

# SURAT PENCATATAN CIPTAAN

Dalam rangka perlindungan ciptaan di bidang ilmu pengetahuan, seni dan sastra berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, dengan ini menerangkan:

Nomor dan tanggal permohonan : EC00202419964, 1 Maret 2024

## Pencipta

Nama : **Nilna Amal**  
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Kewarganegaraan : Indonesia

## Pemegang Hak Cipta

Nama : **Nilna Amal**  
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Jenis Ciptaan : **Karya Tulis Lainnya**  
Judul Ciptaan : **Analysis Of Hydrology Parameters In A Tropical Wetland**  
Tanggal dan tempat diumumkan untuk pertama kali : 1 Maret 2024, di Banjarbaru  
di wilayah Indonesia atau di luar wilayah Indonesia  
Jangka waktu perlindungan : Berlaku selama hidup Pencipta dan terus berlangsung selama 70 (tujuh  
puluh) tahun setelah Pencipta meninggal dunia, terhitung mulai tanggal 1  
Januari tahun berikutnya.  
Nomor pencatatan : 000595324

adalah benar berdasarkan keterangan yang diberikan oleh Pemohon.

Surat Pencatatan Hak Cipta atau produk Hak terkait ini sesuai dengan Pasal 72 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.



a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA  
DIREKTUR JENDERAL KEKAYAAN INTELEKTUAL  
u.b

Direktur Hak Cipta dan Desain Industri

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Disclaimer:

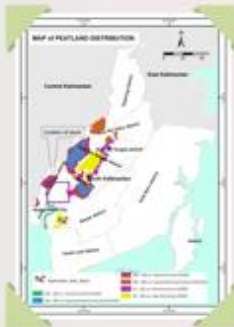
Dalam hal pemohon memberikan keterangan tidak sesuai dengan surat pernyataan, Menteri berwenang untuk mencabut surat pencatatan permohonan.



# Analysis of Hydrology Parameters In a Tropical Wetlands

An Early Approach to Identify A Drought Risk In A Peatland Area

## Abstract



The hydrological condition as a tool to assess a wetland condition can be determined by investigating actual local data or analyzing historical climatological records. Several methods can approach the wetland condition, including peatland in general. The definition of physical properties to assess critical groundwater table depths is one of them. Another way is to define the requirements in the area that can be approached by determining the condition of the wetland area for general.

Understanding and assessing the wetland state is necessary to measure and evaluate the wetland situation, and it can be done by analyzing wetland hydrology parameters. Due to the necessity to mitigate change conditions in a wetland, it is common to know that either flood or drought will derive a difficult situation both in a wetland and a peatland but especially for a peatland, drought condition is severe.

## Study Purpose



to observe the water table elevation in a particularly peatland area



to analyze the hydrology parameters (rainfall and evapotranspirations)



to see the connection between the two and try to identify the drought risk by analyzing the relation between them



## Methods

The primary data were obtained from installed equipment (installed for one and half months to collect daily water table elevation).

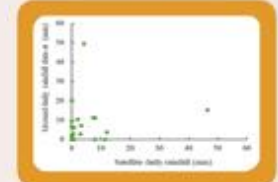
The secondary data were obtained from satellite data (local and regional).

Evapotranspiration was analyzed by Modified Blaney-Criddle method.

Rainfall Analysis was analyzed by Root Mean Square Error (RMSE) methods.

## Results

The satellite has an excellent relationship to the ground data (with pretty low root mean square error (RMSE) number). The maximum rainy months are from December to February and the minimum occurring in August.



The value of the WTE is relatively high (even though the evapotranspiration was low) and bear to occur above 40 cm (in July), which is the limit of government regulation.

The most increased evapotranspiration occurred in J-J-A and S-O-N periods (this study).

