



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Asian Journal of Environment & Ecology
Manuscript Number:	Ms AJEE 34143
Title of the Manuscript:	A GIS APPROACH TO EROSION VULNERABILITY ASSESSMENT OF A DEVELOPING CITY
New Title of the Manuscript:	VULNERABILITY ASSESSMENT OF SOIL EROSION BASED ON TOPOGRAPHY AND VEGETATION COVER IN A DEVELOPING CITY OF ORLU L.G.A, SOUTH EAST NIGERIA
Type of Article:	Original Research Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The work addresses soil erosion vulnerability in a developing city by means of remote sensing and GIS. This makes the work interesting. However, the work still needs redeeming qualities. If erosion vulnerability is to be modeled by topography and vegetation cover, or erosion vulnerability assessment by means of two factor combination, the combination of these two factors/maps by means of overlay in GIS gives the erosion vulnerability map. This is what makes it "vulnerability assessment of soil erosion based on topography and vegetation cover" as being the guiding objective of the study. Also a strong convincing reason for Orlu as study area should be added. Besides are some few worries to be addressed as stated below: -Amangabara & Otumchere (2016) is not on your reference list. -Clip study area from the entire map to capture readers with precision. - add statement to the work: A non-plastic do not bind and are easily eroded, once the top layer or cover is removed. -what is the meaning of NP on table 1. Also table 1 does not directly collate the work or main objective. Why the measured variables? What of soil erodibility parameters like textural class, % organic matter (field and laboratory procedure), permeability and structure (nomograph of Wischmeier et al, 1971), then using GPS coordinates can be spatialise in GIS. Author (s) may also spatialise the Atterberg limit in GIS an discuss if this may strongly explain soil vulnerability of resistance to erosion. -In discussion table 1, author talked of Slope is between 3.49% to 12.28%, permeability 1.7×10^{-2}. The methods to estimate the former and later are not given. -Figure 4 is still yet not a slope map. This is because the DEM have not been projected. - Please coil and add this to the corresponding	It has been addressed. It has been included. Fig 1. Clearly shows the study area. Done NP simply means Non Plastic. It is a common term in soil mechanics. Table 1 is necessary. The measured variables are key indicators of erodibility(USDA, NRCS, 2004) Issue is addressed The DEM has been projected and affixed accordingly, the vulnerability map has also been developed based on the two factors according to



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phrase: It is a steep valley part of the tributary of Orashi river (Ezize Asa Stream) and the boundary between Orlu and Ideato. -An erosion vulnerability map for the area needs to be presented form GIS analysis and field validations. See formally proposed methods.	your recommendation Done
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