

DAMPAK BANJIR TERHADAP DAYA DUKUNG LAHAN PERTANIAN TANAMAN PADI DI KABUPATEN DEMAK PROVINSI JAWA TENGAH TAHUN 2019-2023

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INTISARI

Kabupaten Demak merupakan salah satu lumbung padi di Jawa Tengah maupun dalam skala nasional. Akan tetapi, letak geografis Kabupaten Demak yang berada di dataran rendah yakni berada di antara 0-100 meter di atas permukaan air laut (mdpl) dan berada dekat dengan laut serta memiliki banyak sungai yang mengalir di tiap kecamatan menyebabkan Kabupaten Demak rawan terhadap bencana banjir. Oleh karena itu, penelitian ini bertujuan untuk menganalisis persebaran banjir tiap kecamatan di Kabupaten Demak tahun 2019-2023, menganalisis dampak banjir terhadap daya dukung lahan pertanian tanaman padi di Kabupaten Demak tahun 2019-2023, dan menyusun rekomendasi mengenai strategi penanggulangan banjir pada lahan sawah guna meningkatkan Daya Dukung Lahan Pertanian Kabupaten Demak.

Penelitian ini menggunakan metode analisis deskriptif kuantitatif untuk menganalisis persebaran genangan banjir, analisis regresi linear berganda untuk mengetahui tingkat signifikan variabel banjir berdampak terhadap daya dukung lahan pertanian, serta metode matematika untuk menghitung daya dukung lahan pertanian tanaman padi. Hasil analisis tersebut kemudian dirumuskan rekomendasi penanggulangan banjir pada lahan sawah. Hasil penelitian menunjukkan banjir di Kecamatan Mranggen, Karangawen, dan Sayung memiliki dampak signifikan terhadap DDLP Kabupaten Demak. Hasil uji regresi linear berganda menunjukkan bahwa kejadian banjir, luas sawah tergenang, dan ketinggian genangan tidak berdampak signifikan terhadap daya dukung lahan pertanian tanaman padi di Kabupaten Demak.

Kata Kunci: Banjir, Kejadian Banjir, Daya Dukung Lahan Pertanian, Kabupaten Demak

THE IMPACT OF FLOODING ON THE CARRYING CAPACITY OF
AGRICULTURAL LAND FOR RICE CROPS IN DEMAK REGENCY CENTRAL
JAVA PROVINCE 2019-2023

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ABSTRACT

Demak Regency is one of the rice granaries in Central Java and nationally. However, the geographical location of Demak Regency, which is in a lowland area between 0-100 meters above sea level and close to the sea, with many rivers flowing in each subdistrict, makes Demak Regency prone to flooding. Therefore, this study aims to analysis the distribution of floods in each subdistrict in Demak Regency from 2019 to 2023, analysis the impact of floods on the carrying capacity of rice fields in Demak Regency from 2019 to 2023, and develop recommendations on flood mitigation strategies for rice fields to improve the carrying capacity of agricultural land in Demak Regency.

This study used quantitative descriptive analysis methods to analyze the distribution of flood inundation, multiple linear regression analysis to determine the level of significance of flood variables in impacting the carrying capacity of agricultural land, and mathematical methods to calculate the carrying capacity of rice fields. The results of this analysis then formulated recommendations for flood mitigation in rice fields. The results showed that flooding in Mranggen, Karangawen, and Sayung Districts had a significant impact on the DDLP (Food and Agricultural Land Use) in Demak Regency. The results of the multiple linear regression test indicated that flood occurrence, the area of inundated rice fields, and inundation height did not significantly impact the carrying capacity of rice fields in Demak Regency.

Keywords: Flood, Flood Occurrence, Agricultural Land Carrying Capacity, Demak Regency
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