

ANALISIS KESETIMBANGAN AIR PADA DAERAH IRIGASI CIMULU

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Abstrak

Daerah Irigasi Cimulu yang bersumber dari Bendung Cimulu yang dibangun di sungai Ciloseh ini hampir mengairi semua wilayah kabupaten dan kota Tasikmalaya diantaranya wilayah Cibereum dan Manonjaya. Perbedaan luas areal pengairan antara wilayah Cibereum dan Manonjaya serta tidak meratanya pengairan air menjadi penyebab sering terjadinya kekeringan pada musim kemarau terhitung sekitar 19,63% atau sekitar 306 ha dari total air irigasi seluas 1546,2 ha. Hal ini berdampak pada kegiatan pertanian di sebagian daerah yang dilayani oleh Daerah Irigasi Cimulu. Berdasarkan hal tersebut perlu adanya analisis kebutuhan air irigasi untuk mendapatkan besarnya debit kebutuhan air irigasi pada Daerah Irigasi Cimulu. Analisis kebutuhan air irigasi ini menggunakan metode berdasarkan konsep KP-01. Parameter taksiran hitungan dari metode tersebut didapatkan nilai evapotranspirasi, curah hujan merupakan parameter untuk menentukan nilai kebutuhan air irigasi. Sedangkan data debit unggulan digunakan untuk menentukan nilai ketersediaan air. Hasil analisis didapatkan bahwa kebutuhan air optimum berdasarkan nilai faktor k untuk pola tanam padi-padi-palawija didapat dari jadwal tanam RTTG Oktober-1 dan Oktober -2 sebesar 14,53 mm/hari. Sedangkan ketersediaan air minimum dan maksimum didapat dari jadwal tanam RTTG Oktober-1 dan April-1 sebesar 0,05 dan 91,38.

Kata Kunci: Kesetimbangan Air, Kebutuhan Air Irigasi, Ketersediaan Air Irigasi

WATER BALANCE ANALYSIS IN THE CIMULU IRRIGATION AREA

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Abstract

The Cimulu Irrigation Area, which originates from the Cimulu Dam which was built on the Ciloseh River, almost irrigates all areas of the regency and city of Tasikmalaya, including the Cibereum and Manonjaya areas. The difference in the area of irrigation areas between Cibereum and Manonjaya and the uneven irrigation of water are the frequent causes of drought during the dry season accounting for around 19.63% or around 306 ha of the total irrigation water area of 1546.2 ha. This has an impact on agricultural activities in some areas served by the Cimulu Irrigation Area. Based on this, it is necessary to analyze the need for irrigation water to obtain the amount of debit needed for irrigation water in the Cimulu Irrigation Area. This irrigation water demand analysis uses a method based on the KP-01 concept. The estimated parameter calculated from this method is the value of evapotranspiration, rainfall is a parameter to determine the value of irrigation water needs. While the leading discharge data is used to determine the value of water availability. The results of the analysis found that the optimum water requirement based on the k factor value for the rice-paddy-secondary crops cropping pattern was obtained from the RTTG planting schedule October-1 and October -2 of 14.53 mm/day. Meanwhile, the minimum and maximum water availability was obtained from the RTTG planting schedule for October-1 and April-1 of 0.05 and 91.38.

Keywords: *Water Balance, Irrigation Water Needs, Risk of Land Failure, availability of irrigation water*