

## INTISARI

### **EVALUASI PENGGUNAAN LAHAN DAERAH ALIRAN SUNGAI SERANG MENGGUNAKAN SISTEM INFORMASI GEOGRAFIS**

Oleh :

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Peningkatan jumlah penduduk, kegiatan perekonomian dan pembangunan telah menyebabkan berbagai permasalahan konversi lahan di wilayah DAS yang tidak lagi mempertimbangkan fungsi dan kemampuan lahan. Berdasarkan permasalahan biofisik dan sosial ekonomi, DAS Serang termasuk kedalam skala prioritas I (SK.Menhut No.346/Menhut-V/2005). Oleh karena itu perlu dirumuskan kembali penggunaan lahan DAS Serang, sehingga dapat berfungsi secara optimal dalam mendukung kehidupan.

Tujuan penelitian ini adalah untuk mengevaluasi dan merumuskan kesesuaian penggunaan lahan DAS Serang berdasarkan arahan fungsi kawasan dan kemampuan lahan. Penelitian ini dilakukan menggunakan pendekatan satuan lahan sebagai satuan analisis. Penetapan arahan fungsi kawasan dilakukan menurut SK Mentan No.837 Tahun 1980 dan pengklasifikasian kemampuan lahan dilakukan berdasarkan faktor penghambat. Evaluasi kesesuaian penggunaan lahan dilakukan dengan membandingkan penggunaan lahan aktual berdasarkan arahan fungsi kawasan dan kemampuan lahan. Arahan penggunaan lahan dirumuskan berdasarkan evaluasi tersebut.

Hasil penelitian menunjukkan DAS Serang memiliki kesesuaian penggunaan lahan berdasarkan arahan fungsi kawasan; sesuai seluas 11.169,04 ha (51,40%), tidak sesuai negatif seluas 6.958,73 ha (32,02%), dan tidak sesuai positif seluas 3.603,11 ha (16,58%). Penggunaan lahan yang sesuai dengan kemampuan lahan adalah seluas 18.238,69 ha (83,93 %), tidak sesuai negatif seluas 3.492,19 ha (16,07%). Arahan penggunaan lahan berdasarkan arahan fungsi kawasan dan kemampuan lahan, yaitu: dipertahankan seluas 18.651,07 ha (85,83%) (tindakan konservasi sipil teknis seluas 2.324,98 ha (10,70%), tindakan konservasi vegetatif seluas 4.981,60 ha (22,92%), tindakan konservasi vegetatif dan sipil teknis seluas 4.501,68 ha (20,72%) dan tindakan konservasi (vegetatif dan sipil teknis) penebangan tidak terbang habis seluas 6.842,81 ha (31,49%)), penggunaan lahan dirubah ke kebun campur/hutan rakyat sistem agroforestri seluas 3.079,80 ha (14,17%).

Kata kunci: daerah aliran sungai, DAS Serang, arahan fungsi kawasan, kemampuan lahan dan arahan penggunaan lahan

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## ABSTRACT

### THE EVALUATION OF THE LAND USE OF SERANG WATERSHEDS BY USING GEOGRAPHIC INFORMATION SYSTEMS

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The increasing population, economic activities and the constructions have led to various problems of land conversion in the watershed area, which no longer consider the functions and capabilities of the land use. Based on the biophysical and socio-economic problems, Serang Watershed includes into the scale of priorities I (SK.Menhut No. 346/Menhut-V/2005). Therefore, it is necessary to reformulate the land use of the Serang watershed, so that it can function optimally in supporting the living.

The purposes of this study are to evaluate and formulate the suitability of the land use of Serang Watershed based on the areal function directives and the land use capability. This research is conducted by using land units as the analytical units. The determination of the areal function directives is carried out according to SK Mentan No. 837 on the year of 1980 while the classification of the land use capability is done based on restricting factors. The evaluation of the land use suitability is conducted by comparing the using of the actual land on the ground of areal function directives and the land use capability. The land use directives are formulated based on the evaluation.

The results show that Serang Watershed has land use suitability based on the direction of area function 10,684.62 ha (49.17%) which is coherence, 6,958.73 ha (32.02%) does not correspond to a negative, 3,603.11 ha (16.58%) does not correspond to the positive and the rest, 484.22 ha (2.23%), is the body of water. Based on the land use capability, the appropriate land use is 17,754.47 ha (81.70%), does not correspond to a negative 3,492.19 ha (16.07%) and the rest is a body of water. The land use directives based on the direction of area function and the land capability, are sustained to be 18,166.86 ha (83.60%) (the measures of technical civil conservation of 1,840.77 ha (8.47%), the measures of vegetative conservation of 4,981.60 ha (22.92%), the measures of vegetative conservation and technical civil of 4,501.68 ha (20.72%) and measures of conservation (vegetative and technical civil) the logging which is not clear-cutting of 6,842.81 ha (31.49%), the land use is changed to be mixed cultivation/agroforestry system of public forest covering an area of 3,079.80 ha (14.17%), and the rest is the body of water of 484.22 ha (2.23%).

Key words: Watershed, Serang Watershed, direction of area function, land use capability, and land use directives

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