure 1.3.1: The Sungai Lembing – Jerantut Road



Legend:

	Proposed New Road (Sungai Lembing to Felda Lepar Utara)		
	Existing Road (Felda Lepar Utara to Jerantut)		

Source: JKR, 2013; Jurutera Perunding Zaaba Sdn. Bhd., Kajian Kemungkinan Cadangan Jalan Jerantut-Sg. Lembing, Pahang Darul Makmur, Final Report, Main Volume, July 2002.

activity on the environment and the proposed measures that shall be undertaken to prevent, reduce or control the adverse impact on the environment.

ii. **Continual Use of Existing Felda Lepar Utara – Jerantut Road**

The section of existing road from Felda Lepar Utara to Jerantut will be used to complete the road linkage from Sungai Lembing to Jerantut. No developmental activity has been planned or will be undertaken along this section of the road in the near future.

The continual use of the existing road section to complete the proposed road linkage does not alter the existing land use or exert any significant adverse impact to the surrounding environment. In addition, the activity is not a Prescribed Activity as it does not meet any prescription of the *Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987*.

1.4.2 OTHER LEGISLATIONS

In carrying out the PEIA, along with the above statutory requirements, other relevant legislations are also referred to insofar as they may have direct and indirect relevance to the Project. These legislations and their stipulated standards, wherever applicable, will form the environmental legislative requirements governing the development of the Project. They also represent the requirements that have to be fulfilled during the implementation of the Project. These environmental legislations, amongst others, include:

i. **Environmental Quality (Sewage) Regulations 2009**

This Regulation is provided for under Sections 21, 24, 25 and 51 of the *Environmental Quality Act 1974* (EQA) for the control of sewage discharged from the sewage treatment system. Any sewage discharge from the Project site (e.g. construction office and workers' camp) will need to meet the discharge standard stipulated under the *Environmental Quality (Sewage) Regulations 2009* because a water intake is located at Sg. Kuantan downstream of the Project site.

ii. **Environmental Quality (Clean Air) Regulations 1978**

The Clean Air Regulations, made under Section 51 of the EQA, have provisions for control of air pollutants from various air polluting activities. In relation to the Project, it will provide for the abatement of wind-blown emissions which do not fall within the ambit of this Regulation. Fugitive emissions are, however, very important as they affect the health of those living in the vicinity. Therefore, air quality modelling will be carried out in this PEIA to gauge the range and extent of the fugitive dust over the area for mitigation purposes even though it does not fall within the ambit of the fugitive emissions regulations.

iii. **Environmental Quality (Scheduled Wastes) Regulations 2005**

This Regulation, made under Sections 21 and 51 of the EQA, relates to the management and control of toxic and hazardous wastes. It is applicable to the generation, collection, storage, handling, transportation, treatment and disposal of

such wastes. For the Project, scheduled wastes are expected to be generated during the construction stage and thus are subjected to these regulations.

iv. Environmental Quality (Control of Emission from Diesel Engines) Regulations 1996 and Environmental Quality (Control of Emission from Petrol Engines) Regulations 1996

These Regulations, conferred under Sections 21, 45 and 51 of the EQA, relate to the emission of pollutants by diesel and petrol engines and issuance of fines should the Regulations not be complied with. For the Project, the emission standard of pollutants shall be complied with.

v. Environmental Quality (Motor Vehicle Noise) Regulations 1987

This Regulation states the methods to measure the level of noise emitted by motor vehicles and the standards stipulated based on vehicle categories. For the Project, this standard shall be complied with, where applicable.

1.4.3 APPLICABLE GUIDELINES

The PEIA study will be undertaken in line with, but not limited to, the following guidelines:

- A Handbook of Environmental Impact Assessment Guidelines (DOE, 2007);
- Environmental Impact Assessment Guidelines for Forestry (DOE, 1998);
- Guidelines for Erosion and Sediment Control in Malaysia (Department of Irrigation and Drainage, 2010);
- Guidelines for Reduced Impact Logging in Peninsular Malaysia (Forestry Department Peninsular Malaysia, 2003);
- Guidance Document for Addressing Soil Erosion and Sediment Control Aspects in the Environmental Impact Assessment (EIA) Report (DOE, 2010);
- The Planning Guidelines for Environmental Noise Limits and Control (DOE, 2007);
- The Planning Guidelines for Vibration Limits and Control in the Environment (DOE, 2007).

