A Geo-Information Approach for Urban Land Use Planning in Kampala

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SUMMARY

Like other developing countries, the nature and character of spatial developments in Kampala does not only pose a daunting and challenging task of improving the lives of the urban dwellers but also searching for optimum solutions to the haphazard spatial developments and inadequate infrastructure within settlements. The kind of living environment created by haphazard development has led to a deplorable living environment for an estimated 60% of Kampala's population. Although planning has been undertaken only 20% of the settlements are properly planned and serviced while for the big proportion of settlements the gap between the planning outputs and the actual developments in the city is widening further. Besides the existence and extension of this planning gap, the current planning procedures involve methods which are time and resource demanding activities and often far behind the speed of development of settlements. The Kampala structure plan 1994 which has just been extended by the City Council has not been evaluated to establish how much of the developments on the ground ccorrespond to the plan. This is because development control has either failed to be implemented or been challenged by issues of precise information and location. Review of the plan is overdue given an annual growth rate of 5.6% for the city. In the face of these challenges, alternative planning approaches are necessary for timely provision of accurate information and planning outputs to support their implementation. Basing on findings of a of suitability assessment of land for housing, this paper attests to an alternative approach of GIS based model for urban land use planning by highlighting a procedure to identify factors for assessment, classify land based on the criteria, generate a suitability model and evaluate existing, potential and proposed areas for housing using the suitability model. The paper also highlights the usefulness of land allocation beyond suitability analysis in which GIS based allocation models have a potential in urban land use planning. Sensitivity of the GIS based models is also briefly explained before outlining some limitations. The paper concludes with a note that GIS based models offer the much needed powerful tools for enhancement of urban land use planning.