

INTISARI

Sub-Daerah Aliran Sungai (Sub-DAS) Bompon sebagai salah satu daerah tangkapan air hujan rentan untuk mengalami erosi dan longsor. Salah satu erosi yang berkembang di sub-DAS Bompon yaitu erosi parit. Erosi parit mempunyai dampak paling besar jika dibandingkan dengan erosi lainnya, karena berpotensi menyebabkan longsor. Penelitian ini bertujuan untuk (1) mengidentifikasi persebaran dan pembentukan erosi parit yang berkembang di sub-DAS Bompon (2) menghitung kehilangan tanah akibat erosi parit di sub-DAS Bompon (3) mendeskripsikan karakteristik morfometri erosi parit yang berkembang di sub-DAS Bompon (4) menganalisis faktor – faktor yang berpengaruh terhadap proses erosi parit yang berkembang di DAS sub-Bompon (5) menganalisis faktor penyebab terjadinya longsor pada erosi parit di sub-DAS Bompon. Penelitian dilakukan dengan mengumpulkan data data lapangan (morfometri erosi parit, infiltrasi tanah, dan permeabilitas tanah) dan data laboratorium (tekstur tanah dan bahan organik tanah). Hasil penelitian menunjukkan bahwa (1) erosi parit berkembang di seluruh bagian sub-DAS Bompon dan cenderung terbentuk mulai dari lereng tengah hingga lereng bawah perbukitan. (2) Total tanah hilang akibat *erogully-slide* berkisar antara 103,24 – 1178,30 ton/ha dan totalnya sebesar 7093,37 ton/ha dengan total luas catchment 6,55 ha. Kehilangan tanah akibat *erogully-slide* di sub-DAS Bompon cenderung lebih tinggi pada lahan yang sering diolah dan terdapat tanaman bambu disekitar parit. (3) Erosi parit yang berkembang di sub-DAS Bompon mempunyai ukuran yang beragam dan dapat mencapai kedalaman lebih dari 5 m serta mempunyai bentuk menyerupai huruf V, huruf U, trapesium, dan kendi. (4) Faktor yang berpengaruh terhadap hasil erosi paritnya berupa karakteristik material permukaan, penggunaan lahan dan jenis vegetasinya. Material permukaan didominasi oleh lempung yang mudah hancur dan mudah terdispers oleh air. Erosi parit mudah berkembang pada penggunaan lahan tegalan-kebun campuran. Tanaman bambu merupakan tanaman yang mendominasi di sekitar parit dan mempengaruhi pelebaran dari erosi parit yang berkembang. (5) Faktor yang paling berpengaruh terhadap terjadinya longsor yaitu faktor curah hujan, karakteristik tanah, kemiringan lereng, jenis vegetasi dan erosi.

Kata kunci: erosi parit, penggunaan lahan, bentuklahan, longsor

ABSTRACT

Bompon sub-watershed as one of the rainwater catchment areas is prone to erosion and landslides. One of the erosion that develops in the Bompon sub-watershed is gully erosion. Gully erosion has the greatest impact when compared to other erosion, because it has the potential to cause landslides. The purpose of this study were (1) to identify the distribution and formation of gully erosion that develops in the Bompon sub-watershed (2) to calculate the soil loss due gully erosion in the Bompon sub-watershed. (3) to describe the morphometric characteristics of gully erosion that develops in the Bompon sub-watershed (4) to analyze the factors that influence the process of gully erosion that develops in the Bompon sub-watershed. (5) to analyze the factor that cause landslides in gully erosion in the Bompon sub-watershed. The research was conducted by collecting field data (morphometry of gully erosion, soil infiltration, and soil permeability) and laboratory data (soil texture and soil organic matter). The results showed that (1) the gully erosion develops throughout the Bompon sub-watershed and tends to form from the middle slopes to the lower slopes of the hills. (2) Total soil loss due to erogully-slide in the Bompon sub-watershed is 7093,37 tons/ha with total catchment area 6,55 ha. Soil loss due to erogully-slide tends to higher on land that is often cultivated and there are bamboo plants around the gully. (3) The gully erosion that developed in the Bompon sub-watershed has various sizes and can reach a depth of more than 5 m. Gully erosion that develops has a shape like the letter V, letter U, trapezoid, and bottle. (4) The most influential factors on the results of gully erosion are the characteristics of the surface material, land use and types of vegetation. The surface material is dominated by clay which is easily crushed and easily dispersed by water. Gully erosion is easy to develop on dryland-mixed garden land use. Bamboo are the dominant plants around the gully and affect the widening process of gully erosion. (5) The factors that most influence the occurrence of landslides are rainfall factors, soil characteristics, slopes, types of vegetation and erosion.

Keywords: gully erosion, land use, landform, landslide