1.5 PEIA STRUCTURE

This PEIA is prepared in accordance with *Chapter 5: Guidelines for Preparing Preliminary Assessment Reports* in "A Handbook of Environmental Impact Assessment Guidelines" issued by the DOE. The DEIA report is divided into two main sections i.e.:

- Executive Summary,
- Main Report and Appendices.

The section on Executive Summary summarises the relevant environmental issues pertaining to the Project and is written in both Bahasa Malaysia and English, and a soft copy is submitted to the DOE Secretariat for display on their webpage.

The Main Report comprises of nine chapters, references and appendices. The chapters cover the following subject matters:

i. Chapter 1: Introduction

Background and brief descriptions of the Project, legislative requirements, outline of the PEIA Report, descriptions on Project Proponent and Consultants; as well as outline of the principle objectives and scope of the PEIA study.

ii. Chapter 2: Statement of Need and Project Options

Narrations on the needs for the Project and the options available.

iii. Chapter 3: Project Descriptions and Activities

Descriptions on location, land size, concept and development components of the Project.

iv. Chapter 4: Existing Environment

Descriptions of existing environmental settings (i.e. physical, biological and human) and the baseline data obtained from monitoring, analysis, interviews and surveys.

v. Chapter 5: Potential Significant Environmental Impacts

Discussions on the evaluation and prediction of potential environmental impacts arising from or associated with the Project.

vi. Chapter 6: Proposed Mitigation Measures

Elaborations on the proposed mitigation measures to minimise and/or eliminate potential significant environmental impacts.

vii. Chapter 7: Residual Impacts

Identification of and discussion on the possibility of significant residual impacts after mitigation measures have been applied.

viii. Chapter 8: Environmental Management Plan

Outline of an Environmental Management Plan (EMP) which amongst others comprises of key strategies and actions to protect the environment, in particular during the construction stage where environmental degradation may occur. The EMP will be reviewed and amended upon any changes during Project implementation. Requirements and outlines of an Environmental Contingency Plan (ECP) to cater for any emergency occurrence such as landslide and accident will also be provided.

ix. Chapter 9: Conclusions

This chapter summarises the findings of the PEIA.

1.6 PROJECT PROPONENT

The Project Proponent for the Project is *Jabatan Kerja Raya* (JKR). The address and contact details of the Project Proponent are:

Jabatan Kerja Raya

Ketua Pengarah Kerja Raya Malaysia
Cawangan Alam Sekitar dan Tenaga,
Ibu Pejabat JKR Malaysia, Tingkat 23, Menara PJD,
No. 50, Jalan Tun Razak, 50400 KUALA LUMPUR

Contact Person: Ir. Cheong Pui Keng
(Pengarah, Cawangan Alam Sekitar dan Tenaga)
Telephone: 03-4041 1979 Fax: 03-4041 1988

1.7 PROJECT CONSULTANTS

1.7.1 EIA CONSULTANT

Gunung-Ganang Corporation Sdn. Bhd. (GGC) has been appointed by the Project Proponent as the EIA Consultant to undertake the PEIA study for the Project. GGC is registered with the Ministry of Finance (No. Rujukan Pendaftaran: 465-00001994) to undertake environmental consultancy services. The following are the address and contact details of the EIA Consultant.

Gunung-Ganang Corporation Sdn. Bhd.

53-2, Jalan SP 2/1, Seksyen 2, Taman Serdang Perdana,
43300 Seri Kembangan, SELANGOR DARUL EHSAN

Contact Person: Mr. Lee Kwong Aik (Project Manager)
Telephone: 03-8941 5308 Fax: 03-8942 2469

1.7.2 LAND SURVEYOR

Jurukur Setia Sdn. Bhd. has been appointed by the Project Proponent as the Land Surveyor to undertake the LiDAR and ground survey for the Project. The following are the address and contact details of the Land Surveyor.

