

# **ANALISIS GEOMORFOLOGI DAN HIDRO-OSEANOGRAFI TERKAIT KARAKTERISTIK SAMPAH PANTAI MESO DAN MAKRO DI PANTAI SELATAN BANTUL YOGYAKARTA**

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## **Intisari**

Indonesia merupakan negara maritim yang memiliki garis pantai sepanjang 95.181km. Meskipun demikian, terdapat permasalahan lingkungan berupa adanya sampah pantai. Penelitian ini bertujuan untuk mengetahui karakteristik sampah pantai berukuran meso dan makro di Pantai Baru dan Pantai Samas, sumber sampah pantai dan transportasinya, serta proses hidro-oseanografi yang mempengaruhinya. Penelitian dilaksanakan di Pantai Samas dan Pantai Baru, Kabupaten Bantul, Yogyakarta. Metode yang digunakan adalah sampling sampah pantai menggunakan transek dan pengukuran serta perhitungan jumlah, ukuran, dan massa sampah pantai, perhitungan morfometri DAS untuk penentuan karakteristis proses fluvial, serta penentuan tipologi pantai untuk menentukan proses hidro-oseanografi. Penelitian menunjukkan sampah pantai yang ditemukan di Pantai Baru dan Pantai Samas masing-masing adalah 149 buah dan 95 buah. Sampah pantai makro dominan ditemukan di Pantai Samas (80%) dan sampah pantai meso dominan di Pantai Baru (67%). Total massa sampah pantai di Pantai Baru dan Pantai Samas adalah 129g dan 1722g. Jumlah sampah pantai yang lebih banyak serta ukuran yang lebih kecil di Pantai Baru diduga berasal dari daratan dan terbawa oleh proses fluvial di DAS Progo yang lebih luas (1.660km<sup>2</sup>) dan lebih memanjang (Rb: 0,12). Sementara itu, massa sampah pantai yang lebih besar di pantai Samas diduga disebabkan tipologi pantai reflektif ( $\epsilon$ : 52,86) yang mampu membawa massa sampah pantai lebih tinggi.

Kata Kunci: sampah pantai, hidro-oseanografi, proses fluvial, tipologi pantai, gelombang laut

**GEOMORPHOLOGICAL AND HYDRO-OSEANOGRAPHIC ANALYSIS  
RELATED TO THE CHARACTERISTICS OF  
MESO AND MACRO SIZED BEACH WASTE IN THE SOUTH COAST OF  
BANTUL, YOGYAKARTA**

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**Abstract**

Indonesia is a maritime country that has a coastline of 95,181 km. However, there are environmental problems in the form of beach waste. This study aims to determine the characteristics of meso- and macro-sized beach waste, the source of coastal litter and its transportation, and the hydro-oceanographic processes that affect it. The research was conducted at Samas Beach and Baru Beach, Bantul Regency, Yogyakarta. The method used is sampling of coastal waste using transects and then determining the amount, size, and mass of coastal waste, calculating watershed morphometry to determine fluvial morphological characteristics, and determining beach typology to determine hydro-oceanographic processes. Research shows that the beach litter found at Pantai Baru and Pantai Samas is 149 pieces and 95 pieces, respectively. Macro-sized beach waste was dominantly found in Samas Beach (80%) and the meso-sized beach waste is dominantly found in Baru Beach (67%). The total mass of beach waste in Pantai Baru and Pantai Samas is 129g and 1722g, respectively. The vast amount of coastal waste and smaller size in Pantai Baru is thought to have originated from land and was carried away by fluvial processes in the wider (1.660km<sup>2</sup>) and more elongated (Rb: 0.12) Progo watershed. Meanwhile, the larger mass of beach waste at Samas beach is thought to be caused by the reflective beach typology ( $\epsilon$ : 52.86) which is able to carry a higher mass of beach waste.

**Keywords:** beach waste, hydro-oceanography, fluvial morphology, beach typology, ocean wave