

# EVALUASI KEBERHASILAN REKLAMASI DENGAN METODE SKORING PEMBOBOTAN DAN METODE *NDVI* PADA BLOK SCM BALANGAN COAL *SUBSIDIARY* ADARO ENERGY INDONESIA, KALIMANTAN SELATAN

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## INTISARI

AEI merupakan perusahaan yang terlibat dalam sektor tambang Batubara dan energi terintegrasi. AEI memiliki sejumlah anak perusahaan, termasuk Balangan Coal yang beroperasi pada daerah Kalimantan Selatan. Keberlanjutan kegiatan penambangan berpotensi merubah fungsi lahan, penting dilakukannya reklamasi untuk menjaga kelestarian lingkungan pertambangan. Dalam konteks luasnya area reklamasi, dibutuhkan metode evaluasi yang lebih praktis dan akuntabel, teknologi penginderaan jarak jauh diusulkan dipadukan dengan metode skoring pembobotan untuk memantau keberhasilan tiap parameter reklamasi. Penelitian bertujuan mengevaluasi keberhasilan reklamasi dan memberikan arahan pengelolaan pada area reklamasi.

Penelitian dilaksanakan menggunakan data sekunder dan data primer. Survei lapangan dilakukan pada daerah penelitian sebagai dasar evaluasi. Pengumpulan sampel tanah dan pengecekan parameter reklamasi dengan metode *Purposive Sampling* untuk uji laboratorium dan dasar evaluasi. Evaluasi kerapatan vegetasi dengan pengambilan data spasial menggunakan *drone* multispektral dan pengolahan data menjadi *NDVI (Normalized Difference Vegetation Index)*. Evaluasi skoring pembobotan berdasarkan pedoman penilaian reklamasi tahap operasi produksi KEPMEN ESDM No. 1827 K/30/MEM/2018, penilaian dilakukan untuk mendapatkan nilai keberhasilan reklamasi sebagai dasar penentuan arahan pengelolaan.

Evaluasi menghasilkan nilai keberhasilan reklamasi Balangan Coal lokasi B1, B2, B3C, dan B3D berurutan senilai 85,8, 90,3, 90,9, dan 90,7 tergolong baik dan lokasi F10 dan F10B berurutan senilai 79,75 dan 63,75 tergolong sedang. *NDVI* menghasilkan nilai tingkat kepadatan vegetasi blok SCM Balangan Coal lokasi B1, B2, B3C, B3D, F10, dan F10B 0,08 ha tidak bervegetasi, 0,17 ha vegetasi rendah, 0,7 ha vegetasi tinggi, dan 0,00001 ha vegetasi sangat tinggi. Rekomendasi arahan pengelolaan berupa penentuan jarak tanam 3 x 3 meter, penanaman tanaman *fg* dan *sg*, *soil ripping*, dan perbaikan kualitas tanah dengan pemanfaatan *fine coal*.

**Kata kunci : Penambangan, Batubara, *NDVI*, Evaluasi Reklamasi**

**EVALUATION OF THE SUCCESS OF RECLAMATION USING THE  
WEIGHTED SCORING METHOD AND THE NDVI METHOD AT SCM  
BLOCK BALANGAN COAL SUBSIDIARY ADARO ENERGY INDONESIA,  
SOUTH KALIMANTAN**

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**ABSTRACT**

AEI is a company involved in the coal mining and integrated energy sector. AEI has a number of subsidiaries, including Balangan Coal which operates in the South Kalimantan area. The sustainability of mining activities has the potential to change land functions, it is important to carry out reclamation to preserve the mining environment. In the context of the large reclamation area, a more practical and accountable evaluation method is needed, remote sensing technology is proposed combined with a weighting scoring method to monitor the success of each reclamation parameter. The research aims to evaluate the success of reclamation and provide management direction in the reclamation area.

The research was carried out using secondary data and primary data. Field surveys are carried out in the research area as the basis for evaluation. Soil sample collection and reclamation parameter checking by the *Purposive Sampling* method for laboratory tests and evaluation basis. Evaluation of vegetation density by spatial data collection using multispectral drones and data processing into *NDVI (Normalized Difference Vegetation Index)*. The *Weighting Scoring* evaluation is based on the guidelines for assessing the reclamation stage of the production operation stage of the Ministry of Energy and Mineral Resources No.1827 K/30/MEM/2018, the assessment is carried out to obtain the success value of reclamation as the basis for determining the management direction.

The evaluation resulted in the success of Balangan Coal reclamation at locations B1, B2, B3C, and B3D respectively with a score of 85.8, 90.3, 90.9, and 90.7 as good and at locations F10 and F10B with a value of 79.75 and 63.75 respectively as moderate. NDVI obtained the value of vegetation density level of the Balangan Coal SCM block at locations B1, B2, B3C, B3D, F10, and F10B 0.08 ha without vegetation, 0.17 ha with low vegetation, 0.7 ha with high vegetation, and 0.00001 ha with very high vegetation. Management direction recommendations are in the form of determining the planting distance of 3 x 3 meters, planting fast growing and slow growing species, soil ripping, and improving soil quality by using fine coal.

**Keywords: Mining, Coal, NDVI, Reclamation Evaluation**