



Modeling land use change for Ejisu-Juaben district of Ghana

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Abstract: Prediction of land use/cover change for future date is important for management and monitoring the resources. Ejisu-Juaben district of Ghana turned out to be the best choice of study as it is observed that the northern part of the district is undergoing rapid changes and is in close proximity to the Kumasi Metropolitan. Further rapid changes are noticed near Kumasi located in the northern part of the district. Landsat Images of 1986 and 2007 were classified separately and a land use/cover prediction for 2020 was made which gave a transition matrix. The results show that forest and settlement/bare land have 0.5978 and 0.6456 probabilities respectively. The land use /cover map for the year 2020 indicated various changes with the controlling aspects such as weather conditions, human activities etc. remain the same as that of 2007.

Keyword: land use/land cover, Markov Chain Analysis, Cellular Automata and Prediction