

## REVIEWER'S REPORT

Manuscript No.: IJAR-52185

Date: 11/6/2025

**Title:** IMPACT OF POLLUTION ON THE PHYSICAL, CHEMICAL, AND BACTERIOLOGICAL PARAMETERS OF DRINKING WATER FROM SEVERAL WELLS IN THE MUNICIPALITY OF KANKAN (GUINEA)

### Recommendation:

Accept as it is .....  
 Accept after minor revision.....  
 Accept after major revision .....√.....  
 Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality			√	
Techn. Quality			√	
Clarity			√	
Significance			√	

Reviewer Name: Ahmed M. Saqr

Date: 11/6/2025

### Reviewer's Comment for Publication.

*(To be published with the manuscript in the journal)*

*The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.*

The manuscript offers an important assessment of drinking water quality in Kankan, Guinea, by combining detailed physical, chemical, and bacteriological analyses of multiple wells. Its main strength lies in documenting specific contamination parameters and linking them to local environmental and sanitary conditions. These findings provide valuable, locally relevant insights that can support public health interventions and highlight the need for improved well maintenance and hygiene practices in the region.

### Detailed Reviewer's Report

***Thank you for inviting me to review the manuscript titled "IMPACT OF POLLUTION ON THE PHYSICAL, CHEMICAL, AND BACTERIOLOGICAL PARAMETERS OF DRINKING WATER FROM SEVERAL WELLS IN THE MUNICIPALITY OF KANKAN (GUINEA)" for the International Journal of Advanced Research. This paper addresses a***

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*highly relevant public health concern related to water quality in developing regions and provides valuable data from a scarcely studied area. While the study is meaningful and presents comprehensive data on well water quality in Kankan, several aspects need significant clarification and improvement. I am recommending major revision, and my detailed comments are listed below to guide the revision process.*

### *Major Comments*

#### *Abstract*

*Could the abstract be revised to include specific numerical findings and the main recommendations, rather than general trends?*

*Is there a clear summary of the methodology and a direct statement of the study's conclusions in the abstract?*

#### *Introduction*

*Can the authors more precisely identify the specific gap in the literature that their study fills, especially compared to recent similar studies in West Africa?*

*Would it be possible to strengthen the rationale by more clearly linking the local context of Kankan to regional and global challenges in water quality and public health?*

#### *Materials and Methods*

*Can more detail be provided on the criteria for well selection, including geographic spread, depth, and history of use?*

*How was the reproducibility and quality assurance for chemical and bacteriological analyses ensured throughout the sampling and laboratory processes?*

#### *Sampling*

*Were the samples collected across different seasons to account for temporal variation in contamination and water quality, or was this limited to*

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*September 2020? If so, can the limitations of this single time point be discussed?*

***Physico-Chemical Analysis***

*Are the methods for measuring each chemical and physical parameter clearly referenced and justified? Are some key standards (e.g., WHO or national) missing or inconsistently cited in the results' interpretation?*

***Bacteriological Analysis***

*Could the authors provide more detailed criteria for defining contamination (i.e., specific thresholds for total and fecal coliforms) and clarify quality control for bacteriological testing?*

*Is there data to correlate the well environment (e.g., distance from latrine, maintenance status) with microbial contamination, and can this be presented quantitatively?*

***Results***

*Could the results section benefit from enhanced critical analysis and clearer presentation of data, perhaps including statistical comparisons or correlations between environmental factors and contamination levels?*

*Is there an opportunity to consolidate and visually organize the extensive tables for greater clarity, such as through summary graphs?*

***Discussion***

*The discussion appears to largely repeat the results. Can the authors provide deeper analysis, particularly regarding the public health implications, potential sources of pollution, and broader relevance to the Sustainable Development Goals (SDGs)?*

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*Are the main findings contextualized within the national or West African water quality context, and are concrete recommendations made for policymakers and local authorities?*

### **Conclusion**

*Can the conclusion be more concise and focused on specific take-home messages with actionable recommendations?*

*Is there a clear linkage between the study's findings and the suggested measures to improve well water quality?*

### **Minor Comments**

*Abstract: Please check for grammatical errors and ensure consistency in tense throughout.*

*Introduction: Acronyms such as "NTU" and "SDGs" should be defined at first mention.*

*Materials and Methods: Clarify the temperature control and storage conditions before laboratory analysis to ensure sample integrity.*

*Figures and Tables: Ensure all tables have fully descriptive captions and define all abbreviations within the table or*