

**RECLAMATION OF LAND USED FORMER BAUXITE MINING FOR  
RUBBER PLANTATION BASED ON LAND SUITABILITY CLASSES IN  
BLOCK 10 PT. BINTANG CAHAYA TERANG, SUNGAI ENAM VILLAGE,  
BINTAN TIMUR SUB-DISTRICT, BINTAN DISTRICT, KEPULAUAN RIAU  
PROVINCE**

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**ABSTRACT**

*The former location of the bauxite mining is at PT. Bintang Cahaya Terang Blok 10, Sungai Enam Village, East Bintan District, Bintan Regency, Riau Islands. Good mining activities must be in accordance with the rules, which include reclamation activities. One of the activities to carry out reclamation on former bauxite mining areas is revegetation. Revegetation is expected to be able to restore land functions and in accordance with its designation. One aspect of the success of revegetation is how the suitability of the land on the land to be reclaimed. The purpose of this research is to know the land suitability class and the technical direction of revegetation on ex-bauxite mining land at PT. Bintang Cahaya Terang.*

*The Methods are used in this research for data collection consisted survey method, mapping method, and sampling. The methods are used for analysis consisted laboratory sampling and matching method based on the Land Suitability Classification Criteria according to the FAO System (1976). Retrieval of field data using tools in the form of a geological compass, meter, geological hammer, and GPS. The parameters used were temperature, dry months, rainfall, soil drainage, texture, effective soil depth, CEC, pH, N-Total, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O, erosion hazard, slope slope, and flood hazard. Sampling in this study is purposive sampling (nonprobability sampling).*

*The results showed that the former mining area of PT. Bintang Cahaya Terang, actually fall into the land suitability class N<sub>2</sub>rne (Very Unsuitable) with inhibiting factors in the form of rooting media, available nutrients and erosion hazard levels. The rooting medium consists of an effective soil depth of 50cm (S<sub>3</sub>). The available nutrients consist of total N of 0.06% (S<sub>3</sub>), phosphate of 8.1 ppm (S<sub>3</sub>), and potassium amounting to 1.02 me / 100gr (S<sub>3</sub>). The level of erosion hazard is very severe (N<sub>2</sub>). However, with the improvement efforts made, the land suitability class increased to 2 levels, namely S<sub>2</sub> (Sufficiently Suitable). Based on the RTRW, this land is a mining cultivation area that can be developed for other uses. So that it was developed into a lowland plantation area with rubber commodities. Rubber planting was carried out using a pot system and mucuna bracteate as a legume cover crop (LCC) with management directives making drainage (trench) to reduce the rate of erosion that can occurred.*

**Keywords: reclamation, land suitability class, rubber, ex-land used mining, revegetation**