

Conservation of Physical and Chemical Properties on Abandoned Tin-Mining Land in Bangka Belitung Islands

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ABSTRACT

The practices of tin mining which removing all layers of soil on deposits of minerals caused the seriously environmental problems, i.e degradation of physical and chemical soil, disappearance of vegetation, flora and fauna in ecosystems that changed the microclimate. In the tailings area of tin mining have unstable structure, the content of organic matter is very low, so it is vulnerable to land slides and erosion. The characteristic of tailing area that very acid, low nutrient availability, low water storage and high soil temperature are constraints in the conservation and improvement this area. The aim of this research was found conservation technology to improve the properties of soil on Tin mining land due to human activities that cause environmental damage both micro and macro so determination of plant species and specific location technology can be done based on characterization and potential evaluation soil resources. Annual crop cultivation and cultivation of legume cover crop (*Mucuna sp.*, Long-lived, *Calopogonium sp.*, *Peuraria javanica*) and management of top soil and organic matter are a must, in addition to improve soil structure, maintaining soil moisture, as well as to reduce the loss nutrients, as in textured rough soil (sandy) nutrients in soil are easily washed.

Keywords: Characteristic soil, improvement, tailing area, tin mining

ABSTRAK

Praktek penambangan timah terbuka menyingkirkan seluruh lapisan tanah di atas deposit bahan galian menimbulkan masalah lingkungan yang cukup serius yakni : kerusakan sifat fisik dan kimia tanah, menghilangkann vegetasi, flora dan fauna pada ekosistem yang dapat merubah iklim mikro setempat. Pada areal tailing/bekas tambang memiliki struktur sangat tidak stabil, kandungan bahan organik sangat rendah sehingga rawan longsor dan erosi apabila ditimbun berbentuk bukit-bukit, pH tanah sangat masam sampai sangat masam, kandungan hara yang sangat rendah, daya menyimpan air rendah dan suhu tanah yang tinggi merupakan kendala yang dihadapi dalam upaya perbaikan sifat-sifat tanah bekas lahan tambang. Tujuan dari penelitian ini adalah untuk mencari teknologi konservasi dan cara perbaikan sifat-sifat tanah yang tepat pada lahan pasca penambangan Timah akibat dari ulah manusia yang menyebabkan kerusakan lingkungan baik mikro maupun makro sehingga dapat menentukan jenis tanaman dan teknologi spesifik lokasi dapat dilakukan berdasarkan karakterisasi dan evaluasi potensi sumberdaya lahan.Penanaman tanaman tahunan dan penanaman *legume cover crop* (*Mucuna sp.*, yang. berumur panjang, *Calopogonium sp.*, *Peuraria javanica*) dan pengelolaan tanah pucuk dan bahan organik merupakan suatu keharusan, selain untuk memperbaiki struktur tanah, memelihara kelembapan tanah, juga untuk mengurangi kehilangan hara, karena pada tanah-tanah yang bertekstur kasar (berpasir) hara dalam tanah mudah tercuci.

Kata Kunci: Area penambangan timah, karakteristik tanah, perbaikan

INTRODUCTION

The conservation and improvement of area tailing tin mining within the production forest area of Bangka Belitung Islands Province by PT. There

are 74 prospective miners of tin mine site + 60,000 ha (Central Body of Central Statistics of Belitung, 2009) which need to be identified and corrected after the land is mined, so that the required characteristics of the land before and after exploitation of tin mining. Spatial information on land resources, location, distribution, area, potential, conformance and biophysical constraints of land before and after