

ANALISIS KEBUTUHAN DAN KETERSEDIAAN AIR IRIGASI (STUDI KASUS: DAERAH IRIGASI LIDI KABUPATEN KAPUAS HULU)

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ABSTRAK

Daerah Irigasi terletak di Kabupaten Kapuas Hulu yang mampu menyediakan air irigasi sebesar 25 ha areal sawah. Sebelum adanya Daerah Irigasi lidi ini, para petani sekitar mengalami beberapa permasalahan salah satunya yaitu kekurangan air irigasi terutama pada saat musim kemarau tiba. Berdasarkan permasalahan tersebut, maka diperlukan penelitian berupa analisis kebutuhan dan ketersediaan air irigasi. Metode yang digunakan dalam menghitung curah hujan efektif menggunakan metode *Penman Modifikasi* dan untuk menghitung debit aliran sungai berdasarkan data hujan menggunakan metode *F.J. Mock*. Penelitian ini diawali dengan melakukan analisis menggunakan data sekunder, mulai dari perhitungan curah hujan, perhitungan ETo, perhitungan debit teredia, perhitungan hujan efektif, serta perhitungan pola tata tanam dan kebutuhan air irigasi. Hasil analisis perhitungan dalam penelitian yang telah dilakukan, diketahui ketersediaan air terbesar yang dapat digunakan untuk pola tata tanam di Daerah Irigasi Lidi sebesar 0,0821 m³/detik atau 82,1 liter/detik. Sedangkan kebutuhan air tertinggi sebesar 0,0229 m³/detik atau 22,9 liter/detik. Kebutuhan air maksimum untuk kebutuhan pola tata tanam Padi-Padi-Palawija sebesar 22,9 liter/detik, sedangkan untuk kebutuhan irigasi minimum untuk model pola tata tanam Padi-Padi-Palawija sebesar 0,0004 liter/detik. Dari perhitungan yang telah dilakukan, ketersediaan air di Daerah Irigasi Lidi mampu memenuhi kebutuhan air irigasi.

Kata kunci: Kebutuhan Air, Ketersediaan Air, Daerah Irigasi

ANALYSIS OF THE NEED AND AVAILABILITY OF IRRIGATION WATER (CASE STUDY: LIDI IRRIGATION AREA, KAPUAS HULU REGENCY)

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ABSTRACT

The Irrigation Area is located in Kapuas Hulu Regency which is capable of providing irrigation water for 25 ha of paddy fields. Before the existence of this stick irrigation area, local farmers experienced several problems, one of which was a lack of irrigation water, especially during the dry season. Based on these problems, research is needed in the form of analysis of the needs and availability of irrigation water. The method used to calculate effective rainfall is the Modified Penman method and to calculate river flow discharge based on rainfall data using the F.J. Mock. This research begins with analyzing secondary data, starting from calculating rainfall, calculating ETo, calculating available discharge, calculating effective rain, as well as calculating cropping patterns and irrigation water needs. The results of the calculation analysis in the research that has been done, it is known that the greatest availability of water that can be used for cropping patterns in the Lidi Irrigation Area is 0.0821 m³/second or 82.1 liters/second. Meanwhile, the highest water requirement is 0.0229 m³/second or 22.9 liters/second. The maximum water requirement for the Paddy-Rice-Palawija cropping pattern is 22.9 liters/second, while the minimum irrigation requirement for the Paddy-Rice-Palawija cropping pattern is 0.0004 liters/second. From the calculations that have been made, the availability of water in the Lidi Irrigation Area is able to meet the needs of irrigation water. Keywords: Water Demand, Water Availability, Irrigation Area