

Using analytical hierarchy process (AHP) for prioritizing and ranking of ecological indicators for monitoring sustainability of ecotourism in northern forest, Iran

ABSTRACT

Ecotourism has been identified as a form of sustainable tourism which is expected to contribute to both conservation and development. Unfortunately, due to inadequate environmental assessment, many ecotourism destinations tend to be both hazardous and self-destructive. Indicators are an important tool to provide a means toward sustainability. Among all different aspects of indicators, ecological indicators are significant for monitoring and evaluating sustainable management of ecotourism. In this study criteria and indicators were identified by using the Delphi approach through an expert panel from different fields. At the end of the process, a consensus of 9 criteria and 61 indicators was reached. For prioritization and ranking the Analytical Hierarchy Process (AHP) and Expert choice software was used. The 9 criteria include identified :1- Conservation of Natural resources & biodiversity 2- Maintenance of sceneries, natural & physical features 3- Conservation of soil & water resources 4- Maintenance of heritage & cultural diversity 5- existence of legal, institution, legislation and policy frameworks for empowering Ecotourism 6- promoting economic benefits & poverty alleviation 7- Educational affairs and public awareness 8- Maintenance of hygiene & tourist safety 9- Tourists & local people satisfaction. The results showed that, out of the 9 criteria, the first three, which we labeled as Ecological criteria and comprised 21 indicators, stood as the top highest priority. We also continued the ranking of indicators with related criterion and then all of the indicators were ranked and prioritized by AHP method and using of expert choice software.

Keyword: Ecological indicator; Analytical hierarchy process (AHP); Monitoring; Sustainable ecotourism