

## **SITE SUITABILITY EVALUATION FOR ECOTOURISM USING GIS - A CASE STUDY OF KANDY DISTRICT**

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Ecotourism is the responsible travel to natural areas that conserves the environment and improves the welfare of local people. This is also a form of sustainable tourism. Thus it can be safely argued that ecotourism is of vital importance in improving the tourism-related activities in any country, especially because it necessitates the fact that any aspect of the natural environment as well as the socio-cultural practices is not challenged by tourism. It can also be argued that ecotourism is highly important to almost all the developing countries. For, it lays the foundations for maintaining tourism with minimum impacts on the natural environments and the cultural practices of the people in such countries. It also provides many valuable opportunities to the local populations to improve their economy in various ways. Nevertheless, ecotourism has a particular importance to a country like Sri Lanka due to its biodiversity, natural landscape and cultural heritage. However, it becomes clear that this has not still being practiced in a well-organized way in Sri Lanka compared to the mass-tourism. Therefore, there is a timely need to utilize the resources available in Sri Lanka to successfully apply eco-friendly tourist activities.

The major objective of the present study is to identify the most suitable areas for ecotourism in the district of Kandy. Kandy which is the mostly populated city is located between latitude 7° 15' 0" North and longitude 80° 45' 0" east. The district has already attracted tourists all around the world due to its natural environment as well as the highly recognized cultural heritage. Thus it is possible to argue that Kandy is one of the most potential districts for improving ecotourism in the island. However, it becomes clear that only a few selected areas are currently used as tourist centers in Kandy despite the large number of potential areas and places scattered throughout the district. Thus the study was basically focused on identifying such areas, categorizing them based on the degrees of their importance to ecotourism, and identifying the measures to improve ecotourist activities in the district. As part of the literature survey, seven factors under five criteria related to ecotourism were identified in order to identify the most suitable areas for ecotourism in the district. These five criteria include: (1) landscape; (2) wildlife; (3) topology; (4); accessibility and (5) community characteristics. The GIS technology was used for data acquisition, processing and analysis. This made it possible to audit environmental conditions and to examine the suitability of locations. The Multi-Criteria Decision Making (MCDM) was the mainly used methodology for the present study. Since several criteria were identified for the present study, MCDM method could be successfully complemented by GIS technology in order to integrate the multitude of spatial and non-spatial factors and findings into a single analysis. Several Regions have been identified as the ecotourism potential areas according to the final Suitability map of the research Analysis. Among them, the Knuckles region and Victoria Randenigala Rantembe Sanctuary Region in the district of Kandy were identified as the 'high potential' areas.