

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

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Early ecotourism destinations in Thailand have suffered extensive impacts as a result of increased numbers of tourists. It is imperative that only some areas are suitable for ecotourism to be developed and ensure that ecotourism criteria are matched with the resource base characteristics of the area. In many respects, Surat Thani province appears to have many attributes needed for the successful development of ecotourism. It is largely free from urban settlements with untouched landscape, a rich vegetation cover, considerable wildlife, and traditional indigenous population. There are many recreational tourist attractions. Thus, some basic facilities and infrastructure exist. Therefore, sustainable management of ecotourism in this area is very important to Thailand long-term commitment to sustainable development.

This research integrates five characteristics of ecotourism criteria that are naturalness, wildlife, cultural heritage, landscape and community to identify and prioritize the potential ecotourism sites in the province in Thailand. The primary variables used for generating various indices were landform, elevation, land use/land cover, vegetation diversity, wildlife, tourism attractions and the infrastructure facilities. Data on population, domestic and international tourists, district planning, economic etc. from various sources were used. The analytical hierarchical process (AHP) and geographic information systems were effectively used for identifying the potential ecotourism sites.

Keywords: Ecotourism, GIS, AHP, Site Suitability, Surat Thani, Thailand