Jurukur Setia Sdn. Bhd.

No. 30, Jalan Bandar 2, Taman Melawati,
53100 KUALA LUMPUR

Contact Person: Sr. Zulnizam Babjan
Telephone: 03-4105 4344 Fax: 03-4106 4571

1.7.3 OTHER CONSULTANTS

The Project Proponent has not engaged any other consultants for Engineering Design or Soil Investigation or to provide further technical supports in detailed investigations and design of the Project as such works will be undertaken by in-house capacity.

1.8 OBJECTIVES OF PEIA STUDY

Objectives of the PEIA study are to:

- i. Compile existing environmental baseline data and information that may be affected by the road construction activity;
- ii. Identify and evaluate the environmental impacts of the road construction activity;
- iii. Recommend mitigation measures to abate significant adverse impacts; and
- iv. Identify residual impacts and propose an Environmental Management Plan.

1.9 SCOPE OF WORK FOR PEIA STUDY

The scope of work of the PEIA study encompasses:

- i. Descriptions of the Project and its associated activities in relation to the road design, planning, construction and operation.
- ii. Collation, analyses and descriptions of the existing environmental settings that may be affected by the road construction activity, covering the biological, chemical, physical and human components; based on the baseline monitoring and sampling data, as well as available secondary information.
- iii. Identification of the potential environmental impacts that are likely to arise from the road construction activities and evaluation of the significance of the impacts.
- iv. Formulation of mitigation and abatement measures to abate potential adverse environmental impacts and to minimise long term adverse residual impacts.
- v. Identification of residual impacts and issues that may arise and develop recommendations for their monitoring and management.
- vi. Outline the framework of an Environmental Management Plan.

1.9.1 FOCUS OF PEIA STUDY AND MAIN ISSUES

The PEIA study will focus on the potential environmental issues which may arise due to the construction and development of the 35 km Sungai Lembing – Felda Lepar Utara road.

As the continual use of the existing Felda Lepar Utara – Jerantut road does not alter the existing land use or exert any significant adverse impact to the surrounding environment; it has been screened out from the impact assessment process. This is to ensure that the PEIA study is focusing on the critical activity and pressing issues, does not become unnecessarily protracted, and conducted within the constraints of the resources allocated.

The potential environmental issues which may arise from the road construction activities are:

i. Fugitive Dust

Fugitive dust stirred up from unpaved routes during the construction stage, particularly in the vicinity of settlements at Kuala Kenau and Felda Lepar Utara, would have adverse health impact to the local residents.

ii. Noise

Noise and vibration due to operation of heavy machinery and equipment during the construction stage would be a nuisance in the vicinity of settlements at Kuala Kenau and Felda Lepar Utara.

iii. Water Quality

High potential of sedimentation of receiving waterways (Sg. Kuantan and Sg. Lepar) due to erosion and sediment delivery from earthwork cut and fill sites. This would also have further impacts on the aquatic ecosystem. A water intake station is located at Kuala Kenau. The abstraction point is at Sg. Kuantan immediately upstream of its confluence with Sg. Kenau.

iv. Soil Erosion

The proposed road is expected to cut through steep slopes (>25% gradient) and traverse across mountainous area generally at EL 200 m – EL 600 m elevation. Extensive cut and fill earthwork is therefore anticipated during the construction stage. This poses higher risk of soil erosion if erosion control measures are not adequately implemented.

v. Wildlife

The Forest Reserves traversed by the proposed new road are located in the Greater Taman Negara Forest Complex which provides the linkage with other forest complexes. The proposed road will cut across the Forest Reserves thereby creating a physical barrier that may impede wildlife movement, especially the resident elephant herds.

vi. Social and Land Use

Fugitive dust, noise and vibration generated during the road construction stage may have health impact or pose nuisances to the settlements in the vicinity of the Project. Social discomfort is therefore anticipated.

The Project will affect about 156 ha of forest reserves, about 42 ha of Felda oil palm plantation and 12 ha of private and State lands at Sungai Lembing. Issues related to land acquisition and probable resentment are anticipated.