



**SDI Review Form 1.6**

Journal Name:	<a href="#">International Journal of Environment and Climate Change</a>
Manuscript Number:	Ms_IJECC_48742
Title of the Manuscript:	FLOOD VULNERABILITY ASSESSMENT OF AFIKPO SOUTH LOCAL GOVERNMENT AREA, EBONYI STATE, NIGERIA
Type of the 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/sdi-general-editorial-policy>

**PART 1: Review Comments**

	Reviewer's comment	Author's comment (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)
<b>Compulsory</b> REVISION comments	N.A.	
<b>Minor</b> REVISION comments	<b>A map of landform and/or elevation distribution over the territory of reference would be extremely useful and in total sync with all the other resulting maps.</b>	
<b>Optional/General</b> comments	<p>The present paper opens on a new perspective of assessing the vulnerability to floods by means of latest remote sensing and GIS techniques. The territory being analyzed – the Afikpo South Local Government Area in Ebonyi State – Nigeria, although not very large (330 km<sup>2</sup>), has minutely been scrutinized for most relevant elements of analysis by means of updated and very modern research tools and imagery obtained from extremely reliable sources: SRTM satellite imagery, HWSD soil data, ERA-Interim rainfall and runoff gridded data, Landsat and OLI satellite imagery for landuse and landcover information; all information being processed through fuzzy procedures. Obviously, the scientific value of the results that have been obtained is important as long as the resulting GIS maps of flood-vulnerable areas allow a more objective assessment of the potential risks to which adjoining communities are exposed. But these final synthetic maps were actually constructed by interpolating the different layers of specific information regarding the spatial distribution of slopes, rainfall amounts, surface runoff, distance to drainage, drainage density plus landuse and landcover. The risk of vulnerability to floods has been calculated through statistical methods using multi-criteria inputs and has accordingly been mapped on two distinct directions: flood vulnerability and built-up vulnerability.</p> <p>The whole concept of analysis being used is not necessarily original but extremely technical and practical and the resulting findings, in accordance with the latest achievements in geospatial applications, are evident and valuable. The visual effects of the numerous geo-referential analyses being made are impressive and provide significant added value to the whole construction. The whole paper is very well organized, logically structured on components of ascending importance and produces reliable and replicable results of high practical importance for decision making authorities.</p>	

**PART 2:**

	Reviewer's comment	Author's comment (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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	



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