Model Pencemaran Air Laut (Logam Berat) pada Pemukiman Penduduk di Sekitar Pelabuhan Pertambangan (Studi Pelabuhan Tambang PT. Aneka Tambang, Tbk, Pomalaa dan PT. IMIP, Morowali) = Model of Sea Water Pollution (Heavy Metals) in Populations Around Mining Ports (Mining Port Study of PT. Aneka Tambang, Tbk, Pomalaa and PT. IMIP, Morowali)

Jenny Delly, author

Abstrak

Kegiatan pelabuhan pertambangan dan industri nikel di Propinsi Sulawesi Tenggara dan Sulawesi Tengah telah mengeksploitasi sumberdaya alam yang ada, sehingga menyebabkan perubahan kualitas lingkungan serta masalah sosial dan ekonomi pada masyarakat. Tujuan penelitian adalah membuat model pencemaran air laut pada daerah sekitar pelabuhan tambang dan industri nikel. Penelitian ini menggunakan pendekatan kuantitatif metode Storet digunakan untuk menentukan status mutu air laut. Metode regresi linear untuk mengetahui persepsi masyarakat dan kondisi ekonomi, serta keterkaitannya dengan faktor penduduk, ekonomi, dan kesehatan. Hasilnya menujukkan bahwa status mutu air laut pada tahun 2019 untuk Pelabuhan pertambangan PT. Aneka Tambang, Tbk, Pomalaa tercemar ringan (nilai storet -10) dan pada Pelabuhan PT. IMIP, Morowali tercemar sedang (nilai storet -30). Persepsi masyarakat terhadap keberadaan pelabuhan dan dampaknya di pengaruhi oleh lokasi dimana pelabuhan itu berada namun demografi masyarakat tidak mempengaruhi persepsi. Peningkatan pendapatan masyarakat dirasakan oleh 61,1% masyarakat Pomala dan 63% masyarakat Bahudopi, Morowali. Model pencemaran air laut dengan menggunakan pendekatan System Dynamics memperlihatkan perubahan mutu air laut, nilai ekonomi dan indeks kesehatan masyarakat jika intervensi teknologi dilakukan maka ada peningkatan rata-rata pada status mutu air laut sebesar 46,87%, nilai ekonomi (profit) 101,15% dan indeks kesehatan masyarakat 58,97%.

.....Nickel mining and industrial port activities in the Provinces of Southeast Sulawesi and Central Sulawesi have exploited existing natural resources, causing changes in environmental quality as well as social and economic problems in the community. The aim of this research is to create a model of seawater pollution that is affected by activities at these mining ports. This study uses a quantitative approach. The Storet method is used to determine the status of seawater quality. Linear regression was used to find out people's perceptions and economic conditions, as well as their relationship to population, economic, and health factors. The results show that seawater quality status in 2019 for the mining port of PT. Aneka Tambang, Tbk, Pomalaa was lightly polluted (storet value -10) and at PT. IMIP, Morowali was moderately polluted (storet value -30). Community perceptions of the existence of ports and their impacts were influenced by location, but community demographics did not affect perceptions. The increase in community income was felt by 61.1% of the Pomala community and 63% of the Bahudopi community, Morowali. The seawater pollution model using the System Dynamics approach shows changes in seawater quality, economic value and public health index if technological intervention is carried out. There is an average increase in seawater quality status of 46.87%, economic value (profit) 101.15 % and public health index 58.97%.