

## SARI

Daerah penelitian secara administratif terletak di Kabupaten Tangerang, Provinsi Banten, sampai Kabupaten Bogor, Provinsi Jawa Barat. Secara geografis berada di  $106^{\circ}36'41,02'$  BT sampai  $106^{\circ}46'25,6'$  BT dan  $6^{\circ}16'17,11'$  LS sampai  $6^{\circ}33'7,42'$  LS. Objek yang diteliti dalam penelitian ini adalah sungai beserta karakteristiknya. Penelitian ini bertujuan untuk mengetahui karakteristik batuan Tersier dan Kuarter. Daerah penelitian terdiri dari 13 sub-DAS dan didominasi oleh batuan berumur Tersier.

Dalam penelitian ini dilakukan metode yang meliputi analisis data, pengumpulan data sekunder, pengolahan data serta pembuatan laporan. Pola pengaliran yang terdapat di daerah penelitian adalah subdendritik dan subparalel.

Analisis hasil perhitungan nisbah percabangan ( $R_b$ ) dan nisbah Panjang ( $R_l$ ) menunjukkan rasio percabangan sungai tidak terpengaruh deformasi tektonik. Nilai kerapatan pengaliran ( $D_d$ ) semakin besar nilai  $D_d$  suatu DAS maka litologi relative lebih lunak, sehingga angkutan sedimen yang terangkut akan lebih besar. Nisbah tekstur ( $R_t$ ) diketahui bahwa sub-DAS Cisadane Bagian Tengah memiliki tekstur sangat kasar ( $<2$ ) sampai kasar (2-4) dengan range nilai 0.25-2.95. Hasil perhitungan dapat dilihat bahwa sub-DAS batuan berumur Tersier memiliki nilai paling kecil dibandingkan dengan sub-DAS batuan berumur Kuarter. Nisbah kelonjongan ( $R_e$ ) dilihat berdasarkan klasifikasi rasio kelonjongan maka seluruh sub-DAS Cisadane masuk kedalam kategori *more elongated* karena memiliki nilai  $<0.5$ . Nilai kebundaran ( $R_c$ ) sub-DAS batuan berumur Tersier dan Kuarter memiliki rata-rata nisbah kebundaran lebih besar dari 0.5 yang mengindikasikan bahwa sub-DAS ini memiliki bentuk agak membundar kemudian kenaikan muka air tinggi serta permeabilitas rendah. Nisbah bentuk ( $R_f$ ) hasil perhitungan nisbah bentuk, didapati bahwa semua sub-DAS Cisadane berbentuk memanjang (lonjong) dikarenakan nilai  $R_f < 0.7854$ .

**Kata Kunci** : DAS Cisadane, Morfometri, Umur Batuan

## ABSTRACT

*The research area is administratively located in Tangerang Regency, Banten Province, to Bogor Regency, West Java Province. Geographically located at 106°36'41.02" E to 106°46'25.6" E and 6°16'17.11" LS to 6°33'7.42" LS. The object studied in this study is the river and its characteristics. This study aims to determine the characteristics of Tertiary and Quaternary rocks. The study area consists of 13 sub-watersheds and is dominated by Tertiary aged rocks.*

*In this study, methods were carried out which included data analysis, secondary data collection, data processing and report making. The flow patterns found in the study area are subdendritic and subparallel.*

*Analysis of the calculation of branching ratio (Rb) and length ratio (Rl) shows that the ratio of river branching is not affected by tectonic deformation. The flow density value (Dd) the greater the Dd value of a watershed, the relatively softer lithology, so that the uplifted sediment transport will be greater. The texture ratio (Rt) is known that the Central Cisadane sub-watershed has a very rough (<2) to rough (2-4) texture with a value range of 0.25-2.95. The calculation results can be seen that the Tertiary age rock sub-watershed has the smallest value compared to the Quaternary aged rock sub-watershed. The Oblong ratio (Re) is seen based on the oblong ratio classification, so all Cisadane sub-watersheds are included in the more elongated category because they have a value of <0.5. The circumference (Rc) value of Tertiary and Quaternary age rock sub-watersheds has an average roundness ratio greater than 0.5 indicating that this sub-watershed has a slightly rounded shape then high water level rise and low permeability. The shape ratio (Rf) as a result of the calculation of the shape ratio, found that all Cisadane sub-watersheds are elongated (oval) because the Rf value is <0.7854.*

**Keywords :** *Cisadane Watershed, Morphometry, Age of Rocks*