



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	2014_PSIJ_9211
Title of the Manuscript:	URBAN SPRAWL ANALYSIS AND TRANSPORTATION USING CELLULAR AUTOMATA AND MARKOV CHAIN
Type of the Article	Original Research Article

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b><u>Compulsory</u></b> REVISION comments	<p><b>While the article presents an interesting approach to examining sprawl by assessing land consumption rate and land absorption coefficient, the article fails to clearly define the criteria used with the chosen metric. The abstract suggests using the context of three LGA's to investigate effects of urban sprawl using maps, yet the author's mapping is poorly presented – lacking clear legends, scale, context, or relationships between maps.</b></p> <p><b>The abstract suggests the processing, classifying, and analysis of Landsat imageries but the article does not provide documented evidence of how these imageries were processed from original data to processed data; from original classification to new classification.</b></p> <p><b>The study is based on the re-classification of Landsat data into 5 classifications, but the author does not define or demonstrate the criteria or empirical evidence of how these new classifications are valid.</b></p> <p><b>The author makes many general statements without credible cited references to support such claims. A developed literature review is</b></p>	



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	<p><b>needed to provide the framework of why this article's methods are relevant to the literature.</b></p> <p><b>The author should provide their own definition to sprawl and how that definition was developed based on this method of examining sprawl.</b></p> <p><b>The author states that changes in land cover over time help to predict possible continued changes, yet the author does not clearly define how land cover is measured, described, or interpreted. The use of GIS to interpret Landsat data is not defined. Land Use classifications are often broken into 9 to 15 general categories, and often these are broken into more specific categories. The author has not produced evidence of why the data classification should be limited to 5 classifications.</b></p> <p><b>The general structure of the article needs improvement. The introduction is broad and lacks a direction. It begins with general perspective of sprawl with no indication of the need to measure sprawl. It jumps to GIS and its usefulness with measuring temporal data and defining spatial patterns, and possibly observing these patterns when making land use decisions. The introduction does not frame the context of the article, nor the need to find new ways of measuring sprawl.</b></p> <p><b>The study area is described with limited context.</b></p>	
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	<p><b>The author places the site with coordinates, yet no scale is used to describe the size of the site or selected areas of interest. What do these sites have to do with the previous definitions of sprawl cited in the opening introductory paragraph? The author should relate the relevance of the site to sprawl, to the methods used in measuring sprawl.</b></p> <p><b>Define and describe the research methodology. Simply giving data sources does not describe the rationale for these methods or how these methods provide unique or added value to previous methods in measuring sprawl.</b></p> <p><b>Why is this method needed? How has this method been used before and what were the results? How does this context provide unique or parallel reasoning of the usefulness of this method?</b></p> <p><b>Landsat imagery should be shown in its raw state, and its manipulated state to demonstrate evidence of re-classification of land uses. Olaleye, Abiodun and Igbokwe did not limit classification of land use, how is this article relevant?</b></p> <p><b>What determines a grassland from being categorized as either simply a grassland or a dry grassland?</b></p> <p><b>Landcover categories need empirical data to demonstrate how they have been determined</b></p> <p><b>Author is using imagery from 1984, 2000, and 2006, to determine change, but the author does not define or describe the units of measure: percentage change/trend, observed change, or sum of change.</b></p>	
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	<p><b>Provide examples of each.</b></p> <p><b>No evidence of how the LCR or LAC were measured, the author simply provided a formula without the supported data used within the formula.</b></p> <p><b>Data must be represented with clearly represented Landsat imagery at the demonstrated dates above.</b></p> <p><b>Without documentation of how imagery was measured showing areas, data points, etc. the article is based on assumption.</b></p>	
<b><u>Minor</u></b> REVISION comments		
<b><u>Optional/General</u></b> comments		

**Note: Anonymous Reviewer**