Application of Geographic Information System in Property Valuation

K.G.S. Nandamali
Undergraduate, Department Estate Management and Valuation
University of Sri Jayewardenepura, Sri Lanka
usjpsunethra@gmail.com

K.G.P.K. Weerakoon
Department of Estate Management and Valuation
University of Sri Jayewardenepura, Sri Lanka
kgpk@sjp.ac.lk

Abstract

In the present context GIS become a most significant tool to represent the information. Increasing technology is also affected to the GIS. As a result of this, GIS has been used to determine the land valuation. The land valuation is the process of determining the price of given characteristics in certain location. Main objective is land valuation determining the market value of the land. Land valuation is a most time consuming activity it gets long time period to complete that task. Therefore, land valuation field in this research study mainly focus on application of GIS in property valuation. Various factors are influenced for the land value. The value depends on the various factors that may be tangible or intangible. These factors can be divided in to proximity factors, environment factors and physical factors. These factors influence to the value in various amount. Weighting system in used for categorized the map. As per in this research study, assigning relevant wait to each factors. To weight factors, can use the pair wise comparison method. Homagama area is selected for this research study. In this research, used eight parameters which are determine the market value of the land. Namely proximity to main road, proximity to minor road, proximity to railway station, land use type, proximity to town center, proximity to school, proximity to recreational area and land zoning. . For each and every factor, the shape files were created using the 1:10,000 data which is prepared by the Survey Department of Sri Lanka. The final map was shown various land values depended on the above factors. Finally, the area was divided into land value classes and categorized as low, moderate, high valued and restricted areas. The area under higher value there are good infrastructures and other facilities. Also there are some areas under restricted areas. In these areas there are no values in the land. It can be concluded that this kind of model would be very much needed in the process of land valuation. The valuer can take idea about the Land before go to the visit subject property. Further, the study suggested that the model should be enriched with a number of parameters than this proposed model.