

KAJIAN KONDISI LINGKUNGAN PERAIRAN SUNGAI PANGULIR AKIBAT KEGIATAN PENAMBANGAN EMAS DI KECAMATAN ROPANG NUSA TENGGARA BARAT

INTISARI

Aktifitas penambangan emas di Kecamatan Ropang, Nusa Tenggara Barat telah berjalan semenjak tahun 2007. Kegiatan penambangan selalu identik dengan terjadinya penurunan kualitas lingkungan. Sungai Pangulir mengalir ditengah area penambangan emas. Untuk itu, penelitian ini bertujuan untuk melakukan analisis terkait kondisi fisik, kimia, mikrobiologi dan biologis Sungai Pangulir sehingga dapat menggambarkan status mutu air Sungai Pangulir berdasarkan parameter yang diuji. Penelitian juga bertujuan untuk mengetahui dan melakukan analisa terkait respon warga disekitar lokasi penelitian mengenai keberadaan tambang dan kondisi Sungai Pangulir.

Metode yang dilakukan dalam penelitian ini berupa sampling lapangan untuk pengambilan sampel air sungai pangulir yang akan diselidiki kualitas fisik, kimia dan biologinya. Hasil analisa laboratorium kualitas air Sungai Pangulir kemudian diolah dengan metode Indeks pencemaran untuk mendapatkan status mutu lingkungan perairan. Hasil laboratorium terkait kemelimpahan biologi (*Phytoplankton*, *Zooplankton* dan *Macrozoobenthos*) diolah dengan metode Shanoon-wiener untuk mendapatkan nilai indeks diversitasnya.

Berdasarkan hasil perhitungan metode indeks pencemaran lokasi sampling pada sungai Pangulir T1, T2 dan T3 termasuk kedalam kategori tercemar ringan. Sementara pada lokasi T4 dan T5 pada Kategori belum tercemar. Berdasarkan indeks diversitas phytoplankton semua lokasi sampling belum tercemar, tetapi berdasarkan indeks diversitas Zooplankton titik T1, T2 dan T2 masuk kategori tercemar ringan dan titik T4 dan T5 dalam kategori belum tercemar. Sementara berdasarkan hasil indeks diversitas Macrozoobenthos, titik sampling T1, T2, T3 dan T5 masuk dalam kategori tercemar sedang dan titik sampling T4 dalam kategori tercemar ringan. Berdasarkan hasil wawancara semi terstruktur, masyarakat menerima keberadaan tambang emas di wilayah mereka dan belum ada keluhan terkait penurunan kualitas air Sungai Pangulir

Kata kunci : Tambang, Kualitas Sungai, Pencemaran, Bioindikator

ENVIRONMENTAL CONDITION STUDY OF PANGULIR RIVER DUE TO GOLD MINING ACTIVITIES IN ROPANG SUB- DISTRICT WEST NUSA TENGGARA

ABSTRACT

Gold mining activities in Ropang District, West Nusa Tenggara have been running since 2007. Mining activities are always followed with the degradation of environmental quality. Pangulir River flows in the middle of the gold mining area. Therefore, this study aims to analyze the physical, chemical, microbiological and biological conditions of the Pangulir River and describe the water quality status of the Pangulir River based on the parameters tested. The research also aims to know and analyze the responses of residents around the study site about the existence of the mining and the condition of the Pangulir River.

The method used in this research is field sampling of pangulir river to check about physical, chemical and biological quality. The result of laboratory water quality analysis of Pangulir River then processed by pollution Index method to get the status of water quality. Laboratory results related to biological abundance (*Phytoplankton*, *Zooplankton* and *Macrozoobenthos*) were processed by the Shannon-wiener method to obtain the value of its diversity index.

Based on the calculation of pollution index method, sampling points T1, T2 and T3, included into the category of contaminated light. While the sampling points T4 and T5 are in Category not contaminated. Based on the phytoplankton diversity index all sampling location have not been contaminated, but based on the Zooplankton diversity index location of T1, T2 and T2 are lightly contaminated and the T4 and T5 sampling points in the category have not been contaminated. Based on Macrozoobenthos diversity index results, T1, T2, T3 and T5 sampling points were in medium polluted category and T4 sampling points in lightly contaminated category. Based on the results of the interviews, the community accepted the existence of a gold mine in their area and there have been no complaints related to the declining water quality of the Pangulir River

Keywords: Mine, River Quality, Pollution, Bioindicator