

## DAMPAK PENAMBANGAN BATUBARA PT ARUTMIN INDONESIA TERHADAP KUALITAS AIR DAN KOMUNITAS BIOTA AKUATIK SUNGAI SATUI KABUPATEN KOTABARU SERTA PENDAPATAN NELAYAN SETEMPAT

### INTISARI

Penelitian ini dilaksanakan di perairan Sungai Satui Kabupaten Kotabaru Propinsi Kalimantan Selatan. Tujuan penelitian ini adalah mengkaji tingkat pencemaran air Sungai Satui penerima limbah batubara. Khususnya mengetahui kualitas air, perubahan Status Nutrisi Ikan, keanekaragaman serta dominansi biota akuatik tertentu, kemungkinan pemanfaatan biota akuatik tersebut sebagai indikator biologis serta perubahan pendapatan nelayan setempat.

Metode penelitian yang digunakan adalah metode survai. Data yang digunakan dalam penelitian ini adalah data primer dari analisis kualitas fisik, kimia dan biologi perairan Sungai Satui dan data sosial ekonomi nelayan responden. Data sekunder berasal dari PT Arutmin Indonesia, Departemen Pertambangan dan Energi, Kantor Desa Sungai Danau dan Kecamatan Satui.

Hasil penelitian menunjukkan bahwa limbah penambangan batubara menyebabkan kenaikan padatan terlarut dan padatan tersuspensi serta penurunan pH badan air Sungai Satui penerima limbah. Rendahnya alkalinitas menyebabkan Sungai Satui mempunyai kapasitas penyangga yang rendah dalam mengatasi penurunan pH yang disebabkan oleh limbah penambangan batubara bersuasana asam. Sungai-sungai yang bermuara ke sungai Satui berperan baik dalam mengencerkan kadar bahan pencemar. Berdasarkan pengkatagorian perairan tercemar menurut NVC terdapat indikasi perairan ini telah mengalami pencemaran pada tingkat tercemar sedang. Terdapat sifat-sifat karakteristik dan predominan beberapa genera plankton yang dapat digunakan sebagai bioindikator pencemaran limbah batubara bersuasana asam di Sungai Satui, yaitu *Euastrum*, *Closterium* dan *Genatozygon*. Terjadi penurunan jumlah penduduk bermata pencaharian sebagai nelayan dan penurunan pendapatan nelayan yang menangkap ikan di sungai tersebut.

Kata Kunci : Limbah Penambangan Batubara, Kualitas Air, Biota Akuatik, Pendapatan Nelayan

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TERHADAP KUALITAS AIR DAN KOMUNITAS BIOTA AKUATIK  
SUNGAI SATUI KABUPATEN KOTABARU SERTA PENDAPATAN  
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**Impact of PT. Arutmin Indonesia's Coal Mining to Water Quality and  
Aquatic Biota Community of Satui River Kotabaru Regency  
and Local Fishermen's Income**

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**ABSTRACT**

This research was conducted in Satui River Kotabaru Regency South Kalimantan Province. The objectives of research were to examine pollution level of Satui River which received coal mining wastes. Specific objectives were to know water quality, Nutrition Value Coefficient of fish, diversity and dominance of certain aquatic biota, probability of using aquatic organisms for specific biologic indicator and change of local fishermen's income.

Research method used in this research was survey method. The data used in this research were primary data from physics, chemical and biological water quality of Satui River in dry season and social economics from fishermen respondents. Secondary data were from PT. Arutmin Indonesia, Mining and Energy Departement, Sungai Danau Village and Satui District Office.

These results of the research showed that coal mining wastes was increasing dissolved and suspended solids and pH decreasing of Satui River waters. Because the lower Alkalinity, Satui River has a lower buffer capacity to exceed pH decreasing that caused by acid coal mining wastes. Rivers which to empty into Satui River were good function diluting disposal of pollutants. Based to NVC categories of water polluted indicated that this river was polluted into moderate level. There are characteristic and predominant aspects of several genera plankton that may be used as bioindicator of acid coal mining wastes in Satui River, like *Euastrum*, *Closterium* and *Genatozygon*. It has been decreasing of total resident whom to be fishermen and their revenue who catch fish from this river.

**Key words:** Coal Mining Wastes, Water Quality, Aquatic Biota, Fishermen's Income

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