



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_47136
Title of the Manuscript:	IMPACTS OF SOME METEOROLOGICAL PARAMETERS ON VISIBILITY IN THE NIGER DELTA REGION OF NIGERIA
Type of the Article	Original Research Paper

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:

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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)
Compulsory REVISION comments	<p>The authors studied the 'IMPACTS OF SOME METEOROLOGICAL PARAMETERS ON VISIBILITY IN THE NIGER DELTA REGION OF NIGERIA'. They used 31 years data of relative humidity and wind direction on visibility in the Niger Delta region of Nigeria. They observed that cities in the eastward (Calaber, Uyo and Port Harcourt) show more inverse correlation between relative humidity and visibility and westward cities (Owerri, Warri and Akure) are more directly correlated to visibility. They further discovered that visibility is more correlated with Relative humidity in places of high hydrocarbon particles while the relative humidity is better correlated with wind direction in other places with reduced hydrocarbon emissions.</p> <p>This is a good study that could improve environmental research and help policy makers in reducing pollution that affects visibility and human health.</p> <p>I recommend the paper for publication after the underlisted corrections must have been done. Importantly, the authors should describe the data and their methods of analyses while the plots and the discussion should be improved.</p>	Thank you for your comments. Corrections done in the manuscript as per your suggestion
Minor REVISION comments	<p>Abstract #First line – re-write as: '....parameters of relative ...' #Except the names of cities and full meanings of NIMET, NCEP and the beginning of a sentence, the authors should change the capital letters in all the texts to small letters, eg, meteorological, parameters, relative, visibility, etc.</p> <p>Introduction #The first sentence is too long, kindly break it to at least two sentences. #Change 'season' to 'seasons' #Re-write the references as: (Tai, et al., 2015; Du et al., 2013; Majewski et al., 2014; Chen et al., 2014)</p> <p>Study Area #Replace these texts with: 'longitude (5.05°E-17°E) and latitude (4.15°N-7.17°N)' #The authors should check if this is correct: 'anatomizing streams' #Re-write these texts as: 'average annual rainfall of 2400-4000mm' #These texts: 'It constitutes about 7.5% of Nigeria's land mass ...' was repeated as 'This flood plain makes 7.5% of Nigeria's total land mass (Baird, 2010),' The author should adjust the sentences and probably keep the latter. #Change 'stations Yenegoa' to 'stations at Yenegoa' #Under Figure 1, replace these texts: (longitude, 5.05°E-17°E and latitude, 4.15°N-7.17°N)</p> <p>Results/Discussion #There should be description of the data and the methods used in the analyses. This will help in better understanding of the plots and so on. #The Figures needs to be adjusted for good comparison. For instance, the authors should use similar scales and similar intervals for the same parameter throughout the work; this will help easy comparison. Also, it seems there is no relative humidity value below 30% or 20%, hence the plots could start from 30% or 20% depending on interval used while some x-y labels are missing. #It is more appropriate to use 'seasonal patterns' in describing the Figures instead of 'seasonal trends'.</p>	



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	<p>Discussion</p> <p>#The discussion and figures are not well arranged – the authors should re-write this section. As suggestions, the authors might wish to plot and discuss all the variables for each state or plot and describe each of the variables separately for all the states and later summarise the overall results.</p> <p>#The authors should right in full: Cal, Uyo and PhC, R-H</p> <p>#Some of the conclusions are not correct to me - there is no positive (or direct) correlation between visibility and relative humidity, it should always be negative because sunlight will penetrate the atmosphere more easily in the absence of particles or water vapour (reduced relative humidity). Presence of hydrocarbon particles in the atmosphere will act as condensation nuclei for the liquid droplets and lowered the visibility further before they later precipitate after they had grown to a larger size (and not that they dissolve the particles). Hence, visibility is expected to be poorer in places like Port Harcourt where relative humidity is high and more hydrocarbon particles are released to the atmosphere.</p> <p>#The change in wind direction cannot increase but wind will only change direction or become more or less strong due to variations in seasons under the influence of the two air-masses that controls the region. Please check and re-write.</p> <p>#The authors should replace these texts: 'the area of high concentration of the hydrocarbon industries' by 'the area of high concentration of the hydrocarbon particles produced by industries'</p> <p>#The last sentence is not clear, please adjust it.</p> <p>References</p> <p>#The spacing should be uniform</p>	
Optional/General comments		

PART 2:

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