

Analytic network process (ANP)-based spatial decision support system (SDSS) for sustainable tourism planning in Cameron Highlands, Malaysia

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Abstract

Sustainable approach to tourism development is rarely addressed among authorities and participants. This research presents an approach based on an integrated use of analytic network process (ANP) and geographic information system (GIS) for sustainable tourism planning in Cameron Highlands, Malaysia. ANP was utilized to evaluate the relative

priorities for the sustainable tourism development of the highlands based on chosen criteria. ANP results were then transferred into GIS environment and attached to their respective criterion maps. Subsequently, GIS-based sustainable tourism map was generated, which defines the various types of tourism activities that are compatible with the highlands according to the sensitivity of the highland's environment. The final output was validated using Cameron Highlands Local Plan.

Keywords

Sustainable tourism planning Analytic network process (ANP)
 Geographic information system (GIS) One-at-a-time (OAT) sensitivity analysis
 Nature conservation

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