

ABSTRAK

PEMETAAN LOKASI POTENSIAL PERENCANAAN PEMBANGUNAN EMBUNG BERDASARKAN KONDISI BIOGEOFISIK DI DAS BULOK PROVINSI LAMPUNG

Oleh

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Penelitian ini bertujuan untuk mengkaji pemetaan lokasi potensial perencanaan pembangunan embung berdasarkan kondisi biogeofisik di DAS Bulok Provinsi Lampung. Penelitian ini menggunakan metode *overlay* serta teknik pembobotan dan skoring yang dikembangkan oleh GIS. Populasi meliputi seluruh wilayah biogeofisik DAS Bulok, dengan sampel yang diambil adalah 4 parameter biogeofisik DAS Bulok yang meliputi parameter tutupan lahan, kemiringan lereng, jenis tanah dan kondisi geologi.

Hasil penelitian menunjukkan terdapat 69 titik lokasi sangat potensial untuk direncanakan pembangunan embung yang tersebar di wilayah DAS Bulok, dari 87.670 Ha luas DAS Bulok, 14.192 Ha adalah luas lokasi yang sangat potensial. Perkiraan volume daya tampung embung di DAS Bulok dihitung berdasarkan panjang dan lebar rata-rata, serta kedalaman 2 m embung disetiap titik sangat potensial, menunjukkan bahwa total embung yang dapat dibangun di DAS Bulok adalah sekitar 1.612 embung, dengan total volume tampung minimal 4.836.000 m³. Total volume tampung embung tersebut diperkirakan mampu mereduksi debit banjir di DAS Bulok sebesar 50%, dengan perkiraan debit maximum (debit banjir) di DAS Bulok yang paling tinggi berdasarkan data debit rata-rata selama 10 tahun (2009-2018) mencapai angka 8.422.037 m³/hari.

Kata kunci: kondisi biogeofisik, volume tampung embung, banjir

ABSTRACT

MAPPING POTENTIAL LOCATIONS OF RESERVOIR DEVELOPMENT PLANNING BASED ON BIOGEOPHYSICAL CONDITIONS IN BULOK WATERSHED, LAMPUNG PROVINCE

By

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The aims of this research were to study the mapping of potential locations for reservoir development planning based on bio geophysical conditions in Bulok watershed, Lampung Province. This study used overlay method, weighting technique and scoring that is developed by GIS. The population covers the entire bio geophysical area of Bulok watershed, and the taken samples are 4 bio geophysical parameters of the Bulok watershed which include parameters of land cover, slope, soil type and geological conditions.

The results showed that there were 69 locations with great potential for planning the construction of reservoirs spread over the Bulok watershed area, from 87.670 Ha of the Bulok watershed area, 14.192 Ha is a very potential area. The estimated carrying capacity of the reservoir in the Bulok watershed is calculated based on the average length and width, as well as the depth of 2 m of the reservoir at each point was very potential. it indicated that the total of reservoir that can be built in the Bulok watershed is about 1.612 reservoirs, with a minimum total capacity of 4.836.000 m³. The total volume of the reservoir is estimated to be able to reduce flood discharge in the Bulok watershed by 50%, with the highest estimated maximum discharge (flood discharge) in the Bulok watershed based on 10-year average discharge data (2009-2018) reaching 8,422,037. m³/day.

Keywords: biogeophysical conditions, reservoir volume, flood