

ABSTRAK

ANALISIS TINGKAT BAHAYA EROSI PADA AREA TEGAKAN DAN TUMBUHAN BAWAH CAGAR ALAM IMOGIRI DI KAPANEWON IMOGIRI, BANTUL, D.I.YOGYAKARTA

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Keberadaan Cagar Alam di Imogiri ini berbeda dengan cagar alam lainnya karena masih dalam proses penyesuaian dari hutan produksi menjadi hutan alami. Sebelumnya yang merupakan hutan produksi terdapat kayu putih yang menjadi salah satu vegetasi produksi memperbesar erosi. Erosi merupakan salah satu indikator bahwa suatu lahan mengalami kerusakan. Permasalahan ini terjadi karena hutan produksi berubah menjadi cagar alam dan belum ada penataan lahan yang dilakukan sebagaimana fungsi cagar alam pada umumnya. Penelitian ini sangat penting dalam mengetahui seberapa besar pengaruh vegetasi hutan produksi yang masih tersisa, serta mengidentifikasi dampak yang ditimbulkan oleh vegetasi tersebut terhadap lahan di sekitarnya.

Penelitian ini menggunakan metode *purposive sampling* berdasarkan perbedaan bentuk pertumbuhan. Pengukuran tongkat dipasang pada area tegakan dan tumbuhan bawah. Terdapat 4 titik pengukuran besar erosi dalam penentuan kelas Tingkat Bahaya Erosi yang dilakukan selama 45 hari kejadian hujan dengan 36 hari penurunan tanah, LP 18 terdiri 9 tongkat panjang lereng tererosi 1,7 m, LP 19 terdiri 15 tongkat panjang lereng 6,43, LP 20 terdiri 9 tongkat panjang lereng tererosi 1,62 m, LP 21 terdiri 15 tongkat panjang lereng 3,11 m. Pengambilan sampel tanah pada setiap area dilakukan untuk mengetahui nilai berat volume tanah yang di uji serta dihitung untuk memperoleh nilai besar erosi.

Hasil penelitian menunjukkan total besar erosi tegakan sebesar 1.301,87 ton/ha dan tumbuhan bawah sebesar 383,55 ton/ha sehingga tingkat bahaya erosi LP 18 sebesar 34,5 ton/ha/tahun di kelas berat dan LP 19 sebesar 61,57 ton/ha/tahun di kelas sangat berat, LP 20 sebesar 10,12 ton/ha/tahun kelas sedang dan LP 21 sebesar 18,82 ton/ha/tahun kelas berat. Adanya perbedaan kelas TBE setiap areanya dipengaruhi oleh bentuk pertumbuhannya. Bentuk pertumbuhan menentukan kemampuan vegetasi dalam melindungi permukaan tanah, meredam energi pukulan air hujan, serta menghambat limpasan permukaan. Selain itu, perbedaan setiap LP pada areanya dipengaruhi juga dengan panjang lereng tererosi. Sehingga arahan pengelolaan dilakukan dengan metode konservasi secara vegetatif pada area tegakan dengan penanaman rumput vetiver dan area tumbuhan bawah dengan pohon aren.

Kata kunci: Cagar Alam Imogiri, Erosi, Bentuk Pertumbuhan Vegetasi, Tingkat Bahaya Erosi

ABSTRACT

ANALYSIS OF EROSION HAZARD LEVEL IN STANDING AND UNDERGROWTH PLANTATION AREA OF IMOGIRI NATURE RESERVE IN KAPANEWON IMOGIRI, BANTUL, D.I.YOGYAKARTA

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The existence of the Nature Reserve in Imogiri is different from other nature reserves because it is still in the process of adjustment from production forests to natural forests. Previously, which was a production forest, there was eucalyptus which was one of the production vegetation that increased erosion. Erosion is one of the indicators that a land is damaged. This problem occurs because production forests have turned into nature reserves and there has been no land arrangement carried out as the function of nature reserves in general. This research is very important in knowing how much influence the vegetation of the remaining production forests is, as well as identifying the impact that this vegetation has on the surrounding land.

This study uses a purposive sampling method based on differences in growth forms. Stick measurements are installed on the stand and undergrowth areas. There are 4 large erosion measurement points in determining the Erosion Hazard Level class which is carried out during 45 days of rain with 36 days of land subsidence, LP 18 consists of 9 sticks of 1.7 m of erosion slope, LP 19 consists of 15 sticks of 6.43 m of slope length, LP 20 consists of 9 sticks of 1.62 m of erosion slope, LP 21 consists of 15 sticks of 3.11 m length of slope. Soil sampling in each area was carried out to determine the weight value of the soil volume tested and calculated to obtain a large value of erosion.

The results of the study showed that the total size of stand erosion was 1,301.87 tons/ha and undergrowth was 383.55 tons/ha, so that the erosion hazard level of LP 18 was 34.5 tons/ha/year in the heavy class and LP 19 was 61.57 tons/ha/year in the very heavy class, LP 20 was 10.12 tons/ha/year in the medium class and LP 21 was 18.82 tons/ha/year in the heavy class. The difference in TBE class in each area is influenced by the form of growth. The shape of growth determines the ability of vegetation to protect the soil surface, dampen the energy of rainwater impact, and inhibit surface runoff. In addition, the difference between each LP in its area is also influenced by the length of the slope being eroded. So that the management direction is carried out by vegetative conservation method in the stand area with vetiver grass planting and the undergrowth area with palm trees.

Keywords: Imogiri Nature Reserve, Erosion, Vegetation Growth Forms, Erosion Danger Level