Assessing the sustainability of the Kiau Nuluh – Gurkha Hut trail, Kinabalu Park, Sabah, Malaysia

ABSTRACT

Recreation trails are essential for promoting outdoor activities, ecological awareness, and sustainable tourism. This study comprehensively analyses the 14.2km Kiau Nuluh—Gurkha Hut Trail, a proposed trail to be developed northwest of Kinabalu Park. This study aims to assess the trail's characteristics and its sustainability for future use. One hundred forty-two samples were collected at 100m intervals using point sampling methodology, revealing key trail characteristics and sustainability ratings. Findings indicate that the trail predominantly ascending (88%) with sections at higher elevations exhibited narrower tread widths, lesser incisions, steeper trail grades and narrow slope alignment than those at lower elevations. Nearly 90% of the trail is deemed unsustainable, with higher elevations showing escalating unsustainable ratings, highlighting the need for realignment and sustainable trail management strategies. Recommendations include trail realignment according to the acceptable sustainability ratings, realigning the trail to the "side hill" or adhering to the contour lines, and using durable tread materials as one of the erosion control measures. The findings of this study provide baseline information for the future sustainable trail management of the Kiau Nuluh - Gurkha Hut Trail. The insights gained from this research will aid in developing strategies to maintain and improve the trail, ensuring its enjoyment for present and future generations while conserving the natural environment.