Site Suitability Evaluation for Ecotourism using GIS & AHP: A Case Study of Surat Thani Province, Thailand

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The present study aims to identify and prioritize the potential ecotourism sites using Geographic Information System (GIS) and Analytical Hierarchy Process (AHP) in Surat Thani Province, Thailand as a case study. The method used is the AHP which is integrated in ArcGIS. This study identifies the following criteria as indicators suitability within land ecosystem: landscape/naturalness, wildlife, topography, accessibility and community. The evaluating process for ecotourism site was conducted based on 9 chosen factors which are visibility, land cover/use, reservation/protection, species diversity, elevation, slope, proximity to cultural sites, distance from roads and settlement size. These factors were selected according to the professional opinions given. AHP was effectively used in order to calculate the detail of the factor and class weights. The methodology proposed was useful to identify ecotourism sites by linking criteria deemed important with actual resources of Surat Thani Province.

Keywords: Site Suitability Evaluation, AHP, GIS, Ecotourism, MCDM