

LAND USE AND LAND COVER DYNAMICS: A CASE STUDY OF THE KADUWELA, KOLONNAWA AND COLOMBO MUNICIPAL COUNCIL AREA IN KELANI RIVER BASIN

B.G.Krishani Bandaragoda¹ and L.Manawadu²

¹*Urban Development Authority, Colombo*

²*Department of Geography, University of Colombo*

Land use can be simply defined as the spatial pattern of human activities by the transformation of land cover for various purposes. In other words, land cover is the man made physical condition over the surface. Land use / land cover information is a pre-requisite for the conservation and management of land, water and vegetation resources in any area. Population growth and urbanization are two significant factors that affect change in the existing land use and land cover, especially transforming rural land use to urban land use.

The study area, Kelani river basin is one of the most rapidly developing areas in the recent past due to urbanization and migration processes of the country. This paper attempts to envisage the pattern of land use changes through the population dynamics of the area. The main objective of this study is, thus, to examine the changing pattern of the land use / land cover in relation to the population dynamics of the area using available secondary data from different government and non-government organizations. Satellite Remote Sensing data has been supplementarily utilized to develop the spatial data.

Grid interpolation and change detection analysis were adopted to examine the spatial changes of land use and land cover in the study area whilst applying some geostatistics techniques to establish the relationships among the explanatory variables and the population dynamics.