

Review Form 1.6

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_80231
Title of the Manuscript:	Fluoride Contamination in Groundwater and its Effect on Human Health: Study of Baramati Tahsil Area, India
Type of the Article	Original Research 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:

(<https://www.journalgeesi.com/index.php/JGEESI/editorial-policy>)

Review Form 1.6

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)
<p>Compulsory REVISION comments</p>	<ol style="list-style-type: none"> 1. Review of data presented in Table 1 especially for Calcium and Magnesium for selected points (W4, W5, W13 and W13). Not sure if a balance of cations and anions was done to check the accuracy of the laboratory test results. The number of physic-chemical parameters tested though not exclusive, can help. 2. Addition of some references for some of the facts presented in the whole document is lacking. 3. Need for being consistent in the write up for the whole document (e.g. use of chlorine for chloride, monsoon/winter; NO₃⁻ parameter is not listed in the abstract part but is mentioned as one of the physic-parameters tested under methodology; the location information provided in the abstract is different from that in the first paragraph of material and methods; use of names and numbers for references as is the case under page 8). 4. Avoid repetition of facts. This is more significant on the tooth decay throughout the document. 5. The method used for Nitrate (NO₃⁻) need to come up clear as the case with the other water quality parameters tested. i.e. paragraph 3 under material and methods. 6. The difference in temperature between irrigated and non irrigated areas mentioned in the first paragraph need to be clarified. In addition, the rainfall values provided in the last part of the paragraph are of the period 2003 and 2012 and yet the study is for the period 2015-2017. Not sure if the minimum and maximum temperatures provided is for the same period of 2003-2012. 7. Paragraph 3 under the introduction part need to be reviewed as there is no need to separate between Africa and countries like Kenya and Nigeria as these two countries are all in Africa. 8. All the abbreviations/acronyms/symbols should be written in full followed when they appear in the document for the first time, thereafter, the abbreviations/acronyms/symbols can be used. 9. There is need to include a recommendation/proposed way forward to the conclusion section as this study in the specific area was done for a purpose and the finding of low fluoride levels may lead to tooth decay problem as high lightened/emphasised in the document. 10. In the document, the World Health Organisation reference made is that of the 1984 and yet under reference section, reference number 30 used is of 2006. This issue need to be looked into including all the references used in the document. 11. Consider reviewing information in the 5th paragraph under Introduction which is talking of 3.0 mg/l as the maximum fluoride levels for skeletal fluorosis (Reference 31-33) against paragraph 3 under Results and Discussion which is talking of 2.4 mg/l as the maximum fluoride levels in 	

Review Form 1.6

	references 40-42.	
Minor REVISION comments	<ol style="list-style-type: none"> 1. Make a mention of the total number of water samples collected and analysed instead of just concentrating on the dug wells sampled. 2. The concentration of the stock solution need to be mentioned in the last paragraph under the material and methods section. This should also include the volume of the water sample used. 3. Table 2 need not to be placed soon after Table 1 but after the second paragraph and introduction of the table. 4. Figures 3-9 need to be placed to appropriate/respective sections/write-ups for easy referencing rather than putting them together. 	
Optional/General comments	<ol style="list-style-type: none"> 1. Proof reading of the whole document to correct the grammar, typos etc including rephrasing/reconstruction of some sentences. 2. Under the section of Results and Discussion, first paragraph, there is a mix of EC and TDS facts. There is need to rephrase the sentence or separate the two facts. 3. The idea to sample dug wells in the non-canal irrigated area and canal irrigated area need to be clarified in the document and if the water quality data generated show any significant differences 4. No mention has been made about the total area of the study city though it looks big from the map provided though the scale provided in Figure 1 is not visible enough. Was just wondering with this observation if the number of dug wells sampled, 15, could be representative enough including the number of samples collected for the period mentioned. Any information regarding the geology of the area in addition to the climate and rainfall information provided? 5. The title of the manuscript is on Fluoride Contamination in Groundwater and its Effect on Human Health: Study of Baramati Tahsil Area, India. Was there any effort to establish the prevalence of tooth decay in the study area, and if yes, you may consider providing that information. 	

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

Reviewer Details:

Name:	<i>Peaches Phiri</i>
Department, University & Country	<i>Malawi</i>