Determinant Factors that Influenced Urban Land Use Change in Kuala Lumpur by Using GIS

Siti Radhiah Binti Md Merzuki[1,] Asst. Prof. Dr. Norzailawati Binti Mohd Noor[2]

[1]*International Islamic University Malaysia (IIUM),*
Jalan Gombak, 53100 Kuala Lumpur, Malaysia, ctradhiah90@gmail.com
[2] *International Islamic University Malaysia (IIUM),*
Jalan Gombak, 53100 Kuala Lumpur, Malaysia, norzailawati@gmail.com

ABSTRACT

Urban expansion has increased the exploitation of natural resources and has changed land use patterns. In Kuala Lumpur, rapid urbanization brings opportunities for new urban developments, however, it also has brought serious losses of land, forest and water bodies. On a local scale, changes in land use directly influence our lives through our perception of the landscape and living environment. Land use is a dynamic phenomenon that changes with time and space due to anthropogenic pressure and development. Evaluating the existing land use and its periodic change is very useful for urban planners, policy makers and natural resource managers. Thus, this research aims at analyzing the determinant factors that influenced urban land use change in Kuala Lumpur. This analysis will be support by using the application of GIS. Three determinant factors that have been identified that influenced urban land use change in Kuala Lumpur are; population, economic growth and infrastructure facilities. Employing geographic information systems (GIS) techniques is a very important issue these days as they aid planners and decision makers to make effective and correct decisions and designs. By using GIS, it shows the urban land use change in Kuala Lumpur from 2001 and 2010. Most of the land use change can be seen happened in the city centre of Kuala Lumpur to commercial area which now known as the central business district of Kuala Lumpur. The results indicate that the urban land use change have occurred mostly because of increasing in population. More people migrate to Kuala Lumpur and therefore, the demands for jobs and infrastructure facilities such as transportation are also increased.

Keywords: Urban land use change, GIS, population, economic growth, infrastructure