Universitas Indonesia Library >> UI - Skripsi Membership

Zona Ketebalan Tanah Tak-Terkonsolidasi dan Kesesuaiannya dengan Tata Guna Lahan di Kabupaten Bandung, Jawa Barat = Under-consolidated Soil Thickness Zone and Its Suitability to Land Use in Bandung Regency, West Java

Alika Maulidina Safira, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=9999920548011&lokasi=lokal

---

Abstrak

Setiap tahun, beberapa kecamatan di Kabupaten Bandung mengalami penurunan tanah sebanyak satu meter yang disebabkan oleh terbangunnya industri, perdagangan, dan pemukiman. Penurunan tanah diakibatkan oleh peningkatkan tegangan antarbutir tanah yang tidak terkonsolidasi. Tanah lunak bersifat kohesif yang ditemukan di lokasi penelitian menyebabkan banyaknya lapisan tak-terkonsolidasi. Penelitian ini bertujuan untuk memetakan zona ketebalan tanah tak-terkonsolidasi dan menganalisis hubungannya dengan kondisi litologi. Selanjutnya, hasil analisis tersebut dilihat kesesuaiannya terhadap tata guna lahan yang ada sekarang. Metode yang digunakan dalam penelitian ini adalah perhitungan dengan metode Robertson serta pembuatan peta dengan metode interpolasi kriging dan overlay. Hasil pengolahan menunjukkan bahwa tanah tak-terkonsolidasi berada di bagian barat laut hingga tenggara dan ketebalannya cenderung berkurang semakin ke arah timur laut dan barat daya lokasi penelitian. Kondisi litologi di lokasi penelitian juga sesuai dengan keberadaan tanah kohesif seperti tanah lempung dan tanah organik sebagai ciri tanah tak-terkonsolidasi. Hasil akhir penelitian menunjukkan beberapa kesesuaian dan ketidak sesuaian. Lahan terbuka terbanyak berada di zona merah muda sebesar 72,02%, pemukiman terbanyak berada di zona hijau sebesar 40,16%, perdagangan dan jasa terbanyak berada di zona merah muda sebanyak 43,34 %, dan industri terbanyak berada di zona hijau sebanyak 53,85%.

.....

Every year, several sub-districts in Bandung Regency experience land subsidence of as much as one meter caused by the construction of industry, business and residential. Soil subsidence is caused by increased stress between the underconsolidated soil grains. The soft, cohesive soil found at the research location causes many underconsolidated layers. This research aims to map the thickness zone of unconsolidated soil and analyze its relationship with lithological conditions. Next, the results of the analysis are seen for their suitability for existing land use. The method used in this research is calculations using the Robertson method and making maps using the kriging interpolation and overlay methods. The results show that underconsolidated soil is located in the northwest to southeast and its thickness tends to decrease towards the northeast and southwest of the research location. The lithological conditions at the research location are also directly proportional to the presence of cohesive soil such as clay and organic soil as a characteristic of underconsolidated soil. The final results of the research show suitability and nonsuitability. The most open land is in the pink zone at 72.02%, the most residential areas are in the green zone at 40.16%, the most trade and business are in the pink zone at 43.34%, and the most industry is in the green zone at 53 .85%.