Spatial Analysis of the Impact of City Developments Degradation of Green Space in Urban Fringe Eastern City of Yogyakarta Year 2005-2010

Authors: Pebri Nurhayati, Rozanah Ahlam Fadiyah

Abstract: In the development of the city often use rural areas that can not be separated from the change in land use that lead to the degradation of urban green space in the city fringe. In the long run, the degradation of green open space this can impact on the decline of ecological, psychological and public health. Therefore, this research aims to (1) determine the relationship between the parameters of the degradation rate of urban development with green space, (2) develop a spatial model of the impact of urban development on the degradation of green open space with remote sensing techniques and Geographical Information Systems in an integrated manner. This research is a descriptive research with data collection techniques of observation and secondary data. In the data analysis, to interpret the direction of urban development and degradation of green open space is required in 2005-2010 ASTER image with NDVI. Of interpretation will generate two maps, namely maps and map development built land degradation green open space. Secondary data related to the rate of population growth, the level of accessibility, and the main activities of each city map is processed into a population growth rate, the level of accessibility maps, and map the main activities of the town. Each map is used as a parameter to map the degradation of green space and analyzed by non-parametric statistical analysis using Crosstab thus obtained value of C (coefficient contingency). C values were then compared with the Cmaximum to determine the relationship. From this research will be obtained in the form of modeling spatial map of the City Development Impact Degradation Green Space in Urban Fringe eastern city of Yogyakarta 2005-2010. In addition, this research also generate statistical analysis of the test results of each parameter to the degradation of green open space in the Urban Fringe eastern city of Yogyakarta 2005-2010.

Keywords: spatial analysis, urban development, degradation of green space, urban fringe **Conference Title:** ICBB 2015: International Conference on Bioinformatics and Biomedicine

Conference Location : Istanbul, Türkiye **Conference Dates :** May 21-22, 2015