



Environmental problems emerged due to inappropriate land use change of the Kelani river bank; based on Mattakkuliya Grama Niladhari Division

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Abstract

The Kelani river bank catchment area is a rich area with biodiversity and natural resources. Currently, many environmental problems have emerged in Sri Lanka. Among them, many adverse effects and problems have been occurred to the biodiversity and the natural resources related to the catchment area of the Kelani river bank due to the change of land use. The objective of this research study is to investigate the environmental problems that emerged due to inappropriate land use of the Kelani river bank. The selected area for this research study is the Kelani riverbank area of Mattakkuliya Grama Niladhari Division of Colombo Divisional Secretariat. The mixed method is used in conducting this study as questionnaires and observations are utilized as the research equipment. Data were collected through questionnaires from 30 randomly selected individuals from the related research area. Google Earth Pro was utilized to indicate temporary land-use change. The collected data were analysed using MS Excel and GIS. According to the data analysis, it was identified that many environmental problems have been occurred due to the inappropriate land use of the Kelani river catchment area. They are flood hazards due to the erosion of the river banks, damages to biodiversity due to the strong winds due to the loss of mangroves, unauthorized sand mining, garbage disposal, growth of aquatic plants, rowing boats, estuary pollution. Therefore, the main reasons for these problems are the area being a highly-populated area, the increase of developed areas, irregular constructions and disposal of waste to water by factories. Even though, many implementations have been suggested to minimize these problems they are not activated properly. Therefore, implementing new rules and regulations, conducting programmes to inform the general public and strengthening the conservation scheme can be regarded as the recommendations for the research problem of this study.

Keywords: Kelani River bank, inappropriate land use, environmental problems

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