



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	2014_PSIJ_13821
Title of the Manuscript:	GEOPHYSICAL DETERMINATION OF THE CAUSES OF EROSION IN SOME PARTS OF ABIA STATE, SOUTHEASTERN 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.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> (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	<ol style="list-style-type: none"> <li>1. Method used has not justified the title of this paper: The 8 VES and the interpretation presented have not shown the causes of erosion in parts of Abia state.</li> <li>2. The author has failed to relate the result of VES with erosivity and gully geometry of the 8 sites contested.</li> <li>3. There is no map or photograph showing any of the gully sites in Abia and the projected menace.</li> <li>4. Electrical resistivity data alone is not enough tools to explain causes of erosion. Author should have combined this method with geotechnical, collecting the erosive soil and finding some geotechnical characteristics such as: Grain size distribution, moisture content, density, plasticity index, shear strength, porosity etc. Alternatively, the author could relate the VES result to geotechnical findings of any recent scholar.</li> <li>5. The author has not considered any of the numerous environmental field factors causing erosion in this paper in line with</li> </ol>	<ol style="list-style-type: none"> <li>1. The tile has been rephrased. All major factors causing erosion menace were outlined in the introduction. We further outlined that all theses factors are common everywhere in Abia state; but there is selective erosion menace in some parts of the state. Therefore, we arrived at a conclusion that the problem is geomorphological. Since geomorphology is the study of the physical features (landscape) of the surface of the earth and their relation to its geological structures; therefore geoelectrical survey can be used in the evaluation of erosion, determining areas subjected to erosion menace sites and also estimating areas prone erosion menace.</li> <li>2. This was done (lines 331 to 366)</li> <li>3. A map and photographs have been provided in lines 217 and 394 to 402 respectively.</li> </ol>



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	<p>his literature review.</p> <p>6. This paper has no research base to justify the title, materials and method and the claims. For example, a claim that resistivity values from 500 Ohm-m to 5500 Ohm-m are prone to erosion in Abia or in the SE Nigeria is not justified.</p>	<p>4. This is true but this a humble approach in indicating that electrical resistivity data (not geotechnical data) could also be used in estimating the thickness of erosion-prone sediments. Also attempted was relating grain-size to resistivity of some sediments of recent scholars (lines 338 to 345).</p> <p>5. Numerous natural and anthropogenic factors causing erosion were considered in the introduction (lines 40 to 46, 47 to 67, and 68 to 84).</p> <p>6. The misunderstanding could be from the statement. This has been rephrased “areas with unstable geomorphological factors and are overlain with resistivity ranging from 500Ωm to 5500Ωm are prone to erosion menace”(lines 413 to 414). The re-phrased title and the materials and methods are justifiable (lines 221 to 253).</p>
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<b><u>Minor</u></b> REVISION comments	<ol style="list-style-type: none"><li>1. The literature review almost elusive of the research topic and thus not justifying the study.</li><li>2. Correction factor of 1.5 is not justified as surface elevation measurement technique was not discussed.</li><li>3. Data processing software used (Henker 1982) is fairly obsolete and not mentioned.</li></ol>	<ol style="list-style-type: none"><li>1. The introduction and the beginning of the materials and methods justified the study.</li><li>2. Measurement technique inserted (line 259 to 260)</li><li>3. The software package used might have been modelled after (Henker, 1982) but it was not the one used in the processing.</li></ol>
<b><u>Optional/General</u></b> comments		