

POTENTIAL ZONES FOR TOURISM DEVELOPMENT IN ANURADHAPURA DISTRICT OF SRI LANKA USING GEOSPATIAL TECHNIQUES

W.R.D.A. Weragoda and K.G.S. Nirmanee

*Department of Agricultural Engineering and Soil Science, Faculty of
Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.*

Anuradhapura district is a significant region in Sri Lanka known for its historical and cultural importance. This study aimed to spatially identify the areas with greater capacity to promote tourism in *Anuradhapura*, Sri Lanka using Geographic Information System (GIS) and Analytical Hierarchy Process (AHP). Limited research or planning has been conducted to identify optimal areas for tourism development in the *Anuradhapura* district. Hence, criteria including land cover, historical and archaeological sites, religious sites, natural attractions, cultural villages, ayurvedic and meditation places, elevation, population density, distance from tank cascades and distance from roads were selected based on experts' preferences and literature. An online survey was conducted to get the perception of the foreign tourists on the different places within the *Anuradhapura* district. Based on the results of the survey, ranks and weights were assigned for the selected thematic areas. Tourist attraction is high for the cultural sites, historical and archaeological sites and natural attractions. According to GIS based AHP and weighted overlay, 3.98% (285.44 km²) land area of the district falls under highly suitable areas for tourism development which are located in *Rambawa, Thalawa, Rajanganaya, Nachchaduwa* district secretariat divisions in *Anuradhapura* in addition to the present famous religious and archaeological sites. Western and southern parts of the district comprise around 63.56% (4559.36 km²) area as moderately appropriate. Therefore, the results of this research can aid in the strategic planning of the development of the tourism industry in *Anuradhapura* district. Further it is suggested to develop a proper campaign to attract tourists to *Anuradhapura* by developing associated activities and alleviating the strain on the tourism demand in the highly suitable area.

Keywords: AHP, GIS, Thematic layers, Weighted overlay