

URBANIZATION AND ENVIRONMENTAL DEGRADATION: A CASE STUDY OF THE KANDY LAKE

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Environment is a combination of nature and human beings, and it gets positive or negative impacts from the technosphere made by man. In this respect, studying 'urbanization and environmental degradation is most important.

The Kandy City attracts everyone's attention because of to its unique socio-cultural and environmental background compared with other cities in Sri Lanka. The present study, having focused mainly on the Kandy Lake and it's surrounding are, finds that today the balance of this ecosystem is being disrupted by human activities whereas its topographic setting is a contributing factor to the problem of pollution. The lake was recently affected by the proliferation of a cyanobacterium (blue-green algae) of the genus *Microcystis* and released the bad smell throughout the area indicating eutrophication.

The objectives of this research was to identify the socio-economic factors that have promoted urbanization, especially in the vicinity of the Kandy Lake, and their effects on the lake's ecosystem, and, to identify measures to minimize such detrimental effects. In this research study, primary data were collected by observation, interviewing and through questionnaire surveys of samples selected from among households and business centers of the area. The secondary data sources were reports from Kandy Municipal Council, Grama Niladhari and the Central Environment Authority. Data was analyzed using both quantitative and qualitative methods.

Study of the population growth and employment rate in the service and industrial sectors as well as the growth of tourism revealed the level of urbanization in the study area. It, as the study reveals, has caused the degradation of Kandy Lake and the surrounding environment. A main pollutant in the lake was liquid waste released from residences and business and service centers in the area. The problem was severe owing to the lack of community awareness about the environment and to the weaknesses of the administrative system. Moreover, tourism too adds to these problems while the geographical location of the lake in a 'valley' causes the accumulation of pollutants washed in.

To control this undesirable situation, liquid wastes should be *in-situ* recycled or treated preferably biologically. Otherwise such wastes should be prevented from entering the lake by providing a proper sewerage system. Such steps should be monitored regularly. An immediate necessity is an alternative road to ease traffic congestion.

Furthermore, all construction activities around the lake must be required to submit EIA reports. Another important action will be the protection of the lake catchment where there are already unauthorized constructions. Therefore, existing environmental rules and regulations should be made more stringent.

Also, protection of the lake catchment and removal of unauthorized constructions are necessary.