

AB239

The Spatial Changes in Water Quality in the Upper Stream of the Polgolla Reservoir Catchment

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Polgolla Reservoir Catchment (PRC) is distributed in the Upper Mahaweli River basin, Central Province of Sri Lanka. The catchments of Major Rivers in Sri Lanka are being polluted due to various factors that made by human intervention for development. Therefore it is indispensable to explore the current level of water quality in the river catchments areas, which feed major water courses providing surface water for the people. PRC is the one of importance catchment area in Mahaweli river basin.

The main objective of my study was to determine the processes and factors affecting the water quality changes in the sub catchment PRC using Geospatial technology. The data was collected on eight water quality parameters, in the ten locations, which are selected purposively at different elevations in the catchment and analyzed using Contour layers. The water quality spatial variation map was prepared by using IDW and weighted overlay tools in Arc GIS. The final map shows the high, moderate and low polluted areas of the PRC.

Key words- *PRC, Water quality, Spatial, Stream, GIS*

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