

## Review Form 1.6

Journal Name:	<b>Current Journal of Applied Science and Technology</b>
Manuscript Number:	<b>Ms_CJAST_93585</b>
Title of the Manuscript:	<b>Background Study on the Estimate of Horizontal Dilution Potential of air Pollutants in North-Central Nigeria, Using Wind Data</b>
Type of the Article	<b>Original Research Article</b>

### 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:

(<https://www.journalcjust.com/index.php/CJAST/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	<p><u>01</u> "The wind speed and wind direction data used for this research were obtained from the Nigeria Environmental Climate Observing Programme (NECOP)." Are these data publicly available online? Or needed the authors to ask for permission to use the data?</p> <p><u>02</u> "The impact area downwind of pollution source was estimated based on the formula of the sector of a circle. Daily wind speed over a period of a month was grouped into wind speed categories which determines the distance traveled by inert pollutants. The standard deviation of wind direction is considered as the lateral dimension of the impact area and thereby area of sectors was determined. Impact areas under different wind speed categories were summed up to obtain the total impact area. The formula was further extended to incorporate contributions due to calm wind. Since different wind speed group may indicate different direction of impact area, its linear summation was weighted by persistence of impact area thereby yielding dilution potential. The concentrations of the pollutants from a point source in Makurdi were carried out using the angles of spread as determined by standard deviation." Which basis do the authors have to have applied this particular methodology?</p> <p><u>03</u> "This pollutants" should be "These pollutants"</p> <p><u>04</u> The limitations of the study were neither pointed out nor discussed.</p>	
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

### 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>	

### Reviewer Details:

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