Pola Spasial Kelembaban dan Jenis Vegetasi Menggunakan Citra Satelit Sentinel-2 di Rawa Desa Tanjung Sari, Ogan Komering Ilir Tahun 2023 = Spatial Patterns of Humidity and Vegetation Types Using Imagery Sentinel-2 Satellite in Rawa Tanjung Sari Village, Ogan Komering Ilir in 2023

Alva Khairy Muharram, author

Abstrak

Rawa merupakan lahan yang selalu tergenang sepanjang tahun. Seringnya terjadi kebakaran di area rawa desa Tanjung Sari menyebabkan diperkukannya konservasi lahan rawa sebagai upaya untuk mempertahankan keanekaragaman hayati. Adanya genangan air yang muncul di daerah rawa menjadi kendala untuk kegiatan konservasi, di mana kelembaban permukaan tanah yang tertutup vegetasi menjadi indikasi penyebab kebakaran hutan pada wilayah dengan kelembaban rendah. Diperlukan pemantauan terhadap pola dari kelembaban vegetasi serta persebaran jenis vegetasi yang tumbuh dideaerah rawa serta karakteristik vegetasi tersebut. Penelitian ini bertujuan untuk mengevaluasi dampak tingkat kelembaban vegetasi terhadap jenis dan karakteristik vegetasi di rawa Desa Tanjung Sari, yang merupakan bagian dari upaya konservasi ekosistem rawa yang selalu tergenang. Pola kelembaban dan sebaran vegetasi didapatkan melalui pengolahan data citra satelit Sentinel-2 dan observasi lapangan. Metode analisis spasial dan deskriptif digunakan dengan memanfaatkan indeks NDMI (Normalized Difference Moisture Index) untuk mengukur kelembaban vegetasi beserta polanya dan NDVI (Normalized Difference Vegetation Index) untuk melihat sebaran jenis dan karakteristik vegetasi berdasarkan tingkat kelembabannya. Hasil analisis menunjukkan bahwa rawa Desa Tanjung Sari pada bulan September didominasi oleh kelembaban vegetasi rendah dan sedang yang mencakup sekitar 97,3% luas area rawa dan membentuk pola yang didasari oleh lokasi mata air berupa sungai, sedangkan untuk sebaran vegetasi pada kelembaban rendah didominasi oleh vegetasi berjenis rumput, dan sebaran vegetasi pada genangan sedang terdapat beberapa jenis vegetasi pepohonan yang lebih kuat untuk hidup di kelembaban sedang.

.....Swamps are land that is always flooded throughout the year. The frequent occurrence of fires in the swamp area of Tanjung Sari village has led to the need for swamp land conservation as an effort to maintain biodiversity. The presence of standing water that appears in swamp areas is an obstacle for conservation activities, where the moisture on the surface of soil covered by vegetation is an indication of the cause of forest fires in areas with low humidity. It is necessary to monitor the pattern of vegetation moisture and the distribution of vegetation types that grow in swamp areas and the characteristics of this vegetation. This research aims to evaluate the impact of vegetation moisture levels on the types and characteristics of vegetation in the swamps of Tanjung Sari Village, which is part of conservation efforts for the swamp ecosystem which is always flooded. Moisture patterns and vegetation distribution were obtained through processing Sentinel-2 satellite image data and field observations. Spatial and descriptive analysis methods are used by utilizing the NDMI (Normalized Difference Moisture Index) index to measure vegetation humidity and its patterns and NDVI (Normalized Difference Vegetation Index) to see the distribution of vegetation types and characteristics based on humidity levels. The results of the analysis show that the swamp in Tanjung Sari Village in September is dominated by low and medium humidity vegetation which

covers around 97.3% of the swamp area and forms a pattern based on the location of the spring in the form of a river, while the distribution of vegetation at low humidity is dominated by vegetation. grass type, and in the distribution of vegetation in moderate puddles there are several types of tree vegetation that are stronger to live in moderate humidity.