

HUMAN IMPACTS ON MAHAWELI RIVERINE ENVIRONMENT FROM PERADENIYA TO POLGOLLA

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In Sri Lanka, riverine conservation and management has been practiced from very early periods. There are comprehensive legal frameworks to protect the riverine environments. Although there are such rules and regulations in place it is not practiced in most of the places. Mahaweli riverine is one of the areas affected by rapid urbanization in Sri Lanka.

The Mahaweli riverine from Peradeniya up to Polgolla dam has been significantly affected by variety of human activities. Current study based on the field observation, and GIS approach has succeeded to find the level of the effect on the Mahaweli riverine environment. The GIS approach revealed the extent and intensity of urbanization by expanding the urbanized area, housing developments, encroachments, and forest cover removal etc. In addition, the development activities combined with tourism and commercialization have contributed in expanding the built up area within Peradeniya and Katugastota. Apart from these sub-urban centers, other area along Mahaweli riverine has several human activities that have led to the destruction of the riverine, Encroachments of public land within 100m buffer of Mahaweli. For agriculture, home gardens, business activities, housing, tourist hotels and certain other uses.

Sand mining, locating bathing places, haphazard river bank protection methods have aggravated the situation. Over the past 30 year the land use of the area has been changed considerably allowing people to develop structures even at the river banks; some hotels have extended their structures even to the river itself.

A large amount of sand, silts, solid wastes, and sewage is added to the river as well as at the points where tributaries falls to Mahaweli. Due to the high level of urbanization the pollutants added to the waterways are dumped to the main river through the tributaries. That has led to a higher level of pollution of the river as well as the riverine.

Human activities such as forest removal, has led to riverine environment vulnerable to erosion hazards, widening of river making the entire riverine change to a different landform. Human activities that led to grow improper trees such as bamboo have also led to river bank retrieval. Plants that are alien to this environment have encroached and the endemic natural habitat in the riverine is disturbed by them.

Most of the activities that have led to the destruction of Mahaweli riverine is identified and the causes for them have also been found.