

POTENTIAL OF DEVELOPING ECOTOURISM IN KURULU KELE SANCTUARY, SRI LANKA

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Kurulu Kele Sanctuary (KKS), which is administered by the Forest Department of Sri Lanka is situated in the lowland wet zone of the country. The extent of KKS is limited to only 10.4 % of its original size at present, due to human impacts from the adjacent villages. Therefore, this study was conducted to investigate the possibility of developing KKS as an ecotourism destination, in order to conserve it for future generations. The objectives of the study were to determine the plant diversity, interactions of villagers with the sanctuary and to identify the potential to develop KKS as an ecotourism destination. Two types of habitats were identified in KKS, namely the dense forest and the rocky area. The vegetation sampling was conducted using six randomly selected 10 m x 10 m plots per habitat type from December 2011 to June 2012. All plants that were greater than 10 cm girth at breast height (GBH) were recorded. A social survey was conducted using 60 questionnaires to gather information on the interaction of villagers with the forest and to appraise the attitudes of villagers towards ecotourism and conservation.

A total of 689 individuals belonging to 75 species of higher plants (33 families) were recorded. Twenty five percent of the plant species recorded were endemic, 63 % were native and 12 % were exotic. Four percent of plant species recorded were listed as threatened and 9 % were listed as globally threatened in the IUCN Red List 2007. The plant density was 6867 and 4617 individuals per ha in the dense forest and in the rocky area, respectively. The Shannon Wiener Index (H) was higher for the dense forest (3.50) than for the rocky area (3.34). In the KKS, 65 % of the plants belonged to 10 - 39 cm GBH class. Densities of higher GBH classes were very low, which is a characteristic of a disturbed forest. Although all the villagers living around the sanctuary were aware that the KKS is a natural sanctuary, many villagers were involved in collecting fuel wood (44 %), food items (18 %) and medicinal plants (13 %) from the sanctuary. Ninety one percent of the villagers were aware that KKS is threatened state due to over exploitation of forest resources. Only 8 % of the villagers were aware about ecotourism. After an explanation about ecotourism, 83 % of the villagers declared their willingness to develop ecotourism in the KKS. Due to high plant diversity at the KKS and eagerness of majority of the villagers (71 %) to participate in ecotourism-related activities, this forest fragment can be conserved using ecotourism principles.