

**PEMETAAN ESTIMASI WATER TABLE DEPTH PADA GAMBUT TROPIS  
BERBASIS PENGINDERAAN JAUH DI SEBAGIAN KALIMANTAN  
TENGAH DAN KALIMANTAN SELATAN**

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**INTISARI**

Seiring dengan zaman yang semakin maju, intervensi manusia terhadap lahan gambut semakin masif. Hal tersebut dapat menyebabkan kerusakan lahan gambut, kerusakan tersebut dapat diidentifikasi melalui perubahan *water table depth* pada lahan gambut. Akan tetapi, pengukuran *water table depth* sulit untuk dilakukan mengingat medan lahan gambut yang ekstrem. Berdasar pada keterbatasan tersebut, estimasi *water table depth* di lahan gambut dapat dilakukan dengan menggunakan penginderaan jauh melalui transformasi indeks kekeringan berupa pembuatan model melalui regresi linier berganda, perhitungan akaike, hingga *k-fold cross validation*. Berdasarkan pengolahan yang telah dilakukan diperoleh 3 model estimasi. Model terbaik diperoleh dari model VSDI dengan nilai estimasi terendah yakni -0.623 meter dan nilai estimasi tertinggi yakni 0.371 meter. Model tersebut memiliki nilai AICc 16.088 dengan nilai pergeseran RMSE 0.526 cm dan R<sup>2</sup> senilai 90%.

**Kata Kunci:** Gambut, NDWI, VSDI, *water table depth*

**MAPPING OF ESTIMATED WATER TABLE DEPTH IN TROPICAL  
PEATLANDS BASED ON REMOTE SENSING IN PARTS OF CENTRAL  
KALIMANTAN AND SOUTH KALIMANTAN**

**ABSTRACT**

As time progresses, human intervention in peatlands has become increasingly widespread. This can cause damage to peatlands, which can be identified through changes in the water table depth in peatlands. However, measuring water table depth is difficult due to the extreme terrain of peatlands. Given these limitations, water table depth estimation in peatlands can be performed using remote sensing through the transformation of drought indices, including model creation via multiple linear regression, Akaike information criterion calculations, and k-fold cross-validation. Based on the processing conducted, three estimation models were obtained. The best model was derived from the VSDI model, with the lowest estimated value of -0.623 metres and the highest estimated value of 0.371 metres. This model has an AICc value of 16.088, an RMSE shift of 0.526 cm, and an  $R^2$  value of 90%.

**Keywords:** Peat, NDWI, VSDI, water table depth