

# **STUDY ON THE DEVELOPMENT ACTIVITIES OF LOJING HIGHLANDS AND ITS IMPACT ON THE ENVIRONMENT**

## **1. INTRODUCTION**

Lojing Highland (TTL) covering an area of 25,435 hectares (ha) is a part of Small Colonies Lojing (JKL) which is located in the West Province of Kelantan, bordering Cameron Highlands, Pahang and Simpang Pulai, Perak. Lojing Highland measuring from 300 meters till 2,181 meters above sea level (mp) with temperature ranging from 18°C to 25°C and connected to main rivers such as Belatop River, Isos River, Jelai River, Pelau'ur River, Kenrew River, Penangau River and Brooke River.

Small Colonies Lojing had been gazetted as a colony on 24<sup>th</sup> June 2010. The development vision of Lojing Highland is to maintain the identity of the colony as an agro-tourism center and also as an eco-tourism highland towards maintaining environmental sustainability. In order for a smooth development of Lojing Highland, the government through the Land and Mines Department has given land ownership covering an area of 11,967.472 hectares (ha) to 3 government departments, 8 subsidiary companies of the state government and 19 private companies for development purposes.

## **2. OBJECTIVE OF THE STUDY**

The objective of the study is to assess whether the Highland development activities in Lojing Highland are managed efficiently and effectively, taking into account the impact of those activities towards the quality of the environment.

## **3. AUDIT SCOPE AND METHODOLOGY**

The Audit scope specifically recognized to Agricultural activities carried out by 5 companies which had been awarded a lease. These companies are Multi System Sdn. Bhd. (480.60 ha), Liquid Gold Sdn. Bhd. (180.31 ha), All Green Sdn. Bhd. (208.80 ha), Acomax Sdn. Bhd. (400.40 ha) and CSN Enterprise Sdn. Bhd. which entirely covers an area of 1,673.29 ha.

The Audit was conducted based on the Performance Audit Guidelines as well as the Environmental Audit Guidelines which includes preliminary study on the subject matter, preparation of Audit Planning Memorandum, entrance conference, exit conference and submission of final audit report to the auditee. Reviews of records, files and documents at the Kelantan State Land and Mines Department (KSLMD), Economic Planning Unit (EPU), Gua Musang District Council (GMDC), Kelantan State Forestry Department (KSFD) and Land and Small Colony Office of Lojing (SCOL) and other related agencies towards the development of Lojing Highland. Consults technical expertise from government agencies

such as Malaysia Remote Sensing Agency (MRSA), Department of Environment (DOE), Minerals and Geoscience Department (MGD), Department of Agriculture (DOA), Department of Irrigation and Drainage (DID), Department of Wildlife and National Parks (DWNP), Department of Survey and Mapping (DSM) and Department of Town and Country Planning (DTCP). Remote Sensing and Geographical Information System technology is being used for the physical verification during a visit to the project site. Global Positioning System (GPS) and Clinometer is also being used to determine the location and slope of the Highland. Interviews were also carried out with the respective officers and staffs of the relevant agencies.

#### **4. FINDINGS AND RECOMMENDATIONS**

**4.1.** An audit carried out between June 2015 and September 2015 found that as a whole, The Management of Lojing Highlands Development Activities and Its Impact On The Environment is less satisfactory. In summary the weaknesses identified were as follows:

- Agricultural activities are carried out at the height of more than 1,000 mpl and the gradient greater than 25 °.
- The development of agriculture was carried out without planning permission.
- Intrusion of the river and forest reserves.
- The approval terms of Environment Impact Assessment were not complied.
- The use of pesticides which do not comply with the standards.
- The monitoring and enforcement activities are less effective.

**4.2** To ensure the overall agricultural activities in the Lojing Highlands is controlled and violation cases of the set conditions is not recurring, all the relevant agencies such as the Land and Mines Office (LMO), Gua Musang District Council (MDGM), Land and District Office of Lojing Small District, Department of Environment, Department of Irrigation and Drainage (DID), Department of Agriculture, Forestry Department should conduct regular monitoring and taking action against farm operators who do not comply with the conditions set out in any land use activities in the Lojing Highlands, Audit recommended the following:

**4.2.1** Kelantan State Land and Mines Department (KSLMD) should take stern action by seizing the land which is given an ownership if it is proven that Farm Operators has breached the specified terms. In accordance with the decision made in the Highland Development Committee Meeting No.2/2014, KSLMD should not grant an ownership of land above 1,000 mpl and slope exceeding 25°.

**4.2.2** Gua Musang District Council should take a legal action against Farm Operators whom doesn't have a Development Order before any land is being operated for agricultural activities to take place.

- 4.2.3 Department of Irrigation and Drainage needs to identify all the tributary surrounding Lojing areas, gazzeting it and take action towards developers whom invades the river reserve or polluting them.
- 4.2.4 Department of Agriculture should monitor the usage of pest control on food based plants. Their actions includes sampling schedule, the correct sampling procedureds and also taking severe actions against Farm Operators whom violates and misused the usage of pest control on their plants.
- 4.2.5 Forestry Department needs to use remote sensing facility in order to identify those reserve forest areas from being trespassed and engaging in legal action against those trespassers that had been identified.

## **5. IMPACT AND RESULTS**

On the overall, the management of the Land and Mines Office is not satisfactory because of the weak monitoring and enforcement over the areas where there were cases of farmers breaking the rules and regulations as well as non-compliance to the Environmental Quality Act (EQA), 1974. This situation has also impacted the environment. The Land and Mines Office have taken several initiatives as follows to overcome the issues raised by National Audit Department (NAD).

- i. The department will have periodically monitoring to verify intrusion land;
- ii. Notice will be issued to farm operators who involved in breaking the rules and regulations.

## **6. CHALLENGES AND BARRIERS**

Highlights bellows are few problems encountered by NAD in performing the study:

### **i. Knowledge and Experience in Environmental Audit**

The audit team heavily depended on the agencies such as the Department of Environmental in providing expertise in understanding technical aspects due to lack of knowledge and experience in environmental audit which is relatively new among the auditors. However, the knowledge in environmental audit gained through training and guidance from the relevant agencies greatly assists in conducting the environmental aspects of auditing.

### **ii. Coordination and Communication**

Communication and engagement through email, telephone, facsimile and meetings with the relevant agencies to ensure the audit is completed according to the schedule. Besides,

during physical visits, auditors manage to engage with all the departments and agencies involved.

**iii. Documentation and Records**

Insufficient record of monitoring and enforcement at the Land and Mines Office and Gua Musang District Council. Auditors found that most documents and records were at the Department of Environment.

**iv. Logistic Problem of the Auditor**

In carrying out the audit, the auditors also face problem with the supporting equipment such as transportation problem in accessing the area.

**7. LESSON LEARNED**

There is a widespread concern of the potential impact to the environment, economic and social effects when the highland development was not properly managed. By conducting this study, it provides an opportunity for the audit team to explore and experience new aspect of auditing the highland.

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