

**Public Perception on Ecosystem Services: Threats of Pilikuththuwa Cave Forest in Sri Lanka**

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**Abstract**

Ecosystem Services are delivered freely by ecosystems and support both the environment and humankind. This research explored the ecosystem services of the Pilikuththuwa Cave Forest in the Gampaha District, where human pressure is increasingly evident. To assess the perception of ecosystem services and threats from 2000 to 2020, a questionnaire survey was conducted with 75 households. The main findings revealed that respondents only perceived cultural (52%), provisioning (40%), and support services (8%) from the forest. Cultural service ranks the highest (10.07%), which includes recreation, aesthetic beauty, and education. Fresh air (13.12%), freshwater (12.86%), and medicinal plants (12.41%) were identified as the most prominent current provisioning services. Nutrient recycling (49.83%) and soil formation (50.17%) were the current supportive services perceived by the respondents. The study revealed that provisioning and supporting services have decreased while cultural services have increased over the two decades. Since the Pilikuththuwa forest is an unprotected area, it is threatened highly by encroachment (12.81%), habitat changes in the vicinity (13.30%), climate change (13.09%), and reduction of forest cover (12.66%). The relevant policymakers, with the involvement of the stakeholder community, may use these results to develop strategies to conserve, manage, and restore the Pilikuththuwa forest.

**Keywords:** Ecosystem services, Forest, Public perception, Threats