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Urban spatial growth model as a tool to plan for sustainable urban future (Conference Paper) [\(Open Access\)](#)

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Abstract

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Much has been said about planning for sustainable urban future. However, it is difficult to find practical and workable solution to ensure the sustainability of urban development. Malaysia for example, is one of the most urbanized countries in East Asia, however; Kuala Lumpur urban area is one of the largest in the region as measured by area but the least dense in East Asia. This is due to the expansion of urban area is not properly controlled. The aim of this paper is to propose an urban growth boundary as a planning mechanism to plan for sustainable urban development. Taking the George Town Conurbation as the study area, this paper demonstrated the application of spatial temporal model of urban growth that can simulate future urban spatial growth. Land use data obtained from the Federal Department of Town and Country Planning (FDTCP) will be used as sources of the data. The model will be developed using ArcGIS software and simulated using Idrisi Kilimanjaro software. Then, based on land demand and land suitability, future urban spatial growth will be planned within urban growth boundary. Such as approach allows land demand to be allocated in a sustainable manner. The model will be useful in planning for future urban spatial growth. © Published under licence by IOP Publishing Ltd.

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