



## ABSTRACT

The phenomenon of coal mining activities cannot be separated from the interaction between the people and their environment, which is the hallmark of the geographic sciences. Coal mining activities in Kulai Kartanegara regency were held openly with the total of 308 mining licence (IUP) which give the negative impact on the physical aspect and socio-economic. However, it is a main revenue for the regional economy.

This research aims to develop a model of the coal-mining area development decisions, with sub-objectives: (1). to identify the characteristics and patterns of spatial distribution of coal mines, (2). to analyze the potential for post-mining land in the area of coal, (3). to assess the sustainability of the livelihoods of the societies in the coal-mining region, and (4). to construct a model for regional development decision directives coal-mining.

The study was conducted with a quantitative approach with stratified random sampling on five (5) units of the typology of coal mining operations, 300 respondents sampled households ( $\leq 500$  radius and  $> 500$  m), and 30 respondents stakeholders. The study analysis using nearest neighbor analysis, evaluation of capability and land suitability, feasibility analysis and investment process hierarchy.

The results showed that the characteristics of the coal mining carried out by open pit methods, patterns of clustering, violation of the use in protected and natural areas (1.15%), inconsistency in the use of function space in cultivated area (85%), use of public roads in rural areas (95%), and are likely to contribute positively to the acceleration of the level of development of the region. Potential land shows there is no association between land capability class with the status of reclamation and old age post-mining coal. Class of land capability is VII class majority (95%) and VIII (5%) with limiting factor slopes and erosion hazard level. Livelihood security shows the differences in the radius  $\leq 500$  m (12%) and  $> 500$  m (17%), with the determinants of the social assets and physical assets (the first factor), and human assets, access activity (the second factor). Strategy coal-mining area development decisions in order to support the development of the region is composed of 2 (two) strategies: (1). land rehabilitation strategy, with the direction of conservation areas (92.75%). Indicators of land rehabilitation strategy that is the priority class (low), level of livelihood of the people (unsustainable), the level of development development of the region (unprogressive regiona), are present in the function of protected areas and cultivation; (2). land productivity strategy, implemented by maximizing the functional improvement of land, with indicators of priority (moderate-high), the level of people's livelihoods (sustainable, the level of development of the region (progresive-unprogresive region), that is in the function of cultivate area. Tutorial includes the development of tourism (7.06%), tourism, housing (services) and freshwater aquaculture (0.19%).

**Keywords:** Area Development, Post Coal Mine, Regional Developmen



## INTISARI

Fenomena aktivitas pertambangan batubara tidak dapat dilepaskan dari interaksi antara manusia dan lingkungannya, yang merupakan ciri khas keilmuan geografi. Kegiatan penambangan batubara di Kabupaten Kutai Kartanegara dilaksanakan secara terbuka dengan jumlah 308 Ijin Usaha Pertambangan (IUP), yang berdampak negatif pada aspek fisik, sosial ekonomi masyarakat, dan disisi lain sebagai sektor penggerak utama dalam pendapatan ekonomi daerah.

Penelitian ini bertujuan menyusun model keputusan pengembangan kawasan pascatambang batubara, dengan subtujuan: (1). mengidentifikasi karakteristik dan pola distribusi keruangan tambang batubara, (2). menganalisis potensi lahan di kawasan pascatambang batubara, (3). mengkaji keberlanjutan penghidupan sosial ekonomi masyarakat di kawasan pascatambang batubara, dan (4). menyusun model arahan keputusan pengembangan kawasan pascatambang batubara.

Penelitian dilakukan dengan pendekatan kuantitatif dengan cara *stratified random sampling* pada 5 (lima) satuan tipologi kegiatan penambangan batubara, 300 sampel responden kepala keluarga (radius  $\leq 500$  dan  $> 500$  m), dan 30 responden *stakeholders*. Analisis penelitian menggunakan analisis tetangga terdekat, evaluasi kemampuan dan kesesuaian lahan, analisis hirarki proses dan kelayakan investasi.

Hasil penelitian menunjukkan bahwa karakteristik penambangan batubara dilaksanakan dengan metode tambang terbuka, pola mengelompok, terjadi pelanggaran terhadap penggunaan kawasan lindung dan alami (1,15%), inkonsistensi dalam pemanfaatan fungsi ruang kawasan budaya (85%), penggunaan jalan umum di wilayah desa (95%), dan cenderung berperan positif terhadap akselerasi tingkat perkembangan wilayah. Potensi lahan menunjukkan tidak terdapat asosiasi antara kelas kemampuan lahan dengan status reklamasi dan lamanya usia pascatambang batubara. Kelas kemampuan lahan mayoritas kelas VII (95%) dan VIII (5%) dengan faktor pembatas lereng dan tingkat bahaya erosi. Keberlanjutan penghidupan menunjukkan adanya perbedaan pada radius  $\leq 500$  m (12%) dan  $> 500$  m (17%), dengan faktor penentu yakni aset sosial dan aset fisik (faktor pertama), dan aset SDM, akses aktivitas (faktor kedua). Strategi keputusan pengembangan kawasan pascatambang batubara dalam rangka mendukung pembangunan wilayah tersusun 2 (dua) strategi: (1). strategi rehabilitasi lahan, dengan arahan kawasan konservasi (92,75%). Indikator strategi rehabilitasi lahan yakni kelas prioritas (rendah), tingkat penghidupan masyarakat (tidak berlanjut), tingkat perkembangan wilayah (desa tertinggal), terdapat pada fungsi kawasan lindung dan budaya; (2). strategi produktivitas lahan, dilaksanakan dengan cara memaksimalkan perbaikan fungsi lahan, dengan indikator skala prioritas (sedangtinggi), tingkat penghidupan masyarakat (cukup-berlanjut), tingkat perkembangan wilayah (desa maju-tertinggal), terdapat pada fungsi kawasan budaya. Arahan pengembangan meliputi pariwisata (7,06%), pariwisata, permukiman (pelayanan jasa) dan perikanan budidaya air tawar (0,19%).

**Kata Kunci:** Pengembangan Kawasan, Pascatambang Batubara, Pembangunan Wilayah