

## Multi-criteria decision making approach for responsible tourism management

### ABSTRACT

National Parks and Marine protected areas in Malaysia have become increasingly exposed to ecotourism development activities. Greater accessibility and increase in leisure have contributed to an increase in ecotourism destinations visit. Exploitation by ecotourism and development activities has caused negative impacts to the natural resource of these destinations. Management of the protected areas becomes essential to the continuum of the biodiversity of that area which makes it attractive for tourists to visit. Management of the protected area is complex as the involvement of multiple stakeholders needs to be considered such as government agencies, non-government organisations, tourist operators, local community and interested parties. Hence, a review of the suitability of multi-criteria decision-making addressing the opinions of multiple stakeholders is investigated for the management of Tun Sakaran Marine Park (TSMP) in this paper. The first section introduces the current development of marine protected areas in Malaysia. The second section explores the use of multi-criteria decision-making approach in the management of marine protected areas. The use of this approach is significant as there is a growing number of literature that justifies the inclusion of multiple stakeholders' opinion in the decision making process. In the third section, Tun Sakaran Marine Park management policies are explored and the suitability of using a multi-criteria approach in its management is explored. It is proposed, that the multi-criteria approach using Analytical Hierarchical Process (AHP) appears to be the right approach as it uses a hierarchical structure to breakdown the problems into smaller manageable units.

**Keyword:** AHP; Decision making; Ecotourism; Responsible management; Stakeholders