

Abstract

The Sangiran Site area has important values in the form of archaeological findings and landscapes that need to be protected and preserved from anthropogenic activities. The Sangiran site needs an assessment of the impact of anthropogenic/hemeroby activities on important values to declare the status of the area. The hemeroby index was adapted to quantitatively assess the landscape status of the Sangiran site. This study aims to (1) show the value and variation of land disturbance levels at the Sangiran Site; and (2) calculating the land disturbance index at the Sangiran Site.

The research location was carried out in the Sangiran Site Area covering an area of 59.21 Km². The mapping scale uses 1:20,000 with a unit of analysis of the landform. The main data used is in the form of 2016 High Resolution Satellite Imagery, 2016 land use maps and geomorphological maps, as well as supporting data such as fossil finds, selected land, and anthropogenic activities. Field surveys were conducted to validate existing land use and anthropogenic activities.

Assessment of the degree of hemeroby produces 4 variations of degrees out of 7, namely Mesohemerobic, β -Euhererobic, α -Euhererobic, and Metahemerobic. Three other degrees such as Ahemerobic, Oligohemerobic, and Polygohermerobic were not found in the characteristics of land use at the Sangiran Site. As for the assessment of the hemeroby index, it produces class indexes of 5 – α -Euhemerobic, 6 – Polyhermerobic, and 7 – Metahemerobic. The dominating index is 6 – Polyhermerobic. In general, the hemeroby index is higher in hilly landforms (lightly undulating slopes, sloping ridges, heavy undulating foot slopes, sloping foot slopes) compared to valleys (lightly undulating river valleys, sloping alluvial, mildly undulating floodplains, heavily undulating river valleys). The pattern of high hemeroby index in hilly landforms and river valleys is also in accordance with the results of fossil findings.

Keywords: *land disturbance, degree of hemeroby, hemeroby index, Sangiran site*

Intisari

Kawasan Situs Sangiran memiliki nilai penting berupa temuan arkeologi serta *landscape* yang perlu dilindungi dan dilestarikan dari aktivitas antropogenik. Situs Sangiran perlu penilaian dampak usikan aktivitas antropogenik/*hemeroby* terhadap nilai penting untuk menyatakan status kawasan. Indeks *hemeroby* diadaptasi untuk menilai status *landscape* Situs Sangiran secara kuantitatif. Penelitian ini bertujuan untuk (1) menunjukkan nilai dan variasi tingkat usikan lahan di Situs Sangiran; dan (2) menghitung indeks usikan lahan di Situs Sangiran.

Lokasi penelitian dilakukan di Kawasan Situs Sangiran seluas 59,21 Km². Skala pemetaan menggunakan 1:20.000 dengan unit analisis bentuklahan. Data utama yang digunakan berupa peta penggunaan lahan tahun 2016, foto udara tahun 2016, dan peta geomorfologi, serta data pendukung seperti temuan fosil, lahan terpilih, dan aktivitas antropogenik. Survei lapangan dilakukan untuk memvalidasi penggunaan lahan dan aktivitas antropogenik *eksisting*.

Penilaian derajat *hemeroby* menghasilkan 4 variasi derajat dari 7, yaitu Mesohemerobic, β -Euhemerobic, α -Euhemerobic, dan Metahemerobic. Tiga derajat lainnya seperti Ahemerobic, Oligohemerobic, dan Polygohermerobic tidak ditemukan pada karakteristik penggunaan lahan di Situs Sangiran. Sedangkan untuk penilaian indeks *hemeroby* menghasilkan kelas indeks usikan 5 – α -Euhemerobic, 6 – Polyhermerobic, dan 7 – Metahemerobic. Adapun indeks yang mendominasi adalah 6 – Polyhermerobic. Secara umum indeks *hemeroby* lebih tinggi pada bentuklahan perbukitan (Lereng Bergelombang ringan, Igir Landai, Lereng Kaki Bergelombang berat, Lereng Kaki Landai) dibandingkan lembah (Lembah Sungai Bergelombang ringan, Aluvial Landai, Dataran Banjir Bergelombang ringan, Lembah Sungai Bergelombang Berat). Pola indeks *hemeroby* yang tinggi pada bentuklahan perbukitan dan lembah sungai juga bersesuaian dengan hasil temuan fosil.

Kata Kunci: usikan lahan, derajat *hemeroby*, indeks *hemeroby*, Situs Sangiran